ITUPublications

International Telecommunication Union
Development Sector

World Telecommunication Development Conference 2022 (WTDC-22)

Final Report

ITUWTDC
KIGALI2022
6–16 June 2022
Kigali, Rwanda

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World Telecommunication Development Conference 2022 (WTDC-22)

Final Report

Connecting the unconnected to achieve sustainable development

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Conference overview and highlights

1. Summary

The eighth World Telecommunication Development Conference (WTDC-22) of the International Telecommunication Union (ITU), held from 6 to 16 June 2022 in Kigali, Rwanda, was a landmark event aimed at bringing affordable, meaningful connectivity to the estimated 2.9 billion people around the world who still lack an Internet connection.

Convened under the theme: **Connecting the unconnected to achieve sustainable development**, WTDC-22 was attended by **2 152** participants (1 304 in-person and 848 joining online). Participants were from 150 Member States (with 127 countries on site and 23 joining remotely), 96 Sector Members of the ITU Telecommunication Development Sector (ITU-D), 37 Academia, observers under Resolution 99 of the Plenipotentiary Conference and the United Nations and its specialized agencies. Participants included heads of State, government ministers, prominent leaders from the digital sector and top officials from non-governmental bodies.

WTDC-22 featured a series of pioneering initiatives: the first-ever ITU Generation Connect Global Youth Summit on 2-4 June 2022, the Partner2Connect Digital Development Roundtable, held as an integral part of the conference on 7-9 June 2022, and the Network of Women.

The President of the Republic of Rwanda, H.E. Mr Paul Kagame, opening the conference at the Kigali Convention Centre, said that the coronavirus disease (COVID-19) pandemic had accelerated the adoption of digital technologies in Rwanda and all over the world, but that challenges remained:

> ''Access to high-speed Internet has not kept up with the fast pace of digital transformation, and the digitalization of the economy in general. If such inequalities are left unchecked, development will accelerate more and more in some parts of the world, while elsewhere it slows down. The numbers speak for themselves. One-third of the world remains offline, and the majority are women in developing countries.''

WTDCs are held every four years to debate the latest trends in telecommunications/information and communication technologies (ICTs) and establish priorities for ITU-D and its Telecommunication Development Bureau (BDT) for a four-year period. The Kigali Declaration and the Kigali Action Plan adopted by WTDC-22 will enable ITU-D and BDT to foster meaningful universal connectivity and sustainable digital transformation around the world in the period 2022-2025.

The **Kigali Declaration** highlights the main conclusions and priorities established by the conference and reinforces the political support for the ITU development mission and strategic goals.

The **Kigali Action Plan** is a comprehensive package that will promote the equitable and sustainable development of telecommunication/ICT networks and services. Alongside the action plan are:

– regional initiatives for Africa, the Americas, the Arab States, Asia and the Pacific, the Commonwealth of Independent States (CIS) and Europe. Regional initiatives are intended to identify principal telecommunication/ICT priority areas of concern to a region, which are then addressed through partnerships and resource mobilization to implement projects that are part of the ITU-D action plan;

– new and revised resolutions;

– new and revised ITU-D study Questions to be studied during the period 2022-2025.

2. Official opening of the conference

The opening ceremony was marked by several high-level speakers, cited here in the order in which they spoke.

The **Minister of Information Communication Technology and Innovation of Rwanda and Chairman of WTDC-22**, **Hon. Paula Ingabire**, called on participants to work together to achieve consensus on key issues that would help bring the 2.9 billion people still offline into the digital world they currently do not know:

> ''Universal, affordable and accessible connectivity for all underpins our individual and collective efforts in industrialization, in building the digital economy, in ensuring our youth have access to information that improves their lives and have access to jobs created through the new future of work.''

She added:

> ''More importantly, we have all experienced the impact of COVID-19 and we have seen why connectivity is, and will continue to be, the cornerstone of our individual and collective resilience of humanity.''

Ms Ingabire stressed that the success of WTDC-22 would be measured by how far its collective decisions lead to a better world and to achievement of the United Nations Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development. She thanked the President of Rwanda, Mr Paul Kagame, for his continued vision and leadership that had enabled the world to congregate in Rwanda for the very first WTDC to be held on the African continent.

The **Director of BDT, Ms Doreen Bogdan-Martin**, highlighted that:

> ''In the five years since we last came together for a WTDC, our world has changed unrecognizably. We faced a global pandemic that devastated our communities. Inequalities have grown. Energy- and food-security concerns are growing. The climate crisis is accelerating. And our SDG targets are at real risk of falling by the wayside.''

She observed that, while digital technologies can help in all these areas, their promise was still not being fully realized:

> ''All of us have worked so hard, and with enormous dedication over the years, to make universal affordable connectivity a reality. Our efforts have borne fruit. In the last five years since our WTDC in Buenos Aires, the number of people offline has fallen by more than 1.5 billion. Yet the reality is that we are still not shifting the dial fast enough in the world's hardest-to-connect communities and people living in the least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS).''

She called for a more people-centric approach to be put at the heart of development work and highlighted the three innovations at the conference as examples: the Generation Connect Global Youth Summit; the ITU-D Network of Women; and the Partner2Connect Digital Coalition, which was the most important of these innovations. She added that partnership was nothing new and no silver bullet:

> ''But I think, as a community, we have too often failed to take a holistic, whole-of-society approach that really pulls parties together, galvanizes all resources, most importantly, monitors our progress in a collective manner. It is time for us to do that, so that our next WTDC can report on truly transformational change, especially in the communities where it is needed most.''

Representing the Generation Connect Global Youth Summit, **Ms Ellen Taylor**, a 23-year-old student from Canada, presented the Generation Connect Youth Call to Action, entitled ''My Digital Future''. The document, she said, represented the voices of over 420 young people from around the world; and WTDC-22 was invited to consider it in the preparation of the Kigali Action Plan. Ms Taylor told delegates:

> ''I was born in an era of unprecedented technology innovation and disruption. As I come of age, I want to be able to enjoy the digital world fully, safely and inclusively. You, decision-makers from around the world, have been the digital pioneers. You carry the power and the responsibility to accelerate digital development everywhere for all and build on it towards the achievement of the Sustainable Development Goals of the 2030 Agenda. The time to act is now. At stake is my very future.''

The **United Nations Secretary-General**, **Mr António Guterres**, addressing delegates via a video message, said:

> ''The potential of digital technologies to help us make up lost ground in our efforts to achieve the 17 Sustainable Development Goals is tremendous. But so too are the challenges. Over one-third of humanity still has no access to the Internet.''

He told delegates that their task was to map out a new action plan to bring the nearly 3 billion unconnected people into the global digital community, because leaving no one behind meant leaving no one offline. The United Nations Secretary-General stressed that the Kigali Action Plan must put humanity back at the centre of technology. He told participants that their discussions would inform the United Nations Summit of the Future in 2023 and the Global Digital Compact, which he had proposed in his report entitled ''Our Common Agenda''.

ITU Secretary-General, **Mr Houlin Zhao**, thanking the President of Rwanda for hosting the conference, said:

> ''Your words will be a source of inspiration for us – like those delivered by His Holiness Pope Francis at our last conference five years ago, stressing the importance of leaving no one behind.''

Reflecting on just how connected humanity was in 2022, the Secretary-General highlighted that:

> ''Much progress has been made, with almost 5 billion people being online today. We have seen the strongest growth in ICT uptake in the developing world, and that is very encouraging. Yet one-third of humanity is still offline. That is close to 3 billion people, mostly people in developing countries.''

He echoed the United Nations Secretary-General's call for universal connectivity with affordable services by 2030 and expressed the hope that WTDC-22 would make headway on removing all remaining barriers to connectivity:

> ''We have obligations to the world's youth, and to each other, to connect the unconnected, drive the development of new technologies central to achieving the United Nations Sustainable Development Goals, and continue to show the world what ITU can do as a technical and, equally importantly, as a development agency.''

The ITU Secretary-General said that he looked forward to the outputs of WTDC-22, which would feed into the strategic plan for the Union, to be endorsed by the Plenipotentiary Conference (Bucharest, 2022) in October 2022. He invited delegates to consider the outputs of the World Summit on the Information Society Forum 2022, which had ended on 3 June 2022 in Geneva.

The **President of Rwanda, H.E. Mr Paul Kagame**, stressed:

> ''The responsibility to shape the future of the digital economy, and ensure no one is left behind, lies with all of us, working together. No company, country or institution has the resources to do it alone. We must therefore prioritize public-private partnerships to expand affordable digital access and equip vulnerable citizens with digital literacy skills. The Partner2Connect Digital Development Roundtable happening during this conference is a new opportunity available to us, which we should fully exploit.''

The ITU Secretary-General presented President Kagame with an ITU certificate in recognition of Rwanda's digital transformation and commitment to bringing broadband connectivity across Africa and the world.

The full texts of the opening speeches may be found in Annexes A to F to this report.

3. Conference structure

WTDC-22 adopted the following conference structure at its first plenary meeting:

Meeting of heads of delegation

Terms of reference: In accordance with No. 49 of the General Rules of conferences, assemblies and meetings of the Union (General Rules), the inaugural meeting of the conference shall be preceded by a meeting of heads of delegation. At this meeting, the heads of delegation shall prepare the agenda for the first plenary meeting and make proposals for the organization, chairmanships and vice-chairmanships of the conference, its committees and, as appropriate, working group(s) of the Plenary.

During WTDC, heads of delegation shall meet to consider proposals concerning the work programme and the constitution of study groups and to draw up proposals for chairmanships and vice-chairmanships of study groups, the Telecommunication Development Advisory Group (TDAG) and any other groups established by WTDC.

Committee 1: Steering Committee

Terms of reference: To coordinate all matters connected with the smooth execution of work; and to plan the order and number of meetings, avoiding overlapping wherever possible in view of the limited number of members of some delegations.

This committee is composed of the chairman and the vice-chairmen of the conference and the chairmen and vice-chairmen of the committees and working group(s) of the Plenary.

Committee 2: Budget Control Committee

Terms of reference: To determine the organization and facilities available to the delegates; to examine and approve the accounts for expenses incurred throughout the duration of the conference; and to present a report to the Plenary Meeting showing the estimated total expenses of the conference and the estimated financial needs of ITU-D up to the next WTDC, as well as an estimate of the costs that may be entailed by the execution of the decisions taken by the conference.

Committee 3: Objectives

Terms of reference: To review and approve the agenda and make proposals for the organization of work; to review and approve the outputs and outcomes for objectives; to review and agree on the related ITU-D study Questions and associated regional initiatives and establish appropriate guidelines for their implementation; to review and agree on relevant resolutions; and to ensure that the output is in accordance with a results-based management approach aiming to improve management effectiveness and accountability.

Committee 4: ITU-D working methods

Terms of reference: To review and approve the agenda and make proposals for the organization of work; to examine proposals and contributions relating to cooperation among members; to evaluate the working methods and functioning of ITU-D study groups and TDAG; to assess and identify options for maximizing programme delivery and to approve appropriate changes thereto with a view to strengthening synergies between study Questions, programmes and regional initiatives; and to submit reports to the Plenary Meeting, including proposals on ITU-D working methods for implementation of the ITU-D work programme, on the basis of TDAG and study group reports submitted to the conference and the proposals of ITU Member States, ITU-D Sector Members and Academia.

Committee 5: Editorial Committee

Terms of reference: To perfect the wording of texts arising from WTDC deliberations, such as resolutions, without altering the sense and substance, and align the texts in the official languages of the Union, with a view to their submission for approval to the Plenary Meeting.

Working Group of the Plenary: ITU-D contribution to the strategic plan for the Union for 2024-2027 and WTDC declaration

Terms of reference: To draw up a draft WTDC declaration and the input of ITU-D to the strategic plan for the Union to be adopted at the next plenipotentiary conference.

Explanatory note

In accordance with No. 63 of the General Rules, the Plenary Meeting of WTDC may set up committees to consider matters referred to the conference.

Partner2Connect (P2C) Digital Development Roundtable

Terms of reference: To launch a coalition to advance global digital development, structured around several focus areas and securing concrete commitments from new partners.

These commitments would define how existing and new ITU partners intend to support LDCs, LLDCs and SIDS to access and use digital connectivity to transform lives, communities and society.

Explanatory note

This segment is open to ITU members and non-members.

4. Presiding officers of WTDC-22

Following adoption of the conference structure at its first plenary meeting, WTDC-22 elected the following officers:

Chairman of the conference:	Ms Paula Ingabire (Rwanda)	
Vice-chairmen of the conference:	Mr Ahmad Reza Sharafat (Islamic Republic of Iran) Mr Víctor Antonio Martínez Sánchez (Paraguay) Ms Inga Rimkevičienė (Lithuania) Mr Orozobek Zhazybaevich Kayikov (Kyrgyzstan) Mr Faycal Bayouli (Tunisia) Mr Mansour Alqurashi (Saudi Arabia)	
Committee 1 (Steering Committee)	Composed of the chairman and vice-chairmen of the conference and of the chairmen and vice-chairmen of the committees	
Committee 2 (Budget Control Committee)	**Chairman:**	Mr Bakhtiyar Mammadov (Azerbaijan)
	Vice-chairmen:	Mr Yoshiaki Nagaya (Japan) Mr Biggie Chiripanhura (Zimbabwe) Mr Oli Bird (United Kingdom) Mr Timur Mashanpin (Uzbekistan) Mr Santiago Reyes-Borda (Canada) Mr Abdulla Bin Khadia (United Arab Emirates)
Committee 3 (Objectives)	**Chairman:**	Ms Cristiana Flutur (Romania)
	Vice-chairmen:	Ms Wang Ying (China) Mr Istvan Bozsoki (Hungary) Ms Umida Musaeva (Uzbekistan) Mr Al-Ansari Almashaqbeh (Jordan) Ms Mavis Johnson (Bahamas)

Committee 4 **(ITU-D Working Methods)**	**Chairman:**	Mr Roberto Hirayama (Brazil)
	Vice-chairmen:	Ms Gisa Fuatai Purcell (Samoa) Mr Mohamed Benziane (Algeria) Mr Masud Azimov (Uzbekistan) Ms Diana Gomez (Mexico) Ms Muneera Alzayani (Bahrain)
Committee 5 **(Editorial Committee)**	**Chairman:**	Ms Rim Belhaj (Tunisia)
	Vice-chairmen:	Ms Xu Ming (China) Ms Sameera Belal Momen Mohammad (Kuwait) Ms Sharon Bosire (Kenya) Mr Greg Ratta (United States) Ms Veronica Pagola (Argentina)
Working Group of the Plenary **(Strategic plan and declaration)**	**Chairman:**	Ms Mina Seonmin Jun (Republic of Korea)
	Vice-chairmen:	Mr Richard Anago (Burkina Faso) Ms Blanca González (Spain) Ms Sahiba Hasanova (Azerbaijan) Ms Michele Wu-Bailey (United States) Mr Abdulaziz Alzarooni (United Arab Emirates)

5. Generation Connect Global Youth Summit

The first-ever Generation Connect Global Youth Summit took place at the Kigali Intare Conference Arena from 2 to 4 June 2022, bringing together young people aged between 15 and 29 from around the world to discuss a wide-ranging technology-for-development agenda ahead of WTDC-22.

This three-day summit was organized by ITU with the host country Rwanda and attracted more than 1 500 delegates from over 115 countries, with over 5 000 online participants. Delegates were young leaders, entrepreneurs, social change-makers, engineers, policy specialists and students, together with today's regional and global business leaders, decision-makers and community advocates.

The world today is home to around 1.8 billion young people between the ages of 10 and 24, with close to 90 per cent of them living in developing countries. In Africa, where the population is 1.2 billion, about 41 per cent of people are below 15 years of age and another 19 per cent are youth between 15 and 24 years of age. Youth in many developed and developing countries, especially girls and young women, face disproportionate exposure to poverty and unemployment.

The ITU Secretary-General, Mr Houlin Zhao, said: "The United Nations system needs to become more inclusive as we strive to build a better world for our children to inherit."

The ITU Youth Strategy, endorsed by ITU members during the TDAG meeting of June 2020, is a concrete step in this direction. It aims to ensure meaningful participation of youth in ITU as key stakeholders in implementing the 2030 Agenda for Sustainable Development. It is built on three pillars:

– EMPOWER: Supporting youth empowerment by creating a community of young leaders

– ENGAGE: Bringing young people together to engage with ITU and its members

– PARTICIPATE: Fostering youth dialogue and participation in ITU activities and decision-making processes.

The Generation Connect Global Youth Summit was a direct outcome of the Participate pillar of the ITU Youth Strategy. Key topics at the Youth Summit included the global digital divide, youth access to online education and digital skills, the digital gender gap, online safety, e-waste management, the future of work, digital entrepreneurship, and the role of technology in climate change.

The Prime Minister of Rwanda, Rt. Hon. Édouard Ngirente, said:

> ''The extent to which our economies can grow will depend on the ability to ensure equitable access to technology as well as upskilling and reskilling our populations, especially the young people. These are global opportunities that require global cooperation. It is in this spirit that the Generation Connect Global Youth Summit is kicking off, because young people around the world are central to the vision to connect the unconnected.''

Rwanda's Minister for Youth and Culture, Hon. Rosemary Mbabazi, told delegates:

> ''The advancement of technology in today's world is a constant factor, and youth are the early adopters, developers of these new technologies. Given an enabling environment, youth can bring the change and transformation needed in the world.''

The Youth Summit ended with the adoption of a Call to Action entitled ''My digital future''. The Call to Action builds on a two-year consultation process that started in 2020 with regional discussions and the resulting six regional youth declarations, global webinars with the Generation Connect community and a four-week online global consultation open to all youth.

Ms Jayathma Wickramanayake, the United Nations Secretary-General's Envoy on Youth, who actively participated in the consultation process and during the Youth Summit, said:

> ''Through my work, I witness every day how young people are always responding to the challenges in their communities. I find it amazing that despite the different challenges that young people are facing from all fronts and aspects of their lives, young people continue to be one of the most resilient agents of change. With all of these qualities, I think it is only right that we refer to young people not only as digital natives, but also as digital leaders.''

The Director of BDT, Ms Doreen Bogdan-Martin, encouraged young delegates to be bold and creative:

> ''As the first true generation of digital natives, your youthful perspective, combined with your digital skills, offer us a real chance to navigate a new and better path, to break down old barriers, and to finally create that elusive, equitable 'World We Want'.''

The ITU Youth Strategy is aligned with the vision and objectives of the United Nations Youth Strategy: Youth 2030: Working with and for young people.

6. Partner2Connect (P2C) Digital Development Roundtable

The first-ever ITU Partner2Connect (P2C) Digital Development Roundtable was held on 7-9 June 2022 as an integral part of WTDC-22. At the time of writing (13 June 2022), 374 pledges had been announced, representing an estimated value of USD 24.5 billion. The drive for universal and meaningful connectivity represented in these pledges is expected to benefit billions of people around the world, especially in developing countries.

The digital divide continues to be a challenge, particularly for LDCs, LLDCs and SIDS. In response to this challenge, in September 2021 on the sidelines of the United Nations General Assembly, ITU launched the Partner2Connect Digital Coalition, a multistakeholder alliance to foster meaningful connectivity and digital transformation globally. Launched in close cooperation with the Office of the United Nations Secretary-General's Envoy on Technology, and in line with the United Nations Secretary-General's Roadmap for Digital Cooperation, Partner2Connect provides a leadership platform to mobilize and announce new resources, partnerships and commitments around four focus areas:

– ACCESS: Connecting people everywhere

– ADOPTION: Empowering communities

– VALUE CREATION: Building digital ecosystems

– ACCELERATION: Incentivizing investments

The Partner2Connect (P2C) Digital Development Roundtable in Kigali provided an opportunity for Member States, the private sector, academia, civil society, international organizations and other entities to announce their P2C Digital Coalition pledges and advance together digital transformation for all.

The event attracted over 1 000 participants on site in Kigali, who were joined by more than 350 participants connecting remotely. It featured 10 high-level panels, five spotlight sessions and plenty of networking opportunities for a vibrant and inspiring experience.

The Prime Minister of Luxembourg, H.E. Mr Xavier Bettel, delivered a special message and said:

> ''We believe in the ITU mission, we stand behind the Partner2Connect policy goal and we want to become the partner you need in order to build and enable meaningful connectivity.''

The ITU Secretary-General, Mr Houlin Zhao, said:

> ''The pledges and commitments made in Kigali and in the months leading to this Roundtable send a powerful message that together we can ramp up investments in ICT development to leave no one offline.''

Rwanda's Minister of Information Communication Technology and Innovation, Hon. Paula Ingabire commented:

> ''We need everybody to pull together in the same direction if we are to successfully address the challenge of ensuring universal meaningful connectivity globally. Partner2Connect is one of the best avenues through which we can catalyse and engage in productive partnerships towards sustainable connectivity for all.''

The Partner2Connect pledges come at a critical juncture, with the protracted COVID-19 pandemic underlining the importance of fast, reliable broadband connectivity as an essential service. The pledges announced at the Roundtable were not only financial; they also included commitments, policies and advocacy plans to bridge the digital divide, creating fertile ground where new partnerships and alliances for global connectivity can flourish.

The Director of BDT, Ms Doreen Bogdan-Martin, said:

> ''After months of collective work developing the Partner2Connect Action Framework and the pledging platform, together with ITU Member States, civil society groups, philanthropic organizations, private and youth-led organizations, we are now setting a major milestone by gathering under one umbrella an unprecedented number of commitments to advance universal and meaningful connectivity.''

Several pledges were made directly in support of ITU projects, including:

– In a major announcement, ITU host country Switzerland pledged that Geneva would host the headquarters of Giga – a joint initiative of ITU and the United Nations Children's Fund (UNICEF) to connect every school in the world to the Internet by 2030. Switzerland said the new Giga headquarters in Geneva would serve as a unique collaboration point, bridging the world of finance and the world of international relations and development.

– The German Federal Ministry for Economic Cooperation and Development, together with the Government of Estonia, the Digital Impact Alliance and ITU, announced support for digital public goods through the GovStack initiative, which aims to improve the lives of at least 2 million citizens with the specification of 12 ICT building blocks for the digitalization of government services.

– The Government of the United Kingdom announced it will continue to support inclusive, responsible and sustainable digital transformation by promoting affordable, meaningful and secure connectivity, digital literacy and skills and digital entrepreneurship in underserved communities through its Digital Access Programme (DAP). It pledged to continue its work with ITU-D through DAP in five partner countries in East, West and Southern Africa, as well as in Latin America and Southeast Asia, until at least March 2023, with a focus on improving policies and regulations, demonstrating technology and business models for school connectivity and building digital skills for youth.

– The Telecommunications and Digital Government Regulatory Authority of the United Arab Emirates pledged to invest AED 5 million to support the ITU International Centre of Digital Innovation (I-CoDI) initiative through the hosting of the I-CoDI Arab States Regional Hub, which will include the provision of training and workshops to empower Member States in digital innovation.

Ghana's Minister of Communications and Digitalisation and the Focus Area Leader of the Partner2Connect Digital Coalition, Hon. Ursula Owusu-Ekuful, said:

> ''Our Partner2Connect Digital Coalition commits us to accelerating our efforts to connect the unconnected and achieve sustainable global development. Let us implement all our pledges for our collective benefit.''

Spotlight sessions offered deep-dives into specific issues such as Partnering to transform education; Advancing the Doha Programme of Action for the Least Developed Countries through the Partner2Connect Digital Coalition; The secret ingredients to last-mile connectivity investment; and Accelerating universal meaningful connectivity through the United Nations Global Digital Compact.

''The discussions at WTDC and the Kigali Action Plan will be essential in helping us build the Global Digital Compact at the 2023 United Nations Summit of the Future,'' said Ms Maria-Francesca Spatolisano, Assistant Secretary-General for Policy Coordination and Inter-Agency Affairs in the United Nations Department of Economic and Social Affairs and the United Nations Secretary-General's Acting Envoy on Technology. ''In particular, the work of the Partner2Connect Digital Coalition will bring us closer towards our collective goal of universal, meaningful connectivity for all.''

Ms Heidi Schroderus-Fox, Acting United Nations High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, said:

> ''The Doha Programme of Action calls for all people in LDCs to have safe, affordable, and meaningful digital connectivity by 2030. We are only going to get there with joint work and the long-term partnerships that Partner2Connect represents. It is a truly inspiring example of how relationships which span different sectors can deliver for the LDCs.''

The P2C interactive dashboard, which was also launched at the Roundtable in Kigali, enables users to search for specific pledges and contributors, as well as view overall tracking analytics.

WTDC-22 unanimously endorsed Resolution 88 (Kigali, 2022), a new resolution called ''The ITU Partner2Connect Digital Coalition", thus formalizing this coalition initiative, which is aimed at fostering meaningful connectivity and digital transformation worldwide, with a focus on, but not limited to, the hardest-to-connect communities in LDCs, LLDCs and SIDS.

7. Global Connectivity Report 2022

The Global Connectivity Report 2022, which was prepared and launched specifically to coincide with the opening of WTDC-22, indicates that the immense potential of the Internet for social and economic good remains largely untapped, despite 30 years of steady growth. The report argues that while easy, affordable access to fast broadband is near ubiquitous in most rich-world countries, vast swathes of humanity remain excluded from the immense possibilities offered by the online experience, stunting economic development and deepening global inequalities.

While the number of Internet users has surged from just a few million in the early 1990s to almost 5 billion today, 2.9 billion people – or around one-third of humanity – remain totally offline, and many hundreds of millions more struggle with expensive, poor-quality access that does little to materially improve their lives.

The report notes that while the surge in demand for Internet access related to the COVID-19 pandemic brought some 800 million additional people online, it also increased the cost of digital exclusion dramatically, with those unable to connect abruptly shut out of employment, schooling, access to health advice and financial services.

The report advocates putting ''universal and meaningful connectivity'' – defined as the possibility of a safe, satisfying, enriching, productive and affordable online experience for everyone – at the centre of global development.

Although the cost of broadband, in particular mobile broadband, has fallen significantly over the past decade, the majority of low- and middle-income economies still fall short of the global affordability target of 2 per cent or less of gross national income per capita, set by the ITU/United Nations Educational, Scientific and Cultural Organization (UNESCO) Broadband Commission for Sustainable Development.

The Missing Link report, published in 1984 by the Independent Commission for World-Wide Telecommunications Development set up by ITU, identified a clear correlation between access to telecommunications and socio-economic development and urged all countries to make connectivity a priority.

Nearly 40 years on, that ''missing link'' still persists, but has morphed into many digital divides:

1. The **income divide** – The level of Internet use in low-income countries (22 per cent) remains far below the level in high-income countries, which are approaching universal use (91 per cent).

2. The **urban-rural divide** – The share of Internet users is twice as high in urban areas as in rural areas.

3. The **gender divide** – Globally, 62 per cent of men are using the Internet, compared with 57 per cent of women.

4. The **generation divide** – In all regions, young people aged between 15 and 24 are more avid Internet users (72 per cent online) than the rest of the population (57 per cent).

5. The **education divide** – In nearly all countries where data are available, rates of Internet use are higher, and in many cases far higher, for those with more education.

8. Network of Women

Another first for WTDC-22 is the Network of Women (NoW), which was launched in 2021 and has six very active regional groups. NoW aims to promote the active participation of women in the activities of ITU and the ICT sector in general and to give visibility to women and empower them for greater responsibilities in their delegations at WTDC and similar future events.

A series of NoW events, including a NoW breakfast hosted by the Government of Australia, a NoW walkathon and a NoW luncheon hosted by Qualcomm, were organized during WTDC-22 in Kigali to promote women's leadership opportunities in the digital sector and the broader international arena. WTDC-22 revised Resolution 55 on mainstreaming a gender perspective in ITU to enhance women's empowerment through telecommunications/ICTs to encourage Member States to have gender parity in their delegations to ITU-D activities to help solve the issue of under representation of women.

9. Preparatory process

Before each WTDC, BDT organizes one regional preparatory meeting (RPM) each for Africa, the Americas, the Arab States, Asia and the Pacific, the Commonwealth of Independent States (CIS) and Europe, in accordance with WTDC Resolution 31 on regional preparations for WTDCs.

For WTDC-22, six regional preparatory meetings were held between January and April 2021, which allowed the membership to review regional progress and challenges in ICTs and begin to identify regional initiatives to be adopted by WTDC for the next four-year period.

Each region launched its Generation Connect regional group and its Network of Women in ITU-D to ensure that the voices of youth and women are brought to the table.

The Regional Preparatory Meetings Coordination Meeting (RPM-CM) also took place in preparation for WTDC-22. Document WTDC-21/20 presents the report of the Chairman of the RPM Coordination Meeting, **H.E.Mr Petr Ocko, Deputy Minister for Industry and Trade of the Czech Republic**. The report is a consolidation of the outputs of all RPMs and describes all the issues on which the RPMs reached a conclusion. Because of the COVID-19 pandemic, all RPMs were held virtually.

Under the chairmanship of Ms Roxanne McElvane Webber of the United States Federal Communications Commission, TDAG, beyond its review of all BDT strategic priorities, projects and activities, the regional presence, study groups, and dedicated groups on inter-Sector coordination, capacity-building initiatives, and industry advice on development, offered substantial advice on enhancements to the WTDC preparatory process and to making WTDC-22 a landmark, impactful conference. Discussions on the conference preparatory process begun in March 2019 with a brainstorming session during a meeting of TDAG.

A membership-wide survey further informed these discussions, followed by two TDAG web dialogues in March and April 2020.

Consultations continued up to the TDAG meeting in June 2020 to help prepare different parts of the conference, through:

– TDAG Working Group on WTDC preparations, with Mr Santiago Reyes-Borda (Canada) as chairman;

– TDAG Working Group on the strategic and operational plans, with Ms Blanca González (Spain) as chairman and two vice-chairmen, Mr Christopher Kemei (Kenya) and Mr Wim Rullens (Netherlands);

– TDAG Working Group on WTDC resolutions, declaration and thematic priorities, with Mr Ahmad Reza Sharafat (Islamic Republic of Iran) as chairman.

Throughout their meetings, these TDAG working groups stressed that WTDC should be an action-oriented conference, with interactive dialogues among stakeholders, aimed at developing a shared understanding of existing barriers and advancing effective, sustainable and innovative solutions for the expansion of meaningful connectivity for everyone, everywhere. They further suggested that interregional meetings (IRMs) should be introduced in ITU-D as part of the preparatory process for WTDC.

Based on proposals from its working groups, in November 2020 TDAG endorsed **Connecting the unconnected to achieve sustainable development** as the theme for WTDC-22 and decided to replace the former high-level segment and incorporate side events into a development track, now dubbed the Partner2Connect (P2C) Digital Development Roundtable. It further decided that IRMs should be introduced in the preparatory process for WTDC. As a result, three IRMs were held between March 2021 and March 2022.

TDAG held its last meeting of the 2018-2021 cycle in November 2021 and delivered a baseline draft WTDC-22 declaration, made contributions to the draft ITU-D action plan and ITU-D strategic considerations, approved baseline documents for the ITU-D study Questions, and held substantive deliberations on BDT programmes, priorities and WTDC Resolutions 1 and 2. Given the substantial effects experienced within individual countries around the world from the COVID-19 pandemic, beginning in 2020 all TDAG meetings had to be conducted virtually.

Presenting the TDAG Chairman's report to WTDC-22, Ms McElvane Webber, said:

> ''The seventh cycle of TDAG demonstrated a determination to work together as a global community to do our part, as far as the ITU mandate allows, to ensure that no one is left behind in the advancing digital age, that all membership voices are heard, particularly those with the greatest challenges, and that a fit-for-purpose BDT stands ready to combine the collective will, intellect and resources of ITU membership with those of its own to achieve these aims.''

10. Telecommunication Development Advisory Group bureau

The TDAG bureau comprises the chairman and the vice-chairmen of TDAG, as well as the chairmen of ITU-D study groups.

WTDC-22 adopted this composition and appointed the TDAG chairman and vice-chairmen, as follows:

Chairman:	Ms Roxanne McElvane Webber (United States)
Vice-chairmen:	Ms Regina Fleur Assoumou Bessou (Chairman, Study Group 1) Mr Fadel Digham (Chairman, Study Group 2) Mr Christopher Kemei (Kenya) Mr Abdulkarim Oloyede (Nigeria) Ms Agustina Brizio (Argentina) Ms Andrea Mamprim Grippa (Brazil) Mr Ahmed Abdel Aziz Gad (Egypt) Ms Shahad Albalawi (Saudi Arabia) Ms Ke Wang (China) Mr Ahmad R. Sharafat (Islamic Republic of Iran) Mr Orozobek Zhazybaevich Kayikov (Kyrgyzstan) Ms Inga Rimkevičienė (Lithuania) Ms Blanca González (Spain)

11. List of chairmen and vice-chairmen of ITU-D Study Group 1 and Study Group 2 appointed by WTDC-22

Study Group 1

Chairman:	Ms Regina Fleur Assoumou Bessou (Côte d'Ivoire)
Vice-Chairmen:	Mr Sangwon Ko (Republic of Korea) Ms Memiko Otsuki (Japan) Mr Sunil Singhal (India) Ms Caecilia Nyamutswa (Zimbabwe) Mr Amah Vinyo Capo (Togo) Mr Roberto Mitsuake Hirayama (Brazil) Mr Mehmet Alper Tekin (Türkiye) Mr Anthony Giannoumis (Norway) Ms Umida Musaeva (Uzbekistan) Mr Khayala Pashazade (Azerbaijan) Ms Sameera Belal Momen Mohammad (Kuwait)

Study Group 2

Chairman:	Mr Fadel Digham (Egypt)
Vice-Chairmen:	Mr Hideo Imanaka (Japan)
	Ms Mina Seonmin Jun (Republic of Korea)
	Mr Tongning Wu (China)
	Ms Zainab Ardo (Nigeria)
	Mr Mohamed Lamine Minthe (Guinea)
	Mr Víctor Antonio Martínez Sánchez (Paraguay)
	Mr Dominique Würges (France)
	Ms Alina Modan (Romania)
	Mr Diyor Rajabov (Uzbekistan)
	Mr Mushfig Guluyev (Azerbaijan)
	Mr Abdelaziz Alzarooni (United Arab Emirates)

12. For the record

The Budget Control Committee, in line with its mandate, estimated the costs that would be entailed by the execution of the decisions taken by the conference. In this regard, the committee's Chairman reminded delegates that the actions called for in the conference's decisions should be undertaken subject to the availability of financial resources. Full details are provided in the Report of the Budget Control Committee to the Plenary, contained in Document WTDC-22/99.

ITU-D contribution to the strategic plan for the Union for 2024-2027

ITU normally holds one major conference per year. And WTDC is normally held one year before the Plenipotentiary Conference. This planning allows WTDC to adopt ITU-D's contribution to the draft ITU strategic plan prepared through the Council Working Group on the strategic and financial plans; and approved by the Council four months before the Plenipotentiary Conference.

The coronavirus disease (COVID-19) pandemic had a severe impact on the preparatory process, resulting in ITU, exceptionally, holding three major conferences in 2022. Owing to the extraordinary circumstances created by COVID-19, WTDC-22 was unable to meet until after the Council had already approved and submitted the draft strategic plan for the Union for 2024-2027 to the Plenipotentiary Conference (Bucharest, 2022).

During WTDC-22, the Working Group of the Plenary (WG-PL) had the mandate to prepare the input of ITU-D to the strategic plan for the Union. But WG-PL did not receive any input from Member States on the ITU-D contribution to the strategic plan. It did, however, note the contribution from the European Conference of Postal and Telecommunications Administrations (CEPT) on the European vision for ITU-D.

In its closing hours, WTDC-22 adopted the Kigali Action Plan. WTDC-22 recommended that the Plenipotentiary Conference (Bucharest, 2022) should consider the Kigali Action Plan as the ITU-D contribution to the strategic plan and the overall ITU strategic framework, when finalizing the draft strategic plan for the Union for 2024-2027.

Statements by delegations

During consideration by WTDC-22 of proposed revisions to several resolutions and other matters on the conference agenda, some delegations requested that their statement be included in the final report. Accordingly, the statements by the delegations of the Russian Federation; Argentina; the United Arab Emirates jointly with Saudi Arabia; Canada; and Nigeria, listed here in the order in which they were delivered, can be found in Annex G to this report.

13. Conclusion – WTDC-22 results in a nutshell

The outcomes of WTDC-22, covered in this report, constitute a forward-looking agenda to address the global connectivity gap.

Part I of the report contains the **Kigali Declaration** in which delegates committed to accelerating the expansion and use of efficient and up-to-date digital infrastructures, services and applications for building and further developing the digital economy, including mobilization of financial resources for providing universal, secure and affordable broadband connectivity to the unconnected as soon as possible.

The **Kigali Action Plan** in Part II sets out five ITU-D priorities:

- Affordable connectivity
- Digital transformation
- Enabling policy and regulatory environment
- Resource mobilization and international cooperation

- Inclusive and secure telecommunications/ICTs for sustainable development.

The plan is results-based and follows the structure of the ITU strategic plan for 2024-2027. In addition, the plan maps out how it will contribute to the World Summit on the Information Society (WSIS) action lines and the overarching United Nations Sustainable Development Goals.

Part III covers 28 regional initiatives: four for Africa; four for the Americas; five for the Arab States; five for Asia and the Pacific; five for the Commonwealth of Independent States (CIS); and five for Europe. Under each regional initiative, projects are proposed, developed and implemented to meet a region's needs.

Part IV contains 40 revised resolutions and four new ones adopted by the conference:

- Resolution 87 (Kigali, 2022): **Connecting every school to the Internet and every young person to information and communication technology services** aims to ensure that every school is connected to the Internet through the joint ITU-UNICEF Giga initiative.

- Resolution 88 (Kigali, 2022): **The ITU Partner2Connect Digital Coalition** formalizes the **Partner2Connect Digital Coalition** as the primary platform to foster new partnerships around meaningful connectivity and digital transformation globally, focusing on, but not limited to, the hardest-to-connect communities.

- Resolution 89 (Kigali, 2022): **Digital transformation for sustainable development** aims to drive efforts to advance digital transformation for sustainable development, recognizing the enormous potential that ICTs have to create positive, meaningful and lasting change. The Directors of the Radiocommunication Bureau, the Telecommunication Standardization Bureau and the Telecommunication Development Bureau are invited to collaborate actively to fulfil the needs addressed by this resolution in areas of mutual interest related to digital-transformation technologies, within the framework of the ''One ITU'' approach and enhancing coordination among the three Sectors.

- Resolution 90 (Kigali, 2022): **Fostering telecommunication/ICT-centric entrepreneurship and digital innovation ecosystems for sustainable digital development** seeks to create a thriving environment for entrepreneurship and digital innovation ecosystems to help accelerate the achievement of the United Nations Sustainable Development Goals.

Part V outlines 14 ITU-D study Questions and their terms of reference for the period 2022-2025. Study Group 1 Questions fall under the scope of ''enabling environment for meaningful connectivity'', while those of Study Group 2 fall under digital transformation.

Part VI contains annexes on opening speeches, statements by delegations, Resolutions abrogated by the conference, new numbering of study Questions, as well as on the status of all resolutions, Recommendations and decisions adopted, revised or abrogated by WTDCs to date.

The President of Rwanda, H.E. Mr Paul Kagame, conferred the Agaciro (National Order of Honour) medal on ITU Secretary-General, Mr Houlin Zhao, for ''distinguished service as the leader of ITU during a very consequential period for the globalization of telecommunications technology''. The medal is awarded to high-ranking officials for promoting economic and social welfare consistent with Rwanda's interests at the national or international level.

In his closing remarks, Mr Zhao said:

> ''Having this conference take place in Rwanda is an important milestone. Let us build on this momentum to strengthen the image of ITU as a UN specialized agency not just for technology but also for development – and to accelerate digital transformation for all, here in Africa and the rest of the world.''

Hon. Paula Ingabire, who chaired the conference, told delegates:

> ''I want to thank all delegations for the zealous effort, spirit of collaboration, consensus exerted towards making WTDC-22 a success and all the contributions made towards the Kigali Action Plan that will move us forward to bringing connectivity and its benefits to the unconnected over the next four years… I hope we can report positive results at the next WTDC.''

The Director of BDT, Ms Doreen Bogdan-Martin, commented:

> ''It has been an intensive two weeks, but thanks to the tireless commitment and hard work of our delegates we have succeeded in finding consensus and building the solid global agreement on core principles to drive connectivity that has been the great talent of ITU for 157 years."

Part I – Kigali Declaration

Kigali Declaration

We, the high-level representatives of ITU Member States, delegates and participants endorse the present Declaration at the eighth World Telecommunication Development Conference, which took place in Kigali, Rwanda, from 6 to 16 June 2022 under the theme: Connecting the unconnected to achieve sustainable development.

We declare that:

1) Telecommunications/information and communication technologies (ICTs) have become the foundation for every economic sector and a catalyst for improving peoples' lives by way of social inclusion, decent employment and personal growth. Yet, in 2022 some 2.9 billion people remain unconnected, and for them, the transformative power of telecommunications/ICTs remains untapped.

2) The coronavirus disease (COVID-19) has introduced many challenges and changed the way we live, work, learn and do business. In the digital era, universal, secure and affordable broadband connectivity is indispensable and provides opportunities for boosting productivity and efficiency, ending poverty, improving livelihoods and ensuring that sustainable development becomes a reality for all. Continuing to build confidence, trust and security in the use of telecommunications/ICTs remains of vital importance.

3) Inequalities remain and continue to widen in the use of data and digital ICT-centric technologies, and in digitally skilled human resources, between regions, between and within countries in urban and rural areas, and between women and men. We recognize that available, affordable, dependable and accessible ICTs, when leveraged through adequate digital skills, can provide powerful drivers for development and are instrumental in timely, inclusive and resilient recovery from the COVID-19 pandemic. Capacity building/development in different ICT areas, including spectrum management, remains a challenge.

4) Digital inclusion is a necessity, and insufficient digital capacity and lack of digital skills are core barriers to digital transformation and the digital economy. The demand for digitally skilled workers will increase with the accelerated move towards digital transformation. While many jobs have been and will be lost due to the COVID-19 pandemic, digital transformation and the digital economy can nurture new ICT-centric jobs. Education and capacity building for youth, and their access to digital skills and tools, are essential for youth engagement in shaping the digital future.

5) We have just eight years left to achieve the Sustainable Development Goals, and telecommunications/ICTs are agents of change that can shape the future for the better. Telecommunications/ICTs are instrumental in multistakeholder activities and sharing best practices as prescribed by the World Summit on the Information Society. Multistakeholder cooperation offers a platform for all to join forces, seize opportunities and leverage innovations offered by efficient new and emerging telecommunication/ICT services and technologies, while mitigating risks, so that progress towards sustainable development can be made collectively.

6) Developing countries, and in particular least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS), face additional challenges in mobilizing sufficient investment and financing for telecommunications/ICTs and digital infrastructures and require substantial support to provide universal, secure, reliable and affordable telecommunications/ICTs.

We commit to:

a) Accelerating the expansion and use of efficient and up-to-date digital infrastructures, services and applications for building and further developing the digital economy, including mobilization of financial resources for providing universal, secure and affordable broadband connectivity to the unconnected as soon as possible. This will also include promoting investments in broadband infrastructure deployment, adoption and access with a view to supporting sustainable development, encouraging cooperation among Member States and creating alliances and partnerships between public and private sectors, international funding agencies and other stakeholders.

b) Urgently mitigating the impact of disasters and the COVID-19 pandemic by building digital resilience through bold and innovative national plans and recovery strategies for ensuring governance, business, education and social-life continuity. This includes providing the necessary platforms and networks for essential activities such as teleworking, e-commerce, remote learning, telemedicine and digital financial services, while paying special attention to the needs of women and girls, persons with disabilities and persons with specific needs, older persons and children, and at the same time preparing the ground for future developments in the post-COVID-19 era. In doing so, we commit to co-creating a secure, simplified and standards-based, well-coordinated approach in order to implement human-centred digital solutions that will empower individuals and businesses, while improving social well-being. We are also fully committed to tackling environmental and climate-change issues, notably in implementing telecommunication/ICT tools to mitigate the impact of climate change and addressing the impact of telecommunications/ICTs on the environment, in collaboration with users, the private sector, policy-makers and regulators.

c) Promoting sound, open, transparent, collaborative and future-proof policy and regulatory decisions with a view to facilitating digital transformation in the aftermath of the COVID-19 pandemic and beyond. We will implement innovative strategies and policy/regulatory initiatives to bridge the widening digital divides by enabling universal, secure and affordable broadband connectivity and promoting increased digital inclusion, while enhancing confidence and security in the use of telecommunication/ICT infrastructure and services. As such, we will develop and implement policy/regulatory frameworks to help ensure infrastructure resiliency, interoperability and protection of data, as well as increase broadband uptake. Besides, we will adopt effective plans to develop and enhance digital capacities and skills that are required in the online world, without which the digital divides will continue to widen.

d) Fully exploiting the opportunities provided by digital transformation of various sectors of the economy by supporting all relevant stakeholders to unleash new and emerging telecommunication/ICT technologies and services. We will encourage innovation and youth engagement to foster sustainable development and address current and future challenges, such as poverty alleviation, job creation, gender inequality and cybersecurity. In doing so, we will put in place the necessary prerequisites, such as electricity, facilitate digital inclusion and implement evidence-based decision-making, to measure and maximize the impact of digital transformation.

e) Providing support to and cooperating with developing countries, including LDCs, LLDCs and SIDS, in addressing their constraints for accessing digital-centric new and emerging telecommunication/ICT technologies and services and for the integration thereof into different sectors, such as government services, agriculture, education, health, finance, transport, etc.

f) Promoting international cooperation and partnership among the ITU membership and development-oriented stakeholders for achieving sustainable development using telecommunication/ICT-centric digital technologies. We will enhance and encourage cooperation and partnership between developing countries and between developed and developing countries in order to facilitate sharing of technology, knowledge and best practices with a view to promoting sustainable development and economic growth.

Accordingly, we, the delegates to the eighth World Telecommunication Development Conference, declare our commitment to the full and rapid implementation of this Declaration. We also pledge to spare no effort towards the expansion and use of telecommunications/ICTs and digital infrastructures, applications and services for building and establishing truly sustainable digital economies and societies.

The World Telecommunication Development Conference calls upon the ITU membership and all development-oriented stakeholders, including those in the United Nations system, to contribute actively to the successful implementation of this Declaration.

Part II – Kigali Action Plan

1 Glossary of terms

Enabler

The ITU strategic plan for 2024-2027 defines ''enablers'' as ways of working that allow the Union to deliver on its goals and priorities more effectively and efficiently. They reflect the Union's values of efficiency, transparency and accountability, openness, universality and neutrality, and being people-centred, service-oriented and results-based, and leverage its key strengths and address its weaknesses so that it can support its membership.

Goal

A specific end result desired or expected to occur as a consequence, at least in part, of an intervention or activity. In the ITU strategic plan for 2024-2027, ''strategic goals'' are defined as the Union's high-level goals which enable the realization of its mission.

Impact

Impact implies changes in people's lives. This might include changes in knowledge, skill, behaviour, health or living conditions for children, adults, families or communities. Such changes are positive or negative long-term effects on identifiable population groups produced by a development intervention, directly or indirectly, intended or unintended. These effects can be economic, socio-cultural, institutional, environmental, technological or of other types.

Inputs

The financial, human, material, technological and information resources used for development interventions.

Outcomes

Outcomes represent changes in the institutional and behavioural capacities for development conditions that occur between the completion of outputs and the achievement of goals. Results that occur at this level are primarily attributable to the government, although this may sometimes differ depending on the national context. In the ITU strategic plan for 2024-2027, ''outcomes'' are defined as key results the Union aims to achieve under its ''thematic priorities''.

ITU-D operational plan

The ITU-D operational plan is prepared on a yearly basis by the Telecommunication Development Bureau (BDT) in consultation with the Telecommunication Development Advisory Group (TDAG) in accordance with the ITU Telecommunication Development Sector (ITU-D) action plan and the strategic and financial plans of the Union. It includes the detailed plan of activities for the subsequent year and a forecast for the following three-year period for ITU-D. The ITU Council reviews and approves the four-year rolling ITU-D operational plan.

Outputs

Outputs are changes in skills or abilities and capacities of individuals or institutions, or the availability of new products and services that result from the completion of activities within a development intervention *within the control of the organization*. They are achieved with the resources provided and within the time period specified in the ITU-D operational plan.

The ITU-D action plan indicates that ''outputs" are the specialized ''products and services" offered within the mandate of ITU-D as defined by Article 21 of the ITU Constitution, including, among others, capacity building and dissemination of ITU expertise and knowledge. The ITU-D outputs are further elaborated in the ITU-D operational plan.

Partnerships

BDT will continue to develop partnerships with a wide range of stakeholders, including other United Nations agencies and regional telecommunication organizations, to mobilize resources from funding agencies, international financial institutions, ITU Member States and ITU-D Sector Members and other relevant partners. In executing projects, available local and regional expertise should be taken into account.

Information on partnership activities will continue to be updated on the BDT website, including summaries of BDT projects and of resources generated and expended. Furthermore, BDT will extend its reach towards potential members and partners from academia by proposing activities such as scientific and academic publications in partnership with Member States, Sector Members, Associates and Academia, and other relevant stakeholders.

Product and service offerings

The ITU strategic plan for 2024-2027 defines ''product and service offerings" as the range of ITU's products and services that are deployed to support the Union's work under its thematic priorities.

Regional initiatives and other projects

Regional initiatives are intended to address specific telecommunication/ICT priority areas, through partnerships and resource mobilization to implement projects. Under each regional initiative, projects are proposed, developed and implemented to meet the region's needs. The products and services to be developed through regional initiatives, in order to achieve related objectives and outcomes under the ITU-D contribution to the ITU strategic plan, will be identified in relevant project documents.

In fulfilling the Union's dual responsibility as a United Nations specialized agency and executing agency for implementing projects under the United Nations development system or other funding arrangements so as to facilitate and enhance telecommunication/ICT development, ITU-D offers, organizes and coordinates technical cooperation assistance through regional initiatives and projects.

Results

Results are changes in a state or condition that derive from a cause-and-effect relationship. There are three types of such changes – outputs, outcomes and impact – that can be set in motion by a development intervention. The changes can be intended or unintended, positive and/or negative.

Results-based management

Results-based management (RBM) is a management strategy by which all actors, contributing directly or indirectly to achieving a set of results, ensure that their processes, products and services contribute to the achievement of desired results (outputs, outcomes and higher-level goals or impact). The actors in turn use information and evidence on actual results to inform decision-making on the design, resourcing and delivery of programmes and activities as well as for accountability and reporting.

Alignment with new ITU strategy

The model followed in this Action Plan seeks to move towards greater alignment with the overall RBM structure with the framework envisioned in the ITU strategic plan for 2024-2027. This RBM model applies an increased client-driven approach to the thematic priorities defined by the membership to enhance BDT's efficiency in focusing products, support and results along these strategic pathways towards the longer-term goals.

This RBM model for the new thematic priorities will serve as the framework for future planning and evaluation, enforcing a common structure between strategic and operational plans. This will include increased integration of ITU and United Nations statistics and indicators to enhance the evidence-driven approach to country needs analysis and planning. It will allow BDT to be more agile in adapting technical support and service offering to evolving trends and changing needs of members.

The exercise to realign BDT's RBM framework with the ITU strategy will also refine the sequencing and integration of its products and services, mapping the most logical order for technical support and conditions for success along the new thematic priority theory of change pathways for more evidence-driven matching of services with need.

To further guide coherent programmatic focus in delivery of the mandate at all levels and through ITU's regional presence, the BDT framework is designed for full regional-level synchronization of RBM, thematic priorities, operational planning, sequenced technical support offerings and portfolio performance assessments. This will also help regions to strategically match BDT technical support according to each of the regional initiatives and specific local trends, while also maintaining alignment with the global vision and mission defined in the ITU strategic plan.

WTDC resolutions

A WTDC text containing provisions on the organization, working methods and programmes of ITU-D and study Questions and topics to be studied.

ITU-D study Questions

A description of an area of work to be studied, normally leading to the production of new or revised ITU-D Recommendations, guidelines, handbooks or reports.

ITU-D study groups are responsible for developing reports, guidelines and Recommendations based on input received from the membership for review by their members. Information is gathered through surveys, contributions and case studies, and is made available for easy access by the membership using content-management and web-publication tools. The study groups examine specific task-oriented telecommunication/ICT study Questions of priority to the ITU-D membership, to support members in achieving their development goals.

Outputs agreed on in the ITU-D study groups, and related reference material, are used as inputs for the implementation of policies, strategies, projects and special initiatives in Member States. These activities also serve to strengthen the shared knowledge base of the membership. Sharing of topics of common interest is carried out through face-to-face meetings, online e-forums and remote participation, in an atmosphere that encourages open debate and exchange of information as well as input from experts on the topics under study. The products to be developed under study Questions will be defined in the work plan of each study Question.

Thematic priorities

In the ITU strategic plan for 2024-2027, thematic priorities are defined as areas of work the Union focuses on, in which outcomes will be achieved to meet strategic goals. The Sectors and General Secretariat will work together under the thematic priorities to deliver outcomes towards achieving the Union's strategic goals. ITU-D contributes to the achievement of the Union's thematic priorities.

ITU-D priorities

ITU-D priorities are listed in the Kigali Action Plan to facilitate delivery of the ITU-D mandate and to give guidance to BDT for the next planning cycle on what ITU-D aims to achieve, in line with the overall RBM approach and the strategic goals and thematic priorities of the Union.

Key performance indicators

Key performance indicators (KPIs) associated with the Kigali Action Plan and the ITU-D operational plan enable Member States to monitor the progress and impact of the implementation of the above-mentioned plans, including ITU-D priorities.

2 Introduction

The Kigali Action Plan is used to develop the ITU-D operational plan to monitor and achieve the priorities identified by the ITU-D membership at WTDC-22. It is results-based and steers the implementation of these priorities, following the structure of the ITU strategic plan for 2024-2027.

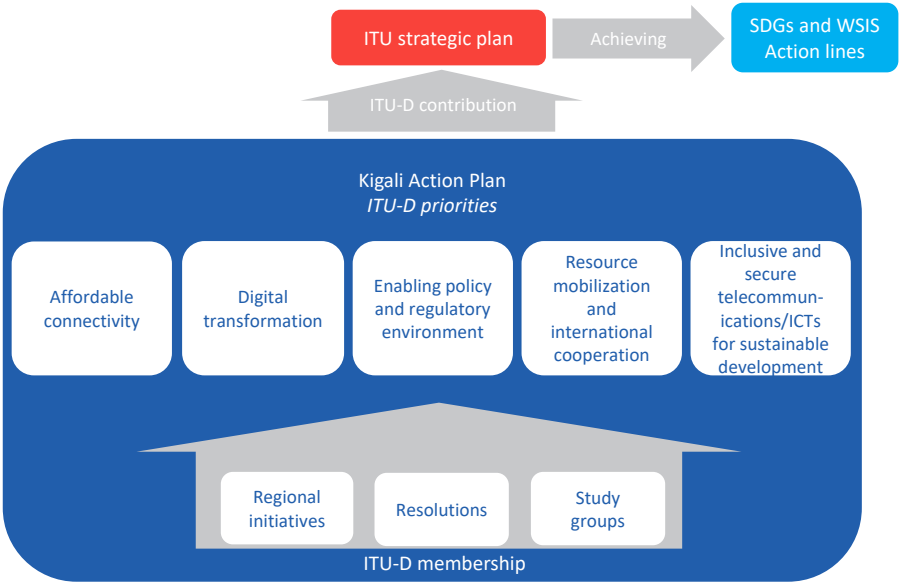
Based on the thematic priorities, product and service offerings and enablers defined in the ITU strategic plan for 2024-2027, the ITU-D action plan aligns and charts ITU-D's work with ITU resolutions and Recommendations relevant to the mandate of ITU-D, the regional initiatives and the study Questions. The action plan also maps its contribution to the World Summit on the Information Society (WSIS) action lines and the overarching United Nations Sustainable Development Goals (SDGs).

The Kigali Action Plan describes the ITU-D priorities and scope of activities and associated outcomes and outputs for the period 2023-2027 and includes KPIs. The ITU-D action plan may be updated or modified by TDAG to reflect the ITU strategic plan, changes in the telecommunication/ICT environment and/or as a result of the performance evaluation to be conducted each year.

This Action Plan is also the basis for the annual ITU-D rolling operational plan and serves as an implementation framework as it provides a description on how to achieve the priorities and objectives of ITU-D, as identified by its membership at WTDC. These priorities are based on ITU-D's core competencies and expertise and are closely linked to and aligned with the priorities and objectives identified by the larger development plans/initiatives of the United Nations SDGs, the ITU strategic plan and the WSIS Plan of Action. In particular, they all share a common vision of achieving sustainable development by leveraging the opportunities of digital tools and ICTs.

The ITU-D outputs and corresponding KPIs are further elaborated in the ITU-D operational plan, taking into account the experience gained in implementing the Buenos Aires Action Plan. Measurable KPIs for each outcome in the Kigali Action Plan shall be developed by TDAG in the new cycle.

Figure 1: Structure of the Kigali Action Plan and its contribution to the ITU strategic plan



3 Structure of the Kigali Action Plan

The Kigali Action Plan follows an RBM framework based on the ITU-D priorities identified as key work areas that will support the achievement of the ITU strategic plan for 2024-2027. Figure 1 shows the structure of the Kigali Action Plan and its contribution to the ITU strategic plan.

3.1 ITU-D priorities

Affordable connectivity

The focus of this priority is on the use of modern, available, secure, accessible and affordable connectivity through deployment of telecommunication/ICT infrastructure and services for bridging the digital divides. This priority seeks to foster the development of infrastructure and services by utilizing existing as well as new and emerging telecommunication/ICT services and technologies and new business models. In this process, assistance is provided to Member States to enhance and strengthen confidence and security in the use of telecommunications/ICTs, which is of vital importance.

Digital transformation

The focus of this priority is on (1) the development and use of telecommunications/ICTs, as well as applications and services, to close the digital divide and empower people and societies for sustainable development; (2) support to the ITU-D membership in fostering digital transformation through ICT entrepreneurship and increased ICT innovation in the ICT ecosystem, while encouraging the empowerment of grassroots stakeholders and creating new opportunities for them in the telecommunication/ICT sector. This is of critical importance as societies adapt to changes, including in the aftermath of the coronavirus disease (COVID-19) pandemic and with the future prospect of other global disasters. In this process, there is a need to recognize the needs of women, youth, persons with disabilities and persons with specific needs. The priority will identify new approaches that engage Member States and other stakeholders in digital transformation, including start-ups, SMEs, entrepreneurships, public-private partnerships (PPPs), and the public and private sectors to support integration of ICT innovation and national development agendas while identifying needs and delivering initiatives at a national level.

Enabling policy and regulatory environment

The focus of this priority is on fostering an enabling policy and regulatory environment conducive to sustainable telecommunication/ICT development that encourages investment in infrastructure and ICTs and increased adoption of telecommunications/ICTs. This priority comprises key enablers that underpin ITU's work to deliver on the connectivity and digital transformation priorities.

Resource mobilization and international cooperation

The focus of this priority is on mobilizing and attracting resources and fostering international cooperation on telecommunication/ICT development issues. This priority is also cross-cutting, providing resources and fostering international cooperation to deliver relevant global outcomes. In this process, the needs of developing countries, including least developed countries (LDCs), small island developing states (SIDS), landlocked developing countries (LLDCs) and countries with economies in transition, as well as underserved and vulnerable populations, should be prioritized and given due attention.

Inclusive and secure telecommunications/ICTs for sustainable development

The focus of this priority is on providing support for Member States to achieve secure telecommunications/ICTs for digital development for all. The following topics can be considered as the supporting components of this priority: fostering digital literacy and raising awareness of cybersecurity issues and best practice; strengthening the security of users online and promoting consumer protection; assisting Member States to develop national cybersecurity strategies and computer incident response teams (CIRTs); promoting digital skills development and digital training programmes, including training for public authorities; investment in secure infrastructure, particularly in underserved areas.

3.2 Products and services

To achieve the outcomes under the thematic priorities, ITU deploys a range of products and services for its members, United Nations agencies and other stakeholders. A range of products and services are offered, not limited to those listed below. Products and services can further be developed for each outcome and KPI in order to ensure the priority has the corresponding action framework. The action plan, together with the respective KPIs, will enable proper monitoring and evaluation of the priorities. According to the ITU strategic plan for 2024-2027, each Sector and the General Secretariat will provide more detailed information on how they will deploy these products and services in their respective operational plans. The products and services specific to ITU-D are outlined below.

Development of policy frameworks and knowledge products

ITU-D products and services include:

- development of handbooks, technical reports and papers on telecommunication/ICT matters to assist the ITU membership, through its study group process;
- assistance to Member States in promoting increased connectivity, closing digital divides, enabling digital transformation and building smart digital societies by developing and providing policy frameworks and good-practice guidelines;
- best practices from Member States, the private sector, research and academia are collected and shared back with Member States; and
- knowledge-exchange products and tools to enable inclusive dialogue and enhanced cooperation to help countries achieve a more inclusive society, and support to the membership in understanding and navigating the challenges and opportunities that come with promoting connectivity and digital transformation.

Provision of data and statistics

ITU-D products and services include:

- collection and dissemination of vital data and world-class research to track and make sense of connectivity and digital transformation globally, as well as support to Member States and other stakeholders throughout of the data lifecycle, from setting standards and methods for data collection to promoting the use of data in decision-making;

- responsibility for the international statistical standards for telecommunication/ICT indicators, publishing the standards, the definitions and the collection methods for over 200 indicators, which represent a key reference for statisticians and economists seeking to measure digital development; and

- active contribution to advancing the statistics agenda within the United Nations system, as the custodian agency for several SDG indicators on connectivity and digital skills (SDG indicators 4.4.1, 5.b.1, 9.c.1, 17.6.1 and 17.8.1).

Capacity development

ITU-D products and services include:

- development of capacities of telecommunication/ICT professionals and work towards boosting digital literacy and skills of citizens, aiming to achieve a society where all people use knowledge and skills on digital technologies to improve their livelihoods; and

- promoting, especially by means of partnership, the development, expansion and use of telecommunication/ICT networks, services and applications, particularly in developing countries, taking into account the activities of other relevant bodies, by reinforcing capacity development;

- building confidence and security in the use telecommunications/ICTs:

  – strengthened capacity of Member States to effectively share information, find solutions and respond to threats to cybersecurity, and to develop and implement national strategies and capabilities, including capacity building, encouraging national, regional and international cooperation in the area of cybersecurity;

  – enhanced capacity of the ITU membership to make available secure and resilient telecommunication/ICT infrastructure and services.

Provision of technical assistance

ITU-D products and services include:

- technical assistance to Member States, in particular to developing countries, including LDCs, SIDS, LLDCs and countries with economies in transition, and regional telecommunication organizations, in the field of telecommunications;

- tailor-made projects and solutions for multistakeholder needs, with recognized long-standing technical expertise in the telecommunication/ICT field and comprehensive experience in project development, management, implementation, monitoring and evaluation, with a focus on RBM, as well as opportunities for PPPs and a trusted platform to address development needs through the use of telecommunications/ICTs; and

- assistance for the implementation of decisions of world and regional conferences, as well as support for spectrum coordination activities among ITU members, and software tools to assist the administrations of developing countries to undertake their spectrum-management responsibilities more effectively.

Convening platforms

ITU-D products and services include:

- bringing together a wide range of stakeholders as a convening platform in telecommunications/ICTs, to share experiences and knowledge, collaborate and identify means to bring affordable, safe, secure and trusted connectivity and use to people everywhere; and

- encouraging international cooperation and partnerships for the growth of telecommunications/ICTs, especially with regional telecommunication organizations and with global and regional development financing institutions.

3.3 Enablers

ITU-D will deliver the action plan through the enablers defined in the Kigali Action Plan, the definitions of which are included for reference in this section. Enablers are ITU's ways of working that allow it to deliver on its goals and priorities more effectively and efficiently. They reflect the Union's values of efficiency, transparency and accountability, openness, universality and neutrality, and being people-centred, service-oriented and results-based, and leverage its key strengths and address its weaknesses so that it can support its membership.

Membership-driven

ITU will continue to work as a membership-driven organization, to effectively support and reflect the needs of its diverse members. ITU recognizes the needs of all countries, in particular those of developing countries, including LDCs, SIDS, LLDCs and countries with economies in transition, as well as underserved and vulnerable populations, which should be prioritized and given due attention. ITU will also work to deepen its engagement with representatives of the telecommunication/ICT and other industry sectors, to demonstrate ITU's value proposition in the context of the strategic goals.

Regional presence

As an extension of ITU as a whole, the regional presence plays a vital role in the achievement of ITU's mission, enhancing the Union's understanding of local contexts and its ability to respond to countries' needs effectively. The regional presence will consolidate strategic planning at the level of each regional/area office, implementing programmes and initiatives that are consistent with and based on the Union's strategic goals and thematic priorities. By applying the global targets and clarifying programme priorities at the regional level, ITU will also seek to enhance its overall global effectiveness and impact. The regional presence will strengthen ITU's position as a shaper/doer and enhance United Nations cooperation, to build enhanced regional opportunities and thereby reach more countries and define clearer, more impactful priorities for country-level engagements. Efforts will also be made to strengthen capacity at the regional level to ensure the ability of the regional and area offices to implement the programmes and engagements determined based on the Union's strategic goals and thematic priorities.

Diversity and inclusion

ITU remains committed to mainstreaming diversity and inclusion practices across its work, to ensure equality. In the pursuit of its goals, ITU will work to bridge the digital divide and build an inclusive digital society, by fostering telecommunication/ICT access, affordability and use in all countries and for all peoples, including women and girls, youth, indigenous peoples, older persons, persons with disabilities and persons with specific needs.

Commitment to environmental sustainability

ITU recognizes that telecommunications/ICTs come with risks, challenges and opportunities for the environment. ITU is committed to helping to use telecommunications/ICTs for monitoring, mitigating and adapting to climate change, facilitating digital solutions for energy efficiency and reduced carbon emissions and protecting human health and the environment from e-waste. ITU will apply an environmental lens across its work to promote sustainable digital transformation, while at the same time continuing to address climate change from within and systematically integrate environmental sustainability considerations across its operations in line with the Strategy for Sustainability Management in the United Nations System 2020-2030.

Partnerships and international cooperation

To increase global collaboration towards its mission, ITU continues to strengthen partnerships among its members and other stakeholders. In doing so, ITU can leverage its diverse membership and multilateral convening power to foster cooperation among governments and regulators, the private sector and the academic community. ITU also recognizes the importance of cultivating strategic partnerships with United Nations agencies and other organizations, including standardization bodies, to enhance cooperation for addressing challenges across the telecommunication/ICT sector towards the delivery of the WSIS action lines and achievement of the 2030 SDGs.

Resource mobilization

Accelerated resource-mobilization efforts and increased financing are critical to achieving the goals of the Union and enhancing ITU support for the membership. ITU, therefore, recognizes the need to identify the most effective ways to mobilize extrabudgetary resources, build its resource-mobilization capacity and enhance its current fundraising strategy, while leveraging partner inputs to complement these efforts.

Excellence in human resources and organizational innovation

Enhancing operational efficiency and effectiveness enables ITU to respond to changes in the telecommunication/ICT landscape and evolving membership needs. ITU, therefore, aims to improve internal processes and accelerate decision-making by addressing operational inefficiencies and duplication, reflecting the values of transparency and accountability. ITU also recognizes the need to build operational effectiveness, by increasing cross-functional synergies, encouraging internal innovation, providing consistent guidance on the organization's scope and developing a stronger performance- and talent-management approach. To this end, the organization will be implementing a transformation plan for culture and skills based on four main tracks: strategic planning, digital transformation, innovation and human resource management.

3.4 Linkages

The action plan is organized along the ITU-D priorities and provides information on, and linkages between, the corresponding product and service offerings, enablers, key outputs, expected results and KPIs.

As graphically shown in Figure 2, these are supporting components for:

– SDGs

– ITU strategic plan and goals/targets

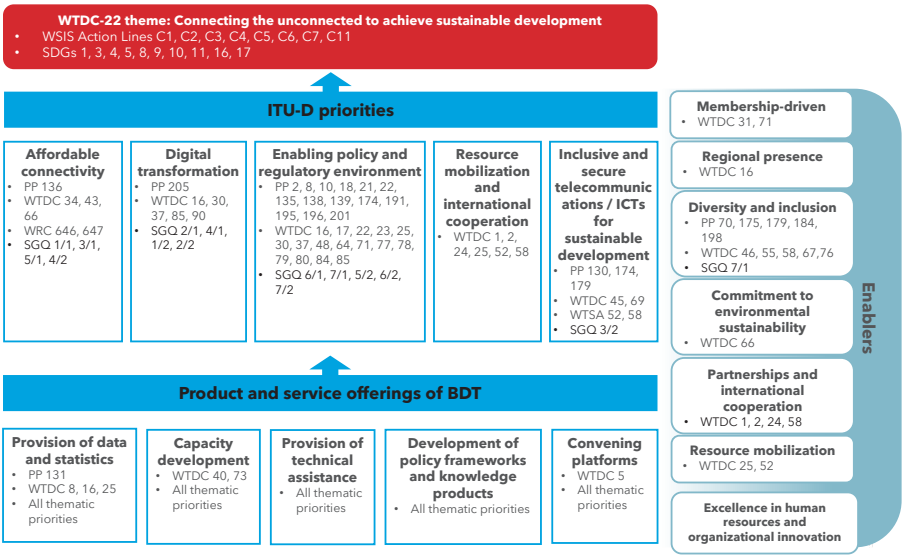
– WSIS action lines

– WTDC resolutions and Recommendations and resolutions of the Plenipotentiary Conference

– regional initiatives

– study Questions.

Figure 2: Linkages between ITU-D priorities, key offerings and enablers with ITU resolutions, WSIS action lines and SDGs



4 Implementation of ITU-D priorities and their outcomes

To achieve the desired outcomes, the implementation of each priority will be associated with the relevant KPIs.

4.1 Affordable connectivity

1 Improved broadband connectivity in developing countries, including LDCs, SIDS and LLDCs, countries with economies in transition and countries with specific needs.

2 Improved telecommunication/ICT infrastructure and service, in particular broadband coverage.

3 Improved access to digital services by people in urban, rural and remote areas and underserved communities.

4 Enhanced e-commerce for the ITU membership to achieve the SDGs.

5 Strengthened joint regional collaboration and cooperation with the United Nations and its agencies, regional telecommunication organizations and financial and development institutions for achieving the Connect 2030 Agenda for global telecommunication/information and communication technology, including broadband, for sustainable development.

6 Improved broadband connectivity in developing countries, including LDCs, SIDS and LLDCs, countries with economies in transition and countries with specific needs, to both create and respond to increased demand for broadband adoption and digital skills.

7 Strengthened capacity of Member States to use telecommunications/ICTs for disaster risk reduction and management, to ensure availability of emergency telecommunications and support cooperation in this area.

4.2 Digital transformation

1 Enhanced capacity of the ITU membership to accelerate digital transformation and sustainable economic and social development by leveraging and using new and emerging telecommunications/ICTs and services.

2 Strengthened capacity of the ITU membership to integrate telecommunication/ICT innovation and digitalization in their national development agendas and to develop strategies to promote innovation initiatives, including through public, private and public-private partnerships.

3 Enhanced human and institutional capacity of the ITU membership in telecommunications/ICTs to foster digital transformation.

4.3 Enabling policy and regulatory environment

1 Strengthened capacity of Member States to enhance their telecommunication/ICT policy, legal and regulatory frameworks conducive to sustainable development and digital transformation.

2 Strengthened capacity of Member States to produce and collect high-quality, internationally comparable statistics which reflect developments and trends in telecommunications/ICTs, empowered by new and emerging technologies and services, based on agreed standards and methodologies.

3 Improved human and institutional capacity of the ITU membership in telecommunications/ICTs to tap into the full potential of the digital economy and society.

4.4 Resource mobilization and international cooperation

1 Strengthened cooperation and coordination with the United Nations and its agencies, other international organizations, regional telecommunication organizations and regional and global development institutions in the implementation of ITU-D priorities.

2 Strengthened resource-mobilization strategy and operational framework for building partnerships with the United Nations and its agencies, other international organizations, regional telecommunication organizations and regional and global financial and development institutions for the implementation of the Kigali Action Plan, including ITU-D priorities in achieving the 2030 SDGs related to telecommunication/ICT development matters, as well as WSIS outcomes.

4.5 Inclusive and secure telecommunications/ICTs for sustainable development

1 Increased digital literacy and public awareness of cybersecurity issues.

2 Stronger consumer protection in Member States.

3 Increased access for all to training programmes in digital skills.

4 Support for Member States to develop national cybersecurity strategies and CIRTs.

5 Enhanced capacity of telecommunication/ICT professionals to support the digital economy and strengthened digital skills.

6 Increased secured online services, including child online protection, and mobilization of resources for marginalized groups and persons with specific needs.

7 Mobilizing investment in secure and resilient telecommunication/ICT infrastructure, particularly in underserved areas.

8 Utilizing ITU's unique partnerships to adequately resource and support capacity building and cybersecurity activities.

4.6 Desired outcomes related to enablers

4.6.1 *Membership-driven* outcomes

1 Strengthened implementation of WTDC resolutions.

2 Enhanced knowledge-sharing, research and development, dialogue and partnership among the ITU membership on telecommunication/ICT issues.

4.6.2 *Regional presence* outcomes

1 Strengthened and empowered staff and their expertise at all levels, within the regional presence (regional and area offices).

2 Strengthened ITU dual responsibility as a United Nations specialized agency and executing agency for implementing projects.

3 Enhanced knowledge-sharing, research and development, dialogue and partnership among the ITU membership on the use of telecommunications/ICTs in support of the sustainable development and the digital transformation of society.

4 Strengthened regional presence for achieving ITU-D objectives, outcomes and outputs, through the involvement of and collaboration with the ITU Radiocommunication (ITU-R) and Telecommunication Standardization (ITU-T) Sectors and by mainstreaming the ''One ITU'' and RBM approaches.

5 Strengthened joint regional collaboration and cooperation and with the United Nations and its agencies, regional telecommunication organizations and financial and development institutions for achieving the 2030 SDGs related to digital economy development matters.

4.6.3 *Diversity and inclusion* outcomes

1 Strengthened capacity of the ITU membership to develop strategies, policies and practices for digital inclusion and equity, in particular for the empowerment of women and girls, persons with disabilities, persons with specific needs and low-income households.

4.6.4 *Commitment to environmental sustainability* outcomes

1 Enhanced capacity of the ITU membership to develop telecommunication/ICT strategies and solutions on climate-change adaptation and mitigation and the use of green/renewable energy.

4.6.5 *Partnerships and international cooperation* outcomes

1 Strengthened United Nations-wide joint planning, collaboration and cooperation and with financial and development institutions at the international and regional levels on achieving the 2030 SDGs related to telecommunication/ICT development matters.

4.6.6 *Resource mobilization* outcomes

1 Strengthened resource-mobilization strategy through cooperation with international and regional financial and development institutions.

4.6.7 *Excellence in human resources and organizational innovation* outcomes

1 Strengthened ITU dual responsibility as a United Nations specialized agency and executing agency for implementing projects.

2 Strengthened cooperation and coordination among the three Sectors emphasizing regional presence in order to mainstream the ''One ITU'' concept.

3 Strengthened project implementation function of ITU.

Part III – Regional initiatives

AFRICA REGIONAL INITIATIVES

AFR1: Supporting digital transformation to usher in a rapid transition to a digital economy while accelerating innovation in Africa

Objective: To assist Member States in the Africa region in reaping the full benefits of digital transformation by addressing the existing policy and regulatory challenges and formulating strategies to encourage the development and use of digital technologies in various sectors of the economy and foster innovation.

Taking into consideration the enormous potential of digital technologies to contribute to accelerating countries' socio-economic development, and the Union's vital role to assist in achieving the 2030 Agenda for Sustainable Development, including the 17 global Sustainable Development Goals (SDGs), ITU is called upon to support Member States in the Africa region in building, developing and sustaining digitally based economies.

Expected results

1) Assistance in developing national digital transformation strategies focusing on enabling policies and regulations to enhance the use of digital technologies in the economy.

2) Assistance in developing action plans with digital key performance indicators encompassing the adoption of e-applications geared to sustainable development in various aspects of African economies and e-government services.

3) Assistance in conducting research on the current state of digitalization of industries in Africa, trends and needs, at the regional level.

4) Building partnerships within the ITU membership to encourage the exchange of best practices and knowledge-sharing in the implementation of digital transformation projects.

5) Assistance in adopting and implementing relevant standards that are targeted at addressing challenges of interoperability stemming from the disruptive and transformative spread of digital innovation.

6) Help in designing models and facilitating the financing of digital transformation of economies in Africa, and identification of partnership opportunities to establish sustainable innovation frameworks.

7) Support in designing and implementing a comprehensive and inclusive long-term plan for human and institutional capacity building, as a fundamental pillar to transform the economy into a digitally oriented economy and to guarantee its effective functioning, that takes into consideration upskilling and reskilling of citizens on aspects related to emerging technologies.

8) Support in establishing centres of excellence and incubators to help nurture and develop innovative ideas and start-ups in Africa.

9) Development of Member States' capability to promote accessibility in order to improve the development of specialized skills to meet the ICT needs of persons with disabilities and thus enhance their use of digital applications.

AFR2: Implementation and expansion of broadband infrastructures, connectivity and emerging technologies

Objective: To promote the deployment of broadband infrastructures in order to help Member States in Africa ensure that no one is left behind and leverage the full benefits of high-speed and high-quality connectivity and the impact of emerging technologies.

Expected results

1) Assistance in developing national and regional strategic plans, focusing on enabling policies and regulations addressing high-speed, high-quality broadband networks in the region.

2) Provision of support and sharing of best practices on national broadband strategies and strengthening capacity development; implementing and monitoring national broadband plans to use universal service funds effectively; and developing sustainable financial and operational business models, in order to provide affordable broadband access to unserved and underserved areas.

3) Development programmes for expanding connectivity to small and medium enterprises (SMEs) and businesses in order to support jobs, business growth and economic development.

4) Development programmes for expanding connectivity to education- and health-related entities, SMEs and businesses and homes and communities in order to enable access to relevant digital content.

5) Provision of support that will enable the sharing of best practices on financing models as well as the identification of partnership opportunities to enhance high-speed, high-quality broadband.

6) Assistance in promoting the harmonization of subregional broadband plans so as to ensure equitable access to high-speed, high-quality broadband for all.

7) Assistance with human capacity development resources, through training programmes, workshops and suchlike, to exchange expertise and to provide persons with disabilities with the platform to participate in and benefit from the emergence of new broadband technologies.

8) Assistance in extending the regional and continental backbone initiatives to ensure the resilience of submarine cables.

9) Improved awareness of policy and regulatory frameworks relating to spectrum-management issues in line with ITU decisions, including radio-frequency planning, trading, refarming and sharing, along with spectrum-licensing frameworks for competition, obligations and pricing.

10) Development, implementation and review of policy, legal and regulatory frameworks, including for network infrastructure protection, construction codes, regulations and technical standards for fibre-to-the-home infrastructure, collaborative construction in civil works, next-generation universal service obligation, infrastructure sharing, and facilitation of right-of-way and site acquisition.

11) Undertaking the necessary feasibility studies and establishing roadmaps at the national and regional levels for the deployment of emerging technologies with high-speed connectivity, such as 5G-related technologies, as well as capacity building and ecosystem development to support 5G use.

12) Designing and execution of awareness-raising and measurement campaigns on exposure to electromagnetic fields and safety, as well as on the benefits of wireless technologies, backed up by science and medical recommendations.

AFR3: Building trust, safety and security in the use of telecommunications/information and communication technologies and protection of personal data

Objective: To assist Member States in developing and implementing policies, strategies, standards and mechanisms, as well as human capacity building, to enhance the security of information systems and networks, ensure the protection of data and people, including vulnerable groups such as children, and guarantee digital trust; to protect information and communication technology (ICT) and its applications.

Expected results

1) Assistance to Member States in improving their cybersecurity readiness status with respect to the pillars of the ITU Global Cybersecurity Index and the goals of the Connect 2030 Agenda.

2) Support for Member States in assessing, adopting, developing and implementing a regulatory and legislative framework, at the national and regional levels, related to cybersecurity.

3) Development of a global framework for collaboration and awareness at the regional and subregional levels for nurturing a global culture of cybersecurity and to help consumers better understand and protect against risks.

4) Assistance in developing content for educating consumers on their rights and responsibilities related to data protection when performing electronic and physical transactions, as well as in the execution of campaigns to raise awareness of cyberthreats, cybersecurity measures and quality of service in the use of ICTs.

5) Encouraging the sharing of best practices and exchange of knowledge among Member States on the mechanisms to combat cybercrime and cyberthreats.

6) Support for Member States in establishing and developing national computer incident response teams, and strengthening cooperation mechanisms among them, at the regional and subregional levels.

AFR4: Fostering emerging technologies and innovation ecosystems

Objective: To foster an enabling digital innovation ecosystem that can navigate technological revolutions and the establishment of a sustainable environment conducive to the utilization of emerging technologies and the development of small, medium and micro enterprises (SMMEs) and start-ups.

Expected results

1) Assistance in undertaking a comprehensive assessment of the human and institutional capacity and regulatory environment related to digital innovation, emerging technologies and SMMEs, at the national and regional levels.

2) Support for Member States in developing the necessary legislative and regulatory framework to encourage digital industries and innovation development and the establishment of SMMEs.

3) Assistance in designing and adopting national strategies and infrastructures, such as innovation and research labs, to usher in the utilization of emerging technologies in the different sectors of the economy.

4) Support in scaling up digital entrepreneurship and SMMEs through global partnerships focused on achieving national development priorities and in elaborating financing models to ensure the necessary investments for the continuous development and deployment of emerging technologies.

5) Design of a comprehensive human capacity building framework to upskill and reskill human resources using material related to emerging technologies and digital innovation.

6) Awareness-raising on the importance of protecting intellectual property and developing relevant regulatory frameworks.

AMERICAS REGIONAL INITIATIVES

AMS1: Deployment of modern, resilient, secure and sustainable telecommunication/information and communication technology infrastructure

Expected results

1) Assistance in designing, funding and implementing national, regional and subregional broadband plans and resilient networks, including support to community networks, with special attention to indigenous communities, underserved and unserved areas, critical environment areas and vulnerable populations, taking into account innovative connectivity solutions that can be locally deployed and managed, including access to spectrum and high-speed networks.

2) Assistance in developing, funding and implementing national emergency telecommunication plans and network infrastructure.

3) Enhanced and strengthened confidence and security in the use of information and communication technologies (ICTs), including capacity building and support for the development of national cybersecurity strategies.

4) Effective use of sustainable telecommunications/ICTs to mitigate climate change and enhance environmental sustainability.

5) Assistance in designing effective spectrum-management plans, enabling affordable access to backbone facilities, development of Internet exchange points and appropriate use of universal service funds.

AMS2: Enhancement and expansion of digital-literacy, digital-skills and digital-inclusion programmes, especially among vulnerable populations

Expected results

1) Support in developing human capacity through national, regional and subregional capacity-building projects, such as training programmes or workshops, to exchange expertise and knowledge, as well as national and international experiences, which will provide practical skills and tools to bridge the digital divides, including the gender digital divide, in order to contribute to the development of sustainable telecommunications/information and communication technologies, enhancing competition, investment and innovation.

2) Provision of diligent assistance in planning, implementing and evaluating projects and programmes on digital literacy, digital skills and digital inclusion.

AMS3: Effective support for digital transformation and innovation ecosystems through scalable, funded and sustainable connectivity projects

Expected results

1) Assistance in planning and implementing foundational infrastructure and special-purpose e-services.

2) Increased capacity building and multistakeholder cooperation to facilitate and enhance innovation in telecommunications/information and communication technologies in support of digital transformation in the region, with special focus on all developing countries in the region, including least developed countries, landlocked developing countries and small island developing states, indigenous communities, and in particular youth and women in rural, remote, unserved or underserved areas and communities.

3) Promotion of the active engagement of civil society, international financial institutions, industry partners, academia and other relevant stakeholders.

AMS4: Development of enabling policy and regulatory environments to connect the unconnected through accessible and affordable telecommunications/information and communication technologies that support achievement of the Sustainable Development Goals and progress towards the digital economy

Expected results

1) Support for and promotion of sustainable telecommunications/information and communication technologies in all developing countries in the region, including least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS), and in protected areas, for emergency communications and for protecting, restoring and promoting sustainable use of terrestrial ecosystems.

2) Support in developing an enabling policy and regulatory environment and in facilitating investment and innovation to connect the unconnected and achieve the Sustainable Development Goals.

3) Support for Member States in implementing policy and regulatory strategies to connect the unconnected, with a focus on affordability, including support for small operators and community networks.

4) Enhanced outreach to all developing countries in the region, including LDCs, LLDCs and SIDS, for greater participation in ITU processes and better access to finance and expertise,

5) Support for digital financial inclusion and fostering the implementation of electronic transactions.

ARAB STATES REGIONAL INITIATIVES

ARB1: Sustainable digital economy through digital transformation

Objective: To enable digital transformation and develop digital services by using telecommunications/information and communication technologies (ICTs) and establishing well-developed infrastructure in order to support digital transformation, achieve high levels of digital inclusion and bridge the digital divide through transition to the digital economy and access to an inclusive digital society for all, and in particular to facilitate rapid response to epidemics and emergencies.

Expected results

Assisting countries to:

1) Develop national and regional mechanisms and strategies to stimulate digital transformation in telecommunications/ICTs and access to the digital economy in the Arab States, drawing on international and regional best practices and the use of the most effective technologies for epidemic and emergency response.

2) Issue policy guidelines, regulatory and technical frameworks and necessary measures, including by providing countries with information to help meet their needs under this initiative, specifically in the area of mechanisms to harness ICTs for digital transformation and transition to the digital economy and to ensure more resilient telecommunication networks in emergencies.

3) Improve gender equality in all groups in the digital sector and beyond by providing opportunities for collaboration in this area, supporting the creation of new projects and the scaling up of existing ones in line with the Network of Women for World Telecommunication Development Conference initiative, empowering women and contributing to digital literacy.

4) Leverage digital accessibility for persons with specific needs as a priority and support countries in drafting and updating national strategies and policies in line with regional and global standards, building capacity, fostering innovation, monitoring the implementation of digital access and creating new partnerships or strengthening existing ones.

5) Empower youth with the aim of increasing their participation in the digital sector and beyond, and create new youth employment opportunities and plans by encouraging young people and students to pursue the development of digital applications and services, and in particular Arabic-language ones.

6) Assess national and regional mechanisms and strategies for digital skill development, draw up national and regional strategies and action plans, develop required digital skills, knowledge, digital literacy programmes and academic digital training courses and provide support to target groups, in particular teachers and public officials.

7) Build and/or strengthen partnerships with the private sector, regional and subregional organizations, United Nations system organizations, academia, institutions, small and medium enterprises and other possible stakeholders to ensure that the Arab States can draw on the benefits of comprehensive digital inclusion, in particular through the establishment of national digital centres dedicated to digital transformation which are capable of meeting the needs of Arab States in terms of epidemic response.

8) Attract financial and technical support from donor and financing institutions, as well as regional and international stakeholders, to contribute to achieving the objectives and outcomes of this initiative.

9) Develop regulatory and legal reference frameworks to stimulate digital financial inclusion.

10) Organize training courses and seminars on the impact and importance of digital transformation, the digital economy and telecommunications/ICTs during epidemics and emergencies.

ARB2: Enhancing confidence, security and privacy in the use of telecommunications/information and communication technologies in the era of new and emerging digital technologies

Objective: To enhance confidence, security and privacy in the use of telecommunications/information and communication technologies (ICTs) through support for the deployment of resilient infrastructure and safe and reliable services that ensure the protection of privacy and personal data for all groups of society, including child online protection and the combating of all cyberthreats, including the misuse of telecommunications/ICTs.

Expected results

Assisting countries to:

1) Develop and update national cybersecurity strategies, particularly in relation to studies, regulations and legislation on child online protection and privacy and data protection, in line with ITU guidelines and those of other institutions at the global level.

2) Develop national capacities in order to raise the ranking of the Arab States in the ITU Global Cybersecurity Index (GCI) by assessing variables, threats, opportunities and weaknesses, identifying recommendations and proposals and sharing international best practices by means of holding awareness-raising workshops on the GCI and its mechanisms, conducting sessions for sharing the experiences and expertise of the Arab States that have managed to raise their ranking within the GCI, and establishing Arab digital platforms to that end.

3) Promote societal awareness in the Arab States about the safe use of technology in general and new and emerging technologies in particular and an understanding of the challenges related to child online protection and privacy, by making use of, *inter alia*, awareness-raising material based on child online protection guidelines.

4) Conduct simulations or educational exercises, such as e-training courses, specialized training sessions or other events, at the national and regional levels in cooperation with international and regional organizations, and assist countries in developing tools through synergies and resource optimization.

5) Conduct research on challenges associated with confidence in and security of new and emerging technologies and on regulatory measures, and develop policies and related guidelines, drawing on efforts made at the global level.

6) Support the establishment of computer incident response teams (CIRTs) in the Arab States which have no CIRTs and upgrade existing CIRTs by employing best organizational practices, exploiting global partnerships in the provision of supporting technical tools and systems, and building capacities among specialists.

ARB3: Developing digital infrastructure for smart sustainable cities and communities

Objective: To facilitate universal access to high-speed connectivity by developing resilient and synergistic infrastructure and creating an enabling environment that ensures universal coverage and meets the requirements of new and emerging technologies, and to take the necessary measures to ensure a rapid transition to smart sustainable cities and communities (SSCCs).

Expected results

Assisting countries to:

1) Elaborate, develop and update strategic plans and enabling frameworks for transition to SSCCs and prepare feasibility studies for the deployment of ubiquitous resilient high-speed connectivity in all its aspects, including legislation, standards, organizational structure, and capacity building and cooperation mechanisms, as required, to support transition to SSCCs.

2) Assess variables, challenges and opportunities for SSCC roll-out and share best practices and case studies on the various above-mentioned possibilities by organizing regional workshops, conferences and webinars.

3) Map ubiquitous infrastructure and services, harmonize approaches across the Arab States, follow infrastructure-sharing approaches applied by countries, including the development of broadband mapping systems for broadband networks and related facilities, and promote innovative solutions for meaningful connectivity.

4) Develop plans and implement projects for the deployment of broadband ICT services and contribute to connecting remote and underserved areas.

5) Organize regional workshops, conferences and seminars, either online or in person, to discuss opportunities and challenges and share experiences in order to support transition to SSCCs.

6) Formulate guidelines for the Arab States on transition to SSCCs through the development of telecommunication infrastructure for broadband service delivery in such a way as to support the various related applications and services.

7) Promote technical cooperation and experience sharing among the Arab States on SSCCs, drawing on the experiences and challenges faced by smart cities and communities, studying impacts — both positive and negative — and tapping into experiences from around the world.

8) Implement key performance indicators for SSCCs by organizing workshops in close cooperation with the ITU Telecommunication Standardization Sector, and encourage countries to join the Union's SSCC programme.

9) Develop and enhance the resilience of broadband infrastructure in all its aspects, including legislation, standards, organizational structure, and capacity building and cooperation mechanisms, as required.

ARB4: Building capacities and encouraging digital innovation, entrepreneurship and future foresight

Objective: To build capacities, increase awareness of the culture of innovation, future foresight and entrepreneurship among all groups of society, in particular youth, and empower women in order to harness telecommunications/information and communication technologies (ICTs) to drive economic projects and activities that focus on providing job opportunities and supporting small and medium enterprises.

Expected results

Assisting countries to:

1) Develop national and regional mechanisms and strategies to promote and enhance the culture of innovation and future foresight in the field of telecommunications/ICTs in the Arab States, including relevant best practices.

2) Promote and develop the role of existing institutions and incubator programmes – and establish new innovation centres and institutions — dedicated to supporting small, medium and micro enterprises in telecommunications/ICTs, including by empowering youth to create their own projects and drawing on best practices in the field.

3) Provide learning opportunities and training courses for youth of both sexes in order to make the most of the role of telecommunications/ICTs in enhancing the culture of innovation, entrepreneurship and future foresight, and, in particular, empower women to launch economic projects and activities by harnessing telecommunications/ICTs.

4) Inspire students and youth of both sexes to be creative and innovative in the development of applications, including Arabic-language applications and application content in order to enrich Arabic-language digital content.

5) Develop electronic platforms for holding regional meetings, workshops and conferences.

6) Elaborate national programmes dedicated to developing human resources and digital skills, enhancing the culture of innovation, entrepreneurship and future foresight and facilitating coordination among training and research centres, incubators, institutions and institutes, while promoting experience sharing at regional and international levels.

7) Develop needs-based regulatory, policy and legislative frameworks, in particular for least developed countries, for digital innovation, entrepreneurship and future foresight, at countries' request.

ARB5: Developing means of digital regulation

Objective: To enhance cooperation between regulators and policy-makers in various sectors and other stakeholders in telecommunications/information and communication technologies (ICTs); to create an appropriate, enabling and harmonized regulatory environment for digital regulation in order to enhance cooperation and keep pace with new challenges and rapid developments in the telecommunication/ICT sector; and to establish a mechanism for information and experience sharing and skill development.

Expected results

Assisting countries to:

1) Share guidelines and best practices on collaborative regulation and establish frameworks for collaborative regulation between different regulators in various sectors, such as the creation of an interactive platform for the Arab States that includes regulatory, policy and legislative tools for different issues of importance to the Arab States, ensuring the sharing of regulatory experiences and best practices and providing lines of communication between specialists in different fields of telecommunications/ICTs.

2) Conduct studies to assess the current status of digital strategies in the Arab States and develop national and regional digital strategies and relevant legislation in this regard.

3) Develop and harmonize national regulatory frameworks for digital regulation in order to ensure a more inclusive information society by improving decision-making with regard to establishing an ecosystem of effective policy, legal and regulatory frameworks for the ICT sector and digital economy.

4) Provide training and capacity building and share experiences in the development and implementation of collaborative regulation strategies and technology-specific digital roadmaps and plans for the shaping of national and regional policies.

5) Organize regional conferences, workshops and seminars, including online, that ensure experience sharing on emerging policy, legal and regulatory issues in the telecommunication/ICT sector by fostering inclusive dialogue and enhancing cooperation among national and regional regulators and policy-makers in telecommunications/ICTs.

6) Share guidelines on collaborative regulation between the telecommunication sector and other cross-cutting sectors, such as finance, media, energy, railways, transport and post.

7) Issue guidelines on how to keep pace with the rapid developments in the telecommunication/ICT sector and provide rapid regulatory response to market needs, based on collaborative regulation, in order to ensure optimal positive impact and remain open to innovative new regulatory tools and solutions that promote an enabling environment conducive to the balanced and neutral deployment of new and emerging technologies.

ASIA-PACIFIC REGIONAL INITIATIVES

ASP1: Addressing special needs of least developed countries, small island developing states, including Pacific island countries, and landlocked developing countries

Objective: To provide special assistance to least developed countries (LDCs), small island developing states (SIDS), including Pacific island countries, and landlocked developing countries (LLDCs) in order to meet their priority telecommunication/information and communication technology (ICT) requirements.

Expected results

1) Development of policy and regulatory frameworks for broadband infrastructure and ICT applications and cybersecurity, taking into account the special needs of LDCs, SIDS, including Pacific island countries, and LLDCs, and strengthening of human capacity to address future policy and regulatory challenges.

2) Promotion of affordable and meaningful broadband universal access in LDCs, SIDS, including Pacific island countries, and LLDCs.

3) Assistance to LDCs, SIDS, including Pacific island countries, and LLDCs in adopting telecommunication/ICT applications in disaster management relating to disaster prediction, preparedness, adaptation, monitoring, mitigation, response, rehabilitation and recovery of telecommunication/ICT networks based on their priority needs.

4) Assistance to LDCs, SIDS, including Pacific island countries, and LLDCs in their efforts to achieve internationally agreed goals, such as the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction, the Istanbul Programme of Action for LDCs, the SAMOA Pathway for SIDS and the Vienna Programme of Action for LLDCs.

ASP2: Harnessing information and communication technologies to support the digital economy and inclusive digital societies

Objective: To assist Member States in utilizing information and communication technologies (ICTs) and emerging technologies to reap the benefits of the digital economy by addressing the human and technical capacity challenges, including improving and expanding digital skills to reduce the gender gap, and assisting vulnerable groups[1], to bridge the digital divide.

Expected results

1) Planning and elaboration of national strategic frameworks on the digital economy as well as associated toolkits for selected ICT applications and services.

2) Establishment and annual updating of a repository of all work done within ITU relating to the digital economy since the World Telecommunication Development Conference (Buenos Aires, 2017).

3) Development of policies, strategies and guidelines for efficient and timely implementation of the digital economy, including the use of the Internet of Things, ICT-centric applications and platforms, artificial intelligence, 5G and big data.

4) Acceleration of digital infrastructure readiness through the timely deployment of optical fibre, 4G and 5G technologies, and ICT/mobile applications in order to improve the delivery of value-added services in sectors such as health, education, environment, agriculture, governance, energy, financial services and e-commerce. Economic recovery funds and resources of development banks can also be utilized in this process.

5) Identification, collation and sharing of knowledge, best practices and case studies on various telecommunication/ICT applications.

6) Development of cross-sectoral national/regional programmes on digital literacy and skills for inclusiveness, especially for women, youth, older persons and persons with specific needs.

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[1] This refers to persons with specific needs, including children, women, older persons and persons with disabilities.

7) Enhancement of international cooperation related to new and emerging technologies pertaining to telecommunications/ICTs to ensure that all countries in the global value chain can benefit from digital transformation.

ASP3: Fostering development of infrastructure to enhance digital connectivity and connecting the unconnected

Objective: To assist Member States in developing telecommunication/information and communication technology (ICT) infrastructure in order to facilitate the provision of services and applications, taking into consideration the availability, affordability and accessibility of the infrastructure for connecting the unconnected.

Expected results

1) Migration/transition of analogue networks to appropriate digital networks, application of affordable wired and wireless technologies (including interoperability of ICT infrastructure) and optimized use of the digital dividend.

2) Maximized use of new and emerging technologies for the development of communication networks, including 5G and smart-grid infrastructure and services.

3) Review and revision, if necessary, of existing national broadband objectives, and enhanced capacity to develop and implement national broadband plans (including support to study the status of national broadband networks and international connectivity) in order to provide broadband access to unserved and underserved areas; promote affordable access, especially for youth, women, indigenous peoples and children; select appropriate technologies; develop and use universal service funds effectively; and develop business models that are financially and operationally sustainable.

4) Promotion of Internet exchange points as a long-term solution to advance connectivity and deployment of IPv6-based networks and applications and facilitation of the transition from IPv4 to IPv6.

5) Strengthening of the capacity to implement conformance and interoperability (C&I) procedures and facilitating the establishment of common regional/subregional C&I regimes (including the adoption and implementation of mutual recognition arrangements).

6) Paying of attention to spectrum-management issues, including radio-frequency planning, harmonization of the use of spectrum allocated and identified for International Mobile Telecommunications (IMT), enhancement of spectrum-monitoring systems, and facilitation of the implementation of decisions of world radiocommunication conferences.

7) Building of skills for the development and use of terrestrial and space services.

8) Enhancement of regional ICT connectivity and strengthening of cooperation with international/regional organizations in programmes such as the Asia-Pacific Information Superhighway.

ASP4: Enabling policy and regulatory environments to accelerate digital transformation

Objective: To assist Member States in developing appropriate policy and regulatory frameworks, developing digital services across various sectors of the economy, fostering innovation, enhancing skills, increasing information sharing and strengthening regulatory cooperation, thereby contributing to a supportive regulatory environment for all stakeholders.

Expected results

1) Sharing of information on developments in policy, legal and regulatory frameworks as well as market developments in the information and communication technology (ICT) sector and the digital economies it enables.

2) Development, implementation and review of strategies, policies and legal and regulatory frameworks, including for next-generation universal service obligation, consumer protection, transformation of small and medium enterprises to digital enterprises, and innovation and entrepreneurship.

3) Encouraging of inclusive dialogues and strengthening cooperation among national and regional regulators, policy-makers and other telecommunication/ICT stakeholders, as well as with other sectors of the economy, on topical policy, legal, regulatory and market issues.

4) Strengthening of institutional, human and technical capacity on topical policy, legal and regulatory issues, as well as on economic and financial issues and market developments.

5) Improved awareness of policy and regulatory frameworks relating to data privacy and cross-border data.

6) Development of strategic frameworks to support research and development activities in ICT in developing countries.

ASP5: Contributing to a secure and resilient information and communication technology environment

Objective: To assist Member States in developing and maintaining secure, trusted and resilient networks and services, and to address challenges related to climate change and the management of global pandemics and disasters.

Expected results

1) Compilation of national/regional cybersecurity strategies, establishment of national/regional cybersecurity capabilities such as computer incident response teams, and sharing of good practices to nurture a culture of cybersecurity.

2) Strengthening of institutional cooperation and coordination among key actors and stakeholders at the national, regional and global levels (including through organizing cyberdrills) and enhancing the capacity to address issues related to cybersecurity.

3) Development of national emergency telecommunication plans and ICT-based initiatives for providing medical (e-health) and humanitarian assistance in disasters and emergencies.

4) Incorporation of disaster-resilient features in telecommunication networks and infrastructure, and development of ICT-based solutions (including the use of wireless and satellite-based technologies) to enhance network resilience.

5) Development of standards-based monitoring and early-warning systems linked to national and regional networks, and enhanced use of active and passive terrestrial/space-based sensing systems for disaster prediction, detection and mitigation.

6) Formulation of comprehensive strategies and measures to help mitigate and respond to the devastating effects of climate change, including e-waste policy.

CIS REGIONAL INITIATIVES

CIS1: Developing infrastructure to promote innovation and partnerships in the introduction of new technologies – the Internet of Things, including the industrial Internet, smart cities and communities, 5G/IMT-2020 and next-generation NET-2030 communication networks, quantum technologies, artificial intelligence, digital health, digital skills and environmental protection

Objective: To assist Member States and ITU Sector Members in States members of the Commonwealth of Independent States (CIS) in the Eastern Europe and Central Asia region in the process of telecommunication operators' pioneering of innovative technologies (as they are introduced in the form of new services), while ensuring the sustainability and improving the functioning of telecommunication networks, including 4G and 5G/IMT-2020 networks, and next-generation NET-2030 networks, in the context of the widespread adoption of the concept and technologies of the Internet of Things (IoT), the industrial Internet, smart cities and communities (SCCs), quantum technologies, artificial intelligence (AI), digital health, digital skills and environmental protection.

Expected results

1) Developing recommendations for new technologies – IoT, including the industrial Internet, SCCs, 5G/IMT-2020 and next-generation NET-2030 communication networks, quantum technologies, AI, digital health, digital skills and environmental protection.

2) Establishing telecommunication/ICT infrastructure to promote innovation and partnerships in the introduction of new technologies – IoT, including the industrial Internet, SCCs, 5G/IMT-2020 and next-generation NET-2030 communication networks, quantum technologies, AI, digital health, digital skills and environmental protection.

3) Raising the technological level of organizations that develop solutions and the overall level of people's well-being in the region.

4) Bridging the digital divide in the countries of the CIS region.

5) Digital skills enhancement for people in the countries of the CIS region.

CIS2: Cybersecurity and personal data protection

Objective: To assist ITU Member States of the region in developing and maintaining secure, reliable and robust digital networks and services and in solving problems related to the protection of personal data.

Expected results

1) Establishing and enhancing national cybersecurity incident response teams.

2) Capacity building, enhancing communication and incident response capabilities, and ensuring a continued collective effort at the regional level among the national cybersecurity incident response teams to combat cyberthreats through global, interregional, regional and national cybersecurity drills.

3) Training and retraining specialists with technical and management profiles through targeted regional and national training programmes.

4) Coordinating the gathering and sharing of best practices in the development of national strategies and cybersecurity and measurement of countries' commitment to cybersecurity.

CIS3: Creating an enabling legal and regulatory environment to accelerate digital transformation

Objective: To assist ITU Member States of the region in developing related laws and regulations and digital services in various economic sectors, fostering innovation, increasing information sharing and strengthening cooperation in regulation, thereby contributing to the creation of an enabling regulatory environment for all stakeholders.

Expected results

1) Creating an interconnected innovation ecosystem for start-up development and digital transformation in the countries of the region.

2) Expert assistance in creating digital public services based on open innovation.

3) Expert assistance in creating a regulatory and legal framework and coordination mechanisms for innovation development in the finance and education sectors (Fintech and Edtech).

4) Sharing information on changes in the legal and regulatory framework and market developments in the information and communication technology sector and digital economy.

5) Building institutional, human and technical capacity in relevant aspects of sector-specific legislation, regulatory matters, economic and financial issues and market developments.

CIS4: Digital skills and information and communication technology accessibility for the public, in particular for persons with disabilities

Objective: To assist ITU Member States of the region in formulating recommendations for the development of the public's digital skills, paying particular attention to persons with disabilities.

Expected results

1) A detailed study on the needs of persons with disabilities in terms of methodology for digital-skills training.

2) Recommendations on the development and improvement of digital literacy for persons with disabilities.

3) Creation of a network of training centres for persons with disabilities, including in remote areas of countries.

4) Methodological support and training of teachers for training centres for persons with disabilities.

5) Recommendations on the development of the public's digital skills in art and culture and the reduction of barriers to public access to museum collections.

6) Cooperation with museums for the development of special programmes for public access to museum exhibits.

7) Professional development courses, forums, training and seminars on matters related to the development of the public's digital skills in art and culture.

CIS5: Development of smart cities and communities

Objective: To assist ITU Member States of the region in developing legal and regulatory frameworks, creating necessary infrastructure, introducing modern services and applications in different aspects of smart cities and communities (SCCs) (education, health care, tourism, transport, energy, security, the environment, etc.) and raising the digital literacy of the public, business and authorities.

Expected results

1) Recommendations on the development of a legal and regulatory framework for the establishment of SCCs at all architectural levels and the organizational aspect of SCC development.

2) Recommendations on the development of necessary infrastructure, including the use of telecommunications and other connective media, to support the sustainable development and creation of SCCs in developing countries.

3) Pilot projects for different aspects of SCCs (education, health care, tourism, transport, energy, security, the environment, etc.).

4) A rating and key performance indicator system for SCCs.

5) Professional development courses, forums, training and seminars on issues related to SCC development and raising the digital literacy of the public, business and authorities.

EUROPE REGIONAL INITIATIVES

EUR1: Digital infrastructure development

Objective: To facilitate the attainment of Gigabit connectivity through resilient and synergistic infrastructure development and an enabling environment, ensuring ubiquitous coverage.

Expected results

Assistance to the countries in need in the following areas:

1) Development and updating of plans and feasibility studies for the deployment of ubiquitous resilient high-speed connectivity with all relevant components including legislation, standards, organizational set-up, capacity building and cooperation mechanisms, as needed.

2) Assessment of dynamics, challenges and opportunities in respect of the roll-out of such connectivity, and sharing of best practices and case studies on the various above-mentioned aspects through the organization of regional workshops, conferences or webinars.

3) Sharing of guidelines on collaborative regulation between the telecommunication sector and other synergistic sectors such as energy, railway and transportation.

4) Mapping of ubiquitous infrastructure and services, fostering harmonization of approaches across the region and taking into account infrastructure-sharing approaches applied by countries, including the development of broadband mapping systems for broadband networks and related facilities and promoting innovative solutions for meaningful connectivity.

5) Initiatives on the wider deployment of broadband information and communication technology (ICT) services and contributing to environmental sustainability.

6) Initiatives to raise the level of awareness and education of citizens on new and emerging telecommunications/ICTs and topics such as human exposure to electromagnetic fields originating from wireless radio systems.

EUR2: Digital transformation for resilience

Objective: To facilitate the digitalization processes of services in different sectors (agriculture, health, government, education), including those of public administrations, in order to ensure greater resilience in responding to critical situations, including the challenges of pandemics.

Expected results

Assistance to the countries in need in the following areas:

1) Creating an experience- and knowledge-exchange platform between countries.

2) Developing technical and service infrastructure (data centres, networks, secure gateways, authentication, interoperability, standards and metadata) as well as capacity building within the national administrations and institutions.

3) Fostering the development of and increase in types of online transactional services, including applications for administration-to-administration and administration-to-customer services.

4) Building the capacities necessary for accelerating the process of national and regional digitalization, through the development of national strategies and dedicated programmes.

5) Raising public trust through security enhancements in e-government services, digitization processes and awareness-raising campaigns, including promotion of application-based solutions for e-government by national administrations and other institutions.

6) Identifying areas for improvement and key horizontal factors for the successful implementation of e-government services and digitalization, such as secure and accessible digital identification, tools for data analysis, integrating workflow solutions, approach to re-use of data, and fostering their development.

EUR3: Digital inclusion and skills development

Objective: To facilitate equitable access to information and communication technologies (ICTs) and necessary digital skills for all groups of society, including persons with disabilities and persons with specific needs, as well as women and youth, in order to take advantage of telecommunications/ICTs.

Expected results

Assistance to the countries in need in the following areas:

1) Leveraging digital accessibility for persons with disabilities and persons with specific needs as a priority for the countries, and supporting them through the creation and updating of strategies and policies, taking into account regional or global standards, capacity building, fostering innovation, monitoring the implementation of digital accessibility, and creating new partnerships or strengthening existing ones such as ''Accessible Europe – ICT for All''.

2) Improving gender equality in all groups in the telecommunication/ICT sector and beyond by providing opportunities for collaboration, maximizing impact and supporting the setting up of new projects and the scaling up of successful ongoing projects.

3) Meaningful empowerment, engagement and participation of youth in the telecommunication/ICT sector and beyond, and creating new career schemes and opportunities.

4) Assessment of national and regional approaches for digital-skills development, elaboration of national and regional strategies or action plans, development of necessary digital skills, knowledge and literacy programmes, and providing support for educators.

5) Building and/or strengthening partnerships with the private sector, regional and subregional organizations, United Nations system organizations, academia and other possible stakeholders for the benefit of digital inclusion in the European region and globally.

EUR4: Trust and confidence in the use of telecommunications/ information and communication technologies

Objective: To support the deployment of resilient infrastructure and secure services allowing all citizens, especially children, to use telecommunications/information and communication technologies (ICTs) in their daily lives with confidence.

Expected results

Assistance to the countries in need in the following areas:

1) Providing regional platforms and tools for building human capacities to enhance trust and confidence in the use of telecommunications/ICTs, including establishing common approaches to cybersecurity capacity building for European countries with a cross-sectoral cybersecurity-skills curriculum and guidelines promoting skills related to multiple sectors, such as law, psychology, social sciences, economics, security and risk management, diplomacy and interdisciplinary skills.

2) Sharing national and regional best practices and case studies, conducting surveys on enhancing confidence and trust in the use of ICTs, including training, and creating other opportunities for sharing knowledge and experience.

3) Elaborating or reviewing national cybersecurity strategies, including the promotion of online safety, ensuring multistakeholder engagement (government, children and young people, parents, guardians and educators, industry and connectivity providers, research and academia, non-governmental organizations, law enforcement, health, and social services).

4) Setting up or improving the capabilities of national computer security incident response teams (CSIRTs) and the corresponding networks to support these CSIRTs in cooperating with each other.

5) Conducting simulation or educational exercises such as cyberdrills or other events at the national and regional levels in cooperation with international and regional organizations, and assisting countries in developing tools through synergies and resource optimization.

6) Creating a safer online environment for children and young people through raising awareness and education about cybersecurity, implementation and promotion of the Guidelines on Child Online Protection and other educational resources, encouraging governments to identify risks and vulnerabilities for children in cyberspace, and promoting media literacy in respect of cybersecurity.

EUR5: Digital innovation ecosystems

Objective: To foster environments that are conducive to innovation and entrepreneurship through systemic approaches based on digital telecommunications/information and communication technologies (ICTs), aimed at closing the growing digital innovation divide in the region.

Expected results

Assistance to the countries in need in the following areas:

1) National digital innovation strategies and policies, country profiles and reviews, and sectoral innovation assessments to provide an accurate assessment of digital innovation gaps.

2) Capacity-building and knowledge-sharing platforms such as regional innovation forums, open innovation competitions and ecosystem development training to empower stakeholders.

3) Ecosystem-building initiatives and projects such as technology sandboxes and programmes supporting tech start-ups and entrepreneurship to create concrete impact.

4) Promoting multistakeholder and multisectoral partnerships between and within different ecosystems, for sustainability and scale-up.

5) Fostering inclusion by sharing, twinning best practices and connecting different ecosystems, with special attention to gender and youth.

Part IV – Resolutions and Recommendations

Explanatory note

The World Telecommunication Development Conference (WTDC) adopts, revises, and abrogates resolutions based on proposals from Member States and ITU-D Sector Members, taking into account suggestions by the Telecommunication Development Advisory Group (TDAG). In this regard, the World Telecommunication Development Conference (Kigali, 2022) revised 40 resolutions, indicated in this publication by "Rev. Kigali, 2022", adopted four new resolutions, indicated by "Kigali, 2022", and abrogated four resolutions (listed in Annex H to this report).

All other resolutions and recommendations in this publication, though not modified by WTDC-22, remain in force. The unmodified resolutions are accompanied by "Rev. Doha, 2006", "Rev. Hyderabad, 2010", "Rev. Dubai, 2014" or "Rev. Buenos Aires, 2017". The place and date indicate where and when these resolutions were last revised by a WTDC.

RESOLUTION 1 (Rev. Kigali, 2022)

Rules of procedure of the ITU Telecommunication Development Sector

The World Telecommunication Development Conference (Kigali, 2022),

considering

a) that the functions, duties and organization of the ITU Telecommunication Development Sector (ITU-D) are described in Articles 21, 22, 23 and 24 of the ITU Constitution and Articles 16, 17, 17A, and 20 of the ITU Convention;

b) the General Rules of conferences, assemblies and meetings of the Union adopted by the Plenipotentiary Conference;

c) that Resolution 165 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on deadlines for the submission of proposals and procedures for the registration of participants for conferences and assemblies of the Union, applies to the World Telecommunication Development Conference,

considering also

a) that ITU-D shall work, among others, through telecommunication development study groups, the Telecommunication Development Advisory Group and regional and world meetings organized within the framework of the Sector's action plan;

b) that, in accordance with Resolution 77 (Rev. Dubai, 2018) of the Plenipotentiary Conference, ITU conferences and assemblies shall, in principle, be held in the last quarter of the year, and not in the same year;

c) that Resolution 154 (Rev. Dubai, 2018) of the Plenipotentiary Conference establishes methods and approaches for the use of the six official languages of the Union on an equal footing;

d) Resolution 167 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening and developing ITU capabilities for electronic meetings and the means to advance the work of the Union;

e) that Resolution 191 (Rev. Dubai, 2018) of the Plenipotentiary Conference establishes methods and approaches for the coordination of efforts among the three Sectors of the Union;

f) that Resolution 208 (Dubai, 2018) of the Plenipotentiary Conference establishes the appointment procedure and the maximum term of office for chairmen and vice-chairmen of Sector advisory groups, study groups and other groups;

g) that Article 43 of the Constitution (No. 194) states that "Member States reserve the right to convene regional conferences, to make regional arrangements and to form regional organizations, for the purpose of settling telecommunication questions which are susceptible of being treated on a regional basis ..."; and the successful establishment and the sustainability of regional groups under the ITU Telecommunication Standardization Sector,

resolves

that, for ITU-D, the provisions of the Constitution, the Convention, the General Rules of conferences, assemblies and meetings of the Union and the resolutions of the Plenipotentiary Conference referred to in *considering a), b), c)* and *considering also b), c), d), e), f)* and *g) above* should be supplemented by the provisions of this resolution and its annexes, bearing in mind that, in the case of inconsistency, the Constitution, the Convention and the General Rules of conferences, assemblies and meetings of the Union (in that order) shall prevail over this resolution.

SECTION 1 – World Telecommunication Development Conference

1.1 The World Telecommunication Development Conference (WTDC), in undertaking the duties assigned to it in Article 22 of the ITU Constitution, Article 16 of the ITU Convention and the General Rules of conferences, assemblies and meetings of the Union, shall:

a) adopt and modify, if necessary, the working methods and procedures for the management of the activities of the ITU Telecommunication Development Sector (ITU-D);

b) consider the reports of ITU-D study groups on their activities;

c) approve, modify or reject draft new or revised ITU-D Recommendations submitted by study groups for consideration by WTDC, with an indication of the reasons for the proposed action, and draft Recommendations submitted by Member States and Sector Members, or make arrangement for the consideration and approval of draft Recommendations by study groups;

d) consider, in accordance with Nos. 215J and 215JA of the Convention, reports of the Telecommunication Development Advisory Group (TDAG), including the report on the implementation of any specific functions assigned to TDAG by the previous WTDC;

e) provide the directions and guidance for the work programme of ITU-D;

f) establish work programmes and guidelines for defining ITU-D study Questions and priorities;

g) adopt a WTDC declaration, an action plan, including programmes and regional initiatives, and ITU-D's contribution to the draft ITU strategic plan; adopt WTDC resolutions and decisions; and approve ITU-D study Questions and Recommendations;

h) decide on the need to maintain, terminate or establish study groups and allocate to each of them the ITU-D study Questions;

i) approve the work programme[1], taking into account the priority, urgency and time-scale for completion of the studies, and determining the financial implications, taking into account the provisions of Article 34 of the Convention on the financial responsibilities of conferences, arising from an analysis of:

   i) existing and new ITU-D study Questions;

   ii) existing and new WTDC resolutions and decisions; and

   iii) matters enumerated in No. 211 of the Convention to be carried over to the next study period as determined in TDAG and study group reports to WTDC, as appropriate;

j) in the light of the approved work programme, decide on the need to maintain, terminate or establish other groups, and establish their terms of reference; such groups shall not adopt ITU-D study Questions or Recommendations;

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[1] The programme is developed taking into account the proposals of the meeting of the heads of delegation (see §§ 1.11 and 1.12 below).

k) appoint the chairmen and vice-chairmen of TDAG, study groups and other groups, as well as two experts to represent ITU-D in the joint ITU Coordination Committee for Terminology (ITU CCT) at the level of vice-chairmen, based on the provisions of Resolutions 208 (Dubai, 2018) and 154 (Rev. Dubai, 2018) of the Plenipotentiary Conference, and taking into account the proposals of the meeting of heads of delegation (see §§ 1.11 and 1.12 below);

l) consider and approve the report of the Director of the Telecommunication Development Bureau (BDT) on the activities of the Sector since the last conference;

m) consider proposals for the admission of entities and organizations as Associates in accordance with Articles 19, 20 and 33 of the Convention, and small and medium enterprises (SMEs), in accordance with Resolution 209 (Dubai, 2018) of the Plenipotentiary Conference;

n) consider and approve any other documents within its scope, or make arrangements to transfer the question of the consideration and approval of these documents to the study groups, as set out elsewhere in this resolution or in other WTDC resolutions, as appropriate.

1.2 If necessary, WTDC may, in accordance with No. 213A of the Convention and WTDC Resolution 24, assign specific matters within its competence to TDAG between two consecutive WTDCs, indicating the recommended action on those matters. WTDC shall assure itself that the specific functions it assigns to TDAG do not require financial expenses exceeding the ITU-D budget. TDAG may consult with the Director of BDT on these matters. TDAG shall prepare and send to the Director a report on the matters assigned to it, pursuant to No. 215JA of the Convention and WTDC Resolution 24, for submission to the conference. Such authority shall terminate when the following WTDC meets, although WTDC may decide to extend it for a specified period.

1.3 WTDC shall establish a steering committee, presided over by the chairman of the conference, and composed of the vice-chairmen of the conference and the chairmen and vice-chairmen of the committees and any group(s) created by the conference.

1.4 WTDC shall establish a budget control committee and an editorial committee, the tasks and responsibilities of which are set out in the General Rules of conferences, assemblies and meetings of the Union (General Rules, Nos. 69-74):

a) The Budget Control Committee, *inter alia*, examines the estimated total expenses of the conference and estimates the financial needs of the ITU-D up to the next WTDC and the costs to ITU-D and ITU as a whole entailed by the execution of the decisions of the conference.

b) The Editorial Committee perfects the wording of texts arising from WTDC deliberations, such as resolutions, without altering their sense and substance, and aligns the texts in the official languages of the Union.

1.5 In addition to the steering, budget control and editorial committees, the two following committees are set up:

a) The Committee on Working Methods of ITU-D, which submits to the Plenary Meeting reports, on the basis of the proposals of ITU Member States, ITU-D Sector Members and Academia, considering TDAG and study group reports submitted to the conference. It shall:

i) examine proposals and contributions relating to cooperation among members;

ii) evaluate the working methods and functioning of the ITU-D study groups and TDAG;

iii) assess and identify options for maximizing programme delivery and approve appropriate changes thereto with a view to strengthening the synergies between ITU-D study Questions, programmes and regional initiatives.

b) The Committee on ITU-D Objectives, which submits reports to the Plenary Meeting, on the basis of the proposals of ITU Member States, ITU-D Sector Members and Academia, considering TDAG and study group reports submitted to the conference. It shall:

i) review and approve the outputs and outcomes for the objectives;

ii) review and agree on the related ITU-D study Questions and regional initiatives and establish appropriate guidelines for their implementation;

iii) review and agree on relevant resolutions; and

iv) ensure that the output is in accordance with a results-based management approach aiming to improve management effectiveness and accountability.

1.6 The Plenary Meeting of a WTDC may set up other committees or groups that meet to address specific matters, if required, in accordance with No. 63 of the General Rules of conferences, assemblies and meetings of the Union. The terms of reference should be contained in the establishing resolution, taking into account the appropriate distribution of workload between the committees.

1.7 All committees and groups referred to in §§ 1.3 to 1.6 above shall normally cease to exist with the closing of WTDC except, if required and subject to the approval of the conference and within the budgetary limits, the Editorial Committee. The Editorial Committee may therefore hold meetings after the closing of WTDC to complete its tasks as assigned by the conference.

1.8 The chairmen of study groups, the chairman of TDAG and the chairmen of other groups set up by the preceding WTDC should make themselves available to WTDC and provide information on issues related to the groups they led.

1.9 The programme of work of WTDC shall be designed to provide adequate time for consideration of the important administrative and organizational aspects of ITU-D.

1.10 A WTDC may express its opinion relating to the duration or agenda of a future WTDC.

1.11 Prior to the inaugural meeting of WTDC, in accordance with No. 49 of the General Rules of conferences, assemblies and meetings of the Union, the heads of delegation shall meet to prepare the agenda for the first plenary meeting and make proposals for the organization of the conference, including proposals for chairmanships and vice-chairmanships of WTDC and its committees and groups.

1.12 During WTDC, the heads of delegation shall meet:

a) to consider the proposals concerning the work programme and the constitution of study groups in particular;

b) to draw up proposals concerning the designation of chairmen and vice-chairmen of study groups, TDAG and any other groups established by WTDC (see section 3).

1.13 In accordance with Resolution 191 (Rev. Dubai, 2018) of the Plenipotentiary Conference, WTDC identifies areas that are in common with the other Sectors of ITU where work is to be done and that require internal coordination within ITU.

1.14 Voting

Should there be a need for a vote at WTDC, the vote shall be conducted according to the relevant sections of the Constitution, Convention and General Rules of conferences, assemblies and meetings of the Union.

1.15 Prior to and during the process of developing resolutions which define working methods and identify priority issues, the approach of WTDC should be as follows:

a) If an existing resolution of the Plenipotentiary Conference identifies a priority issue, the need for a similar WTDC resolution should be questioned.

b) WTDC resolutions should not repeat preambular texts from resolutions of the Plenipotentiary Conference.

c) If only editorial updates are required to a WTDC resolution, the need to produce a revised version should be questioned.

d) If the actions proposed in the resolution have been accomplished, the resolution should be viewed as fulfilled and the need for it should be questioned.

SECTION 2 – Documentation of ITU-D

2.1 General principles

In §§ 2.1.1 and 2.1.2 below, the term "texts" is used for the WTDC declaration, the ITU-D action plan, ITU-D objectives/programmes, WTDC resolutions and decisions, ITU-D study Questions and Recommendations, regional initiatives, ITU-D reports, handbooks and other ITU-D documents, as defined in §§ 2.2 to 2.10.

2.1.1 Presentation of texts

2.1.1.1 Texts should be as brief as possible, taking account of the necessary content and without repeating content from other texts, and should relate directly to the objective, resolution or ITU-D study Question/topic or part of the objective, resolution, study Question/topic being studied.

2.1.1.2 Each text may include a reference to related texts and, where appropriate, to relevant provisions of the basic texts of the Union, without any interpretation, qualification or suggestion of change.

2.1.1.3 Texts shall be presented showing their number, their title and an indication of the year of their initial approval, where appropriate, and the year of approval of revisions.

2.1.1.4 Annexes to any of these texts should be considered as having equivalent status.

2.1.2 Publication of texts

2.1.2.1 All texts shall be published in electronic form as soon as possible after approval and may also be made available in paper form according to the publication policy of ITU.

2.1.2.2 The approved WTDC declaration, ITU-D action plan, ITU-D objectives/programmes, WTDC resolutions and decisions, and ITU-D study Questions, Recommendations and output reports (if a report exceeds 50 pages, § 2.4.1 applies) shall be published by ITU in the six official languages of the Union as soon as practicable. Other texts should be published, as soon as possible, in English only or in the six official languages of the Union, depending on the decision of the relevant group.

2.2 WTDC declaration

2.2.1 Definition

Statement of the main outcomes and priorities established by WTDC. The declaration is usually named after the conference venue.

2.2.2 Approval

WTDC shall examine and approve a WTDC declaration based on proposals by Member States and ITU-D Sector Members, taking into account suggestions by TDAG, new trends in the development of telecommunications/information and communication technologies (ICTs) and emerging issues, particularly in developing countries[2] and countries with specific needs.

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[2] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2.3 ITU-D action plan

2.3.1 Definition

A comprehensive package that will promote the equitable and sustainable development of telecommunication/ICT networks and services. It consists of ITU-D study Questions and programmes and regional initiatives that intend to address the specific needs of the regions. The ITU-D action plan is usually named after the conference venue.

2.3.2 Approval

WTDC shall examine and approve an ITU-D action plan based on proposals by Member States and ITU-D Sector Members, taking into account suggestions by TDAG and paying special attention to the needs of developing countries.

2.4 ITU-D objectives/programmes

2.4.1 Definition

Key elements of the ITU-D action plan, constituting components of the toolkit BDT uses when solicited by Member States and ITU-D Sector Members to support their efforts to build the information society for all. In the implementation of objectives/programmes, account should be taken of the resolutions, decisions, Recommendations and reports emanating from WTDC.

2.4.2 Approval

WTDC shall examine and approve new ITU-D objectives/programmes proposed by Member States and ITU-D Sector Members.

2.5 Regional initiatives

2.5.1 Definition

Regional initiatives are intended to identify the principal telecommunication/ICT areas of concern to a region, which will then be addressed through partnerships and resource mobilization to implement projects that are part of the ITU-D action plan.

2.5.2 Approval

WTDC shall examine and approve new regional initiatives proposed by Member States and ITU-D Sector Members.

2.6 WTDC resolutions/decisions

2.6.1 Definition

A WTDC text containing provisions on the organization, working methods and programmes of ITU-D and ITU-D study Questions and topics to be studied.

2.6.2 Approval

WTDC shall examine and may approve revised or new WTDC resolutions/decisions proposed by Member States and ITU-D Sector Members, taking into account suggestions by TDAG.

2.6.3 Deletion

WTDC may delete resolutions/decisions based on proposals from Member States and ITU-D Sector Members, taking into account suggestions by TDAG.

2.7 ITU-D study Questions

2.7.1 Definition

Description of an area of work to be studied, normally leading to the production of new or revised ITU-D Recommendations, guidelines, handbooks or reports.

2.7.2 Adoption and approval

The procedures for adopting and approving ITU-D study Questions are set out in section 5 of this resolution.

2.7.3 Deletion

The procedure for deleting ITU-D study Questions is set out in section 6 of this resolution.

2.8 ITU-D Recommendations

2.8.1 Definition

An answer to an ITU-D study Question, part of a study Question, or a resolution of WTDC or of the Plenipotentiary Conference, for the organization of the work of ITU-D, which, within the scope of existing knowledge and the research carried out by study groups and adopted in accordance with established procedures, may provide guidance on technical, organizational, tariff-related and operational matters, including working methods, may describe a preferred method or proposed solution for undertaking a specific task, or may recommend procedures for specific applications. These Recommendations should be sufficient to serve as a basis for international cooperation.

2.8.2 Adoption and approval

The procedures for adopting and approving ITU-D Recommendations are set out in section 7 of this resolution.

2.8.3 Deletion

The procedure for deleting ITU-D Recommendations is set out in section 8 of this resolution.

2.9 ITU-D reports

2.9.1 Definition

A technical, operational or procedural statement, prepared by a study group on a given subject related to a current ITU-D study Question or resolution of WTDC or of the Plenipotentiary Conference.

2.9.2 Approval

Each study group may approve revised or new ITU-D reports, preferably by consensus.

2.9.3 Deletion

Each study group may delete an ITU-D report, within its area of responsibility, preferably by consensus.

2.10 ITU-D handbooks

2.10.1 Definition

A text which provides a statement of the current knowledge, the present position of studies or good operating or technical practice, in certain aspects of telecommunications/ICT, including best national practices, paying particular attention to the requirements of developing countries.

2.10.2 Approval

Each study group may approve revised or new ITU-D handbooks, preferably by consensus.

2.10.3 Deletion

Each study group may delete an ITU-D handbook, within its area of responsibility, preferably by consensus.

2.11 ITU-D guidelines

2.11.1 Definition

ITU-D guidelines present a range of options that reflect the written contributions, discussion, research, analysis, ideas and experience of study group participants. The goal is to produce a menu of choices to assist the ITU membership and others in delivering a robust communications sector capable of accelerating the achievement of national and international goals for social and economic development. The membership and others are encouraged to apply those guidelines that are agreeable and suitable for their individual circumstances. Best-practice guidelines are not mandatory, and while thorough consideration of the full range of guidelines is encouraged, inapplicable or otherwise unsuitable suggestions need not be employed.

2.11.2 Approval

Each study group may approve revised or new ITU-D guidelines, preferably by consensus.

2.11.3 Deletion

Each study group may delete ITU-D guidelines, within its area of responsibility, preferably by consensus.

SECTION 3 – Study groups and their relevant groups

3.1 Classification of study groups and their relevant groups

3.1.1 WTDC establishes study groups, each studying telecommunication/ICT matters of interest to the developing countries in particular, including the issues referred to in No. 211 of the ITU Convention. Study groups shall observe strictly Nos. 214, 215, 215A and 215B of the Convention.

3.1.2 To facilitate their work, the study groups may set up rapporteur groups and joint rapporteur groups (JRG), or intersector rapporteur groups (IRG), or intersector correspondence groups (ICG) to deal with specific ITU-D study Questions or parts thereof, including with the participation of other ITU Sectors.

3.1.3 Regional groups may be established within the study groups of ITU-D to study Questions or problems that, in view of their specific nature, should be considered at the level of one or more regions of the Union.

3.1.4 The establishment of regional groups should not result in unnecessary duplication of the work undertaken on a worldwide basis by the corresponding study groups, their relevant groups or any other group established in accordance with No. 209A of the Convention.

3.1.5 ITU-D study groups shall develop terms of reference and working methods for these regional groups.

3.1.6 ITU-D regional groups are encouraged to cooperate closely with the corresponding regional telecommunication organizations, regional groups of study groups of the ITU Telecommunication Standardization Sector (ITU-T) and ITU regional and area offices, and to report on their work in their regions.

3.1.7 A JRG may be established for ITU-D study Questions requiring the participation of experts from more than one ITU-D study group. An IRG/ICG may be established for ITU-D study Questions requiring the participation of experts from study groups of other Sector(s). A JRG or IRG/ICG may be created when all study groups concerned agree to the creation of the group. Unless otherwise specified, the working methods of IRGs, ICGs and JRGs should be identical to those of rapporteur groups. At the time a JRG, IRG or ICG is established, its terms of reference, reporting lines and final decision-making authority should be clearly identified.

3.1.8 The procedures for establishing an ICG or IRG when organizing and conducting work in these groups are set out in WTDC Resolution 59 (Rev. Kigali, 2022).[3]

3.1.9 A rapporteur group, JRG, IRG or regional group shall submit draft deliverables as indicated in its relevant terms of reference to its lead study group.

3.2 Chairmen and vice-chairmen of ITU-D study groups

3.2.1 Appointment of chairmen and vice-chairmen by WTDC shall be in accordance with Resolution 208 (Dubai, 2018) of the Plenipotentiary Conference, on the appointment and maximum term of office for chairmen and vice-chairmen of Sector advisory groups, study groups and other groups. It is expected that the chairmen and the vice-chairmen, having assumed their duties, will receive from their Member State or Sector Member the support necessary for the performance of those duties throughout the period until the next WTDC. The number of vice-chairmen should be limited to two or three candidates from each of the six regional telecommunication organizations[4].

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[3] Note by the secretariat: For details on the procedures of the other Sectors, see also the relevant resolutions from the Radiocommunication Assembly (RA) and the World Telecommunication Standardization Assembly (WTSA), with reference to RA Resolutions ITU-R 6, ITU-R 7 and WTSA Resolution 18.

[4] Resolution 58 (Rev. Busan, 2014) of the Plenipotentiary Conference names six regional telecommunication organizations: the Asia-Pacific Telecommunity (APT), the European Conference of Postal and Telecommunications Administrations (CEPT), the Inter-American Telecommunications Commission (CITEL), the African Telecommunications Union (ATU), the Council of Arab Ministers of Telecommunication and Information represented by the Secretariat-General of the League of Arab States (LAS) and the Regional Commonwealth in the field of Communications (RCC).

3.2.2 Within the mandate set out by WTDC Resolution 2, study group chairmen shall be responsible for establishing an appropriate structure to distribute the work, after consulting with study group vice-chairmen. The study group chairmen shall perform the duties required of them within their study groups or within joint coordination activities.

3.2.3 The mandate of the vice-chairmen shall be to assist the chairman in matters relating to the management of the study group, including substitution for the chairman at official ITU meetings or replacement of the chairman should he or she be unable to continue with study group duties. Each vice-chairman should be assigned specific functions by the chairman, after consultation with the study group vice-chairmen, including to assist the chairman and study groups as they produce the outputs called for by WTDC, including as indicated in § 3.3.7 below. Vice-chairmen could be designated by chairmen as coordinators on specific topics or as focal points for monitoring other programmes and sectors. Functions of the vice-chairmen should be defined at the beginning of the study period.

3.2.4 In order to ensure equitable distribution of tasks and to achieve greater involvement by the vice-chairmen in the management and work of the study groups, and in the work of TDAG, study group vice-chairmen should be the preferred choice for other responsibilities, such as rapporteur or vice-rapporteur or rapporteur or vice-rapporteur of a JRG or an IRG, but they shall not occupy more than two such posts at the same time in the study period.

3.2.5 Study group chairmen should participate in WTDC and in TDAG to represent their respective study groups.

3.2.6 Study group chairmen shall comply with the provisions of the ITU Constitution, the Convention, the General Rules of conferences, assemblies and meetings of the Union and this resolution. BDT staff should provide support and advice in this regard.

3.2.7 Chairmen and vice-chairmen of study groups and other groups shall be impartial in the performance of their duties.

3.2.8 TDAG shall be made aware of the non-attendance of chairmen and vice-chairmen at study group meetings, and raise the issue through the Director of BDT with the ITU-D members concerned in an attempt to encourage and facilitate participation in these roles in the study group concerned.

3.3 Rapporteurs and vice-rapporteurs for ITU-D study Questions

3.3.1 Rapporteurs and vice-rapporteurs are appointed by a study group in order to progress the study of an ITU-D study Question based on contributions received and to develop draft new and revised ITU-D reports and Recommendations. A rapporteur shall have responsibility for only one study Question. Rapporteurs and vice-rapporteurs may be representatives of Member States, ITU-D Sector Members, Associates or Academia[5].

3.3.2 Chairmen of IRGs are appointed in accordance with WTDC Resolution 59 (Rev. Kigali, 2022).

3.3.3 Due to the nature of the studies, rapporteur appointments should be based not only on expertise in the subject to be studied, but also on the ability to coordinate the work and actively participate in ITU-D activities. Elements of the expected work carried out by the rapporteurs are described in Annex 5 to this resolution.

3.3.4 If required, the study group may modify the terms of reference of the rapporteur determined in the corresponding study Question, including expected results and deliverables as specified in §§ 3.10.1 to 3.10.6 below.

3.3.5 One rapporteur and one or more vice-rapporteurs are appointed, as appropriate, by a study group, preferably at its first meeting, for each study Question. Exceptionally, co-rapporteurs may also be appointed where, for example, this would balance the workload and facilitate optimum results. Vice-rapporteurs should be agreed based on their expertise and experience in relation to the study Question. Their duties and responsibilities should be clearly defined. The composition of rapporteurs and vice-rapporteurs should be stable during the study period. Nonetheless, if absolutely necessary, the study group may decide to change the composition of rapporteurs and vice-rapporteurs in the course of a study period.

3.3.6 A co-rapporteur or, in the absence of the co-rapporteur, one of the vice-rapporteurs representing a Member State or ITU-D Sector Member shall take over as chairman when the rapporteur is not available.

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[5] Academia includes colleges, institutes, universities and associated research institutions interested in telecommunication/ICT development.

3.3.7 For all contributions that meet the deadline for translation as specified in § 4.1.3.2, rapporteurs, with assistance from all vice-rapporteurs, shall prepare, publish, and place on the meeting agenda a contribution that compiles all lessons learned and suggested best practices submitted to the meeting. To prepare this contribution, rapporteurs shall use information included in box 2 of the contribution template, as provided in Annex 2 referenced in § 4.5.4.

3.3.8 JRG rapporteurs and IRG chairmen should participate in the work of the respective study groups to present the results of the activities of their respective groups.

3.3.9 TDAG shall be made aware of the non-attendance of rapporteurs, co-rapporteurs and vice-rapporteurs at study group meetings, and raise the issue through the Director with the ITU-D members concerned in an attempt to encourage and facilitate participation in these roles in the study group concerned.

3.3.10 Rapporteurs, co-rapporteurs and vice-rapporteurs shall be impartial in the performance of their duties.

3.4 Powers of the study groups

3.4.1 Each study group may develop draft new or revised ITU-D Recommendations based on contributions received during the study period for approval either by WTDC or in accordance with the procedure in § 3.5 below. Recommendations approved in accordance with either procedure shall have the same status.

3.4.2 Each study group may also adopt draft ITU-D study Questions in accordance with the procedure described in section 5.

3.4.3 In addition to the above, each study group shall be competent to approve ITU-D guidelines, reports and handbooks.

3.4.4 In cases where the implementation of the results obtained is through BDT activities, such as workshops, regional meetings or surveys, these activities should be reflected in the annual operational plan and conducted in coordination with the relevant ITU-D study Question.

3.4.5 In the cases where the terms of reference of a rapporteur group are completed prior to the end of the study period, the study group should issue ITU-D guidelines, ITU-D reports, best practices and ITU-D Recommendations promptly for review by the membership.

3.4.6 Workshops, seminars or other events for exchanging information with invited experts from outside the ITU membership on key topics and issues may be held during or around study group meetings.

3.5 Meetings

3.5.1 The study groups and their relevant groups shall normally meet at ITU headquarters.

3.5.2 Study groups and their relevant groups may meet outside Geneva if invited by Member States, ITU-D Sector Members, or organizations other than administrations pursuant to Article 19 of the Convention (hereafter called other authorized entities and organizations) authorized in this respect by a Member State of the Union, having regard to facilitating the attendance of developing countries. Such invitations shall normally be considered only if they are submitted to WTDC, to TDAG or to an ITU-D study group meeting. If such invitations cannot be submitted to any of these meetings, the decision to accept the invitation rests with the Director in consultation with the chairman of the study group concerned. They may be finally accepted after consultation with the Director if they are compatible with the resources allocated to ITU-D by the ITU Council and the objectives, responsibility and mandates of the study groups.

3.5.3 Regional and subregional meetings and events organized by BDT offer a valuable opportunity for information exchange and for the development of management and technical experience and expertise. Every opportunity should be taken to provide additional opportunities for experts (study group participants) from developing countries to gain experience by participating in regional and subregional meetings which deal with study group work. To this end, invitations to regional and subregional meetings organized on topics dealt with by study groups should be extended to participants of the rapporteur groups, IRGs or JRGs concerned.

3.5.4 The invitations referred to in § 3.5.2 above shall be issued and accepted, and the corresponding meetings outside Geneva organized, only if the conditions laid down in Resolution 5 (Kyoto, 1994) of the Plenipotentiary Conference and Council Decision 304 are met. Invitations to hold meetings of the study groups or their relevant groups away from Geneva shall be accompanied by a statement indicating the host's agreement to defray the additional expenses involved and that it will provide at least adequate premises and the necessary furniture and equipment free of charge, except that in the case of developing countries, equipment need not necessarily be provided free of charge by the host government, if the government so requests.

3.5.5 In exceptional situations, study groups and other relevant groups may benefit from virtual meetings/remote participation, having regard to the possibilities of developing countries and their ability to participate virtually/remotely (rather than at ITU headquarters or in a region). A request by a rapporteur for such a meeting should be submitted to and approved by the parent study group or TDAG. In the event that a virtual meeting is organized, it should be held at convenient working hours taking into account the time zones and availability of participants to ensure maximum participation from every region. As these meeting times may be too long and affect the concentration and availability of participants from different time zones, an alternative would be to increase the number of meeting days if the current virtual meeting times continue to be used. The purpose and expectation of the meeting should be well-defined in advance to maximize contributions.

3.5.6 The dates, place and agenda for meetings of relevant groups shall be agreed by the parent study group.

3.5.7 Should an invitation be cancelled for any reason, it shall be proposed that the meeting be convened in Geneva, in principle on the date originally planned.

3.5.8 Interpretation into an official language of the Union can be provided for meetings of study groups if requested at least 45 days prior to the start of the meeting. Interpretation for rapporteur group, JRG and IRG meetings can be provided in a similar manner if requested at least 45 days prior to the meeting and the necessary ITU-D financial resources are available.

3.5.9 Captioning should be provided for meetings of study groups, within the existing ITU-D financial resources.

3.6 Participation in meetings

3.6.1 Member States, ITU-D Sector Members, Associates, Academia and other authorized entities and organizations shall be represented, in the study groups and subordinate groups in whose work they wish to take part, by participants registered by name and chosen by them as representatives to make an effective contribution to the study of the ITU-D study Questions entrusted to those study groups. The chairman of a meeting may, in accordance with No. 248A of Article 20 of the Convention, invite individual experts, as appropriate, to present their specific point of view at one or more meetings, without the experts taking part in the decision-making process or liaison activity of that meeting and without giving the expert the right to participate in any other meetings to which a specific invitation by the chairman has not been extended. Experts may present reports and submissions for information at the request of the chairmen of meetings; they may also participate in relevant discussions.

3.6.2 Informal roundtable discussions, seminars or illustrative workshops associated with one or more ITU-D study Questions featuring such experts and others are encouraged within the allocated resources in the financial plan and biennial budget, taking into account the provisions of WTDC Resolution 40 (Rev. Kigali, 2022), on capacity building, to allow for coordinated effort between the activities under the study Question and other work carried out by BDT. Lessons learned and suggested best practices from these activities shall be recorded in a report prepared by the rapporteur group for its consideration and submitted as a contribution to the corresponding study group. Lessons learned and suggested best practices recorded from workshops shall also be added to the website for any relevant ITU-D study Question in accordance with § 4.4 below.

3.6.3 The Director shall keep up to date a list of the Member States, ITU-D Sector Members, Associates, Academia and other authorized entities and organizations participating in each study group.

3.6.4 To the extent possible and practicable, the secretariat shall provide, pursuant to Resolution 167 (Rev. Dubai, 2018) of the Plenipotentiary Conference, study groups and their relevant groups with facilities for remote participation as part of efforts to encourage and enable broader participation in the work of the study groups by all Member States, ITU-D Sector Members, Associates and Academia, especially for persons with specific needs and persons with disabilities.

3.6.5 The rapporteur of each ITU-D study Question shall coordinate and keep up to date a list of focal points from Member States, ITU-D Sector Members, Associates and Academia in order to facilitate the communication and exchange of information on specific matters in the context of study.

3.7 Frequency of meetings

3.7.1 The study groups shall in principle meet at least once a year during the interval between two WTDCs, preferably in the second half of the year so that rapporteur groups associated therewith may meet in the first half of the year to prepare the necessary reports and submit them to the parent study group. However, additional meetings may take place with the approval of the Director, having regard to the priorities laid down by the preceding WTDC and the resources of ITU-D.

3.7.2 Unless the meeting in question has been planned or scheduled in advance, the Director shall send and post on the ITU-D webpage an invitation circular at least three months before the meeting.

3.7.3 Rapporteur groups shall in principle meet twice a year, at least in the period between two WTDCs, one of the meetings being held in conjunction with the parent study group. However, additional meetings may be held with the approval of the parent study group and with the approval of the Director, having regard to the priorities laid down by the preceding WTDC and the resources of ITU-D.

3.7.4 To ensure the best possible use of the resources of ITU-D and of those participating in its work, the Director, in collaboration with the study group chairmen, shall establish and publish a timetable of meetings not later than three months before the first meeting of the calendar year, including those held by study group management teams. The timetable shall take account of such factors as the capacity and facilities in the ITU conference services, document requirements for meetings and the need for close coordination with the activities of the other Sectors and other international or regional organizations.

3.7.5 In establishing the timetable of each meeting, to the extent possible, meeting sessions of rapporteur groups on ITU-D study Questions from the same study group shall not take place in parallel, in order to allow participants to attend the meetings on related study Questions. On the other hand, if within the allocated resources of the budget as approved by the Council and the financial plan as approved by the Plenipotentiary Conference, rapporteur group sessions on study Questions from different study groups, when deemed necessary by the management team, may be held in parallel, to allow sufficient time for each study Question to develop its work and to extend the time allocated for study Questions with a higher number of contributions.

3.7.6 When formulating a timetable for meetings in accordance with § 3.7.4, the Director, in cooperation with the study group chairmen, should make every possible effort, as far as practicable, in order that the planned period for meetings not be scheduled during a period which is considered a major religious period by a Member State.

3.7.7 In the establishment of the work plan, the timetable of meetings shall take into account the time required for participating Member States, ITU-D Sector Members, Associates, Academia and other authorized entities and organizations to prepare contributions and documentation.

3.7.8 All study groups shall meet sufficiently in advance of WTDC in order to enable the approved ITU-D reports and draft ITU-D Recommendations to reach administrations of Member States and Sector Members no later than 35 calendar days before the opening of WTDC.

3.8 Establishment of work plans and preparation of meetings

3.8.1 After each WTDC, a work plan shall be proposed by each study group chairman and rapporteurs, with the assistance of BDT. The work programmes shall take account of the ITU-D programme of activities and priorities and they should be connected to the WTDC resolutions, decisions and ITU-D Recommendations approved by WTDC. The work programmes may organize the work of a specific ITU-D study Question around sub-topics to be addressed sequentially during the study cycle, provided such sub-topics are within the terms of reference of the study Question. As an informational resource to support the development of the work plans, the Director shall, through the appropriate BDT staff, prepare information about all ITU projects relevant to the particular study Question or issue, including those being implemented by the regional offices and in the other Sectors. This information should be provided in a contribution to the study group chairmen and rapporteurs prior to the development of their work plans so as to allow them to take full advantage of new, existing and ongoing ITU work that could contribute to the study of their Questions.

3.8.2 The respective study group chairmen, rapporteurs and chairmen of IRGs and JRGs shall establish a work plan for their ITU-D study Question stating clearly the outputs planned to be developed and the time-frame by which they are expected to be delivered. The implementation of the work plan will, however, depend to a large extent on the contributions received from Member States, ITU-D Sector Members, Associates and Academia, other authorized entities and organizations and BDT, as well as on the opinions expressed by participants in the meetings. Outputs include those specified in §§ 3.4.1 to 3.4.6 above.

3.8.3 A circular with an agenda of the meeting, a draft work plan and a list of the ITU-D study Questions to be considered shall be prepared by BDT with the help of the chairman of the study group concerned.

3.8.4 The circular shall include details about any study group management team meeting and shall reach the ITU-D members and other authorized entities and organizations participating in the work of the study group concerned at least three months before the opening of the meeting.

3.8.5 Details on registration, including a link to the online registration form, shall be included in the circular so that the representatives of the entities concerned can announce their intention to participate in the meeting. The form shall contain the names and addresses of intended participants and an indication of the languages required by participants. The form shall be submitted no less than 45 calendar days prior to the opening of the meeting, in order to secure interpretation and the translation of documents in the requested languages.

3.9 Study group management teams and joint management team

3.9.1 Each ITU-D study group has a management team composed of the chairman and vice-chairmen of the study group and the rapporteurs and vice-rapporteurs. The management team is encouraged to assist the chairman in managing the study group, for example in the responsibilities for liaison activities, cooperation and collaboration with other organizations, forums, etc. outside ITU, and promotion of the related study group activities.

3.9.2 Study group management teams should maintain contact among themselves, with TDAG and with BDT by electronic means to the extent practicable. Appropriate liaison meetings should be arranged, as necessary, with study group chairmen from the other Sectors.

3.9.3 The ITU-D study group management team should meet prior to the meeting of the study group, in order to properly organize the coming meeting, including the review and approval of a time-management plan. To support these meetings and identify any efficiencies, the Director shall, through the appropriate BDT staff (e.g. directors of regional offices, focal points), provide information to study group rapporteurs on all relevant existing and planned ITU projects and initiatives, including those being implemented by the regional offices and in the other Sectors. The ITU-D study group management team may, as appropriate, meet remotely.

3.9.4 A joint management team shall be established, chaired by the Director, composed of the ITU-D study group management teams and the TDAG bureau. The joint management team should meet during the annual meeting of the study groups, as required.

3.9.5 The role of the joint management team of the ITU-D study groups is to:

a) advise BDT management on the estimation of the budget requirements of the study groups;

b) coordinate issues common to study groups;

c) prepare joint proposals to TDAG or other relevant bodies in ITU-D as required;

d) finalize the dates of subsequent study group meetings;

e) deal with any other issue that may arise.

3.9.6 The study group management team should also suggest to the study group to consider other activities, including workshops, webinars, etc., that may be better suited to meeting the needs of the ITU membership, especially developing countries.

3.10 Preparation of reports

3.10.1 Reports on the progress and results of study group activities can be of five major types:

a) meeting reports;

b) progress reports;

c) interim deliverables;

d) output reports;

e) chairman's report to WTDC.

3.10.2 Meeting reports

3.10.2.1 Prepared by the study group chairman, assisted by BDT, study group meeting reports shall contain a summary of the outcome of the study group work, as appropriate. They shall also indicate items which require further study at the next meeting, existing difficulties in work and the state of readiness of the output documents or a recommendation for conclusion or completion of the work of an ITU-D study Question or consolidation with another study Question. The reports should also include reference to contributions and/or meeting documents, the main results (including ITU-D Recommendations and guidelines), directives for future work (including referral of output reports to BDT for incorporation into relevant BDT programme activities as appropriate), planned meetings of rapporteur groups and JRGs, and liaison statements endorsed at the study group level.

3.10.2.2 The rapporteur, assisted by vice-rapporteurs, shall prepare meeting reports for their meetings. These reports shall contain a summary of the outcomes of the work. They shall also clarify items requiring further study at a subsequent meeting. They should indicate the contributions to the meeting and/or documents, key outcomes, directives for future action and meetings planned on the ITU-D study Question concerned, and liaison statements endorsed at the study group level.

3.10.2.3 The report of a study group's first meeting in the study period shall include a list of the appointed rapporteurs, co-rapporteurs and vice-rapporteurs of rapporteur groups, and of any other groups that may have been created. This list shall be updated, as required, in subsequent reports.

3.10.3 Progress reports

3.10.3.1 Progress reports provide information on the current state of study in various thematic areas and are published on the ITU-D website to provide the ITU membership with timely information on progress made and planned activities and to stimulate further contributions on these topics.

3.10.3.2 The following list of items and results achieved so far is suggested for inclusion in progress reports:

a) brief summary of the status and draft outline of the output report and all other output documents as specified in §§ 3.4.1 to 3.4.6 above;

b) conclusions or titles of ITU-D reports or Recommendations to be endorsed;

c) status of work with reference to the work plan, indicating the difficulties with its implementation, if any, and including the baseline document, if available;

d) draft new or revised ITU-D reports, guidelines or Recommendations, or reference to source documents containing the Recommendations;

e) draft liaison statements in response to or requesting action by other study groups or organizations;

f) reference to normal or delayed contributions considered part of the assigned study and a summary of contributions considered;

g) reference to submissions received in response to liaison statements from other organizations;

h) major issues remaining for resolution and draft agenda of future approved meetings, if any;

i) reference to the list of attendees at meetings held since the last progress report;

j) reference to the list of normal contributions or temporary documents containing the reports of all rapporteur group meetings since the last progress report.

3.10.3.3 The progress report may make reference to meeting reports in order to avoid duplication of information, including meetings on ITU-D study Questions and, where information is available, thematic events under the auspices of BDT, including regional and subregional ones.

3.10.3.4 Progress reports by rapporteur groups, including JRGs, shall be submitted to the study group for approval and for further action, if any. Progress reports on the work of the IRGs shall be submitted for consideration and approval to the study groups of the Sectors that established the IRGs.

3.10.4 Interim deliverables

3.10.4.1 Interim deliverables are produced to provide the beginnings of solutions to specific issues that arise during the study period or that are defined in the mandate of the ITU-D study Question. Such deliverables provide the opportunity to share information from study group contributions at a shorter interval than a four-year output report.

3.10.4.2 The scope and objectives of the interim deliverables (e.g. reports of studies, workshops, training) should be well defined on the basis of member contributions received and its relevance to the ITU-D study Question, with a view to meeting the needs of the membership.

3.10.4.3 Interim deliverables shall be submitted during the study period to the study group for review and approval.

3.10.5 Output reports

3.10.5.1 Output reports contain one deliverable reflecting the final results of study, i.e. the principal results of a study. The items to be covered are indicated in the expected output of the ITU-D study Question concerned in accordance with the ITU-D action plan adopted by WTDC. Such output reports shall normally be limited to a maximum of 50 pages, including annexes and appendices, with relevant electronic references as needed. When output reports exceed the 50-page limit, and after consultation with the study group chairman concerned, annexes and appendices may be included without translation when they are considered of particular relevance and provided that the body of the output report is within the 50-page limit. If there is a large amount of significant material on one of the topics defined by the terms of reference of the study Question, they could be set out in a separate additional document, for example ITU-D guidelines. All output reports shall be translated up to the number of pages agreed upon in the terms of reference for a study Question, to the extent possible and within the available budget.

3.10.5.2 If thematic areas from the ITU-D study Questions are transferred to the next study period, the approved ITU-D report may be updated. When updating approved reports, obsolete information should be excluded. New output reports, as a rule, are prepared according to new thematic areas and/or study Questions, and shall be approved by the study group.

3.10.5.3 To help maximize the use of study group final reports, study groups may place final reports and associated annexes, as well as additional output documents such as ITU-D guidelines, in an online library accessible from the ITU-D homepage as well as the study group document registry, until the study group decides that they have become outdated. Study group outputs should be incorporated into BDT programme and regional office activities and form part of the implementation of ITU-D strategic objectives.

3.10.5.4 To help ascertain the extent to which the ITU-D membership, and in particular developing countries, benefit from the outputs of studies, it would be useful for study group chairmen, with the help of the ITU-D study Question rapporteurs, to prepare a joint survey to be sent to the membership at least six months before the end of the study period. The results of the joint survey shall be analysed and submitted to the meetings of the study groups and TDAG before being transmitted to the next WTDC. They should serve to prepare for the next study period.

3.10.5.5 To assess the extent to which an issue generates interest among the ITU-D membership, in particular developing countries, statistics should be provided on the contributions presented by each rapporteur group or study group meeting, broken down by country or by region.

3.10.6 Chairman's report to WTDC

3.10.6.1 The chairman's report of each study group to WTDC shall be the responsibility of the chairman of the study group concerned, with the assistance of BDT, and shall include:

a) a summary of the results achieved by the study group during the study period in question, describing the work of the study group, the number of contributions on the ITU-D study Questions, and the outcome achieved, including discussion of the ITU-D strategic objectives that are linked to the current and possible future activities of the study group;

b) reference to any new or revised ITU-D Recommendations approved by correspondence by Member States during the study period;

c) reference to any ITU-D Recommendations deleted during the study period;

d) reference to the text of any ITU-D Recommendations submitted to WTDC for approval;

e) a list of any new or revised ITU-D study Questions proposed for study during the next study period, including proposals from study groups for future study topics;

f) a list of any ITU-D study Questions proposed for deletion, if any;

g) summary of collaboration between the programmes and regional offices in undertaking the activities of the study group.

3.10.6.2 The preparation of ITU-D Recommendations should follow the general practice of the Union, and Recommendations should be standalone documents. Information may be annexed to the Recommendations, in order to accomplish this. A Recommendation template is set out in Annex 1 to this resolution.

SECTION 4 – Submission, processing and presentation of contributions

4.1 Submission of contributions

4.1.1 Contributions to a WTDC should be submitted no later than 21 calendar days before the opening of the conference to allow for their timely translation and thorough consideration by delegations. BDT shall immediately publish all contributions submitted to WTDC in their original language(s) on the WTDC website, even before their translation into the other official languages of the Union. All contributions shall be published not less than 14 calendar days before WTDC.

4.1.2 Secretariat documents, including reports from study groups, TDAG, the Director of BDT, etc., shall be published no later than 35 calendar days before the opening of WTDC to allow for their timely translation and careful consideration by delegations.

4.1.3 The submission of contributions to the meetings of TDAG, the study groups and their relevant groups shall be as follows:

4.1.3.1 Each contribution should clearly indicate the ITU-D study Question, resolution or topic, as well as the group for which it is intended, and be accompanied by the details of a contact person as may be needed to clarify the contribution.

4.1.3.2 Contributions shall be received not later than 45 days before a meeting if they are to be translated for the meeting. Beyond this 45-day deadline, the contributor may submit the document in the original language and in any official language into which it may have been translated by the author. Contributions that do not meet this 45-day deadline but are received at least 12 days before the opening of the meeting shall be published but not translated.

4.1.3.3 Member States, ITU-D Sector Members, Associates, Academia, other authorized entities and organizations and the chairmen and vice-chairmen of study groups or their relevant groups should submit their contributions to current ITU-D studies to the Director using the official templates made available online and included in Annex 2 to this resolution.

4.1.3.4 Such contributions should, *inter alia*, deal with the results of experience gained in national and regional telecommunication/ICT development, describe case studies and/or contain proposals for promoting balanced worldwide and regional telecommunication/ICT development.

4.1.3.5 In order to facilitate the study of certain ITU-D study Questions, BDT may submit consolidated documents relevant to the study Question or the results of case studies, including information on existing programme and regional office activities. Such documents will be treated as contributions.

4.1.3.6 In principle, documents submitted to the study groups as contributions should not exceed five pages. For existing texts, cross-references should be used instead of repeating material *in extenso*. Information material can be placed in annexes or provided on request as an information document. An example of the template for the submission of contributions is set out in Annex 2 to this resolution.

4.1.3.7 Member States, ITU-D Sector Members, Associates and Academia are invited to include specific lessons learned and suggested best practices, as appropriate, when submitting contributions to the meetings of the study groups, TDAG and other relevant ITU-D groups. The contribution template in Annex 2 to this resolution contains a designated section for this purpose. Lessons learned and suggested best practices submitted in the appropriate box of the contribution template shall be published in accordance with § 4.2.4 below.

4.1.3.8 Contributions should be submitted to BDT using the online template in order to fast-track their processing by minimizing the need for reformatting, without any modification to the content of the text. Any contribution submitted by participants shall be immediately transmitted by BDT to the chairman of the study group and to the rapporteur in accordance with § 4.4.1.

4.1.3.9 The collaboration between members of study groups and their relevant groups should be, as far as possible, by electronic means. BDT should provide all study group members with appropriate access to electronic documentation for their work, and promote the provision of appropriate systems and facilities to support the conduct of study group work by electronic means in all the official languages of ITU.

4.2 Processing of contributions

Input to study group or rapporteur group meetings may be of three types:

a) Contributions for action (documents included on the meeting agenda for discussion)

b) Contributions for information (information documents not included on the meeting agenda or discussed at the meeting)

c) Liaison statements.

4.2.1 Contributions for action

4.2.1.1 All contributions for action received 45 calendar days before a study group meeting or a block of rapporteur group meetings shall be translated and published not less than seven calendar days before the said meeting. Beyond this 45-day deadline, but no later than 12 calendar days before the meeting, the contributor may submit the document in the original language and in any official language into which it may have been translated by the author.

4.2.1.2 After consultation with the chairman of the study group or rapporteur group concerned, it may be agreed to accept contributions for action that exceed the page-limit of five pages. In such cases, it may be agreed to publish a summary, which shall be drawn up by the author of the contribution.

4.2.1.3 All contributions received less than 45 calendar days but at least 12 calendar days before a study group meeting or a block of rapporteur group meetings shall be published but not translated. The secretariat shall publish these delayed contributions as soon as possible and not later than three working days after receipt.

4.2.1.4 Contributions received by the Director less than 12 calendar days before a meeting shall not be entered on the agenda. They shall not be distributed but held for the next meeting. Exceptionally, contributions judged to be of extreme importance and urgency might be admitted by the chairman, in consultation with the Director, in derogation to the above deadlines, provided that these contributions are available to participants at the opening of the meeting. For such late contributions, no commitment can be made by the secretariat to ensure the document will be available at the opening of the meeting in all the required languages.

4.2.1.5 No contributions for action shall be accepted after the opening of the meeting.

4.2.1.6 The Director should insist that authors follow the rules established for the presentation and form of documents set out in this resolution and annexes and the timing given therein. A reminder should be sent out by the Director whenever appropriate. The Director, with the agreement of the study group chairman, may return to the author any document that does not comply with the general directives set out in this resolution so that it may be brought into line with those directives.

4.2.2 Contributions for information

4.2.2.1 Contributions submitted to the meeting for information are those which do not require any specific action under the agenda (e.g. descriptive documents submitted by Member States, Sector Members, Associates, Academia or duly authorized entities and organizations, general policy statements, etc.), as well as other documents considered by the study group chairman and/or the rapporteur, in consultation with the author, as being for information. They should be published in the original language only (and in any other official language into which they may have been translated by the author) and appear under a separate numbering scheme from the contributions submitted for action.

4.2.2.2 Information documents considered to be of extreme importance may be translated after the meeting if requested by more than 50 per cent of the participants at the meeting, within the budgetary limit.

4.2.2.3 The secretariat shall prepare a list of information documents that provides summaries of the documents. This list shall be available in all the official languages.

4.2.2.4 Contributions for information shall be received by the Director not later than 12 calendar days before the meeting.

4.2.3 Liaison statements

Liaison statements are requests for actions or information from other study groups, working bodies of other ITU Sectors, other United Nations agencies, other relevant organizations, or documents that provide a response to a request for coordination from these entities. For liaison statements requiring any action, a reply shall be prepared. Replies to liaison statements shall be approved by the chairman of the study group concerned before their transmission to the destination entity. Incoming liaison statements shall not be translated. A template for liaison statements is set out in Annex 4 to this resolution.

4.2.4 Publication of lessons learned and suggested best practices

BDT shall maintain and update the lessons learned and suggested best practices relating to each ITU-D study Question, which include all lessons learned and suggested best practices received as part of contributions for action or for information/background in accordance with §§ 3.3.7, 3.6.2 and 4.1.3.7 above. The compiled lessons learned and suggested best practices published on the website for each ITU-D study Question are intended to function as a continually-updated information resource.

4.3 Other documents

4.3.1 Background documents

Reference documents containing only background information relating to issues addressed at the meeting (data, statistics, detailed reports of other organizations, etc.) should be available upon request in the original language only and, if available, also in electronic format.

4.3.2 Temporary documents

Temporary documents are documents produced during the meeting to assist in the development of the work.

4.4 Electronic access

4.4.1 BDT will post all input and output documents (e.g. contributions, draft ITU-D Recommendations, liaison statements and reports) as soon as electronic versions of these documents are available.

4.4.2 A website dedicated to the study groups, containing a description of working methods and procedures, information on activities, results of studies, reports of the ITU-D study groups and other documentation, and their relevant groups shall be constantly updated to include all input and output documents as well as information related to each of the meetings. The website shall be organized in such a way that makes it easy to search for and obtain relevant information. While the website of the study groups shall be in the six official languages of the Union on an equal footing, those of specific meetings shall be in the languages of the meeting concerned as per § 3.8.5.

4.4.3 The website shall enable Telecommunication Information Exchange Service (TIES) account users to have real-time access to all WTDC resolutions, ITU-D Recommendations in force, ITU-D study Questions, reports and guidelines, etc. and to temporary and draft documents.

4.5 Presentation of contributions

4.5.1 Contributions for action shall be relevant to the ITU-D study Question or the subject under discussion as agreed by the chairman of the study group, the rapporteur for the study Question, the coordinator of the study group and the author. Contributions shall be clear and concise. Documents that are not directly related to the study Questions should not be submitted.

4.5.2 Articles that have been or are to be published in the press should not be submitted to ITU-D, unless they relate directly to study Questions, and in this case should be fully attributed to their source, including, if possible, the relevant webpage address.

4.5.3 Contributions that include passages of an unduly commercial nature shall be deleted by the Director in agreement with the chairman; the author of the contribution shall be advised of any such deletions.

4.5.4 The cover page of a contribution shall indicate the relevant study Question(s), agenda item, date, source (originating country and/or organization, address, telephone number and e-mail address of the author or contact person of the submitting entity), and the title of the contribution. Indication should also be made as to whether the document is a contribution for action or for information and the action required, if any. As specified in Annex 2 to this resolution, an abstract should be provided containing (i) a summary of the contribution, and (ii) lessons learned and suggested best practices (if deemed appropriate by the contribution author). A template is set out in Annex 2 to this resolution.

4.5.5 If existing text needs to be revised, the number of the original contribution shall be indicated and revision marks (track changes) shall be used in the original document.

4.5.6 Contributions submitted to the meeting for information only (see § 4.2.2) should include a summary prepared by the author. When summaries have not been provided by authors, BDT shall, to the extent possible, prepare such summaries.

SECTION 5 – Proposal, adoption and approval of new and revised ITU-D study Questions

5.1 Proposal of new and revised ITU-D study Questions

5.1.1 Proposed new ITU-D study Questions shall be submitted at least two months prior to a WTDC by Member States, ITU-D Sector Members and Academia authorized to participate in the activities of the Sector.

5.1.2 However, an ITU-D study group may also propose new or revised study Questions at the initiative of a member of that study group if there is consensus on the subject. These proposals shall be treated in accordance with §§ 5.1 and 5.2 of this resolution.

5.1.3 Each proposed study Question should state the reasons for the proposal, the precise objective of the tasks to be performed, the urgency of the study and any contacts to be established with the other two Sectors and/or other international or regional bodies. Authors of study Questions should use the online template for the submission of new and revised study Questions based on the outline found in Annex 3 to this resolution, in order to ensure that all relevant information is included.

5.2 Adoption and approval of new and revised ITU-D study Questions by WTDC

5.2.1 Before a WTDC, TDAG shall meet to examine proposed new ITU-D study Questions and, if necessary, recommend amendments to take account of ITU-D's general development policy objectives and associated priorities, and to review the reports of the ITU regional preparatory meetings for WTDC.

5.2.2 At least one month before a WTDC, BDT shall communicate to Member States, ITU-D Sector Members, Associates and Academia a list of the study Questions proposed for consideration at WTDC, together with any changes recommended by TDAG, and make these available on the ITU website along with the results of the surveys referred to in § 3.10.5.5 above.

5.2.3 The proposed study Questions may be approved by WTDC in accordance with the General Rules of conferences, assemblies and meetings of the Union.

5.2.4 WTDC is recommended to approve a limited number of study Questions/subjects per study period and per study group, preferably not more than five.

5.3 Adoption and approval of proposed new and revised ITU-D study Questions between two WTDCs

5.3.1 Between two WTDCs, the ITU-D membership and other duly authorized entities and organizations participating in ITU-D activities may submit proposed new and revised ITU-D study Questions to the study group concerned.

5.3.2 Each proposed new and revised study Question should be based on the template found in Annex 3 to this resolution.

5.3.3 If the study group concerned agrees, preferably by consensus, to study the proposed new and revised study Question and some Member States, Sector Members or other duly authorized entities and organizations (normally at least four) have committed themselves to supporting the work (e.g. by contributions, provision of rapporteurs or editors and/or hosting of meetings), it shall address the draft text thereof to TDAG with all the necessary information.

5.3.4 After adoption by TDAG, the Member States can approve new or revised study Question(s) by correspondence in accordance with §§ 5.3.5-5.3.8 below.

5.3.5 The Director of BDT, within one month of the adoption of a draft new or revised study Question by TDAG, shall circulate the new or revised study Question(s) to Member States, and shall request that they indicate whether or not they approve the proposal within two months.

5.3.6 If two or more Member States object, the draft new or revised study Question will be referred back to the study group for further consideration. If there are fewer than two objections, the draft new or revised study Question shall be approved.

5.3.7 Those Member States that indicate disapproval are requested to provide their reasons and indicate the possible changes that would facilitate further study of the study Question.

5.3.8 Notification of the result will be given in a circular, and TDAG will be informed by a report from the Director. In addition, the Director shall publish a list of new or revised study Questions whenever appropriate, but at least once by the middle of a study period.

SECTION 6 – Deletion of ITU-D study Questions

6.1 Introduction

Study groups may decide to delete ITU-D study Questions. In each individual case, it has to decide which of the following procedures is the most appropriate.

6.1.1 Deletion of an ITU-D study Question by WTDC

Upon agreement by the study group, the chairman shall include the request to delete an ITU-D study Question in the report to WTDC, for decision.

6.1.2 Deletion of an ITU-D study Question between WTDCs

6.1.2.1 A study group meeting may agree, by consensus among its participants, to delete an ITU-D study Question, e.g. because work has been terminated. Member States, Sector Members, Associates and Academia shall be notified of the decision by circular, including an explanatory summary of the reasons for the deletion. If a simple majority of the Member States having replied has no objection to the deletion within two months, the deletion comes into force. Otherwise the issue is referred back to the study group.

6.1.2.2 Those Member States that indicate disapproval are invited to provide their reasons and to indicate the possible changes that would facilitate further study of the study Question.

6.1.2.3 Notification of the result will be given in a circular, and TDAG will be informed by a report from the Director of BDT. In addition, the Director shall publish a list of deleted study Questions whenever appropriate, but at least once by the middle of a study period.

SECTION 7 – Adoption and approval of new or revised ITU-D Recommendations

7.1 Introduction

After adoption at a study group meeting, Member States can approve Recommendations, either by correspondence or at a WTDC.

7.1.1 When the study of an ITU-D study Question has reached a mature state resulting in a draft new or revised Recommendation, the approval process to be followed is in two stages:

a) adoption by the study group concerned (see § 7.2);

b) approval by the Member States (see § 7.3).

The same process shall be used for the deletion of existing Recommendations.

7.1.2 In the interest of stability, revision of a Recommendation should not normally be considered for approval within two years, unless the proposed revision complements rather than changes the agreement reached in the previous version.

7.2 Adoption of a new or revised ITU-D Recommendation by a study group

7.2.1 A study group may consider and adopt draft new or revised Recommendations, when the draft texts have been prepared and made available in all the official languages four weeks in advance of the study group meeting.

7.2.2 A rapporteur group or any other group which feels that its draft new or revised Recommendation(s) is (are) sufficiently mature can send the text to the study group chairman to start the adoption procedure in accordance with § 7.2.3 below.

7.2.3 Upon request of the study group chairman, the Director of BDT shall explicitly indicate, in a circular, the intention to seek adoption of new or revised Recommendations under this procedure for adoption at a study group meeting. The circular shall include the specific intent of the proposal in summarized form. Reference shall be provided to the document where the text of the draft new or revised Recommendation may be found. This information shall be distributed to all Member States and ITU-D Sector Members and should be sent by the Director so that it shall be received at least two months before the meeting.

7.2.4 Adoption of a draft new or revised Recommendation shall be unopposed by any Member State present at the study group meeting.

7.2.5 A Member State objecting to the adoption shall inform the Director and the chairman of the study group of the reasons for objection, and, when the objection cannot be resolved, the Director shall make reasons available to the next meeting of the study group.

7.2.6 If there is an objection to the text that cannot be resolved and there is no other study group meeting scheduled before WTDC, the chairman of the study group shall forward the text to WTDC.

7.3 Approval of new or revised ITU-D Recommendations by Member States

7.3.1 When a draft new or revised Recommendation has been adopted by a study group, the text shall be submitted for approval by Member States.

7.3.2 Approval of new or revised Recommendations may be sought:

a) at a WTDC;

b) through consultation of the Member States by correspondence as soon as the relevant study group has adopted the text.

7.3.3 At the study group meeting during which a draft is adopted, the study group shall decide to submit the draft new or revised Recommendation for approval, either at the next WTDC or by consultation of the Member States.

7.3.4 When it is decided to submit a draft to WTDC, the study group chairman shall inform and request the Director to take the necessary action to ensure that it is included in the agenda of the conference.

7.3.5 When it is decided to submit a draft for approval by consultation, the conditions and procedures hereafter will apply.

7.3.5.1 At the study group meeting, the decision of the delegations to apply this approval procedure shall also be unopposed by any Member State present.

7.3.5.2 Exceptionally, but only during the study group meeting, delegations may request more time to consider their positions, while explaining the reasons. Unless advised of formal opposition, with reasons given, from any of these delegations within a period of one month after the last day of the meeting, the approval process by consultation shall continue. In this case, the draft shall be submitted to the next WTDC for consideration.

7.3.5.3 For the application of the approval procedure by consultation, within one month of the adoption of a draft new or revised Recommendation by a study group, the Director shall request Member States to indicate within three months whether they approve or do not approve the proposal. This request shall be accompanied by the complete final text, in the six official languages of the Union, of the proposed new or revised Recommendation.

7.3.5.4 The Director shall also advise ITU-D Sector Members participating in the work of the relevant study group under the provisions of Article 19 of the ITU Convention that Member States are being asked to respond to a consultation on a proposed new or revised Recommendation, but only Member States are entitled to respond. This advice should be accompanied by the complete final texts, for information only.

7.3.5.5 If 70 per cent or more of the replies from Member States indicate approval, the proposal shall be accepted. If the proposal is not accepted, it shall be referred back to the study group.

7.3.5.6 Any comments received along with responses to the consultation shall be collected by the Director and submitted to the study group for consideration.

7.3.5.7 Those Member States which indicate that they do not approve are requested to state their reasons and to participate in the future consideration by the study group and its relevant groups.

7.3.5.8 The Director shall promptly notify, by circular, the results of the above consultation approval procedure.

7.3.5.9 Should minor, purely editorial amendments or correction of evident oversights or inconsistencies in the text as presented for approval be necessary, the Director may correct these with the approval of the chairman of the relevant study group.

7.3.5.10 ITU shall publish the approved new or revised Recommendations in the official languages as soon as practicable.

7.4 Reservations

If a delegation elects not to oppose the approval of a Recommendation but wishes to enter reservations on one or more aspects, such reservations shall be mentioned in a concise note appended to the text of the Recommendation concerned.

SECTION 8 – Deletion of ITU-D Recommendations

8.1 Each study group is encouraged to review the maintained ITU-D Recommendations and, if they are found to be no longer necessary, should propose their deletion.

8.2 The deletion of existing Recommendations shall follow a two-stage process:

a) agreement to the deletion by a study group if no delegation representing a Member State attending the meeting opposes the deletion;

b) following this agreement to delete, approval by Member States, by consultation (applying the procedure in § 7.3.5).

8.3 WTDC may also delete existing Recommendations based on proposals by the Member States of the Union.

SECTION 9 – Support to the ITU-D study groups and their relevant groups

9.1 The Director of BDT should ensure that, within the limits of existing budgetary resources, the study groups and their relevant groups have appropriate support to conduct their work programmes as outlined in the terms of reference and as envisioned by the work plan for ITU-D. In particular, support may be provided in the following forms:

a) appropriate administrative and professional staff support from BDT and the other two Bureaux and the General Secretariat, as appropriate;

b) contracting of outside expertise, as necessary;

c) coordination with relevant regional and subregional organizations.

SECTION 10 – Other groups

10.1 As far as applicable, the same rules of procedure as for study groups in this resolution should also apply to other groups referred to in Nos. 209A and 209B of the ITU Convention and their meetings, for example with respect to the submission of contributions. However, these groups shall not adopt ITU-D study Questions nor deal with ITU-D Recommendations.

SECTION 11 – Telecommunication Development Advisory Group

11.1 In accordance with No. 215C of the ITU Convention, TDAG shall be open to representatives of administrations of Member States and representatives of ITU-D Sector Members and to chairmen and vice-chairmen of the study groups and other groups, and should act through the Director of BDT. Academia may participate in accordance with Resolution 169 (Rev. Dubai, 2018) of the Plenipotentiary Conference. WTDC Resolution 24 (Rev. Dubai, 2014) also assigned to TDAG several specific matters between two consecutive WTDCs including, among others: review the relationship between the ITU-D objectives outlined in the strategic plan for the Union and the budgetary appropriations available for activities, particularly programmes and regional initiatives, with a view to recommending any measures necessary to ensure the efficient and effective delivery of the principal products and services (outputs) of the Sector; review the implementation of the rolling four-year operational plan for ITU-D and provide guidance to BDT on the elaboration of the draft ITU-D operational plan to be approved by the following ITU Council session; consider and provide comments on the contribution of ITU-D to the draft ITU strategic plan (see also §1.1 g); etc.

11.2 The TDAG bureau comprises the chairman and the vice-chairmen of TDAG, as well as the chairmen of ITU-D study groups.

11.3 The number of vice-chairmen should be in accordance with Resolution 208 (Dubai, 2018) of the Plenipotentiary Conference.

11.4 In accordance with No. 213A of the Convention, a WTDC may assign specific matters within its competence to TDAG, indicating the recommended action on those matters. WTDC should assure itself that the specific matters assigned to TDAG do not require financial expenses exceeding the ITU-D budget. The report on TDAG activity on the fulfilment of specific functions shall be submitted to the next WTDC. Such assignment shall terminate when the following WTDC meets, although WTDC may decide to extend it for a designated period.

11.5 TDAG shall hold regular scheduled meetings, included in the ITU-D timetable of meetings. The Director, in cooperation with the TDAG chairman, should make every possible effort, as far as practicable, in order that the planned period for meetings not be scheduled during a period which is considered a major religious period by a Member State.

11.6 TDAG meetings should take place at least once a year. The timing of meetings should be such as to allow TDAG to effectively review the draft operational plan before its adoption and implementation. TDAG meetings should not take place in conjunction with the study group meetings. Meetings of the advisory groups of the three Sectors of the Union should preferably be held consecutively whenever possible.

11.7 In the interest of minimizing the length and costs of the meetings, the chairman of TDAG should collaborate with the Director in making appropriate advance preparation, for example by identifying the major issues for discussion.

11.8 In general, the same rules of procedure as for study groups in this resolution should also apply to TDAG and its meetings, for example in respect of the submission of contributions. However, at the discretion of the chairman, written proposals may be submitted during the TDAG meeting, provided they are based on ongoing discussions taking place during the meeting and are intended to assist in resolving conflicting views which exist during the meeting.

11.9 The TDAG bureau should maintain contact among themselves and with BDT by electronic means to the extent practicable and meet not less than once per year, including one meeting prior to the meeting of TDAG, in order to properly organize the coming meeting, including the review and approval of a time-management plan.

11.10 In order to facilitate its task, TDAG may complement these working procedures with additional or revised procedures. It can establish other groups to study a particular topic, where appropriate, as provided in WTDC Resolution 24 (Rev. Dubai, 2014) and within existing financial resources.

11.11 After each TDAG meeting, a concise summary of conclusions shall be drawn up by the secretariat, in collaboration with the TDAG chairman, to be distributed in accordance with normal ITU-D procedures. It should contain only TDAG proposals, recommendations and conclusions in respect of the above items.

11.12 In accordance with No. 215JA of the Convention, at its last meeting prior to WTDC, TDAG shall prepare a report for WTDC. This report should summarize TDAG's activities on the matters assigned to it by WTDC, including its work to facilitate linkages to the strategic plan of the Union and the four-year rolling operational plan for ITU-D, and offer advice on allocation of work, proposals on ITU-D working methods, strategies and relations with other relevant bodies inside and outside ITU, as appropriate. Likewise, it shall provide advice on the implementation of regional actions, initiatives and projects. This report shall be transmitted to the Director for submission to the conference.

11.13 In addition to other duties, the TDAG vice-chairmen should engage with their respective regional and area offices, and with the membership in their regional telecommunication organizations, as appropriate, in order to follow the progress of regional initiatives.

11.14 TDAG shall be made aware of the non-attendance of TDAG bureau members at TDAG meetings, and raise the issue through the Director with the ITU-D members concerned in an attempt to encourage and facilitate participation in these roles.

SECTION 12 – Coordination of work on terminology

12.1 Coordination of work on terminology in ITU-D is carried out by the ITU Coordination Committee for Terminology (ITU CCT), composed of experts from all ITU Sectors proficient in different official languages and persons designated by interested administrations and other participants in the work of ITU, as well as rapporteurs on terminology from study groups, working in close collaboration with the ITU General Secretariat and Bureaux editors.

12.2 In selecting and using terms and definitions, ITU-D study groups should take into account the established use of terms and current definitions within ITU, in particular those terms and definitions that appear in the ITU online database of terms and definitions. In cases where more than one ITU-D study group is considering using the same terms, definitions and/or concepts, a single term and a single definition should be chosen that are acceptable to all interested ITU-D study groups.

12.3 WTDC, in accordance with Council Resolution 1386, shall appoint two experts (one from ITU-D Study Group 1 and one from ITU-D Study Group 2) to represent ITU-D in ITU CCT at the vice-chairman level.

SECTION 13 – Regional and world meetings of the Sector

13.1 In general, the same working methods as found in this resolution, and in particular those relating to the submission and processing of contributions, apply, *mutatis mutandis*, to other regional and world meetings of the Sector, with the exception of those referred to in Article 22 of the ITU Constitution and Article 16 of the ITU Convention.

Annex 1 to Resolution 1 (Rev. Kigali, 2022)

Template for drafting ITU-D Recommendations

The ITU Telecommunication Development Sector (ITU-D) (*general terminology applicable to all Recommendations*),

The World Telecommunication Development Conference (*terminology only applicable to Recommendations approved at a WTDC*),

considering

This section should contain various general background references giving the reasons for the study. The references should normally refer to ITU documents and/or resolutions.

recognizing

This section should contain specific factual background statements such as "the sovereign right of each Member State" or studies which have formed a basis for the work.

taking into account

This section should detail other factors that have to be considered, such as national laws and regulations, regional policy decisions and other applicable global issues.

noting

This section should indicate generally accepted items or information that support the Recommendation.

convinced

This section should contain details of factors that form the basis of the Recommendation. These could include objectives of government regulatory policy, choice of financing sources, ensuring fair competition, etc.

recommends

This section should contain a general sentence, leading into detailed action points:

specific action point

specific action point

specific action point

etc.

Note that the above list of *action verbs* is not exhaustive. Other *action verbs* may be used when appropriate. Existing Recommendations provide examples.

Annex 2 to Resolution 1 (Rev. Kigali, 2022)

Template for submission of contributions

for action/for information[6]

Venue and date of meeting		**Document No./Study Group No.-E**	
		Date	
		Original language	
		FOR ACTION (Place on the agenda)	Indicate which is appropriate
		FOR INFORMATION (For reference only; not to be placed on the agenda or discussed)	
QUESTION:			
SOURCE:			
TITLE:			
Revision to previous contribution (Yes/No) If yes, please indicate the document number *Any changes in a previous text should be indicated with revision marks (track changes)*			
Action required Please indicate what is expected from the meeting (for contributions submitted for action only)			
Abstract			
Include here a summary of a few lines outlining your contribution			
Include here lessons learned and suggested best practices (if appropriate)			
Start your document on the following page (maximum 4 pages)			
Contact: Name of author submitting the contribution: Phone number: E-mail:			

[6] This model outlines the information to be submitted and the format of the contribution. The contribution is, however, submitted through an online template.

Annex 3 to Resolution 1 (Rev. Kigali, 2022)

Template for proposed ITU-D study Questions and issues for study and consideration by ITU-D

* *Information identified by * in this annex and in italics describes the information which should be provided by the author under each heading.*

Title of ITU-D study Question or issue (the title replaces this heading)

1 Statement of the situation or problem

* *Provide an overall general description of the situation or problem which is proposed for study, with specific focus on:*

– *the implications for developing countries and LDCs;*

– *gender perspective; and*

– *how a solution will benefit these countries. Indicate why the problem or situation warrants study at this time.*

2 ITU-D study Question or issue for study

* *State the study Question or issue that is proposed for study, expressed as clearly as possible. The tasks should be tightly focused.*

3 Expected output

* *Provide a detailed description of the expected output of the study. This should include a general indication of the organizational level or status of those who are expected to use and to benefit from the output. Outputs may include a set of actions, activities, work and work products specific to the work of the study Question, including those undertaken pursuant to programmes and regional initiatives that are relevant to the work under the study Question (e.g. documented best practices, guidelines, workshops, capacity-building events, seminars, etc.). More specifically, study outputs may promote gender equality and greater access by women to communications technologies and as well as to employment, health and education.*

4 Timing

* *Indicate the required timing for all outputs, noting that the urgency of the output, including the annual output report, will influence both the method used to carry out the study and the depth and breadth of the study. Outputs and the work under a study Question may be completed in less than the four-year study cycle.*

5 Proposers/sponsors

* *Identify by organization and contact point those proposing and supporting the study.*

6 Sources of input

* *Indicate what types of organizations are expected to provide contributions to further the work, e.g. Member States, ITU-D Sector Members, Associates, Academia, other UN agencies, regional groups, other ITU Sectors, BDT focal points, as appropriate, etc.*

* *Also include any other information, including potentially useful resources, such as expert organizations or stakeholders, that will be helpful to those responsible for carrying out the study.*

7 Target audience

* *Indicate expected types of target audience, by noting all relevant points on the matrix which follows:*

Target audience	Developed countries	Developing countries[7]
Telecom policy-makers	■	■
Telecom regulators	■	■
Service providers/operators	■	■
Manufacturers	■	■
ITU-D programme	■	■

Where appropriate, please provide explanatory notes as to why certain matrix points were included or excluded.

[7] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

a) Target audience – Who specifically will use the output

* *Indicate as precisely as possible which individuals/groups/regions within the target organizations will use the output. In addition, indicate as precisely as possible which ITU-D programmes, regional initiatives and strategic objectives the work under the study Question could/will be relevant to, and how the results of the work under the study Question can/could be used to fulfil the objectives of those relevant programmes, regional initiatives and strategic objectives.*

b) Proposed methods for the implementation of the results

* *In the author's opinion, how should the results of this work best be distributed to and used by the target audience and the specified relevant programmes and/or regional offices.*

8 Proposed methods of handling the ITU-D study Question or issue

a) How?

* *Indicate the suggested handling of the proposed study Question or issue*

1) Within a study group:
   - Question (over a multi-year study period) ☐

2) Within regular BDT activity (*indicate which programmes, activities, projects, etc. will be involved in the work under the study Question*):
   - Programmes ☐
   - Projects ☐
   - Expert consultants ☐
   - Regional offices ☐

3) In other ways – *describe* (e.g. regional, within other organizations with expertise, jointly with other organizations, etc.) ☐

b) Why?

* *Explain why you selected the alternative under a) above.*

9 Coordination and collaboration

* *Include, inter alia, the requirements for coordination of the study with all of:*

– regular ITU-D activities (including those of the regional offices);

– other study Questions or issues;

– regional organizations, as appropriate;

– work in progress in the other ITU Sectors;

– expert organizations or stakeholders, as appropriate.

* *The Director shall, through the appropriate BDT staff (e.g. regional directors, focal points), provide information to rapporteurs on all relevant ITU projects in the regions. This information should be provided to the meetings of the rapporteurs when work of the programmes and regional offices is in the planning stages and when it is completed.*

* *Identify which programmes, regional initiatives and strategic objectives are related to the work under the study Question and list specific expectations for collaboration with the programmes and regional offices.*

10 BDT programme link

* *Note the programme and regional initiatives of the action plan that would best contribute to, help facilitate and make use of the outputs and results under this study Question, and list specific expectations for collaboration with the programmes and regional offices.*

11 Other relevant information

* *Include any other information that will be helpful in establishing how this study Question or issue should best be studied, and on what schedule.*

Annex 4 to Resolution 1 (Rev. Kigali, 2022)

Template for liaison statements

Information to be included in the liaison statement:

1) List the appropriate ITU-D study Question numbers of the originating and destination study groups.

2) Identify the study group or rapporteur group meeting at which the liaison was prepared.

3) Include a concise and clear subject. If this is in reply to a liaison statement, make this clear, e.g. ''Reply to the liaison statement from (*source and date*) concerning''...".

4) Identify the study group(s), if known, or other organizations to which sent.

NOTE – Can be sent to more than one organization.

5) Indicate the level of approval of such liaison statement, e.g. study group, or state that the liaison statement has been agreed at a rapporteur group meeting.

6) Indicate if the liaison statement is sent for action or comments, or for information only.

NOTE – If sent to more than one organization, indicate this for each one.

7) If action is requested, indicate the date by which a reply is required.

8) Include the name and address of the contact person.

NOTE – The text of the liaison statement should be concise and clear using a minimum of jargon.

NOTE – Liaison statements among ITU-D groups should be discouraged and problems should be solved through informal contacts.

Example of a liaison statement:	
QUESTIONS:	A/1 of ITU-D Study Group 1 and B/2 of ITU-D Study Group 2
SOURCE:	Chairman of ITU-D Study Group X
MEETING:	Geneva, September 2018
SUBJECT:	Request for information/comments by [deadline when it is an outgoing liaison statement] – Reply to liaison statement from ITU-R/ITU-T WP 1/4
CONTACT:	Name of chairman of the study group or rapporteur for ITU-D study Question [number] Tel./fax/e-mail

Annex 5 to Resolution 1 (Rev. Kigali, 2022)

Rapporteur's checklist

1 Establish a work plan in consultation with the vice-rapporteurs. The work plan should be reviewed periodically by the relevant study group and contain the following:

– list of tasks to be completed;

– target dates for milestones in consideration of annual output reports;

– results anticipated, including titles of output documents and annual output reports;

– liaison required with other groups, and schedules for liaisons, if known;

– proposed meeting(s) of rapporteur group and estimated dates, with request for interpretation, if any.

2 Adopt work methods appropriate to the group. Use of electronic document handling, electronic and facsimile mail to exchange views is strongly encouraged.

3 Act as chairman at all meetings of the relevant ITU-D study Question. If special meetings on the study Question are necessary, give appropriate advance notice.

4 Delegate portions of the work to vice-rapporteurs or other collaborators, depending on the workload.

5 Keep the study group management team regularly informed of the work progress. In case no progress can be reported on a given ITU-D study Question between two study group meetings, the rapporteur should nevertheless submit a report indicating the possible reasons for the lack of progress. To allow the chairman and BDT to take the necessary steps for the work to be done on the study Question, reports should be submitted at least two months before the study group meeting.

6 Keep the study group informed of the progress of work through reports to study group meetings. The reports should be in the template of white contributions (when substantial progress has been made such as completion of draft ITU-D Recommendations or a report) or temporary documents.

7 The progress report mentioned in §§ 3.10.1 and 3.10.3 of this resolution should, as far as applicable, comply with the format given in those sections.

8 Ensure that liaison statements are submitted as soon as possible after all meetings, with copies to the study group chairmen and BDT. Liaison statements shall contain the information described on the *Template for liaison statements* in Annex 4 to this resolution. BDT may provide assistance in distributing the liaison statements.

9 Oversee the quality of texts up to and including the final text submitted for approval.

RESOLUTION 2 (Rev. Kigali, 2022)

Establishment of study groups

The World Telecommunication Development Conference (Kigali, 2022),

considering

a) that the mandate for each study group needs to be clearly defined, in order to avoid duplication between study groups and other groups of the ITU Telecommunication Development Sector (ITU-D) established pursuant to No. 209A of the ITU Convention and to ensure the coherence of the overall work programme of the Sector as provided for in Article 16 of the Convention;

b) that, for carrying out the studies entrusted to ITU-D, it is appropriate to set up study groups, as provided for in Article 17 of the Convention, to deal with specific task-oriented telecommunication questions of priority to developing countries[1], taking into consideration the ITU strategic plan and goals, and prepare relevant outputs in the form of reports, guidelines and/or Recommendations for the development of telecommunications/information and communication technologies (ICTs);

c) the need as far as possible to avoid duplication between studies undertaken by ITU-D and those carried out by the other two Sectors of the Union;

d) the results of the studies under the study Questions adopted by the World Telecommunication Development Conference (Dubai, 2014) and the World Telecommunication Development Conference (Buenos Aires, 2017) and assigned to the two study groups,

resolves

1 to continue the work within the Sector of two study groups, with a clear responsibility and terms of reference, as set out in Annex 1 and Annex 3 to this resolution;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2 that each study group and its relevant groups will conduct studies within the framework of the ITU-D study Questions adopted by this conference and assigned to it in accordance with the structure shown in Annex 2 to this resolution, and the ITU-D study Questions adopted or revised between two world telecommunication development conferences (WTDCs) in accordance with the provisions of Resolution 1 (Rev. Kigali, 2022) of this conference;

3 that the organization of the study groups should lead to increased synergy, transparency and efficiency with minimal overlap between ITU-D study Questions;

4 that ITU-D study Questions should be linked with the implementation of WTDC and Plenipotentiary Conference resolutions, and also with the Telecommunication Development Bureau (BDT) programmes set out in the ITU-D action plan, so that the study groups and the BDT programmes benefit from each other's activities, resources and expertise, and jointly contribute to the achievement of ITU-D objectives;

5 that the study groups should make use of the relevant outputs and materials of the other two Sectors and the General Secretariat relevant to their terms of reference and collaborate closely with study groups in the other Sectors on issues of mutual interest;

6 that the study groups will be managed by the chairmen and vice-chairmen as shown in Annex 3 to this resolution.

Annex 1 to Resolution 2 (Rev. Kigali, 2022)

Scope of ITU-D study groups

1 Study Group 1

Enabling environment for meaningful connectivity[2]

- National policy and regulatory aspects of broadband telecommunication/ICT development
- Economic aspects in the field of national telecommunications/ICTs, including facilitating the implementation of the digital economy and the provision of telecommunication/ICT services, including for rural and remote areas
- National approaches for providing access to telecommunications/ICTs in rural and remote areas, with special focus on developing countries, including least developed countries, small island developing states, landlocked developing countries and countries with economies in transition
- Access to telecommunication/ICT services to enable inclusive communications, especially for persons with disabilities and persons with specific needs
- Migration and adoption of digital technologies for broadcasting for different environments
- Use of telecommunications/ICTs for disaster risk reduction and management, particularly in developing countries
- Consumer information, protection and rights for telecommunication/ICT services, especially for vulnerable groups.

2 Study Group 2

Digital transformation

- Telecommunications/ICTs for e-services, including e-health and e-education
- Building confidence and security in the use of ICTs
- Using telecommunications/ICTs for monitoring and mitigating the impact of climate change, and consideration of circular economy and safe disposal of electronic waste

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[2] Meaningful connectivity is a level of connectivity that allows users to have a safe, satisfying, enriching and productive online experience at an affordable cost.

- Combating counterfeit telecommunication/ICT devices and theft of mobile telecommunication devices
- Implementation of conformance and interoperability testing for telecommunication/ICT devices and equipment
- Human exposure to electromagnetic fields
- Challenges and prospects for developing countries in access to emerging technologies, platforms, applications and use cases
- Using telecommunications/ICTs to create smart cities and the information society
- Adoption of telecommunications/ICTs and improving digital skills.

Annex 2 to Resolution 2 (Rev. Kigali, 2022)

Questions assigned by the World Telecommunication Development Conference to the ITU-D study groups

Study Group 1

- **Question 1/1**: Strategies and policies for the deployment of broadband in developing countries
- **Question 2/1**: Strategies, policies, regulations and methods of migration to and adoption of digital technologies for broadcasting, including to provide new services for various environments
- **Question 3/1:** The use of telecommunications/ICTs for disaster risk reduction and management
- **Question 4/1**: Economic aspects of national telecommunications/ICTs
- **Question 5/1**: Telecommunications/ICTs for rural and remote areas
- **Question 6/1**: Consumer information, protection and rights
- **Question 7/1**: Telecommunication/ICT accessibility to enable inclusive communication, especially for persons with disabilities.

Study Group 2

- **Question 1/2:** Smart sustainable cities and communities
- **Question 2/2**: Enabling technologies for e-services and applications, including e-health and e-education
- **Question 3/2**: Securing information and communication networks: Best practices for developing a culture of cybersecurity
- **Question 4/2**: Telecommunication/ICT equipment: Conformance and interoperability, combating counterfeiting and theft of mobile devices
- **Question 5/2**: Adoption of telecommunications/ICTs and improving digital skills
- **Question 6/2**: ICTs for the environment
- **Question 7/2**: Strategies and policies concerning human exposure to electromagnetic fields.

Annex 3 to Resolution 2 (Rev. Kigali, 2022)

List of chairmen and vice-chairmen

Study Group 1

Chairman: Ms Regina Fleur Assoumou Bessou (Côte d'Ivoire)

Vice-chairmen:
Mr Sangwon Ko (Republic of Korea)
Ms Memiko Otsuki (Japan)
Mr Sunil Singhal (India)
Ms Caecilia Nyamutswa (Zimbabwe)
Mr Amah Vinyo Capo (Togo)
Mr Roberto Mitsuake Hirayama (Brazil)
Mr Mehmet Alper Tekin (Türkiye)
Mr Anthony Giannoumis (Norway)
Ms Umida Musaeva (Uzbekistan)
Mr Khayala Pashazade (Azerbaijan)
Ms Sameera Belal Momen Mohammad (Kuwait)

Study Group 2

Chairman: Mr Fadel Digham (Egypt)

Vice-chairmen:
Mr Hideo Imanaka (Japan)
Ms Mina Seonmin Jun (Republic of Korea)
Mr Tongning Wu (China)
Ms Zainab Ardo (Nigeria)
Mr Mohamed Lamine Minthe (Guinea)
Mr Víctor Antonio Martínez Sánchez (Paraguay)
Mr Dominique Würges (France)
Ms Alina Modan (Romania)
Mr Diyor Rajabov (Uzbekistan)
Mr Mushfig Guluyev (Azerbaijan)
Mr Abdelaziz Alzarooni (United Arab Emirates)

RESOLUTION 5 (Rev. Kigali, 2022)

Enhanced participation by developing countries in the activities of the Union

The World Telecommunication Development Conference (Kigali, 2022),

considering

a) Resolutions 25 and 123 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening the ITU regional presence and bridging the standardization gap between developing[1] and developed countries;

b) Resolution 30 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on special measures for the least developed countries (LDCs), small island developing states (SIDS), landlocked developing countries (LLDCs) and countries with economies in transition;

c) Resolutions 166 (Rev. Busan, 2014), 167 (Rev. Dubai, 2018), 169 (Rev. Dubai, 2018) and 170 (Rev. Busan, 2014) of the Plenipotentiary Conference, which encourage and facilitate the participation of developing countries and their Sector Members and Academia in the activities of the Union;

d) Resolution 135 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in the durable and sustainable development of telecommunications/information and communication technologies (ICTs), in providing technical assistance and advice to developing countries and in implementing relevant national, regional and interregional projects;

e) Resolution 198 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on empowerment of youth through telecommunications/ICTs;

f) Resolution ITU-R 7-4 (Rev. Sharm el-Sheikh, 2019) of the Radiocommunication Assembly, on telecommunication development including liaison and collaboration with the ITU Telecommunication Development Sector (ITU-D);

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

g) Resolutions 54 and 74 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly, on the need to improve the participation of developing countries and their Sector Members in the work of the ITU Telecommunication Standardization Sector (ITU-T),

recognizing

a) the multifarious difficulties encountered by the developing countries, in particular LDCs, SIDS, LLDCs and countries with economies in transition, as well as countries under stringent budgetary restrictions, in ensuring their effective and efficient participation in the work of ITU-D and the study groups;

b) that harmonious and balanced development of the worldwide telecommunication network is of mutual advantage to the developed and the developing countries;

c) the need to identify a mechanism for developing countries to participate in and contribute to the work of the ITU-D study groups;

d) the importance of bringing the work of the ITU-D study groups closer to developing countries, especially in those cases where it is not possible to establish a physical presence;

e) that limited resources and experience of attendees from developing countries remain a challenge for enhancing their effective participation in ITU activities;

f) the encouraging results attained through online/virtual meetings held during the coronavirus disease (COVID-19) period, when physical meetings were not possible, including the sixth World Telecommunication/ICT Policy Forum,

convinced

a) of the need to enhance the effective participation and attendance of developing countries in the work of ITU;

b) of the integrating role the ITU regional and area offices may take on in this task,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to ensure that ITU-D study group meetings and forums/seminars/workshops are held, to the extent practicable, and within the available financial limits, outside Geneva, limiting their deliberations to subjects stipulated in their agendas and reflecting the actual needs and priorities of the developing countries;

2 to encourage virtual meetings and physical meetings with remote participation whenever possible, consistent with the General Rules of conferences, assemblies and meetings of the Union;

3 to ensure that ITU-D, including the Telecommunication Development Advisory Group, at both the headquarters and regional level, participates in the preparation and implementation of world telecommunication policy forums, and invites the study groups to participate therein;

4 to encourage the elaboration of specific studies on the adoption of new technologies by developing countries, taking into account the context of each region,

further instructs the Director of the Telecommunication Development Bureau

1 in close collaboration with the Directors of the Radiocommunication and Telecommunication Standardization Bureaux, to consider and implement the best ways and means to assist developing countries in preparing for and participating actively in the work of the three Sectors, and notably in the Sector advisory groups, assemblies and conferences and in the study groups of relevance to developing countries, particularly in relation to the work of the ITU-T study groups, in line with the resolutions mentioned under *considering* above;

2 to continue conducting studies on how to increase the participation of developing countries and of Sector Members and other telecommunication players from developing countries not only in the work of ITU-D, but also in the work of ITU-T and the ITU Radiocommunication Sector;

3 to extend, within the financial limitations and taking into account other possible sources of financing, the granting of fellowships to participants from developing countries attending study group meetings, the advisory groups of all three Sectors and other important meetings and interregional meetings, including conference preparatory meetings, combining, wherever applicable, attendance at more than one successive event;

4 to assist developing countries in the preparation of and participation in ITU meetings and conferences as well as those of regional organizations, through training programmes on the preparatory process, meeting leadership skills, meeting structures, formalities and how to improve participation and contribute to the meetings;

5 to continue promoting virtual meetings and physical meetings with remote participation and electronic working methods so as to encourage and facilitate the full participation of developing countries in the work of ITU-D;

6 to provide the necessary assistance to developing countries in offering remote participation facilities in case they host ITU-D study group meetings and forums/seminars/workshops;

7 to further promote the activities and publications of ITU-D using electronic means;

8 to provide reports related to the participation of Sector Members from developing countries in the work of ITU-D;

9 to consider, whenever possible, holding forums/seminars/workshops concurrently with the meetings of ITU-T regional groups in developing countries,

invites the Director of the Radiocommunication Bureau and the Director of the Telecommunication Standardization Bureau

to encourage meetings to be held outside Geneva where this will facilitate greater participation of local experts from countries and regions distant from Geneva,

invites Member States, Sector Members and Associates

1 to participate or increase their participation in the activities of the Union based on procedures approved under Resolutions 169 (Rev. Dubai, 2018) and 170 (Rev. Busan, 2014);

2 subject to the relevant provisions of the ITU Constitution and Convention, to consider the appointment of candidates to chairmanships and vice-chairmanships of the Sector advisory groups, study groups and other groups, based on an equitable distribution method approved under Resolution 166 (Rev. Busan, 2014);

3 to host ITU-D study group meetings and forums/seminars/workshops, in particular in developing countries;

4 to strengthen their cooperation with the ITU regional offices in relation to implementation of this resolution,

requests the Secretary-General

to report to the Plenipotentiary Conference on the expected financial implications of the implementation of this resolution, proposing also other possible sources of financing,

invites the Plenipotentiary Conference

1 to give the necessary attention to implementation of this resolution when establishing the basis for the budget and related financial limits;

2 when adopting the financial plan of the Union, to provide the necessary funds to the Telecommunication Development Bureau in order to facilitate the wider attendance and participation of developing countries in the activities of ITU-D,

invites the ITU Council

to consider the exemption from payment of the first year of membership fees for new Academia from developing countries in order to encourage them to get involved in ITU activities.

RESOLUTION 8 (Rev. Kigali, 2022)

Collection and dissemination of information and statistics

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 8 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference;

b) Resolution 131 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on measuring information and communication technologies (ICTs) to build an integrating and inclusive information society;

c) Resolution 37 (Rev. Kigali, 2022) of this conference, on bridging the digital divide,

considering

a) that the ITU Telecommunication Development Sector (ITU-D), as the main source of international information and statistics on telecommunications/ICTs, performs a key role in the collection, coordination, exchange and analysis of information;

b) the importance of the existing Telecommunication Development Bureau (BDT) databases, in particular the World Telecommunication/ICT Indicators database and the regulatory database;

c) the usefulness of analytical reports published by ITU-D;

d) the need to collect and disseminate information and statistics for follow-up on and monitoring of the United Nations 2030 Agenda for Sustainable Development;

e) the cross-cutting nature of telecommunications/ICTs as a strategic component in achieving all the goals in the 2030 Agenda for Sustainable Development;

f) that, despite all the efforts made, the world divide in Internet use by men and women has widened, especially in least developed countries, therefore making it necessary to enhance statistics and their dissemination disaggregated by gender that would make it possible to address public policies at the national level;

g) that numerous regional and international organizations make use of and rely upon the statistics prepared and published by the Union in their indicators and reports;

h) that the 2017 session of ITU Council instructed the Secretary-General to grant all Member States the right of free electronic access to ITU publications relating to statistics and indicators,

considering further

a) that the telecommunication/ICT sector at the national level is reforming at an incredible pace;

b) that policy approaches vary and Member States can benefit from the experiences of others,

recognizing

a) that, by acting as a clearing house for the exchange of information and statistics, BDT will be able to assist Member States in developing informed national policies;

b) that the Member States must participate actively in this endeavour in order to make it successful;

c) that § 116 of the Tunis Agenda for the Information Society stresses that all indices and indicators must take into account different levels of development and national circumstances, bearing in mind that statistics need to be improved in a collaborative, cost-effective and non-duplicative fashion;

d) that § 70 of the outcome document of the high-level meeting of the United Nations General Assembly (UNGA) on the overall review of the implementation of the outcomes of the World Summit on the Information Society (WSIS) (UNGA Resolution 70/125) has called for further quantitative data to support evidence-based decision-making, as well as for the inclusion of telecommunication/ICT statistics in national strategies for the development of statistics and in regional statistical work programmes;

e) that telecommunication/ICT indicators and statistics are key elements for drawing up evidence-based public policies;

f) the importance of the World Telecommunication/ICT Indicators Symposium (WTIS),

recognizing further

a) that telecommunication/ICT statistics are extremely useful for the work of the study groups and in assisting ITU to monitor and evaluate telecommunication/ICT developments and measure the digital divide;

b) the new responsibilities to be held by ITU-D in relation to this subject, pursuant to the Tunis Agenda, in particular §§ 112 to 120 thereof, as well as the WSIS-SDG Matrix which makes it possible to connect the WSIS action lines with the Sustainable Development Goals (SDGs);

c) the targets of SDG 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation) and SDG 5 (Achieve gender equality and empower all women and girls) of the 2030 Agenda,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to continue to support this activity by providing adequate resources, including resources of ITU regional and area offices, and according it the necessary priority;

2 to continue to work closely with Member States for the sharing of best practices concerning national ICT policies and strategies, including the development of statistics and their dissemination, and considering gender, age and any other disaggregated information relevant to the development of national public policies;

3 to continue to survey countries and produce world and regional analytical reports which highlight country lessons and experiences, in particular on:

- trends in the telecommunication/ICT sector, such as adapting to new technologies, digital transformation, digital economy, etc.;
- world telecommunication/ICT developments at regional and international level;
- trends, best practices and regulation in the field of telecommunications/ICTs and tariff policies;
- the use of telecommunications/ICTs to achieve the WSIS outcomes and SDGs;

4 to rely primarily on official data provided by Member States based on internationally recognized methodologies; only in the absence of such information may other sources be used, after informing the Member States concerned in advance of the other sources used to obtain the information;

5 to take appropriate steps towards ensuring that ITU data and material are properly attributed when utilized;

6 to establish and collect indicators and to encourage countries to collect statistics and information in order to illustrate the progress, in particular in developing countries[1], in creating an information society, in bridging the digital divide and in evaluating the implementation of the 2030 Agenda for Sustainable Development;

7 to consult on a regular basis with Member States and encourage the membership to submit contributions on issues related to the identification and definition of indicators and data-collection methodologies, especially for implementation of Resolution 131 (Rev. Dubai, 2018), within the ITU-D study groups, the Expert Group on household ICT indicators (EGH) and the Expert Group on telecommunication/ICT indicators (EGTI), and other groups, coordinated by BDT;

8 to monitor the development and improvement of methodologies relevant to indicators and methods of data collection, through consultation with Member States;

9 to ensure reflection of the development of the telecommunication/ICT sector, taking into account diverse national conditions and development levels of the regions and Member States, as well as trends in telecommunications/ICTs, through telecommunication/ICT indicators, indices and ICT price baskets;

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[1] These include least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

10 to continue to convene WTIS on an annual basis for discussion and generalization, in the form of a final document/report, of best practices in determining indicators and data-collection methods for international comparison in the field of telecommunications/ICTs, based on contributions submitted by the membership, as well as ITU-D study groups, EGH and EGTI;

11 to ensure that WTIS does not conflict with any major events of the Union and, as far as possible, to hold it in each of the regions in turn;

12 to continue to convene regular meetings of EGTI and EGH, in view of their importance;

13 to review, revise and further develop benchmarking, including through consultation and inviting contributions from Member States and experts, and ensure that ICT indicators, the ICT Development Index (IDI) and the ICT Price Basket (IPB) reflect the real development of the ICT sector, taking into consideration different levels of development and national circumstances as well as ICT trends, in application of the WSIS outcomes;

14 to encourage Member States to collect statistical indicators and information for follow-up on the 2030 Agenda for Sustainable Development and to illustrate national digital divides as well as the efforts made through various programmes to close the gap, showing, as much as possible, the impact on gender issues, children and adolescents, as well as older persons, persons with disabilities and different social sectors;

15 to encourage countries to participate in working groups coordinated by the United Nations Statistics Division (UNSD) and ITU to discuss ways to increase the availability of ICT data with experts and Member States with the aim of identifying innovative data-collection tools to support methodological recommendations for consideration by the relevant experts in statistics;

16 to encourage and support Member States in the setting up of national centres for statistics on the information society and in the advancement of existing centres;

17 to strengthen ITU-D's role as a member of the steering committee of the Partnership on Measuring ICT for Development and through active participation in discussions and activities geared to achieving the partnership's main objectives, related to the development of telecommunication/ICT indicators and capacity building for national statistical offices;

18 to encourage Member States to bring together different stakeholders in government, the private sector, academia and civil society in raising national awareness about the importance of the collection and dissemination of globally comparable data in the field of telecommunications/ICTs, including for policy purposes;

19 to provide technical assistance to the Member States for increasing capacity in the development and collection of telecommunication/ICT statistics, and for the development of national databases containing statistics and regulatory policy information in the field of telecommunications/ICTs;

20 to continue to cooperate with relevant international and regional organizations, such as the members of the Partnership on Measuring ICT for Development, the United Nations Statistical Commission (UNSC), UNSD and the Organisation for Economic Co-operation and Development (OECD), including on developing training material and conducting specialized training courses on telecommunication/ICT statistics;

21 to unify existing information and statistical databases on the BDT website so as to respond to the objectives stated in §§ 113-118 of the Tunis Agenda, and to play a primary role in relation to §§ 119 and 120;

22 to assist Member States with indigenous populations in developing indicators to evaluate the impact of telecommunications/ICTs on indigenous peoples that enable the achievement of the objectives set forth in § C8 of the WSIS Geneva Plan of Action;

23 to organize regional workshops on statistics in cooperation with relevant regional and international organizations, with the aim of spreading awareness about ways and means of collecting data and statistics in the field of telecommunications/ICTs, particularly for developing countries;

24 to post in a timely manner all questionnaires/surveys, reports and publications relating to the statistics and indicators published by ITU-D, particularly those relating to regulatory information, statistics and indicators which rely on data submitted by Member States, on the website of the Union, making them easy to identify and access;

25 to continue to seek technical solutions to work on statistics in the field of telecommunications/ICTs in all the six languages of the Union;

26 to present a synthesis report on WTIS proposals based on the contributions provided by Member States through ITU-D study group, EGH and EGTI meetings on issues related to the definition of telecommunication/ICT indicators and data-collection methodologies to the Telecommunication Development Advisory Group for information,

invites Member States and Sector Members

1 to participate actively in this endeavour by providing the statistics and information solicited, including statistics in the field of telecommunications/ICTs disaggregated by gender, and also by other vulnerable groups, as appropriate, and by engaging actively in discussions on ICT indicators and data-collection methodologies through contributions, in particular by means of EGH and EGTI and other expert groups coordinated by BDT;

2 to establish national systems or strategies for strengthening the consolidation of statistical information related to telecommunications/ICTs;

3 to establish institutional mechanisms to promote and coordinate the compilation and dissemination of telecommunication/ICT information and statistics to monitor implementation of the SDGs at the national level;

4 to establish mechanisms for effective national coordination in order to mobilize and guarantee the quality of statistical data produced by various national stakeholders;

5 to contribute with experiences of policies that have a positive impact on telecommunication/ICT indicators;

6 to strive to harmonize the methodologies for their domestic statistical data-collection systems with those used at the international level,

encourages

donor agencies and relevant United Nations agencies to cooperate in providing relevant support and information on their activities.

RESOLUTION 9 (Rev. Kigali, 2022)

Participation of countries, particularly developing countries, in spectrum management

The World Telecommunication Development Conference (Kigali, 2022),

recalling

Nos. 120 to 129 of the ITU Constitution,

considering

a) that the continuing growth in demand for spectrum, from both existing and new radiocommunication applications and systems, places ever greater requirements on a scarce resource;

b) that, because of the investment in equipment and infrastructures, major changes in the existing use of the spectrum are often difficult to achieve, except in the long term;

c) that the needs of society and the marketplace drive the development of new technologies to find new solutions to address development problems;

d) that national strategies should take into account international commitments under the Radio Regulations;

e) that it is recommended that national strategies should also take into account global changes in telecommunications/information and communication technologies (ICTs) and developments in technology;

f) that increased spectrum access may be facilitated through technical innovation and greater sharing capabilities;

g) that, based on its mandate, the ITU Radiocommunication Sector (ITU-R) is well placed to provide worldwide information on radiocommunication technology and spectrum utilization trends;

h) that world radiocommunication conferences (WRCs) take many decisions that have a very significant economic and social impact on national spectrum-management strategies;

i) that some countries, particularly developing countries[1], have some difficulties in implementing the outcomes of WRCs;

j) that the ITU Telecommunication Development Sector (ITU-D) is well placed to facilitate the participation of developing countries in ITU-R activities, and, for those developing countries that so request, to distribute to them the results of particular ITU-R activities;

k) that such information would assist spectrum managers in developing countries to develop their own national medium- or long-term strategies;

l) that such information would enable developing countries to benefit from sharing studies and other technical studies in ITU-R, including frequency sharing methodologies;

m) that, within spectrum management, one of the most pressing concerns of many developing countries, including least developed countries, small island developing states, landlocked developing countries and countries with economies in transition, is the difficulty of elaborating methods for the calculation of fees for use of the radio-frequency spectrum;

n) that regional, bilateral or multilateral agreements could be a basis for fostering cooperation in the field of the radio-frequency spectrum;

o) that spectrum redeployment[2] could accommodate the increasing demand for new and existing radiocommunication applications;

p) that spectrum monitoring includes effective use of spectrum-monitoring facilities to support the spectrum-management process, the evaluation of spectrum utilization for the purpose of spectrum planning, the provision of technical support for frequency allocation and assignment and the resolution of cases of harmful interference;

q) the need to disseminate best practices in spectrum management in order to make broadband access more available and affordable to lower-income populations, especially to bridge the digital divide in developing countries;

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1 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2 As noted in Recommendation ITU-R SM.1603, redeployment is also referred to as refarming.

r) that emerging telecommunications/ICTs could pose challenges for developing countries in terms of available spectrum and licensing policy;

s) that developing countries can benefit from compiled information on national experiences on spectrum released for emerging technologies such as 5G and satellite networks;

t) that, while short-term courses on spectrum management are being conducted by universities and other training institutions, there are few comprehensive courses on spectrum management, and that the Spectrum Management Training Programme (SMTP) of the ITU Academy and centres of excellence will continue to be very helpful to developing countries;

u) that in accordance with Resolution ITU-R 22-5 (Rev. Sharm el-Sheikh, 2019) of the Radiocommunication Assembly (RA), personnel involved in spectrum management from developing countries are particularly invited to participate in spectrum-management studies of ITU-R Study Group 1;

v) that the transition period to digital terrestrial television broadcasting for the developing countries which are party to the Regional Agreement (Geneva, 2006) (GE06 Agreement) ended on 17 June, 2020, after which terrestrial analogue television is no longer protected and is subject to the operating conditions prescribed in the GE06 Agreement,

recognizing

a) that it is the sovereign right of every State to manage spectrum use within its territories;

b) that ITU-D's specific functions include providing information and advice on possible policy and structural options, promoting the development, expansion and operation of telecommunication networks and services, taking into account the activities of other relevant bodies, by reinforcing capabilities for human resources development, planning, management, resource mobilization, and research and development, and assisting the implementation of best practices and guidelines;

c) that there is a strong need for the active participation of developing countries in ITU activities, as expressed in Resolution 123 (Rev. Dubai, 2018) of the Plenipotentiary Conference, Resolution 5 (Rev. Kigali, 2022) of this conference, Resolution ITU-R 7-4 (Rev. Sharm el-Sheikh, 2019) of RA and Resolution 44 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly, which may be represented individually and through regional groups;

d) that it is important to take into consideration the ongoing work in ITU-R and ITU-D, and the need to avoid duplication of effort;

e) the successful cooperation between ITU-R and ITU-D to assist developing countries in spectrum management, effective use of radio-frequency spectrum and dissemination of best practices;

f) the considerable support given by the Telecommunication Development Bureau (BDT) in the compilation of documents and other relevant outputs, supporting developing countries;

g) the successful development of the Spectrum Fees Database (SF Database) and the initial compilation of guidelines[3] and national experiences to assist administrations in extracting information from the SF Database for use in the preparation of fee-calculation models that suit their national requirements;

h) that, in connection with the ITU-R Handbook on National Spectrum Management and Report ITU-R SM.2012, additional guidelines have been compiled offering various national approaches to spectrum-management fees for spectrum use;

i) that there is significant activity across multiple ITU-R study groups to address spectrum sharing, which may have implications for national spectrum management and which may be of particular interest to developing countries;

j) that ITU-R continues to update Recommendation ITU-R SM.1603, which provides guidelines for spectrum redeployment;

k) that the report of ITU-D Study Group 1 on satellite regulation in developing countries, for the study period 2002-2006, provided valuable satellite regulatory information of countries;

l) that the ITU-R Handbook on Spectrum Monitoring provides guidelines for the installation and operation of spectrum-monitoring infrastructures and the implementation of spectrum monitoring, while Recommendation ITU-R SM.1139 prescribes administrative and procedural requirements for international monitoring systems;

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[3] Here, "guidelines" refers to a range of options that may be used by ITU Member States in their domestic spectrum-management activities.

m) that the ITU-D Report on exploring the value and economic valuation of spectrum (April 2012) provides some insight into how spectrum value may be assessed in different situations;

n) that Questions ITU-R 240/1, on assessment of spectrum efficiency and economic value, and ITU-R 241/1, on methodologies for assessing or predicting spectrum availability, are being studied within ITU-R Study Group 1,

resolves to instruct the Director of the Telecommunication Development Bureau, in close consultation with the Director of the Radiocommunication Bureau

1 to collect pertinent information and prepare, over the period between world telecommunication development conferences, appropriate documents and other relevant outputs, that are responsive to the specific needs of developing countries (including, but not limited to, the examples given in Annex 1 to this resolution and membership input to the ITU-D study groups), on national technical, economic, regulatory and financial approaches to, and challenges of, spectrum management and spectrum monitoring, taking into account ITU-R Recommendations, reports, handbooks and other outputs from ITU-R;

2 to continue the development of the SF Database, including methods for spectrum valuation and methods for pricing, incorporating national experiences, and to provide additional guidelines and national experiences, based on contributions from administrations;

3 to update the information available in national frequency allocation tables and make the Resolution 9 and ICT Eye portals complementary;

4 to compile national experiences, in order to prepare the documents identified in *resolves* 1, on the use of shared spectrum, different tools for spectrum management that allow for greater flexibility, efficiency and both economic and social benefits, as well as the economic aspects of spectrum management, including mechanisms to stimulate affordable and accessible services to low-income users;

5 to continue to assist Member States, in particular developing countries, in the implementation of the outcomes of WRCs, and to organize presentations on issues of interest for developing countries through seminars and workshops,

instructs the Director of the Telecommunication Development Bureau

1 to continue to provide the support described in recognizing *f)* above;

2 to encourage Member States from developing countries, at the national and/or regional level, to provide ITU-R and ITU-D with a list of their needs, national experiences and/or special requirements with respect to national spectrum management, to which the Director should endeavour to respond, and an example of which is given in Annex 1 to this resolution;

3 to encourage Member States to continue to provide ITU-R and ITU-D with practical examples of their experiences of using the SF Database, national trends in spectrum management, spectrum redeployment and the installation and operation of spectrum-monitoring systems;

4 to provide annual reports to the Telecommunication Development Advisory Group on the implementation of this resolution,

invites the Director of the Radiocommunication Bureau

to ensure that ITU-R continues the collaboration with ITU-D in the implementation of this resolution,

invites the membership of the ITU Telecommunication Development Sector

1 to contribute to the work of ITU-D by providing national experiences regarding spectrum sharing, national uses of different tools for spectrum management, including various licensing and authorization schemes, as well as economic and social benefits and challenges;

2 to contribute actively to the implementation of this resolution.

Annex 1 to Resolution 9 (Rev. Kigali, 2022)

Examples of specific needs of developing countries in spectrum management

The main types of technical assistance which developing countries expect from ITU are as follows:

1 Assistance in raising the awareness of national policy-makers as to the importance of effective spectrum management for a country's economic and social development

With the restructuring of the telecommunication sector, the emergence of competition, high demand for frequencies from operators, disaster mitigation and relief operations and the need to combat climate change, effective spectrum management has become indispensable for States. ITU should play a key role in raising the awareness of policy-makers by organizing special seminars designed specifically for them. To this end:

- In view of how important the regulators have become, ITU might include them in its regular distribution list for circulars providing information about the different education programmes and modules organized by the Union.
- ITU should include dedicated spectrum-management modules in the programmes of meetings (colloquiums, seminars) bringing together regulators and ministries responsible for spectrum management, with private-sector involvement.
- Within the limits of available resources, ITU should make fellowships available for least developed countries' participation at those meetings.

2 Training and dissemination of available ITU documentation

Spectrum management must be in accordance with the provisions of the Radio Regulations, regional agreements to which administrations are parties, and national regulations. Spectrum managers must be able to provide frequency users with relevant information.

Developing countries would like to have access to ITU-R and ITU-D documentation, which must be available in the six official languages of the Union.

Developing countries would also like to see suitable training (either on-site or remotely) provided in the form of specialized ITU seminars, in order to help frequency managers gain a thorough knowledge of ITU-R Recommendations, reports and handbooks, which are constantly updated.

Through its regional offices, ITU could set up an effective system to provide frequency managers with real-time information on existing and future publications.

Specialized courses on spectrum management, access to radio-frequency resources and the preparatory process for WRCs will be very helpful for developing countries.

3 Assistance in developing methodologies for establishing national tables of frequency allocations and spectrum redeployment

Tables of frequency allocations form the mainstay of spectrum management; they identify the services provided and their category of use. ITU could encourage administrations to make available national frequency allocation tables to the public and stakeholders and facilitate administrations' access to information available in other countries, in particular by developing links between its website and the websites of administrations which have produced national tables of frequency allocations available to the public, allowing developing countries to obtain information on national allocations in a rapid and timely fashion. ITU-R and ITU-D could also compile guidelines for the development of the above-mentioned tables. Spectrum redeployment is sometimes necessary to allow the introduction of new radiocommunication applications. ITU could provide support in this regard by compiling guidelines for the implementation of spectrum redeployment, on the basis of practical experience of administrations and based on Recommendation ITU-R SM.1603 – Spectrum redeployment as a method of national spectrum management.

In certain circumstances, BDT could make available the assistance of its experts for the development of national tables of frequency allocations and for the planning and implementation of spectrum redeployments, at the request of the countries concerned.

To the extent possible, ITU-D should incorporate appropriate issues into its regional seminars on spectrum management.

4 Assistance in setting up computerized frequency management and monitoring systems

These systems facilitate routine spectrum-management tasks. They must be capable of taking local features into account. The establishment of operational structures also enables the smooth execution of administrative tasks, frequency allocation, spectrum analysis and monitoring. According to the specific features of individual countries, ITU can provide expert help in identifying the technical means, operational procedures and human resources needed for effective spectrum management. The ITU-R Handbook on Computer Aided Techniques for Spectrum Management and the ITU-R Handbook on Spectrum Monitoring may provide technical guidelines for setting up the above-mentioned systems.

ITU should improve the Spectrum Management System for Developing Countries (SMS4DC) software (including its availability in the other official languages), and ensure the necessary assistance and training in the implementation of the software in administrations' daily spectrum-management activities.

ITU should provide expert advice to administrations of developing countries and facilitate participation of developing countries in regional or international spectrum-monitoring activities, as necessary. ITU should also provide encouragement and assistance to administrations in setting up regional spectrum-monitoring systems, if required.

5 Economic and financial aspects of spectrum management

ITU-D and ITU-R could, together, provide examples of:

a) reference frameworks for management accounting;

b) guidelines for the implementation of management accounting, which could be very useful for calculating the administrative costs of spectrum management referred to in *recognizing g)* of this resolution;

c) guidelines on the methods used for spectrum valuation.

ITU could further develop the mechanism set up under *resolves* 2 of this resolution in order to enable developing countries to:

– learn more about practices in other administrations, which could be useful for defining spectrum fee policies tailored to each country's specific situation;

– identify financial resources to be allocated to the operational and investment budgets for spectrum management.

6 Assistance with preparations for world radiocommunication conferences (WRC) and with follow-up and implementation of WRC decisions

The submission of joint proposals is a way of guaranteeing that regional needs are taken into account. Alongside regional organizations, ITU could give impetus to the establishment and running of regional and subregional preparatory structures for WRCs.

With support from regional and subregional organizations, the Radiocommunication Bureau could communicate the broad outlines of decisions taken by the conferences, and thereby contribute to establishing a follow-up mechanism for such decisions at national and regional level.

7 Assistance with participation in the work of the relevant ITU-R study groups and their working parties

The ITU-R study groups play a key role in the drafting of Recommendations which affect the entire radiocommunication community. It is essential that developing countries participate in study group work in order to ensure that their specific features are taken into account. For effective participation of those countries, ITU could – through its field offices – assist in running a subregional network organized around coordinators responsible for the Questions under study within ITU-R, as well as by providing financial assistance in order for the coordinators to participate in meetings of the relevant ITU-R study groups. The designated coordinators for the different regions should also assist in meeting the desired needs.

8 Transition to digital terrestrial television broadcasting

Most of the developing countries are currently undergoing the transition from analogue to digital terrestrial television broadcasting. There is thus a need for assistance in many topics, especially for developing countries party to the GE06 Agreement, including frequency planning, service scenarios and technology selection, which all in turn affect spectral efficiency and the resulting digital dividend.

9 Assistance in identifying the most efficient ways to utilize the digital dividend

Developing countries, upon completing digital switchover, will have some portions of a very valuable spectrum freed, which are known as the digital dividend. Different discussions are being conducted on how to optimally reallocate, and enable more efficient use of, the relevant part of these bands. In order to maximize both economic and social impacts, it will be appropriate to consider including potential use cases and best practices in ITU's library, and to hold regular international and regional workshops on that subject.

10 Emerging technologies and approaches in using spectrum

With the ongoing demand for high data rates, there is pressure on the limited spectrum resource. Developing countries need to be aware of emerging technologies and approaches in using spectrum which are intended to improve spectrum efficiency and cost-effectiveness, through training, seminars and national experiences. Some examples include:

– dynamic spectrum sharing (DSS);

– use of satellite and high-altitude platform (HAPS) systems for the provision of services in remote and inaccessible areas;

– Internet of things (IoT);

– IMT-2020;

– short-range devices;

– emerging telecommunication/ICT technologies (e.g. 5G and satellite constellations).

11 Innovative ways of spectrum licensing

As part of smart government, public services are increasingly being offered over mobile and online platforms. The process of spectrum licensing can also be automated, and the process of receiving requests for spectrum use and licensing can be made available online and on smart devices. Innovative ways of spectrum licensing such as light licensing and authorized shared access/licensed shared access could have potential to improve the efficiency of spectrum utilization. Training and national experiences can be offered to the developing countries in order for them to benefit from the experience of countries that have deployed such systems including the licensing regimes.

12 Assistance with interference caused by devices in derogation of national spectrum allocations

Radiocommunication devices are required to operate in accordance with the Radio Regulations, national regulations and the Table of Frequency Allocations in order to avoid harmful interference. As spectrum allocations can vary among countries, radiocommunication devices manufactured to operate in one country can cause harmful interference if used in another country in specific bands allocated to different services.

In this regard, the popularity of small-size radiocommunication devices, their potential growth, and the lack of technical knowledge on the part of their users will pose an increasing challenge for national spectrum regulators.

13 Assistance in resolving seasonal interference caused by anomalous propagation of radiowaves

Coastal areas of nations, and island nations, especially small island nations, experience seasonal cross-border interference to their mobile networks due to anomalous propagation of radiowaves. This interference becomes very critical if both countries are using different frequency planning in the same frequency band. This issue continues to pose challenges to national spectrum-management authorities.

RESOLUTION 10 (Rev. Hyderabad, 2010)

Financial support for national spectrum-management programmes

The World Telecommunication Development Conference (Hyderabad, 2010),

recalling

Resolution 10 (Rev. Doha, 2006) of the World Telecommunication Development Conference (WTDC),

considering

a) that we are currently witnessing the accelerated implementation and globalization of different radiocommunication services, and the emergence of new efficient radio applications;

b) that guaranteeing successful development of radiocommunications and implementation of these new applications calls for the availability of appropriate interference-free frequency bands, at the national, regional and international levels, in accordance with the Radio Regulations and Recommendations and resolutions of the ITU Radiocommunication Sector (ITU-R);

c) the outputs from the second phase of the World Summit on the Information Society (WSIS), particularly § 96 of the Tunis Agenda for the Information Society pertaining to the role of ITU in taking steps to ensure the rational, efficient and economic use of, and equitable access to, the radio-frequency spectrum by all countries;

d) that the provision of frequency bands and more efficient use of the spectrum, at the national, regional and international levels, depend on the establishment and implementation of relevant national spectrum-management, including radio-monitoring, programmes to prevent interference;

e) that efficient national spectrum-management programmes are essential to the liberalization of radiocommunications and the privatization of some radiocommunication services and to promoting competition, realizing that such programmes are not available in some developing countries[1];

f) that several countries are switching off their analogue television transmissions and migrating to digital broadcasting technologies, freeing a range of radio frequencies currently used for analogue television;

g) that spectrum can be used for efforts to bridge the digital divide,

recognizing

a) the importance of implementing spectrum-management programmes in ensuring effective development of radiocommunications and the role played by radiocommunications in developing a country's economy, and that such programmes are sometimes not given the necessary priority;

b) that national and international finance organizations frequently accord much more priority to supporting the implementation of telecommunication (including radiocommunication) systems than to the implementation of national spectrum-management programmes;

c) the success achieved in the implementation of Resolution 9 "Participation of countries, particularly developing countries, in spectrum management" since it was first adopted at WTDC (Valletta, 1998),

resolves

1 to continue to invite national and international finance organizations to pay more attention to giving substantial financial support, including through favourable credit arrangements, to national spectrum-management – including radio-monitoring – programmes and training therein for those countries that lack appropriate spectrum-management programmes, as a prerequisite for efficient spectrum utilization, the successful development of radio services and the implementation of new and promising applications, including global ones, at the national, regional and international levels;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2 to continue to invite the Telecommunication Development Bureau (BDT) to provide, in its budget, for the holding of an annual meeting to study the question of national spectrum management, in full coordination with the Radiocommunication Bureau (BR), within the activities of Programme 1, at the regional and international levels;

3 to invite BDT to follow up development of the national spectrum-management system for developing countries (SMS4DC), in cooperation with BR and ITU-R Study Group 1;

4 to invite BDT to evaluate the possibility of:

i) studying optimal ways of phasing out analogue TV in developing countries; and

ii) better utilizing the phased-out analogue TV frequencies,

requests the Telecommunication Development Bureau

to bring this resolution to the attention of relevant international and regional financing and development organizations,

invites the Director of the Radiocommunication Bureau

to continue the cooperation with BDT in developing the national spectrum-management system for developing countries (SMS4DC), and training therein,

invites ITU-R Study Groups 5 and 6

to continue the cooperation with ITU-D Study Group 2, providing information on the current and future use of the spectrum with the phased-out analogue TV frequencies and reporting how the developed and developing countries are using or planning to use the digital dividend.

RESOLUTION 11 (Rev. Kigali, 2022)

Telecommunication/information and communication technology services in rural, isolated and poorly served areas

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 20 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference (WTDC), on non-discriminatory access to modern telecommunication/information and communication technology (ICT) facilities, services and related applications;

b) Resolution 46 (Rev. Kigali, 2022) of this conference, on assistance to indigenous peoples and communities through ICTs;

c) Resolution 69 (Rev. Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on non-discriminatory access and use of Internet resources and telecommunications/ICTs;

d) Resolution 77 (Rev. Hammamet, 2016) of WTSA, on enhancing standardization work in the ITU Telecommunication Standardization Sector (ITU-T) for software-defined networking;

e) Resolution 90 (Hammamet, 2016) of WTSA, on open source in ITU-T;

f) Resolution 135 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in the durable and sustainable development of telecommunications/ICTs, in providing technical assistance and advice to developing countries[1] and in implementing relevant national, regional and interregional projects;

g) Resolution 137 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on deployment of future networks in developing countries;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

h) Recommendation ITU-D 20 (Dubai, 2014), recommending that the world's governments and regulators take policy and regulatory measures to accelerate the development of telecommunications/ICTs/broadband in their rural and remote areas through specific policy and regulatory interventions/initiatives;

i) Recommendation ITU-D 19 (Dubai, 2014), recommending that, in planning infrastructure development in rural and remote areas, it is important to assess all available technologies in the market, taking into consideration the regulatory environment, geographical conditions, climate, costs (capital expenditure and operational expenditure), maintainability, operability, sustainability, etc., based on the results of the site survey and community needs,

considering

a) that all WTDCs have reaffirmed the important and urgent need to provide access to basic telecommunication/ICT services for everyone, and particularly for developing countries, in order to provide coverage in rural and isolated areas which lack this service;

b) the outputs of the first and second phases of the World Summit on the Information Society in relation to the importance of ensuring telecommunication/ICT services in those areas and communities;

c) that broadband-satellite communication and terrestrial radio services in turn offer fast, reliable and cost-effective communication options characterized by high connection density both in urban areas and in rural and remote areas,

noting

a) that a clear correlation between the availability of universal telecommunication/ICT services and environmental, cultural, economic and social development has been firmly established;

b) the importance of achieving telecommunication/ICT infrastructure development in developing countries, which helps to enhance access to services, particularly in rural, isolated or unserved and underserved areas,

taking into account

the fact that future networks are potential tools for resolving the new and complex issues facing the telecommunication sector, and that deployment of future networks and standardization activities are of great importance for developing countries, especially for their rural regions in which the greater part of their populations live,

recognizing

a) that spectacular progress has been made in many developing countries through universal access to telecommunication/ICT services in rural, isolated and poorly served areas countrywide, thereby demonstrating the economic and technical feasibility of projects to provide this type of service;

b) that, in many areas and some developing countries, there is convincing evidence of the overall profitability of telecommunication/ICT services in rural, isolated and poorly served areas,

recognizing further

a) that there are several state-of-the-art technologies which may help to facilitate the provision of telecommunication/ICT services, in particular broadband technologies, to rural, isolated and poorly served areas;

b) that access to telecommunication/ICT services in rural, isolated and poorly served areas can only be achieved through judicious choice of appropriate technological options (terrestrial and satellite) allowing access to and maintenance of good-quality and economical services;

c) that Study Group 2 of the ITU Telecommunication Development Sector (ITU-D), in the course of its study of Question 10-3/2 in previous study periods, collected numerous case studies relating to rural projects and projects serving isolated areas, that these case studies include the preparation, design and implementation of such projects, and that they represent an important reference to be used as lessons for successful projects covering many situations;

d) that, under Question 5/1 (Telecommunications/ICTs for rural and remote areas) of ITU-D Study Group 1, existing challenges for the development of telecommunications/ICTs in rural and remote areas were examined, among which the most noteworthy are the high costs of installation and operation, the lack of energy supply, the absence of technical staff, geographic characteristics and ICT literacy, among others, and the various methods that can help solve these challenges were also identified and examined,

resolves

1 to invite ITU-D Study Group 1 to continue its studies under Question 5/1 (Telecommunications/ICTs for remote and rural areas), on the best means for providing access to telecommunication/ICT services in rural, isolated and poorly served areas in terms of universal access, rural telecommunication programmes, regulatory framework, financial resources and commercial approach, taking into account the aims of this resolution, including open and interoperable network technologies, such as software-defined and open-source network technologies;

2 to instruct the Director of the Telecommunication Development Bureau (BDT) to submit reports to ITU-D Study Group 1 on BDT's experience in this area and, in particular, the lessons learned from the projects it has implemented and the seminars and training programmes it is conducting to meet the needs of rural areas,

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Director of the Radiocommunication Bureau and the Director of the Telecommunication Standardization Bureau

1 to continue supporting the studies undertaken in response to this resolution;

2 to promote further the use of all appropriate means of telecommunication/ICT to facilitate effective development and implementation of telecommunication/ICT services in rural, isolated and poorly served areas of the world through the relevant programmes;

3 to continue efforts to promote the optimum use by developing countries of all available new telecommunication/ICT services provided by satellite and terrestrial systems to serve these areas and communities;

4 to coordinate efforts on supporting governments for the development of telecommunication/ICT services in rural, isolated and poorly served areas;

5 to provide assistance to Member States so they can identify and develop policies, mechanisms and regulatory initiatives to reduce the digital divide by promoting the deployment and adoption of broadband;

6 to consolidate and disseminate information through seminars, workshops and online spaces such as webinars to exchange national experiences on the roll-out and operation of broadband networks in rural, isolated and poorly served areas, with special emphasis on landlocked developing countries and small island developing states;

7 to promote initiatives in order to identify unserved and underserved rural and isolated areas, enabling governments to plan concrete participatory policies for the implementation of telecommunication/ICT services, and to implement capacity-building programmes to support the expansion and maintenance of telecommunication networks in these areas.

RESOLUTION 15 (Rev. Kigali, 2022)

Applied research and transfer of technology

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) No. 19 in Article 1 of the ITU Constitution, on the purposes of the Union, and No. 124 in Article 21, on the functions and structure of the ITU Telecommunication Development Sector (ITU-D);

b) the Tunis Commitment of the World Summit on the Information Society (WSIS), recognizing the principles of universal, non-discriminatory, equitable and affordable access to information and communication technology (ICT) for all nations and all persons everywhere (see §§ 15, 18 and 19);

c) Resolution 64 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on non-discriminatory access to modern telecommunication/ICT facilities, services and applications, including applied research and transfer of technology, and e-meetings, on mutually agreed terms;

d) the Addis Ababa Action Agenda of the third International Conference on Financing for Development, endorsed by the United Nations General Assembly (UNGA) in Resolution 69/313, which recognizes the transfer of technology on mutually agreed terms as a powerful driver of economic growth and sustainable development;

e) the Nairobi outcome document of the High-level United Nations Conference on South-South Cooperation, endorsed by UNGA in Resolution 64/222, which emphasizes the need to promote, including through South-South cooperation, access to and the transfer of technology on mutually agreed terms,

recognizing

a) that many countries would benefit from technology transfer;

b) that joint ventures can be effective means of technology transfer;

c) that seminars and training conducted by various countries as well as by international and regional organizations have contributed to the transfer of technology, and hence to the development of telecommunication/ICT networks in the regions;

d) that providers of telecommunication/ICT equipment and services are important partners in ensuring the flow of technology to developing countries[1] and that they are ready to enter freely into such arrangements;

e) that applied research is a promising activity for developing countries;

f) that a great number of engineers originally from developing countries contribute to applied research in developed countries;

g) that research institutes in developed countries have substantial human and material resources compared to those in developing countries;

h) that a relationship of partnership and cooperation between applied research centres and laboratories improves technology transfer;

i) that cooperation among developing countries, including South-South cooperation, holds enormous potential for effective technology transfer on mutually agreed terms,

resolves

1 that, based on agreement among parties concerned, transfer of technology in the area of telecommunications/ICTs should be supported as much as possible, in respect of both conventional technology and new technologies and services;

2 that developing and developed countries should continue to cooperate through exchanges of experts, the organization of seminars, specialized workshops and meetings, and the establishment of contacts between telecommunication/ICT applied research institutions, including by means of teleconferencing, etc.,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Director of the Radiocommunication Bureau and the Director of the Telecommunication Standardization Bureau

1 to continue to hold specialized seminars, workshops or training in the field of telecommunications/ICTs in order to raise the technological level in developing countries, including the involvement of academia and research and development institutions from both developed and developing countries;

2 to continue to promote the exchange of information among international organizations, donor countries and recipient countries on transfer of technology, including by assisting them in setting up cooperative networks between telecommunication/ICT research institutes in developing and developed countries;

3 to assist in the elaboration of terms of reference guaranteeing technology transfer;

4 to continue to develop handbooks addressing the issue of technology transfer, and ensure that these handbooks are disseminated to developing countries and that users are properly initiated in their use;

5 to give financial support to research institutes in developing countries so as to enable them to attend ITU research meetings, workshops and programmes within available resources;

6 to encourage the admission of academic institutions, universities and their associated research establishments in the work of ITU-D as Sector Members or Associates, at a reduced level of financial contribution, particularly academic institutions of developing countries,

invites developing countries

1 to continue establishing new telecommunication/ICT research projects and to submit them to existing applied research institutes in order to facilitate cooperation with other research institutes;

2 to participate in the activities of standards development organizations;

3 to participate in joint activities and telecommunication/ICT technology transfer between developing countries,

invites telecommunication equipment and service providers

pursuant to the Geneva Declaration of Principles of the first phase of WSIS and the Tunis Commitment of the second phase, to make relevant new technologies and know-how available to their customers in developing countries on a voluntary basis and/or in accordance with sound commercial principles,

appeals to international organizations and donor countries

to assist the developing countries in exploring ways and means of improving technology transfer and developing telecommunication/ICT applied research centres and laboratories, including technical and financial assistance.

RESOLUTION 16 (Rev. Buenos Aires, 2017)

Special actions and measures for the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition

The World Telecommunication Development Conference (Buenos, Aires, 2017),

recalling

a) United Nations resolutions concerning programmes for least developed countries (LDCs), small island developing states (SIDS), landlocked developing countries (LLDCs), and countries with economies in transition;

b) Resolution 68/198 of the United Nations General Assembly (UNGA), on information and communication technologies (ICT) for development;

c) UNGA Resolution 68/220, on science, technology and innovation for development;

d) UNGA Resolution 70/1, on transforming our world: the 2030 Agenda for Sustainable Development;

e) UNGA Resolution 70/125, on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society (WSIS),

considering

a) Resolution 30 (Rev. Busan, 2014) of the Plenipotentiary Conference, on special measures for LDCs, SIDS, LLDCs and countries with economies in transition;

b) Resolution 135 (Rev. Busan, 2014) of the Plenipotentiary Conference, on ITU's role in the development of telecommunications/ICTs, in providing technical assistance and advice to developing countries and in implementing relevant national, regional and interregional projects,

recognizing

that telecommunications/ICTs are a key tool for implementing the WSIS vision beyond 2015 and a key enabler for social, environmental, cultural and economic development, and consequently for accelerating the timely attainment of the Sustainable Development Goals (SDGs) and associated targets,

noting

a) Resolution 1 (Dubai, 2012) of the World Conference on International Telecommunications, on special measures for LLDCs and SIDS for access to international optical fibre networks;

b) the striking imbalance in telecommunication/ICT development between these countries (LDCs, SIDS, LLDCs and countries with economies in transition) and other countries, the persistence of which exacerbates the digital divide;

c) that these countries and countries in special need are vulnerable to extreme levels of devastation resulting from natural disasters and lack the capacity to respond effectively to these calamities;

d) the existence of countries which owing to geographical and political conditions have limited access to terrestrial and marine international cable systems,

appreciating

the special measures taken for the benefit of these countries in the form of concentrated assistance provided under the Doha Action Plan,

still concerned

a) that, despite all the measures taken so far, the telecommunication networks in many of these countries remain in a very poor state of development in urban, semi-urban and rural areas;

b) that the geographical situation of SIDS and LLDCs is an obstacle to the establishment of international telecommunication network connectivity with these countries;

c) that multilateral and bilateral flows of technical assistance and investment finance to these countries are constantly declining;

d) that to date there are many countries in this category;

e) with the low level of resources allocated to the special programme for these countries,

aware

that improved telecommunication networks in these countries will constitute a major driver underpinning their social and economic recovery and their development, and an opportunity for them to establish their information societies, and will be a tool for developing the digital economy,

resolves

to endorse the new priority areas for the next four years, the associated programme of action for these countries and its implementation strategy,

instructs the Director of the Telecommunication Development Bureau

1 to continue to review the state of telecommunication/ICT services in LDCs, SIDS, LLDCs and countries with economies in transition, so identified by the United Nations and needing special measures for the development of telecommunications/ICTs, and to identify areas of critical weakness requiring priority action;

2 to continue submitting to the ITU Council concrete measures intended to bring about genuine improvements and effective assistance to these countries, from the Special Voluntary Programme for Technical Cooperation, the Union's own resources and other sources of finance;

3 to implement fully a programme of assistance for these countries as contained in the Buenos Aires Action Plan;

4 to give priority to requests received from these countries in implementing other Telecommunication Development Bureau (BDT) programmes of assistance to developing countries[1] that are intended to improve and provide effective assistance to these countries;

5 to pay special attention to suburban and rural telecommunication/ICT development in these countries, with a view to achieving universal access to telecommunication and information technology services;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

6 to continue to work towards providing the necessary administrative and operational structure for identifying the needs of these countries and for proper administration of the resources appropriated for LDCs, SIDS, LLDCs and countries with economies in transition;

7 to report annually on this matter to the Council,

requests the Secretary-General

1 to request the forthcoming Plenipotentiary Conference (Dubai, 2018) to provide the necessary budget for these countries with a view to enabling BDT to undertake essential and programmed activities for them;

2 to continue enhancing the assistance provided to these countries through other resources, and in particular through unconditional voluntary contributions and appropriate partnerships, as well as any surplus income from world and regional telecommunication exhibitions and forums;

3 to propose new and innovative measures capable of generating additional funds to be used for telecommunication/ICT development in these countries, in order to benefit from the possibilities afforded by financial mechanisms in facing the challenges of utilizing ICT for development purposes, as stated in the Tunis Agenda for the Information Society,

calls upon governments of least developed countries, small island developing states, landlocked developing countries and countries with economies in transition

1 to continue to accord higher priority to ICT development as well as disaster response and risk reduction planning, and to adopt measures, policies and national strategies that are conducive to bringing about faster development of telecommunications/ICTs in their countries, such as sector liberalization and the introduction of new technologies;

2 in selecting technical cooperation activities financed by bilateral and multilateral sources, to continue to accord high priority to telecommunication/ICT activities and projects;

3 to accord priority to the development of ICTs in national development plans,

calls upon other Member States and Sector Members

to establish partnerships with these countries, either directly or through BDT, in order to bring increased investment into the ICT sector and to stimulate the modernization, affordability and expansion of networks, including access to international optical fibre networks, in these countries in a bold attempt to reduce the digital divide and to achieve the ultimate goal of universal access in line with the Geneva Plan of Action, the Tunis Commitment, the Tunis Agenda, the World Summit on the Information Society vision beyond 2015 and the 2030 Agenda for Sustainable Development.

RESOLUTION 17 (Rev. Kigali, 2022)

Implementation of and cooperation on approved regional initiatives at the national, regional, interregional and global levels[1]

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 34 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on assistance and support to countries in special need for rebuilding their telecommunication sector;

b) Resolution 135 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in the durable and sustainable development of telecommunications/information and communication technologies (ICTs), in providing technical assistance and advice to developing countries[2] and in implementing relevant national, regional and interregional projects;

c) Resolution 157 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening of the project execution and project monitoring functions in ITU;

d) Resolution 21 (Rev. Kigali, 2022) of this conference, on coordination and collaboration with regional organizations;

e) Resolution 32 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference (WTDC), on international and regional cooperation on regional initiatives;

f) Resolution 52 (Rev. Dubai, 2014) of WTDC, on strengthening the executing agency role of the ITU Telecommunication Development Sector (ITU-D), which emphasized the importance of establishing partnerships between the public and private sectors as an efficient way of implementing sustainable ITU projects, and of utilizing locally available expertise in executing ITU projects at regional or country level;

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1 An initiative shall take the form of an all-embracing heading under which a number of projects can be included, leaving it to each region to define these.

2 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

g) the mechanism for cooperation at regional and international level to implement the outcomes of the World Summit on the Information Society and the 2030 Agenda for Sustainable Development,

considering

a) that telecommunications/ICTs are one of the most vital elements for the growth of national economies and protection of the environment;

b) that, in order to achieve the objectives of the developing countries, new policy approaches may be required to meet the challenges of growth, in both qualitative and quantitative terms;

c) that developing countries are increasingly experiencing the need for knowledge of fast-developing technologies and the associated policy and strategic issues;

d) that ITU-D is an appropriate platform for the exchange of experiences and best practices on development of the telecommunication/ICT sector;

e) the vital importance of cooperation among Member States, ITU-D Sector Members and Associates for the implementation of regional initiatives;

f) the satisfactory and encouraging results achieved by projects which have received international cooperation support under an initiative of the Telecommunication Development Bureau (BDT);

g) that telecommunication networks and services for sustainable development are an essential element for national development and improving the social, economic, financial and cultural situation of Member States;

h) the need to coordinate and harmonize efforts to develop telecommunication infrastructure at the national, regional, interregional and global levels;

i) that the leadership of the ITU Member States is needed to outline a unified national vision of a connected society that is comprehensive of all stakeholders;

j) the commitment of the ITU Member States to promote access to ICTs at affordable prices, paying special attention to the least favoured segments;

k) the importance of the telecommunication/ICT sector and its contribution to the achievement of the United Nations Sustainable Development Goals,

recognizing

a) that developing countries and countries participating in regional initiatives are at different stages of development;

b) that, given the resources at the disposal of developing countries, it is an important task for ITU, as the United Nations specialized agency on telecommunications, to help these countries meet the requirements cited in *considering c)* above;

c) the need, therefore, to exchange experiences on telecommunication development at the regional, interregional and global level in order to support these countries;

d) that ITU and regional organizations share common beliefs that close cooperation can promote regional telecommunications/ICTs in order to support these countries;

e) that there is a continued need for ITU, using its regional and area offices, to cooperate more closely with regional and subregional organizations, including regional organizations of regulators, in order to support these countries;

f) the important role of ITU's regional and area offices in achieving effective cooperation with regional organizations,

taking into account

a) the vital importance of telecommunication development initiatives endorsed by all regional development conferences, and by the preparatory meetings preceding this conference;

b) that there is a lack of funding from the United Nations Development Programme and other international financial institutions, impeding the implementation of such initiatives;

c) the satisfactory and encouraging results achieved by activities of this kind, which have helped cooperation in the creation of telecommunication networks;

d) that some Member States' national policies and regulations may pose constraints on the implementation of such initiatives;

e) the important role of the Partner2Connect (P2C) digital coalition for developing global and regional activities/projects related to digital transformation,

noting

a) Resolution 73 (Rev. Kigali, 2022) of this conference, on the ITU Academy training centres, which aims to assist the membership with capacity building and development;

b) that the relevant regional organizations play a prominent and important role in supporting the developing countries in areas such as regional cooperation and technical assistance activities;

c) the development of cooperation and technical assistance activities among regional and subregional organizations of regulators,

resolves

1 that BDT, including through the ITU regional offices, should strengthen its relations with regional and subregional organizations, through ongoing cooperation to stimulate the mutual exchange of experience and assistance with the implementation of the regional initiatives, making the utmost use of available BDT resources, its annual budget and surplus income from ITU Telecom events;

2 that BDT continue to actively assist the developing countries in elaborating and implementing the regional initiatives which are specified in the Kigali Action Plan;

3 that BDT provide an estimate breakdown for cash and/or in-kind contribution items for the implementation of projects under the regional initiatives, and their value in the proposed budget for the projects, taking into consideration *recognizing a)* above;

4 that the budget allocation for the implementation of the regional initiatives shall be individualized in the budget of the Sector to be executed by BDT, discriminating between funds for ongoing projects and funds for new projects, divided by region;

5 that Member States should consider contributing in kind and/or in cash to the budget foreseen for implementation of these initiatives and the realization of other projects foreseen within the framework of these initiatives at the national, regional, interregional and global levels;

6 that BDT should continue to actively conclude partnerships with Member States, ITU-D Sector Members, financial institutions and international organizations in order to sponsor implementation activities for these initiatives;

7 that BDT should assist in the implementation of these initiatives at the national, regional, interregional and global levels, integrating as far as possible those initiatives that have the same content or objectives, taking into consideration the Kigali Action Plan;

8 that BDT, through the ITU regional offices, should provide information accumulated during the implementation of regional initiatives in each region (outcomes, stakeholders, financial resources used, and so on) to the Member States and regional telecommunication organizations, so as to capitalize on the experience and leverage the outcomes, which might be replicated in order to save time and resources when setting up and designing projects in the other regions, using the portal for the execution of projects in the six official languages of the Union;

9 that BDT should present progress reports to the regional development forums (RDFs) on the implementation of the regional initiatives, including, *inter alia*, outcomes, stakeholders and financial resources used,

appeals to international financial organizations/agencies, equipment suppliers and operators/service providers

to contribute, fully or partially, to financing these approved regional initiatives,

instructs the Director of the Telecommunication Development Bureau

1 to take all necessary measures for promoting and implementing these approved regional initiatives at the national, regional, interregional and global levels, and in particular the similar initiatives agreed at international level;

2 to ensure that BDT actively coordinates, collaborates in and organizes joint activities in areas of common interest with regional telecommunication organizations and training institutions, and takes into consideration their activities, as well as providing them with direct technical assistance;

3 to issue an appeal at the annual Global Symposium for Regulators and in the RDFs for worldwide and regional support for the implementation of these regional initiatives;

4 to support ITU regional offices with the required human and financial resources for them to have a role in monitoring the implementation of the initiatives approved in their regions, identify the impact of these regional initiatives, considering the possible benefits at the national level, in collaboration with countries served by these regional initiatives, and submit an annual report to the Telecommunication Development Advisory Group and the ITU Council on the implementation of this resolution;

5 to continue to promote the dissemination to other regions of the results of projects implemented under regional initiatives;

6 that an annual meeting be held in each region, dedicated to discussing the regional initiatives and projects for each region and mechanisms for implementation of the initiatives adopted and to making known the needs of the different regions, and that an RDF may be held in conjunction with the annual meeting for each region;

7 to promote, by possible means, the holding of consultations with the Member States in each region before implementing and executing approved initiatives in a timely fashion, in order to agree on priorities, suggest strategic partners, means of financing in kind and/or in cash and other issues, thereby promoting a participatory, inclusive process of meeting the goals;

8 in consultation and coordination with the Directors of the Radiocommunication and Telecommunication Standardization Bureaux, to promote the joint work of the three Sectors in order to provide suitable, efficient, agreed assistance for Member States to implement the regional initiatives;

9 to ensure that BDT facilitates the active involvement of regional and subregional telecommunication organizations in the different phases of project management established by ITU, as well as in forging partnerships and resource mobilization, with a view to effectively advancing the implementation of regional initiatives,

requests the Secretary-General

1 to continue special measures and programmes to develop and promote activities and regional initiatives, in close cooperation with regional and subregional telecommunication organizations, including regulators, and other related institutions;

2 to make every possible effort to encourage the private sector to take actions to facilitate cooperation with Member States in these regional initiatives, including countries with special needs;

3 to continue to work closely with the coordination mechanism established in the United Nations family and the five United Nations regional commissions;

4 to bring this resolution to the attention of the Plenipotentiary Conference with a view to securing adequate financial resources in the budget to fulfil the approved regional initiatives.

RESOLUTION 18 (Rev. Kigali, 2022)

Special technical assistance to Palestine

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 32 (Kyoto, 1994) of the Plenipotentiary Conference, on technical assistance to Palestine for the development of telecommunications, Resolution 125 (Rev. Busan, 2014) and Resolution 125 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on assistance and support to Palestine for rebuilding its telecommunication networks;

b) Resolution 99 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the status of Palestine in ITU;

c) the Charter of the United Nations and the Universal Declaration of Human Rights;

d) Resolution 18 (Rev. Dubai, 2014) and Resolution 18 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference (WTDC), on special technical assistance to Palestine;

e) United Nations General Assembly Resolution 68/235, which recognizes the Palestinian people's right to permanent sovereignty over their natural resources, specifically land, water, energy and other natural resources, in the occupied Palestinian territory, including East Jerusalem;

f) the provisions of § 16 of the Declaration of Principles of the first phase (Geneva, 2003) of the World Summit on the Information Society (WSIS) and the outcomes of the second phase of WSIS, particularly § 96 of the Tunis Agenda for the Information Society, relating to ITU's role in taking steps to ensure rational, efficient and economic use of, and equitable access to, the radio-frequency spectrum by all countries, based on relevant international agreements,

considering

a) that the ITU Constitution and Convention are designed to strengthen peace and security in the world for the development of international cooperation and better understanding among the peoples concerned;

b) ITU's policy of assistance to Palestine for the development of its telecommunication/information and communication technology (ICT) sector, which is efficient but has not yet achieved its goals;

c) Resolution 9 (Rev. Kigali, 2022) of this conference, to the effect that it is the sovereign right of every State to manage spectrum use within its territories, the provisions in Resolution 99 (Rev. Dubai, 2018), and Resolution 12 (Rev.WRC-19) of the World Radiocommunication Conference (WRC),

considering further

a) that establishment of a reliable and modern telecommunication network is an essential part of economic and social development and is of the utmost importance to the future of the Palestinian people;

b) the importance of the international community in assisting Palestine to develop a modern and reliable telecommunication network,

mindful

of the fundamental principles contained in the Constitution,

having regard to

a) the continuing challenges faced by Palestine and ITU in executing the five projects agreed with the Telecommunication Development Bureau (BDT) under the implementation of Resolution 18 (Rev. Istanbul, 2002), Resolution 18 (Rev. Doha, 2006), Resolution 18 (Rev. Hyderabad, 2010), Resolution 18 (Rev. Dubai, 2014) and Resolution 18 (Rev. Buenos Aires, 2017) of WTDC, which must be a matter of anxiety and concern for the entire international community, especially ITU;

b) the decisions of the Connect Arab summit;

c) the key outcomes of the Regional Preparatory Meeting for the Arab region (RPM-ARB), held in Sudan in 2017, particularly issues relating to Palestine,

noting

the long-term technical assistance from BDT to Palestine for the development of its telecommunications/ICTs pursuant to Resolution 32 (Kyoto, 1994) and the urgent need for forms of assistance to be provided in the various fields of information, informatics and communication, and the increasing difficulties that have accompanied the provision of this assistance continuously since that resolution was adopted,

noting with grave concern

the restrictions and difficulties related to the current situation in Palestine that are preventing access to telecommunication/ICT means, services and applications and which constitute a continuing obstacle to telecommunication/ICT development in Palestine,

resolves to continue to instruct the Director of the Telecommunication Development Bureau

1 to continue and enhance the technical assistance provided to Palestine for the development of its telecommunications/ICTs, taking into consideration the need to overcome the increasing and escalating difficulties encountered in the provision of this assistance during the previous cycles since 2002;

2 to take appropriate measures within the mandate of BDT aimed at facilitating the establishment of international access networks, including terrestrial and satellite stations, submarine cables, optical fibre and microwave systems;

3 to instruct BDT, in coordination with the Radiocommunication Bureau, to enable Palestine in acquiring and managing frequencies required in the band 470-694 MHz for the operation of single- and multi-frequency digital terrestrial television, and identify mechanisms for ensuring that Palestine can exploit the 694-862 MHz frequency band resulting from the digital transition for broadband mobile service uses and applications to be used after WRC-19;

4 to provide a technical periodic report on various experiences in liberalization and privatization of telecommunications/ICTs and the challenges of the Palestinians in the sector, the development of the infrastructure, and to assess their impact on the development of the sector in the Gaza Strip and the West Bank;

5 to implement e-health, e-education, e-government, spectrum planning and management pursuant to the previous agreements in ITU, and human resources development projects and all other forms of assistance;

6 to provide urgent assistance to Palestine in acquiring and managing the required radio-frequency spectrum resource for the operation of 4G and 5G networks, according to the needs identified in a study carried out by an international specialized advisory firm, in furtherance of ongoing efforts to address technical issues and overcoming the challenges of introducing new technologies, consistent with the Interim Agreement;

7 to report to the ITU Council with an annual report on the progress made in implementing this resolution (and similar resolutions) and the mechanisms employed to deal with the increasing difficulties arising,

calls upon ITU members

1 to provide all forms of support and assistance to Palestine bilaterally or through executive actions taken by ITU in this regard;

2 to assist Palestine in rebuilding and restoring the Palestinian telecommunication network;

3 to assist Palestine in recovering its entitlements accruing from incoming and outgoing international traffic;

4 to provide Palestine with assistance in support of the implementation of BDT projects, including human resources capacity building,

requests the Secretary-General

to report to the Plenipotentiary Conference (Bucharest, 2022) on the progress achieved in implementing this resolution.

RESOLUTION 20 (Rev. Buenos Aires, 2017)

Non-discriminatory access to modern telecommunication/ information and communication technology facilities, services and related applications

The World Telecommunication Development Conference (Buenos Aires, 2017),

recalling

a) Resolution 102 (Rev. Busan, 2014) of the Plenipotentiary Conference;

b) Resolution 64 (Rev. Busan, 2014) of the Plenipotentiary Conference, on non-discriminatory access to modern telecommunication/information and communication technology (ICT) facilities, services and applications, including applied research and transfer of technology, and e-meetings, on mutually agreed terms;

c) Resolution 69 (Rev. Hammamet, 2016) of the World Telecommunication Standardization Assembly, on non-discriminatory access and use of Internet resources and telecommunications/ICTs,

recalling also

a) the decisions of the two phases of the World Summit on the Information Society (WSIS) concerning non-discriminatory access, in particular §§ 15, 18 and 19 of the Tunis Commitment and §§ 90 and 107 of the Tunis Agenda for the Information Society;

b) United Nations General Assembly (UNGA) Resolution 70/1, on transforming our world: the 2030 Agenda for Sustainable Development;

c) UNGA Resolution 70/125, on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the WSIS outcomes;

d) the WSIS+10 Statement on the implementation of WSIS outcomes and WSIS+10 vision for WSIS beyond 2015, adopted at the ITU-coordinated WSIS+10 High-Level Event (Geneva, 2014) and endorsed by the Plenipotentiary Conference (Busan, 2014), which was submitted as an input into the UNGA overall review of WSIS,

taking into account

a) that ITU plays an important role in the promotion of global telecommunication/ICT standardization and development;

b) that, to this end, the Union coordinates efforts aimed at securing harmonious development of telecommunication/ICT facilities in all its Member States,

taking into account further

that this conference, like its predecessors, is required to formulate a viewpoint and draw up proposals on issues determining a worldwide strategy for the development of telecommunication/ICT facilities, services and applications, and facilitate mobilization of the necessary resources to that end,

noting

a) that modern telecommunication/ICT facilities, services and applications are established, in the main, on the basis of Recommendations of the ITU Radiocommunication (ITU-R) and ITU Telecommunication Standardization (ITU-T) Sectors;

b) that ITU-R and ITU-T Recommendations are the result of the collective efforts of all those taking part in the standardization process within ITU and are adopted by consensus by the members of the Union;

c) that limitations on access to the telecommunication/ICT facilities, services and applications on which national telecommunication/ICT development depends and which are established on the basis of ITU-R and ITU-T Recommendations constitute an obstacle to the harmonious development and compatibility of telecommunications/ICTs worldwide,

recognizing

that full harmonization of telecommunication/ICT networks is impossible unless all countries participating in the work of the Union without exception enjoy non-discriminatory access to new telecommunication/ICT technologies and modern telecommunication/ICT facilities, services and applications, without prejudice to national regulations and international commitments within the competence of other international organizations,

resolves

that there should be non-discriminatory access to telecommunication/ICT facilities, services and applications established on the basis of ITU-R and ITU-T Recommendations,

encourages the Director of the Telecommunication Development Bureau

to engage in partnerships or strategic cooperation with parties which respect access to telecommunication/ICT facilities, services and applications without discrimination,

requests the Secretary-General

to transmit this resolution to the forthcoming plenipotentiary conference for consideration,

invites the Plenipotentiary Conference

to consider this resolution with a view to taking measures to foster global access to modern telecommunication/ICT facilities, services and applications,

invites Member States

1 to refrain from taking any unilateral and/or discriminatory actions that could impede technically another Member State from having full access to the Internet within the spirit of Article 1 of the ITU Constitution and the WSIS principles;

2 to help telecommunication/ICT equipment manufacturers and service providers in ensuring that telecommunication/ICT facilities, services and applications established on the basis of ITU-R and ITU-T Recommendations are made available for the use of the public without any discrimination, in accordance with the WSIS outcomes.

RESOLUTION 21 (Rev. Kigali, 2022)

Strengthening coordination and collaboration with regional and subregional organizations

The World Telecommunication Development Conference (Kigali, 2022),

considering

a) Resolution 37 (Rev. Kigali, 2022) of this conference, on bridging the digital divide;

b) Resolution 25 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening the regional presence;

c) Resolution 58 (Rev. Busan, 2014) of the Plenipotentiary Conference, on strengthening of relations between ITU and regional telecommunication organizations and regional preparations for the Plenipotentiary Conference;

d) Resolution 123 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on bridging the standardization gap between developing[1] and developed countries;

e) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on use of telecommunications/information and communication technologies (ICTs) to bridge the digital divide and build an inclusive information society;

f) Resolution 44 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA), on bridging the standardization gap between developing and developed countries;

g) Resolution 54 (Rev. Geneva, 2022) of WTSA, on regional groups of study groups of the ITU Telecommunication Standardization Sector (ITU-T);

h) Recommendation ITU-D 22 (Dubai, 2014) of the World Telecommunication Development Conference, on bridging the standardization gap in association with regional groups of the study groups;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

i) Resolution 72 (Rev.WRC-19) of the World Radiocommunication Conference (WRC), on world and regional preparations for WRCs;

j) the provisions of §§ 26 and 27 of the Geneva Plan of Action of the World Summit on the Information Society (WSIS);

k) the key principles of the WSIS Geneva Declaration of Principles in §§ 60, 61, 62, 63 and 64;

l) the provisions of §§ 23 c), 27 c), 80, 87, 89, 96, 97 and 101 of the WSIS Tunis Agenda for the Information Society;

m) Resolution 70/1 of the United Nations General Assembly (UNGA) on transforming our world: the 2030 Agenda for Sustainable Development;

n) UNGA Resolution 70/125, on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the WSIS outcomes,

conscious

a) that the role of regional and subregional organizations continues to grow with the changes that have taken place in recent years;

b) that regional organizations are important bodies, and coordination with them should be carried out in order to support coordination and collaboration on the implementation of regional projects;

c) that the relationship between ITU regional and area offices and regional telecommunication organizations has proved to be of great benefit;

d) that meetings of the regional groups of ITU study groups are held by ITU and can be supported by regional organizations and/or regional standardization bodies;

e) that the activities of regional groups have become more important, and encompass a growing number of issues of particular importance for developing countries;

f) that it is necessary to adopt ways and means of enhancing the role of ITU in general, and the ITU Telecommunication Development Sector (ITU-D) in particular, in implementing the WSIS goals and in implementing the 2030 Agenda for Sustainable Development in relation to the development of telecommunications/ICTs globally, regionally and nationally, in close cooperation with other international and regional organizations and relevant civil-society bodies;

g) that it is necessary to seize every opportunity to give experts from developing countries additional opportunities to gain experience by participating in regional and subregional meetings relating to the work of ITU-D Study Groups 1 and 2,

recognizing

a) that developing countries are at different stages of development;

b) that there is a need, therefore, to exchange opinions on telecommunication development at a regional level;

c) the difficulty for some countries in some regions to participate in the activities of ITU-D, ITU-T and the ITU Radiocommunication Sector (ITU-R);

d) that a common and coordinated approach within ITU to the study of matters relating to the development and standardization of telecommunications/ICTs could serve to foster the promotion of standardization activities in developing countries;

e) that, pursuant to the aforementioned Resolutions 44 and 54 (Rev. Geneva, 2022), regional rapporteur groups might permit wider participation by some countries, at lower cost, to address certain questions;

f) that many of these countries make effective use of regional and subregional organizations;

g) that regional and subregional meetings are a valuable opportunity for exchanging information and generating managerial and technical experience and knowledge;

h) that it is necessary to collaborate with ITU-T in this respect in implementing Resolutions 44 and 54 (Rev. Geneva, 2022);

i) the call for holding future virtual or physical meetings with remote participation for ITU regional groups and subgroups, organized in coordination with the ITU regional and area offices;

j) the increasing involvement of the regional and area offices in the work and activities of not only ITU-D, but also ITU-T and ITU-R;

k) Article 43 of the ITU Constitution (No. 194), which states that ''Member States reserve the right to convene regional conferences, to make regional arrangements and to form regional organizations, for the purpose of settling telecommunication questions which are susceptible of being treated on a regional basis. Such arrangements shall not be in conflict with either this Constitution or the Convention'',

recalling

a) the possibility of creating regional groups to study questions or difficulties which, because of their specific nature, it is desirable to study within the framework of one or more of ITU's regions;

b) regional initiatives with a view to:

i) implementation of technical cooperation projects and direct assistance to other regions;

ii) cooperation in regional initiatives with regional and international organizations involved with telecommunication/ICT development;

c) the need to create an appropriate mechanism to unify efforts with the bodies referred to in Resolutions 44 and 54 (Rev. Geneva, 2022);

d) the budgetary constraints of the regional and area offices and the need to support them with financial and human resources,

resolves

1 to continue to encourage the creation of regional groups to study questions or difficulties that concern a specific region;

2 to encourage cooperation of ITU regional and area offices with relevant regional groups, ITU Sector Members, Associates and Academia as well as with regional telecommunication organizations and regional standardization organizations, on issues of mutual interest;

3 that ITU-D continue to coordinate, collaborate in and organize joint activities in areas of common interest with regional and subregional organizations and training institutions and take into consideration their activities;

4 that the results of the activities of regional groups be sent for use, as appropriate, in ITU-D,

instructs the Director of the Telecommunication Development Bureau

1 to take the necessary measures to coordinate with regional and subregional telecommunication organizations, and regional standardization organizations, as required;

2 to implement the necessary procedures to ensure effective liaison between regional groups set up under Resolutions 44 and 54 (Rev. Geneva, 2022) and the ITU-T and ITU-D study groups, especially on complementary Questions under study;

3 to study means to increase resources in regional and area offices for the implementation of regional initiatives in the study period to the extent practicable, within the limits of budgetary resources;

4 to make the utmost effort for the regional and area offices to support and facilitate the implementation of national initiatives of Member States,

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Radiocommunication Bureau and the Telecommunication Standardization Bureau

within the allocated or contributed resources that are available,

1 to provide all necessary support for creating and ensuring smooth functioning of the regional groups;

2 to consider, whenever possible, holding conferences and workshops concurrently with meetings of the ITU-T regional groups, in the relevant regions, and vice versa;

3 to take all necessary measures to facilitate the organization of meetings and conferences/workshops of the regional groups,

invites Member States

to work on the implementation of this resolution and bring forward some innovative ideas on revenue generation.

RESOLUTION 22 (Rev. Kigali, 2022)

Alternative calling procedures on international telecommunication networks and identification of origin in providing international telecommunication services

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 21 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on measures concerning alternative calling procedures on international telecommunication networks;

b) Resolution 29 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA), on alternative calling procedures on international telecommunication networks;

c) Resolution 20 (Rev. Geneva, 2022) of WTSA, on procedures for allocation and management of international telecommunication numbering, naming, addressing and identification resources;

d) Resolution 61 (Rev. Geneva, 2022) of WTSA, on countering and combating misappropriation and misuse of international telecommunication numbering resources;

e) Resolution 65 (Rev. Geneva, 2022) of WTSA, on calling party number (CPN) delivery, calling line identification (CLI) and origin identification (OI) information;

f) the results and ongoing work of Study Groups 2 and 3 of the ITU Telecommunication Standardization Sector (ITU-T),

considering

a) the sovereign right of each Member State to regulate its telecommunications/information and communication technologies (ICTs), which may include the provision of CLI, CPN delivery and OI;

b) the purposes of the Union, as stated in Article 1 of the ITU Constitution;

c) the necessity of identifying the origin of calls as one of the aims of national security;

d) the need to facilitate the determination of routing and charging,

considering further

a) that alternative calling procedures, which may be potentially harmful, are not permitted in many countries and permitted in some others;

b) that although alternative calling procedures may be potentially harmful, they may be attractive for users;

c) that the use of alternative calling procedures adversely affects the economies of developing countries[1] and may seriously hamper the efforts of these countries for the sound development of their telecommunication networks and services, may prejudice national security aims and may have an economic effect;

d) that some forms of alternative calling procedures may have an impact on traffic management and network planning, and degrade the quality and performance of telecommunication networks;

e) that a number of relevant ITU-T Recommendations, particularly those of ITU-T Study Groups 2 and 3, address, from several points of view, including technical and financial, the effects of alternative calling procedures on the performance and development of telecommunication networks;

f) that some countries are allocating national numbering and addressing resources to services supporting alternative calling procedures;

g) the emerging telecommunication/ICT services and their role in facilitating the connectivity between countries,

noting

a) that the role of ITU with respect to reports of numbering misuse is stated in Recommendation ITU-T E.156, on guidelines for ITU-T action on reported misuse of E.164 number resources;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

b) that any calling procedure should aim to maintain acceptable levels of quality of service (QoS) and quality of experience (QoE), as well as to enable CPN delivery, CLI and/or OI information;

c) the relevant articles of the International Telecommunication Regulations, as appropriate;

d) that over-the-top (OTT) services, defined in a national context, are considered as a form of alternative calling procedures, and may also be beneficial for persons with special needs;

e) that alternative calling procedures such as OTT services have transformed the economies of both developed and developing countries,

resolves

1 to encourage all administrations and international telecommunication operators to give effect to ITU-T Recommendations which help limit the negative effects of alternative calling procedures and CPN delivery on developing countries, and limit the negative effects of misappropriation and misuse of relevant international telecommunication numbering resources within the remit of ITU;

2 to request study groups of the ITU Telecommunication Development Sector and of ITU-T to collaborate so as to avoid overlap and duplication of effort in studying alternative calling procedures, including OTT services, taking into account *considering a),* and specifically ITU-T Study Group 2, in studying aspects and forms of alternative calling procedures; ITU-T Study Group 3, in studying the economic effects of alternative calling procedures; and ITU-T Study Group 12, in studying the minimum QoS and QoE threshold to be fulfilled during the use of alternative calling procedures;

3 to request administrations and international telecommunication operators which permit the use of alternative calling procedures but do not provide CPN delivery in their countries in accordance with their national regulations to respect the decisions of other administrations and international operators whose regulations do not permit such services and which request the provision of CPN delivery, international CLI and/or OI information, taking into account the relevant ITU-T Recommendations, for security and economic reasons,

instructs the Director of the Telecommunication Development Bureau

to continue to cooperate with the Director of the Telecommunication Standardization Bureau in order to facilitate the participation of developing countries in ITU studies and to make use of the results of the studies, and in the implementation of this resolution,

invites Member States and Sector Members

to support the study of the impact of alternative calling procedures on national environments based on the introduction of appropriate ITU-T Recommendations concerning alternative calling procedures.

RESOLUTION 23 (Rev. Buenos Aires, 2017)

Internet access and availability for developing countries[1] and charging principles for international Internet connection

The World Telecommunication Development Conference (Buenos Aires, 2017),

recalling

a) United Nations General Assembly (UNGA) Resolution 70/1, on transforming our world: the 2030 Agenda for Sustainable Development;

b) UNGA Resolution 70/125, on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society (WSIS);

c) Resolution 64 (Rev. Busan, 2014) of the Plenipotentiary Conference, on non-discriminatory access to modern telecommunication/information and communication technology (ICT) facilities, services and applications, including applied research and transfer of technology, and e-meetings, on mutually agreed terms, which invites Member States to refrain from taking any unilateral and/or discriminatory actions that could impede technically another Member State from having full access to the Internet, within the spirit of Article 1 of the ITU Constitution and the WSIS principles;

d) Resolution 101 (Rev. Busan, 2014) of the Plenipotentiary Conference, on Internet Protocol (IP)-based networks;

e) Resolution 139 (Rev. Busan, 2014) of the Plenipotentiary Conference, on use of telecommunications/ICTs to bridge the digital divide and build an inclusive information society;

f) Resolution 20 (Rev. Buenos Aires, 2017) of this conference, on non-discriminatory access to modern telecommunication/ICT facilities, services and related applications;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

g) Resolution 37 (Rev. Buenos Aires, 2017) of this conference, on bridging the digital divide;

h) the provisions of § 50 of the Tunis Agenda for the Information Society, recognizing the particular concerns among developing countries that charges for international Internet connectivity should be better balanced to enhance access, and calling for the development of strategies for increasing affordable global connectivity, thereby facilitating improved and equitable access for all, by the means described in the said paragraph, especially items a), b), c), d), e), f) and g) thereof;

i) the four targets set by the Broadband Commission for Digital Development for making broadband universal and boosting affordability and uptake thereof, namely: making broadband policy universal; making broadband affordable; connecting homes to broadband; and getting people online;

j) Opinion 1 (Geneva, 2013) of the World Telecommunication/ICT Policy Forum (WTPF), which expresses the view that enabling the interconnection of international, national and regional networks through Internet exchange points (IXPs) may be an effective way to improve international Internet connectivity and to reduce the costs of such connectivity, with regulation only when necessary to promote competition, and invites Member States and Sector Members to work in a collaborative manner to do a number of things, including to promote public policies aimed at permitting the local, regional and international Internet network operators to interconnect through IXPs,

noting

a) that Recommendation ITU-T D.50, on international Internet connection, recommends that administrations take appropriate measures nationally to ensure that parties (including operating agencies authorized by Member States) involved in the provision of international Internet connections negotiate and agree to bilateral commercial arrangements, or other arrangements as agreed between administrations, enabling direct international Internet connections that take into account the possible need for compensation between them for the value of elements such as traffic flow, number of routes, geographical coverage and cost of international transmission, and the possible application of network externalities, among others;

b) that Recommendation ITU-T D.52, on establishing and connecting regional Internet exchange points to reduce costs of international Internet connectivity, proposes measures to empower administrations and consumers to benefit from efficient cooperation so that they have the required information to take appropriate regulatory actions, and to identify measures for improving the way the market works and proposals for regulatory actions, which may include measures to lower costs;

c) that the rapid growth of the Internet and IP-based international services, in addition to the rise in high-speed mobile telecommunication access in all parts of the world and general availability of connected devices, has allowed users access to a wider range of services;

d) that international Internet connections remain subject to commercial agreements between the parties concerned, and Internet service provider (ISP) operators from developing countries have expressed concerns that such agreements have not achieved the required balance in regard to charges between developed and developing countries, especially affecting landlocked countries;

e) that the composition of costs for operators, whether regional or local, is, in part, significantly dependent on the type of connection (transit or peering) and the availability and cost of backhaul and long-haul infrastructure;

f) that the cost of transit is an obstacle for the availability and development of the Internet in developing countries;

g) that Opinion 1 (Geneva, 2013) considered that the establishment of IXPs is a priority to address connectivity issues, improve quality of service and reduce interconnection costs; and that IXPs and telecommunication traffic exchange points may play a relevant role in the deployment of Internet infrastructure and reaching the overall goals of improving quality, increasing the connectivity and resilience of networks, fostering competition and reducing the costs of interconnection;

h) that access to information and sharing and creation of knowledge contribute significantly to strengthening economic, social and cultural development, thus helping countries to reach the internationally agreed development goals and objectives, a process which can be enhanced by removing barriers to universal, ubiquitous, equitable and affordable access to information;

i) that continuing technical and economic development require ongoing studies in this area by the relevant ITU Sectors, in particular best practices for reducing the cost of international Internet connectivity (transit and peering);

j) that efficient networks and costs enable increased traffic volumes, economies of scale and a shift from transit connections to peering arrangements where appropriate;

k) that a rise in the costs of international connectivity will result in delayed access to and benefit from the Internet;

l) that the disparities in ICT development between countries remain substantial, ICT Development Index (IDI) values being on average twice as high in developed compared to developing countries;

m) that the case could arise in which the surcharges that a Member State, especially a transit country, applies to parties operating at the national level (including recognized operating agencies) are transferred via tariffs to the parties (including recognized operating agencies) that are operating abroad under the rules of another Member State,

recognizing

a) that commercial initiatives by service providers have the potential to deliver cost savings for Internet access, for example through the development of more local content and the optimization of Internet traffic routing patterns in a manner that provides for a greater proportion of traffic to be routed locally;

b) that the development of an information society requires not only the deployment of appropriate technical infrastructure but also measures to promote availability of local content, applications and services, in a range of languages and at affordable prices, while providing access to remotely available content regardless of location;

c) that skills development, education and capacity building play a critical role in promoting Internet access in developing countries and the development of an information society;

d) the need to bridge the digital divide at various levels (including the digital divide between regions, countries, parts of countries, and between urban and rural areas),

taking into account

a) that, as part of the work of Study Group 3 of the ITU Telecommunication Standardization Sector (ITU-T), on tariff and accounting principles including related telecommunication economic and policy issues, a rapporteur group was set up for the purpose of drafting a supplement to Recommendation ITU-T D.50 to facilitate the adoption of specific measures to reduce international Internet connection costs, especially for developing countries;

b) that ITU-T Study Group 3 adopted Recommendation ITU-T D. 52, on establishing and connecting regional IXPs to reduce costs of international Internet connectivity, which guides regional collaboration to establish central hubs or IXPs that enable local Internet traffic to be routed locally, saving international bandwidth and reducing the costs of international Internet connectivity,

invites Study Group 1 of the ITU Telecommunication Development Sector

1 to take into account the content of this resolution when conducting related studies to promote international connections to the Internet, and to maintain close cooperation with ITU-T Study Group 3;

2 to provide guidance based on contributions of Member States and Sector Members on the support and best practices which are available from ITU-T, including Recommendations ITU-T D.50 and ITU-T D.52, the Internet Society, the regional IXP associations and other relevant stakeholders in regard to the establishment of IXPs;

3 to continue to study the national aspects related to this resolution under ITU-D Study Group 1 Question 3/1,

resolves to invite Member States

1 to support the work of ITU-T in monitoring the application of Recommendations ITU-T D.50 and ITU-T D.52, bearing in mind the importance of the issue of international Internet connection costs in the developing countries;

2 to make progress in the coordination of regional policies in order to reduce international Internet connection costs, by agreeing on specific measures that will lead to an improvement in conditions for developing countries, including the deployment of regional IXPs, and supporting the Recommendation ITU-T D.52 supervisory work;

3 to promote, taking into account the policies of each country, the establishment of regional, subregional and national IXPs that represent an alternative to reduce the costs of broadband, ensuring that they in turn enable a direct flow without the need for recourse to international circuits;

4 to create policy conditions for effective competition in the international Internet backbone network access market as well as in the domestic Internet access service market, as an important factor for lowering the cost of Internet access for users and service providers;

5 to implement the Tunis Agenda in this respect, particularly § 50 thereof;

6 to take appropriate measures at national level to promote the provision of international connections that comply with international regulations in force;

7 to promote agreements for taking appropriate measures at national level that enable parties (including recognized operating agencies) that provide international connections to minimize the surcharges for parties (including recognized operating agencies) residing abroad that receive the aforementioned international connections;

8 to continue to support initiatives to promote skills development, education and capacity building in ICTs, particularly in developing countries;

9 to support the action being taken by ITU-T Study Group 3 to facilitate the adoption of specific measures to reduce the cost of global Internet connectivity, particularly for developing countries,

reaffirms

its resolution in the quest to continue to ensure that everyone can benefit from the opportunities that ICTs can offer, by recalling that governments, as well as the private sector, civil society and the United Nations and other international organizations, should work together to: improve access to information and communication infrastructure and technologies as well as to information and knowledge; build capacity; increase confidence and security in the use of ICTs; create an enabling environment at all levels; develop and widen ICT applications; foster and respect cultural diversity; recognize the role of the media; address the ethical dimensions of the information society; and encourage international and regional cooperation,

urges regulators

1 to promote such measures as may be considered appropriate to foster an improvement in conditions for service providers, including small and medium-sized ISPs and incumbent network access service providers, with a focus on reducing connectivity costs as referred to in *noting c), d), f)* and *i)* above;

2 to exchange experiences and best practices regarding the establishment of regional, subregional and national IXPs and encourage partnerships to improve international connections,

urges service providers

to negotiate and agree to bilateral commercial arrangements enabling direct international Internet connections that take into account the possible need for compensation between them for the value of elements such as, *inter alia*, traffic flow, number of routes, geographical coverage and the cost of international transmission,

instructs the Director of the Telecommunication Development Bureau

1 to continue to coordinate activities that promote information sharing among regulators on the relationship between charging arrangements for international Internet connection and the affordability of international Internet infrastructure development in developing and least developed countries, through cooperation with ITU-T in this matter, by giving the necessary priority to the relevant study Questions in the work under the programme concerned;

2 to continue to undertake studies on the structure of international Internet connection costs for developing countries, with emphasis on the influence and effects of the connection mode (transit and peering), secure cross-border connectivity and the availability and cost of backhaul and long-haul physical infrastructure;

3 to coordinate actions to provide training and technical assistance in order to encourage and promote the creation and development of regional interconnection infrastructure as a platform for exchanging Internet traffic between developing countries;

4 to organize workshops and seminars dealing with the advantages of establishing regional and national IXPs and international connectivity, covering technical, regulatory and quality-related matters as well as their impact on operators and users.

RESOLUTION 24 (Rev. Dubai 2014)

Authorization for the Telecommunication Development Advisory Group to act between world telecommunication development conferences

The World Telecommunication Development Conference (Dubai, 2014),

recalling

Resolution 24 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference (WTDC),

considering

a) that, under the provisions of Article 17A of the ITU Convention, the Telecommunication Development Advisory Group (TDAG) is to continue to provide guidelines for the work of study groups, review progress in the implementation of priorities, programmes and operations and recommend measures to foster coordination and cooperation with other relevant development and financial institutions;

b) that there is a need to evaluate the activities of study groups;

c) that the rapid pace of change in the telecommunication environment and in industry groups dealing with telecommunications/information and communication technologies (ICTs) still demands that the ITU Telecommunication Development Sector (ITU-D) make decisions on issues such as work priorities, study group structure and meeting schedules in shorter periods of time, between WTDCs;

d) that TDAG has demonstrated its capability to make proposals for enhancing the operational efficiency of ITU-D, for improving the quality of ITU-D Recommendations and for methods of coordination and cooperation;

e) that TDAG can help improve coordination of the study processes and provide improved decision-making processes for the important areas of ITU-D activities;

f) that flexible administrative procedures, including those related to budgetary considerations, are needed in order to adapt to rapid changes in the telecommunication/ICT environment;

g) that it is necessary that TDAG continue to act in the four years between WTDCs in order to meet the needs of the members in a timely manner,

recognizing

a) that the duties of WTDC are specified in the Convention;

b) that the current four-year cycle for WTDCs effectively precludes the possibility of addressing unforeseen issues requiring urgent action in the intervening period between two conferences;

c) that TDAG, which meets at least on a yearly basis, is capable of addressing these issues as they arise;

d) that, in accordance with No. 213A of the Convention, a WTDC may assign specific matters within its competence to TDAG, indicating the recommended action on those matters;

e) that TDAG has already demonstrated the capability to act effectively on matters referred to it by the previous WTDC,

noting

that there is still an ongoing need to identify an appropriate mechanism or mechanisms to address new emerging problems for developing countries that ITU-D may not yet have been able to consider,

resolves

1 to continue to assign to TDAG the following specific matters, between two consecutive WTDCs, acting through reports from the Director of the Telecommunication Development Bureau (BDT) and study group chairmen, as appropriate:

i) continue to maintain efficient and flexible working guidelines, and update them as necessary, including to provide opportunities for cross-regional sharing of experiences on the implementation of regional actions, initiatives and projects;

ii) review, on an ongoing basis, the relationship between the ITU-D objectives outlined in the strategic plan for the Union and the budgetary appropriations available for activities, particularly programmes and regional initiatives, with a view to recommending any measures necessary to ensure the efficient and effective delivery of the principal products and services (outputs) of the Sector;

iii) review, on an ongoing basis and in accordance with No. 223A of the Convention, the implementation of the rolling four-year operational plan for ITU-D and provide guidance to BDT on the elaboration of the draft ITU-D operational plan to be approved by the following ITU Council session;

iv) evaluate, and update as necessary, working methods and guidelines to ensure the most efficient and flexible implementation of the key elements of the WTDC Action Plan;

v) evaluate periodically the working methods and functioning of the ITU-D study groups, to identify options for maximizing programme delivery and to approve appropriate changes thereto following an assessment of their work programme, including strengthening of the synergy between Questions, programmes and regional initiatives;

vi) conduct the assessment pursuant to v) above, taking into account the following actions in relation to the current work programme of the study groups, if needed:

- redefinition of the terms of reference of Questions in order to provide focus and eliminate overlap;
- deletion or merging of Questions as appropriate; and
- evaluation of criteria to measure the effectiveness of Questions, both in qualitative and quantitative terms, including a periodical review based on the ITU-D strategic plan with a view to further exploring performance measures in order to more effectively implement actions referred to in v) above;

vii) restructure ITU-D study groups, if required, and, as a result of a restructuring or creation of ITU-D study groups, appoint chairmen and vice-chairmen to act until the next WTDC in response to the needs and concerns of the Member States, within the agreed budgetary limits;

viii) issue advice on study group schedules that meet development priorities;

ix) advise the Director of BDT on relevant financial and other matters;

x) approve the programme of work arising from the review of existing and new Questions and determine the priority, urgency, estimated financial implications and time-scale for the completion of their study;

xi) in order to promote flexibility in responding rapidly to high-priority matters, if required, create, terminate or maintain other groups, appoint their chairmen and vice-chairmen, and establish their terms of reference with a defined duration, in accordance with Nos 209A and 209B of the Convention and taking into account the leading role of the study groups in carrying out the studies on such matters; such other groups shall not adopt Questions or Recommendations;

xii) consult the Director of BDT on the development and implementation of an action plan on electronic working methods and, going forward, procedures and rules for electronic meetings, including legal aspects, taking into account the needs and the means of developing countries and in particular the least developed countries;

2 that, when dealing with restructuring of the study groups and the creation of new study groups, the decisions taken in TDAG meetings shall be unopposed by any Member State present at the meeting;

3 that TDAG, in carrying out its work, collaborate with the advisory groups of the other Sectors with the aim of coordinating efforts and eliminating duplication, consulting where appropriate with the Director of BDT;

4 that TDAG shall promptly consider at its meetings aspects of the decisions of the Plenipotentiary Conference and other conferences and assemblies of the Union that relate to the work of ITU-D,

instructs the Telecommunication Development Advisory Group

to take appropriate action for the implementation of this resolution and report the results to the next WTDC.

RESOLUTION 25 (Rev. Kigali, 2022)

Assistance to countries in special need: Afghanistan, Burundi, Central African Republic, Democratic Republic of the Congo, Eritrea, Ethiopia, Guinea, Guinea-Bissau, Haiti, Liberia, Rwanda, Sierra Leone, Somalia, South Sudan and Timor-Leste

The World Telecommunication Development Conference (Kigali, 2022),

recalling

Resolution 34 (Rev. Dubai, 2018) of the Plenipotentiary Conference,

recalling further

the purposes of the Union, as enshrined in Article 1 of the ITU Constitution,

recognizing

a) that the ongoing ITU efforts in extending assistance, including through ITU Telecom surplus funds, to countries in special need (Afghanistan, Burundi, Democratic Republic of the Congo, Eritrea, Ethiopia, Guinea, Guinea-Bissau, Haiti, Liberia, Rwanda, Sierra Leone, Somalia, South Sudan and Timor-Leste) should be extended to other countries whose circumstances are similar to the aforementioned countries;

b) that a reliable telecommunication network is indispensable for promoting the socio-economic development of countries, in particular those having suffered from natural disasters, domestic conflicts or war;

c) that, under the present conditions and in the foreseeable future, these countries will not be able to bring their telecommunication systems up to an acceptable level without help from the international community, provided bilaterally or through international organizations,

noting

a) the report of the Director of the Telecommunication Development Bureau (BDT) on the implementation, *inter alia*, of Resolution 34 (Rev. Dubai, 2018);

b) the efforts deployed by the Secretary-General and the Director of BDT towards the implementation of Resolution 34 (Rev. Dubai, 2018),

noting further

that the conditions of order and security sought by United Nations resolutions have been only partially achieved and that, due to non-allocation of resources for the implementation of Resolution 34 (Rev. Dubai, 2018), the resolution has been only partially implemented,

resolves

that the special action initiated by the Secretary-General and the Director of BDT, with specialized assistance from the ITU Radiocommunication Sector and the ITU Telecommunication Standardization Sector, should be continued in order to provide appropriate assistance and support to countries that have suffered from natural disasters, domestic conflicts or wars, namely Afghanistan, Burundi, Central African Republic, Democratic Republic of the Congo, Eritrea, Ethiopia, Guinea, Guinea-Bissau, Haiti, Liberia, Rwanda, Sierra Leone, Somalia, South Sudan and Timor-Leste, in rebuilding their telecommunication networks, as and when the conditions of order and security sought by United Nations resolutions are met,

calls upon Member States

to offer all possible assistance and support to the governments of the countries in special need, either bilaterally or through the special action of the Union referred to above,

invites the ITU Council

to allocate the necessary funds within available resources for the implementation of this resolution,

instructs the Director of the Telecommunication Development Bureau

1 to use the necessary funds, within available resources, to implement activities in favour of the countries listed above;

2 to mobilize extrabudgetary resources to assist these countries,

requests the Secretary-General

1 to ensure that the Union's actions in favour of these countries are as effective as possible and to report on the matter to the Council;

2 to coordinate the activities carried out by the three ITU Sectors in accordance with *resolves* above, to ensure that the Union's action in favour of countries in special need is as effective as possible, and to report on the matter to the Council;

3 to update this list of countries from time to time, as needed and with the approval of the Council.

RESOLUTION 26 (Rev. Doha, 2006)

Assistance to countries in special need: Afghanistan

The World Telecommunication Development Conference (Doha, 2006),

recalling

Resolution 34 (Rev. Minneapolis, 1998) of the Plenipotentiary Conference,

recalling further

the purposes of the Union, as enshrined in Article 1 of the ITU Constitution,

recognizing

a) that no budget was allocated by the Plenipotentiary Conference to accompany Resolution 34 (Rev. Minneapolis, 1998) for the benefit of countries in special need;

b) that the telecommunication infrastructure in Afghanistan has been completely destroyed by the two decades of war and that the existing equipment in use is over forty years old and thus obsolete;

c) that Afghanistan at present does not have a national telecommunication infrastructure, access to international telecommunication networks or access to the Internet;

d) that a telecommunication system is an essential input for the reconstruction, rehabilitation and relief operations in the country;

e) that, under the present conditions and in the foreseeable future, Afghanistan will not be able to rebuild its telecommunication systems without help from the international community, provided bilaterally or through international organizations,

noting

a) that Afghanistan has not benefited from the Union's assistance over a long period due to war in the country;

b) the efforts deployed by the Secretary-General and the Director of the Telecommunication Development Bureau (BDT) towards the provision of assistance to other countries emerging from war situations,

resolves

that the special action initiated by the Secretary-General and the Director of BDT, with specialized assistance from the ITU Radiocommunication Sector and the ITU Telecommunication Standardization Sector, should be continued in order to provide assistance and support to Afghanistan in rebuilding its telecommunication infrastructure, establishing institutions for the sector, developing telecommunication legislation and regulatory framework, including numbering plan, spectrum management, tariff and human resource development and all other forms of assistance,

calls upon Member States

to offer all possible assistance and support to the Government of Afghanistan, either bilaterally or through the special action of the Union referred to above,

invites the ITU Council

to allocate the necessary funds within available resources for the implementation of this resolution,

instructs the Director of the telecommunication Development Bureau

1 to implement fully a programme of assistance for the least developed countries from which Afghanistan can receive focused assistance in various areas determined to be of high priority by the country;

2 to take immediate measures to assist Afghanistan in the period up to the Plenipotentiary Conference (Antalya, 2006),

requests the Secretary-General

to coordinate the activities carried out by the three ITU Sectors in accordance with *resolves* above, to ensure that the Union's action in favour of Afghanistan is as effective as possible, and to report on the matter to the Council.

RESOLUTION 27 (Rev. Hyderabad, 2010)

Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Development Sector

(Abrogated by WTDC-22)

RESOLUTION 30 (Rev. Kigali, 2022)

Role of the ITU Telecommunication Development Sector in implementing the outcomes of the World Summit on the Information Society and the 2030 Agenda for Sustainable Development

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) the outcomes of both phases of the World Summit on the Information Society (WSIS);

b) Resolution 70/125 of the United Nations General Assembly (UNGA), on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of WSIS outcomes;

c) UNGA Resolution 70/1, on transforming our world: the 2030 Agenda for Sustainable Development;

d) UNGA Resolution 76/189, on information and communication technologies (ICTs) for sustainable development;

e) the WSIS+10 Statement on the implementation of WSIS outcomes and the WSIS+10 vision for WSIS beyond 2015, adopted at the ITU-coordinated WSIS+10 High-Level Event (Geneva, 2014) and endorsed by the Plenipotentiary Conference (Busan, 2014), which were submitted as an input into the UNGA's overall review on the implementation of WSIS outcomes;

f) Resolution 37 (Rev. Kigali, 2022) of this conference, on bridging the digital divide;

g) Resolution 71 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the strategic plan for the Union for 2020-2023;

h) Resolution 77 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference, on broadband technology and applications for greater growth and development of telecommunication/information and communication services and broadband connectivity;

i) Resolution 130 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening the role of ITU in building confidence and security in the use of ICTs;

j) Resolution 131 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on measuring ICTs to build an integrating and inclusive information society;

k) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the use of telecommunications/ICTs to bridge the digital divide and build an inclusive information society;

l) Resolution 140 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in implementing the outcomes of WSIS and the 2030 Agenda for Sustainable Development, as well as in their follow-up and review processes;

m) Resolution 200 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the Connect 2030 Agenda for global telecommunication/ICT, including broadband, for sustainable development;

n) the opinions of the sixth World Telecommunication/ICT Policy Forum relevant to ITU's activities on WSIS and the Sustainable Development Goals (SDGs),

recognizing

a) that WSIS stated that the core competencies of ITU are of crucial importance for building the information society, and identified ITU as a moderator/facilitator for implementing WSIS Action Lines C2 and C5, and as a partner in Action Lines C1, C3, C4, C6, C7 and C11, as well as Action Line C8 and C9;

b) that it was agreed among the parties to follow-up of the Summit outcomes to appoint ITU as moderator/facilitator for the implementation of WSIS Action Lines C4 and C6, in which it was previously only a partner;

c) that the ITU Telecommunication Development Sector (ITU-D) – in view of its purposes and objectives; the nature of the existing partnership among Member States and ITU-D Sector Members; its experience over many years in dealing with different development needs and implementing a range of projects, including infrastructure projects and specifically telecommunication/ICT infrastructure projects, financed by possible partnerships; the nature of its four existing objectives, to meet the needs of the telecommunication/ICT infrastructure, including building confidence and security in the use of telecommunications/ICTs and fostering an enabling environment, and to achieve the WSIS goals; and the presence of its authorized regional offices – is a key partner in the implementation of WSIS outcomes, in respect of WSIS Action Lines C2, C4, C5 and C6, which are the cornerstone of the Sector's work pursuant to the ITU Constitution and Convention, and also participates with other stakeholders, as appropriate, in the implementation of Action Lines C1, C3, C7, C8, C9 and C11 and all other relevant action lines and other WSIS outcomes, within the financial limits set by the Plenipotentiary Conference;

d) that UNGA Resolution 70/125 calls for close alignment between the WSIS process and the 2030 Agenda for Sustainable Development, highlighting the cross-cutting contribution of ICTs to the SDGs and poverty eradication, and noting that access to ICTs has also become a development indicator and aspiration in and of itself;

e) that the WSIS outcomes will help achieve the 2030 Agenda for Sustainable Development and help facilitate the development of the digital economy,

recognizing further

a) the commitment of ITU to implement relevant WSIS outcomes as one of the most important goals for the Union;

b) the potential of ICTs to achieve the 2030 Agenda for Sustainable Development and other internationally agreed development goals;

c) that ITU-D shall give high priority to building information and communication infrastructure (WSIS Action Line C2), capacity building (WSIS Action Line C4), confidence and security in the use of ICTs (WSIS Action Line C5), enabling environment (WSIS Action Line C6) and e-applications (WSIS Action Line C7),

taking into account

a) Resolution 75 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly, on the ITU Telecommunication Standardization Sector's contribution in implementing the WSIS outcomes, taking into account the 2030 Agenda for Sustainable Development;

b) Resolution ITU-R 61-2 (Rev. Sharm el-Sheikh, 2019) of the Radiocommunication Assembly, on the ITU Radiocommunication Sector's contribution in implementing the WSIS outcomes and the 2030 Agenda for Sustainable Development;

c) the programmes, activities and regional initiatives being carried out in accordance with the decisions of this conference for bridging the digital divide;

d) the relevant work already accomplished and/or to be carried out by ITU and reported to the ITU Council, including the annual reports on the activities of the Council Working Group on WSIS & SDGs (CWG-WSIS&SDG) and the Council Working Group on international Internet-related public policy issues (CWG-Internet);

e) Council Resolution 1332, on ITU's role in the implementation of the WSIS outcomes taking into account the 2030 Agenda for Sustainable Development*;*

f) Council Resolution 1336, on CWG-Internet,

noting

that the ITU Secretary-General created the ITU SDG & WSIS Task Force, whose role is to formulate strategies and coordinate ITU's policies and activities in relation to WSIS, taking into account the 2030 Agenda for Sustainable Development, and that this task force is chaired by the Deputy Secretary-General,

resolves to invite the ITU Telecommunication Development Sector

1 to continue working in cooperation with the other ITU Sectors and with development partners (governments, specialized agencies of the United Nations, relevant international and regional organizations, etc.), through a clear plan and appropriate mechanisms for coordination among the different partners concerned at the national, regional, interregional and global levels, having particular regard to the needs of the developing countries[1], including in the field of building the telecommunication/ICT infrastructure and building confidence and security in the use of telecommunications/ICTs, to support and accelerate the implementation of the other WSIS goals that can help achieve the 2030 Agenda for Sustainable Development and facilitate the development of the digital economy;

2 to continue its work on the realization of the WSIS vision;

3 to contribute to achievement of the objectives of the 2030 Agenda for Sustainable Development through and in harmony with the WSIS framework;

4 to continue to encourage the principle of non-exclusion from the information society and to devise appropriate mechanisms to this end (§§ 20-25 of the Tunis Commitment);

5 to continue to facilitate an enabling environment encouraging ITU-D Sector Members to give priority to investing in the development of the telecommunication/ICT infrastructure, encompassing rural, isolated and remote regions, through different technologies;

6 to assist Member States in finding and/or improving innovative financial mechanisms to develop telecommunication/ICT infrastructure (such as those mentioned in § 27 of the Tunis Agenda for the Information Society, and partnerships);

7 to continue to assist developing countries in advancing their legal and regulatory frameworks in order to further the goal of building telecommunication/ICT infrastructure and achieve the other WSIS goals and SDGs;

8 to promote international cooperation and capacity building in issues related to cyberthreats and building confidence and security in the use of ICTs consistent with WSIS Action Line C5, in which ITU is sole facilitator;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

9 to pursue its activities in the field of statistical work for telecommunication development, using the indicators required to evaluate progress in this area with a view to bridging the digital divide, *inter alia*, within the framework of the Partnership on Measuring ICT for Development and consistent with §§ 113-118 of the Tunis Agenda and taking into account new and emerging technologies;

10 to develop and implement the ITU-D strategic plan, taking into account the need to give priority to building the telecommunication/ICT infrastructure, including broadband access, at the national, regional, interregional and global levels, and to achieve the other WSIS goals and SDGs related to the activities of ITU-D;

11 to propose at the forthcoming plenipotentiary conference appropriate mechanisms for funding the activities flowing from the WSIS outcomes and SDGs that are relevant to the core competencies of ITU, specifically those to be adopted in relation to:

i) WSIS Action Lines C2, C4, C5 and C6, in which ITU is now identified as the sole facilitator;

ii) WSIS Action Lines C1, C3, C6, C7, including its eight sub-action lines, and C11, in which ITU is now identified as a co-facilitator, as well as C8 and C9, in which ITU is identified as a partner;

iii) relevant SDGs and targets through and in harmony with the WSIS framework,

instructs the Director of the Telecommunication Development Bureau

1 to continue to provide CWG-WSIS&SDG with a comprehensive summary of ITU-D activities on implementation of the WSIS outcomes and the 2030 Agenda for Sustainable Development;

2 to ensure that concrete objectives and deadlines for WSIS and 2030 Agenda for Sustainable Development activities are developed and reflected in the operational plans of ITU-D, in accordance with Resolution 140 (Rev. Dubai, 2018) and with the objectives that will be set for ITU-D by the Plenipotentiary Conference in 2022 with regard to the implementation by ITU of the WSIS+10 outcomes and achievement of the SDGs;

3 to provide the membership with information on emerging trends based on ITU-D activities;

4 in close collaboration with the Directors of the Radiocommunication Bureau and the Telecommunication Standardization Bureau, to take account of the impact of ITU's work related to digital transformation, which fosters sustainable growth of the digital economy, in line with the WSIS stocktaking process, and provide assistance to the membership upon request;

5 to take appropriate action to facilitate the activities to implement this resolution,

further instructs the Director of the Telecommunication Development Bureau

1 to act as a catalyst in the development of partnerships among all parties, with a view to ensuring that initiatives and projects, especially those related to WSIS and the SDGs, attract investment, and to continue to act as a catalyst in the following functions, among others:

i) encouraging the implementation of regional telecommunication/ICT initiatives and projects;

ii) participating in the organization of training seminars;

iii) signing agreements with national, regional and international partners involved in development, when required;

iv) collaborating on initiatives and projects with other relevant international, regional and intergovernmental organizations, where appropriate;

2 to promote human capacity building in developing countries relating to various aspects of the telecommunication/ICT sector, consistent with the mandate of ITU-D;

3 to foster an environment, particularly with the ITU regional offices, that enables small, medium and micro enterprises in and among developing countries to develop and grow;

4 in implementing the WSIS outcomes/SDGs within the mandate of ITU-D, to pay particular attention to the needs of developing countries;

5 to encourage international financial institutions, Member States and Sector Members, in their respective roles, to address, as a priority issue, the building, reconstruction and upgrading of networks and infrastructure in developing countries;

6 to pursue coordination with international bodies, with a view to mobilizing the financial resources needed in the implementation of projects;

7 to take the necessary initiatives to encourage partnerships which have been given high priority pursuant to:

i) the Geneva Plan of Action;

ii) the Tunis Agenda;

iii) the outcomes of the WSIS review process and WSIS vision;

iv) the 2030 Agenda for Sustainable Development;

8 to submit contributions to the relevant annual reports of the ITU Secretary-General on these activities;

9 to strengthen, involving, among others, the ITU regional and area offices, coordination and collaboration at the regional level with the United Nations regional economic commissions and United Nations Regional Development Group, as well as all United Nations agencies (in particular those acting as facilitator for WSIS action lines), and other relevant regional organizations, especially in the field of telecommunications/ICTs, with the aim of the following:

i) aligning WSIS and SDG processes and their implementation as requested by UNGA Resolution 70/125;

ii) implementing ICT for SDG actions through the relevant United Nations initiatives and resolutions;

iii) incorporating ICTs in the United Nations development assistance frameworks;

iv) developing partnerships for implementation of inter-agency and multistakeholder projects, advancing implementation of WSIS action lines and advancing achievement of SDGs;

v) highlighting the importance of advocacy for ICTs in national sustainable development plans;

vi) strengthening regional input to the WSIS Forum, WSIS Prizes and WSIS Stocktaking,

encourages the ITU-D study groups

to continue their active contribution to activities related to WSIS and SDGs,

calls upon Member States, Sector Members, Associates and Academia

1 to continue to give priority to the development of telecommunication/ICT infrastructure, including in rural, remote and underserved areas, to building confidence and security in the use of telecommunications/ICTs, to fostering an enabling environment and to ICT applications, in order to build an inclusive and connected information society and achieve the SDGs, which can facilitate the growth of the digital economy;

2 to consider the development of principles towards the adoption of strategies in areas such as telecommunication network security, consistent with WSIS Action Line C5;

3 to submit contributions to relevant ITU-D study groups and to the Telecommunication Development Advisory Group (TDAG), where appropriate, and contribute to CWG-WSIS&SDGs on implementing WSIS outcomes and achieving the SDGs within ITU's mandate;

4 to continue to support and collaborate with the Director of the Telecommunication Development Bureau (BDT) in implementing relevant WSIS outcomes and the 2030 Agenda for Sustainable Development in ITU-D;

5 to engage in the WSIS and SDG processes, in order to reaffirm the need to address remaining challenges of ICT for development to be addressed in the implementation of the vision for WSIS beyond 2015 and the 2030 Agenda for Sustainable Development,

requests the Secretary-General

to bring this resolution to the attention of the Plenipotentiary Conference (Bucharest, 2022) for consideration and required action, as appropriate, when reviewing Resolution 140 (Rev. Dubai, 2018),

invites Member States, Sector Members, Associates and Academia

1 to submit contributions to relevant ITU-D study groups and to TDAG, where appropriate, and contribute to CWG-WSIS&SDG on implementing WSIS outcomes and the 2030 Agenda for Sustainable Development, within ITU's mandate;

2 to support and collaborate with the Director of BDT in implementing relevant WSIS outcomes, taking into account the 2030 Agenda for Sustainable Development, in ITU-D;

3 to submit contributions to CWG-WSIS&SDG.

RESOLUTION 31 (Rev. Kigali, 2022)

Regional preparations for world telecommunication development conferences

The World Telecommunication Development Conference (Kigali, 2022),

recognizing

a) Resolution 58 (Rev. Busan, 2014) of the Plenipotentiary Conference, on strengthening of relations between ITU and regional telecommunication organizations and regional preparations for the Plenipotentiary Conference;

b) Resolution 25 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening the regional presence,

considering

a) that the six[1] regions have coordinated their preparations for this conference through preparatory meetings, and seek close cooperation with the Union;

b) that many common proposals have been submitted to this conference from administrations which have participated in the preparations, thereby facilitating the work of this conference;

c) that this consolidation of views at regional level, together with the opportunity for interregional discussions prior to the conference, has eased the task of reaching a consensus at the last meeting of the Telecommunication Development Advisory Group (TDAG) of the ITU Telecommunication Development Sector (ITU-D) and during the conference;

d) that preparation for future conferences is likely to increase;

e) the firm conviction that the coordination of preparations at regional level for the six regions has been of great benefit to the Member States and Sector Members;

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[1] Africa, Americas, Arab States, Asia and the Pacific, Commonwealth of Independent States, Europe.

f) that the continued success of future conferences will depend on greater efficiency of regional coordination and interaction at interregional level prior to such conferences, and in particular at the last TDAG meeting before the conference, as well as during the conference;

g) that there is a continuing need for overall coordination of the interregional consultations,

recognizing

the benefits of regional coordination for the six regions as already experienced in the preparation of all ITU conferences and assemblies,

taking into account

the continued belief in the benefits that a world telecommunication development conference (WTDC) could gain in terms of efficiency from an increased amount and level of preparation by the six regions for the ITU Member States prior to the conference,

noting

a) that many regional telecommunication organizations have expressed the need for the Union to cooperate more closely with regional telecommunication organizations (see Resolution 21 (Rev. Kigali, 2022) of this conference, on strengthening coordination and collaboration with regional and subregional organizations);

b) that relations between ITU regional offices and regional telecommunication organizations have proved to be of great benefit, and that regional offices should continue to be used to facilitate the preparation of WTDCs;

c) that some ITU Member States are not members of a regional telecommunication organization,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to continue to organize, within the financial limitations set by the Plenipotentiary Conference, one regional preparatory meeting (RPM) per region for each of the six regions (if the relevant region deems appropriate), in close coordination and cooperation with the relevant regional organizations and in partnership with all Member States in the region, even if they do not belong to any of the regional telecommunication organizations, as soon as possible before the last meeting of TDAG before the next WTDC, avoiding overlap with other relevant ITU-D meetings and making full use of ITU regional offices to facilitate such meetings;

2 to organize a coordination meeting of the chairmen and vice-chairmen of the RPMs in conjunction with the last meeting of TDAG, with the participation of interested ITU-D members;

3 to help the least developed countries to participate in RPMs, within the financial resources available;

4 to prepare, in close consultation with the chairmen and vice-chairmen of the RPMs, a report consolidating the results of such meetings, to be submitted to the TDAG meeting immediately preceding WTDC;

5 to convene the last TDAG meeting not less than three months and not more than four months before WTDC, in order to study, discuss and adopt the consolidated report presenting the outputs of the six RPMs in final form, as a basic document to be included, once approved by TDAG, in the report on the application of this resolution for submission to WTDC, as well as to accomplish whatever else is desirable prior to WTDC (such as consideration of Questions proposed for study by the study groups), including also a review and revision of all resolutions, Recommendations and programmes with the aim of proposing the necessary updates to some or all of them if possible and their submission as reports from TDAG to WTDC,

requests the Secretary-General, in cooperation with the Director of the Telecommunication Development Bureau

1 to continue to consult with Member States and regional telecommunication organizations in the six regions on the means by which assistance can be provided in support of their preparations for future WTDCs;

2 to continue, on the basis of such consultations, to assist Member States and regional telecommunication organizations in such areas as:

i) organization of informal and formal regional and interregional preparatory meetings;

ii) organization of information sessions;

iii) identification of mutual coordination methods;

iv) identification of major matters to be resolved by the future WTDC;

3 to continue to submit to the next WTDC a report on the application of this resolution,

invites Member States

to participate actively in the implementation of this resolution,

invites regional and subregional telecommunication organizations

1 to participate in coordinating and harmonizing the contributions of their respective Member States in order to generate common proposals where possible;

2 to take an active part in the preparation and holding of RPMs for WTDC;

3 to take part in the preparatory meetings of other regional organizations and to convene, if possible, informal interregional meetings in order to exchange information and to coordinate interregional common proposals.

RESOLUTION 33 (Rev. Dubai, 2014)

Assistance and support to Serbia for rebuilding its destroyed public broadcasting system

The World Telecommunication Development Conference (Dubai, 2014),

recalling

a) the noble principles, purpose and objectives embodied in the Charter of the United Nations and in the Universal Declaration of Human Rights;

b) the purpose of the Union, as enshrined in Article 1 of the ITU Constitution,

noting

a) Resolution 33 (Rev. Doha, 2006) of the World Telecommunication Development Conference;

b) Resolution 126 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference,

noting with appreciation

a) the efforts deployed by the Secretary-General of ITU and the Director of the Telecommunication Development Bureau (BDT) towards the implementation of the above-mentioned resolutions;

b) the significant assistance from the European Union (EU), through the pre-accession funds (IPA), for the implementation of the digitization process,

recognizing

a) that a reliable public broadcasting system is indispensable for promoting the socio-economic development of countries, in particular those having suffered from natural disasters, domestic conflicts or war;

b) that the newly established public broadcasting facility in Serbia, "Broadcast Multiplex and Network Operator" (ETV), formerly a part of Radio Television of Serbia, is the public entity responsible for terrestrial broadcasting;

c) that the severe damage to the public broadcasting system (ETV) in Serbia should concern the whole international community, in particular ITU;

d) that, under the present conditions and in the foreseeable future, Serbia will not be able to bring the public broadcasting system in Serbia up to an acceptable level without help from the international community, provided bilaterally or through international organizations,

resolves

1 to continue special action, within the framework and available budgetary resources of the ITU Telecommunication Development Sector, with specialized assistance from the ITU Radiocommunication Sector and the ITU Telecommunication Standardization Sector;

2 to provide appropriate assistance;

3 to support Serbia in rebuilding the public broadcasting system,

calls upon Member States

1 to offer all possible assistance;

2 to support the Government of Serbia, either bilaterally or through, or at any rate in coordination with, the special action of ITU referred to above,

instructs the Director of the Telecommunication Development Bureau

to use the necessary funds within available resources in order to continue the appropriate action,

requests the Secretary-General

1 to coordinate the activities carried out by the ITU Sectors in accordance with the above;

2 to ensure that the ITU action in favour of Serbia is as effective as possible;

3 to report on the matter to the Council;

4 to transmit this resolution to the Plenipotentiary Conference (Busan, 2014).

RESOLUTION 34 (Rev. Kigali, 2022)

The role of telecommunications/information and communication technology in disaster preparedness, early warning, rescue, mitigation, relief and response

The World Telecommunication Development Conference (Kigali, 2022),

recognizing

a) that there is a growing general awareness at the global level of the potentially serious negative consequences of climate change, especially if global emissions are not cut in accordance with relevant agreements;

b) that the number of natural and man-made disasters, as well as the tragic consequences associated with them, are steadily increasing;

c) that telecommunications/information and communication technologies (ICTs) play a crucial role in disaster preparedness, early warning, rescue, mitigation, relief and response, and also constitute a decision tool for rescue services and entities involved as well as for communication with and among citizens;

d) that such disasters can damage not only telecommunication/ICT infrastructures but also electricity supplies that power telecommunication/ICT systems and devices, thereby making services inoperable, such that considerations of redundancy and resilience of both infrastructure and power supply become important when planning for disasters;

e) that frequent tragic events in the world and the experience of the Telecommunication Development Bureau (BDT) and the ITU Member States in this area clearly demonstrate the need for enhanced disaster preparedness, and for plans that incorporate consideration of resilient communications equipment and services, as well as reliable telecommunication infrastructure, in order to ensure public safety, to assist disaster-relief agencies in mitigating risk to human life, to provide the necessary general public information, including in local languages and for the benefit of indigenous peoples, and to meet communication needs in such situations;

f) that the concept of SMART (scientific monitoring and reliable telecommunication) cable includes scientific sensors mounted in the repeaters of submarine cables to measure ocean-bottom temperature, pressure and seismic acceleration,

recalling

a) Resolution 136 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the use of telecommunications/ICTs for humanitarian assistance, and for monitoring and management in emergency and disaster situations, including health-related emergencies, for early warning, prevention, mitigation and relief;

b) Resolution 182 (Rev. Busan, 2014) of the Plenipotentiary Conference, on the role of telecommunications/ICTs in regard to climate change and the protection of the environment;

c) Resolution 646 (Rev.WRC-19) of the World Radiocommunication Conference (WRC), on public protection and disaster relief (PPDR);

d) Resolution 647 (Rev.WRC-19) of WRC, on radiocommunication aspects, including spectrum-management guidelines, for early warning, disaster prediction, detection, mitigation and relief operations relating to emergencies and disasters;

e) Resolution ITU-R 55-3 (Rev. Sharm el-Sheikh, 2019) of the Radiocommunication Assembly (RA), on ITU Radiocommunication Sector (ITU-R) studies of disaster prediction, detection, mitigation and relief;

f) Article 5 of the International Telecommunication Regulations, on safety of life and priority of telecommunications;

g) Article 40 of the ITU Constitution, on priority of telecommunications concerning safety of life;

h) Article 46 of the Constitution, on distress calls and messages;

i) that §5.1 of the International Telecommunication Regulations stipulates that safety-of-life telecommunications, such as distress telecommunications, have absolute priority, where technically practicable, and in accordance with the relevant articles of the Constitution and the ITU Convention and taking due account of the relevant Recommendations of the ITU Telecommunication Standardization Sector (ITU-T), in particular Recommendation ITU-T E.161.1, on guidelines to select emergency number for public telecommunication networks;

j) emergency telecommunication/ICT coordination mechanisms established by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA);

k) Recommendation ITU-T X.1303 on the common alerting protocol (CAP 1.1),

considering

a) that the Intergovernmental Conference on Emergency Telecommunications (Tampere, 1998) (ICET-98) adopted the Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations (Tampere Convention) and that this convention came into force in January 2005;

b) that the Common Alerting Protocol (CAP) Workshop held during the third Global Forum on Emergency Telecommunications (Mauritius, 2019) (GET-19) highlighted the benefits of CAP, and shared best practices and lessons learned on how to create an enabling environment for leveraging CAP;

c) that the disaster connectivity map launched at GET-19 is a mapping platform to help first responders determine the status of telecommunication network infrastructure, coverage and performance before and after a disaster;

d) that the second Tampere Conference on Disaster Communications (Tampere, 2001) (CDC-01) invited ITU to study the use of public mobile networks for early warning and the dissemination of emergency information and the operational aspects of emergency telecommunications such as call prioritization;

e) that Resolution 646 (Rev. WRC-19) addresses the broader category of PPDR, as well as the harmonization of frequency bands/ranges for PPDR solutions, and resolves to encourage administrations to satisfy temporary needs for frequencies in emergency and disaster-relief situations, in addition to those normally made available by agreement with the administrations concerned, and to facilitate cross-border circulation of radiocommunication equipment intended for use in emergency and disaster-relief situations through mutual cooperation and consultation without hindering national legislation;

f) that Resolution 646 (Rev.WRC-19) likewise resolves to encourage administrations to consider Recommendation ITU-R M.2015, and to use agreed frequency bands for PPDR to the maximum extent possible when undertaking their national planning for their PPDR applications, particularly broadband, in order to achieve harmonization;

g) that Resolution 646 (Rev. WRC-19) further encourages administrations to consider also parts of the regionally harmonized frequency ranges for their PPDR applications;

h) that Resolution 647 (Rev.WRC-19) resolves that the Radiocommunication Bureau (BR), through the study groups, study those aspects of radiocommunications/ICTs that are relevant to early warning, disaster prediction, detection, mitigation and relief operations, taking into account Resolution ITU-R 55-3 (Rev. Sharm el-Sheikh, 2019);

i) that Resolution 647 (Rev.WRC-19) instructs the Director of BR to continue assisting Member States with their emergency communication preparedness activities by maintaining a database of information from administrations for use in emergency situations, which includes contact information and optionally includes available frequencies for use in emergency situations, reiterating the importance of having spectrum available in the very early stages of humanitarian assistance intervention for disaster relief;

j) that Resolution 647 (Rev.WRC-19) likewise invites the Director of the Telecommunication Standardization Bureau and the Director of BDT to collaborate closely with the Director of BR to ensure that a consistent and coherent approach is adopted in the development of strategies in response to emergency and disaster situations;

k) the work of the ITU-R and ITU-T study groups in adopting Recommendations that have helped to provide technical information on satellite and terrestrial radiocommunication systems and wired networks and their role in disaster management, including important Recommendations pertaining to the use of satellite networks in times of disasters;

l) the work of the ITU-T study groups in developing and adopting Recommendations for priority/preferential emergency telecommunications and emergency telecommunication services (ETS), including consideration of use of both terrestrial and wireless telecommunication systems during emergencies;

m) that RA updated Resolution ITU-R 55-3 (Rev. Sharm el-Sheikh, 2019), on ITU-R studies of disaster prediction, detection, mitigation and relief;

n) that modern telecommunications/ICTs are basic tools for disaster preparedness, mitigation and relief;

o) that mobile and personal communication systems are beneficial for responding to disasters, and should therefore also be used before a disaster to ensure information can be shared with those who need it most;

p) outcomes and activities of the ITU Global Forum on Emergency Telecommunications;

q) the importance of utilizing both existing and new technologies and solutions (satellite and terrestrial) to satisfy a range of interoperability requirements and for furthering the goals of PPDR, including through innovative SMART submarine cables;

r) the terrible disasters from which many countries suffer, and the disproportionate impact of disasters and of climate change on developing countries[1];

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

s) the particular vulnerability of least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS) to the impact that disasters can have on their economies and infrastructures, and that these countries lack the capacity to respond to disasters;

t) the need to take into account the requirements of persons with disabilities and persons with specific needs with respect to disaster warning, response planning and recovery efforts;

u) that the capability and flexibility of all telecommunication/ICT facilities depend upon appropriate planning for the continuity of each phase of network development and implementation;

v) the opportunity to significantly facilitate all phases of disaster operations offered by national emergency communication plans that enable the pre-positioning, rapid deployment and effective utilization of telecommunication/ICT equipment;

w) the potential of including the use of telecommunication/ICT tools in infrastructure development planning to avert the risk of disasters and mitigate their effects;

x) the need for international and regional cooperation among States, as well as between organizations, on preparedness, early warning, rescue, mitigation, relief and response, including through the establishment of a network of experts in disaster management;

y) that frontier technologies, as new, innovative and disruptive technologies, including oceanographic sensors on undersea telecommunications cables, have vast potential to help assess, mitigate and adapt to climate change;

z) the role of the private sector, governments and international and non-governmental organizations in providing telecommunication/ICT equipment and services, expertise and capacity-building assistance to support disaster-relief and recovery activities, particularly through the ITU Framework for International Cooperation in Emergencies (IFCE);

aa) that a disaster, when it occurs, may extend beyond the borders of a State, and its management may involve the deployment of efforts by more than one country in order to prevent loss of human life and regional economic crisis;

ab) that coordination between international, regional and national organizations specializing in disaster management and administrations increases the probability of saving human life when rescue operations are conducted, and thereby mitigates the consequences of a disaster, such that collaborative work and networking among disaster-management experts is thus essential;

ac) that the use of telecommunications/ICTs for sharing of information in the event of a disaster is a powerful decision-making tool for rescue services and operating entities, and for communication with and between citizens;

ad) the role of the ITU/World Meteorological Organization (WMO)/United Nations Educational, Scientific and Cultural Organization Intergovernmental Oceanographic Commission (IOC-UNESCO) Joint Task Force on SMART cable systems (JTF SMART Cable Systems) in developing a strategy and roadmap that could lead to enabling the availability of submarine repeaters equipped with scientific sensors for ocean and climate monitoring and disaster risk reduction (tsunamis), so that a global network could be established providing real-time data for ocean and climate monitoring and disaster mitigation;

ae) the need to investigate the use of submarine telecommunication cables for ocean and climate monitoring and disaster warning;

af) that oceanographic sensors on undersea telecommunication cables constitute a promising solution for obtaining the extensive, longitudinal, real-time data that are critical for understanding and managing urgent environmental issues such as climate change and tsunami hazard mitigation;

ag) the United Nations Secretary-General's Roadmap for digital cooperation, which highlights the importance of accelerating discussions on connectivity as part of emergency preparedness, response and aid,

noting

a) the continued pursuit by ITU and other relevant organizations of joint activities being undertaken at the international, regional and national levels to establish internationally agreed means to operate systems for PPDR on a harmonized and coordinated basis, and the successful role of BDT through its programme activities in this area;

b) the successful role of BDT, in partnership with the ITU membership, and in coordination with the Emergency Telecommunications Cluster (ETC), with respect to rapid intervention in enabling and facilitating telecommunications/ICTs for countries which have suffered disasters;

c) that all phases of disaster operations can be greatly facilitated by national emergency telecommunication plans that enable the pre-positioning, rapid deployment and effective utilization of ICT equipment;

d) that including the use of telecommunication/ICT tools in infrastructure development planning can avert the risk of disasters and mitigate their effects,

noting further

a) the latest version of the ITU Telecommunication Development Sector (ITU-D) Handbook on emergency telecommunications (2014), the Compendium of the ITU's work on emergency telecommunications (2007), the ITU Handbook on best practice on emergency telecommunications (2008), and the adoption of Recommendation ITU-D 13 (Rev. 2005), on effective utilization of the amateur radio services in disaster-mitigation and relief operations, as well as the reports on disruptive technologies and their use in disaster risk reduction and management and to protect the environment and tackle climate change;

b) that further guidance for ITU members on disaster-communication management is provided by the successful conclusions and outputs of ITU-D Study Group 2, notably under Question 5/2, including the Guidelines for conducting national-level ICT drills and exercises, the Handbook on outside plant for areas frequently exposed to natural disasters, and an online toolkit which will be updated on a regular basis;

c) the results of work done by ITU-R Study Groups 4, 5, 6 and 7 on the use of different radiocommunication systems in emergency situations, and in particular Recommendations ITU-R S.1001, ITU-R M.1637, ITU-R BS.2107 and ITU-R RS-1859;

d) that the online toolkit maintained by ITU-D Question 5/2 and BDT serves as a publicly available resource with references and links to all relevant ITU resolutions, Recommendations, reports and handbooks;

e) that the ITU regional offices can be particularly helpful prior to and following emergencies, owing to their proximity to affected countries,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to continue to ensure that priority consideration is given to emergency communications as an element of telecommunication/ICT development, including continued close coordination and collaboration with ITU-R and ITU-T and relevant international organizations, and that coordination with BR must take into consideration the outcomes of studies, especially those which provide for harmonized models for PPDR networks, as well as those aspects of telecommunications/ICTs that are relevant to early warning, disaster prediction, detection, mitigation and relief operations, as resolved by Resolution ITU-R 55-3 (Rev. Sharm el-Sheikh, 2019) and Resolutions 646 and 647 (Rev. WRC-19);

2 to organize a forum on emergency communications, periodically, and within budgetary resources, to provide administrations with best practices in terms of mechanisms, procedures and coordination for the use of telecommunications/ICTs in emergency situations;

3 to establish contact points at the level of BDT and the ITU regional offices, enabling affected Member States to request capacity building and direct assistance in terms of emergency communications, whereby the contact numbers of these points are to be circulated to ITU members and contact points are to be responsible for coordinating ITU assistance to disaster-struck countries and with relevant United Nations and international organizations that coordinate and/or provide emergency communications;

4 to facilitate and encourage the use by members of telecommunications/ICTs that are appropriate and commonly available for early warning, disaster response, mitigation and relief operations, including those provided by amateur radio services, satellite and terrestrial network services/facilities as well as undersea sensing technologies;

5 to promote, in close collaboration with ITU-R and ITU-T, the implementation of early-warning systems, and emergency information broadcasting, for example audio and TV broadcasting, mobile messages, etc., and the use of the CAP, taking into account persons with disabilities and persons with specific needs;

6 to support administrations in their work towards the implementation of this resolution as well as ratification and implementation of the Tampere Convention;

7 to report to the next world telecommunication development conference on the status of ratification and implementation of the Tampere Convention;

8 to support administrations and regulators in the areas identified in this resolution by taking appropriate measures during the implementation of the ITU-D action plan;

9 to continue to support administrations in preparing their national disaster response and relief plans, including consideration of the necessary enabling national regulatory and policy environments to support the development and effective use of telecommunications/ICTs for disaster mitigation, relief and response;

10 to strengthen the role of the ITU regional offices, in coordination with the above-mentioned points of contact, in assisting Member States and Sector Members in developing emergency preparedness plans, national emergency telecommunication plans and early-warning systems, in organizing training workshops on emergency relief and response, in providing equipment training, in fostering collaboration with all parties involved and in helping deploy communication equipment during emergencies;

11 as part of the ITU IFCE, to continue providing assistance to administrations, in coordination with the above-mentioned points of contact, within available resources, and in collaboration with the ITU membership and other partners, through the temporary supply of emergency communication/ICT equipment and services, especially during the initial phases of disasters;

12 to assist administrations in the use of telecommunication networks, including mobile networks, for the timely dissemination of alert messages and warnings in situations of risk or emergency, for those in potentially affected areas;

13 to assist Member States in enhancing and strengthening the use of all available services, including satellite, amateur radio and broadcasting services, in emergency situations, when conventional sources of electricity supply or telecommunications are often interrupted;

14 to expedite the study of aspects of telecommunications/ICTs related to flexibility and continuity in the event of disasters, as part of national disaster plans, including promoting the use of broadband networks for emergency communications through the work of the ITU-D study groups, in collaboration with expert organizations, taking account of the activities of the other ITU Sectors and relevant United Nations and other international organizations;

15 for 2022-2025, to work collaboratively with the ITU-D study Questions, as well as with the other two Sectors, ITU regional offices, the ITU membership and other relevant expert organizations, in implementing this resolution, and to report regularly on programme activities and relevant regional initiatives to the study groups;

16 to include, in the ITU Academy's training plans, programmes on the use of telecommunications/ICTs for disaster management and mitigation;

17 to promote the implementation of decisions of the ITU Global Forum on Emergency Telecommunications, within existing budgetary resources;

18 to strengthen the ability of Member States to make digital infrastructure more resilient to disasters, including those caused by climate change, and to promote more effective communication and response efforts;

19 to continue to give high priority to studies/investigations related to frontier technologies and disruptive technologies, including oceanographic sensors on undersea telecommunication cables, in order to help Member States assess, mitigate and adapt to climate change, as well as their use in disaster risk reduction and management;

20 to support the ITU study groups in examining the benefits of undersea sensing technologies and in studying the technical, financial, legal and regulatory issues, including the standardization and specification of sensors and cables undertaken in ITU-T that could foster their adoption, in particular in relation to near-to-far field tsunami and earthquake early warning and seismic monitoring;

21 to continue collaboration with relevant stakeholders in order to increase ITU members' awareness and knowledge of undersea sensing technologies,

requests the Secretary-General

to continue to work closely with the office of the United Nations Emergency Relief Coordinator, the ETC and other relevant external organizations with a view to further increasing the Union's involvement in, and support of, emergency communications and early-warning systems, and to report on outcomes of related international conferences, relief activities and meetings so that the Plenipotentiary Conference (Bucharest, 2022) may take any action that it deems necessary,

invites Member States

1 to continue to deploy all necessary efforts to integrate disaster risk reduction, disaster mitigation, disaster relief and resilience into telecommunication/ICT development plans, as well as to incorporate ICTs into national regulations, national or regional disaster-management plans and frameworks, so that they provide the necessary telecommunication/ICT services, considering the specific needs of persons with disabilities, children, older persons, displaced persons and the illiterate, and the importance of collaborating with all stakeholders in all disaster phases;

2 to develop preparedness and disaster recovery and to assist businesses in creating plans that provide a resilient environment for essential government information systems;

3 to consider the appropriate and effective mechanisms to facilitate disaster communications preparedness and response efforts;

4 to facilitate, to the extent practicable, cross-border circulation of radiocommunication equipment intended for use in emergency situations, rescue and relief operations and disaster-relief situations, through mutual cooperation and consultation, without prejudice to national legislation, in accordance with Resolution 646 (Rev. WRC-19);

5 to encourage authorized operating companies to inform all users, including roaming users, in good time and free of charge, of the number to be used for calls to the emergency services;

6 to consider introducing, in addition to their existing national emergency numbers, a harmonized national/regional number for access to emergency services, taking into account the relevant ITU-T Recommendations;

7 to foster the training and updating of knowledge of the actors involved in the implementation, maintenance and updating of the telecommunication/ICT systems intended to be used in situations of emergency;

8 to coordinate on a regional basis, with the help of ITU bodies and regional and international specialized organizations, in order to draw up regional response plans in the event of a disaster;

9 to develop partnerships, in order to reduce barriers to access to relevant data obtained through the use of telecommunications/ICTs required for the purpose of assisting rescue operations,

invites also

1 Member States and Sector Members to work together on the study of emerging technologies, standards and related technical issues for improving radio broadcasting systems for sending and receiving information concerning public warning, rescue, disaster mitigation and relief;

2 Sector Members to make the necessary efforts to enable the operation of telecommunication services in emergency or disaster situations, giving priority, in all cases, to telecommunications/ICTs concerning safety of life in the affected areas, and providing contingency plans for such purpose;

3 BDT to consider how space-based technologies, submarine telecommunication cable networks and associated sensor technologies can be used to help ITU Member States collect and disseminate data on the effects of climate change and support early warning, having regard to the link between climate change and natural disasters;

4 ITU-D to take account of the particular telecommunication requirements of LDCs, LLDCs, SIDS and low-lying coastal countries in terms of disaster preparedness, rescue, relief and recovery;

5 ITU-D, within its studies on the role of telecommunications/ICTs in disaster preparedness, early warning, rescue, mitigation, relief and response, to take account of the work of other ITU Sectors and dedicated working groups, considering the increased use of mobile and portable communication devices which can be used by first responders to transmit and receive critical information;

6 the United Nations Emergency Relief Coordinator, the Working Group on Emergency Telecommunications and other relevant external organizations or bodies to ensure follow-up and continue collaborating with ITU, specifically BDT, in working towards implementing this resolution and the Tampere Convention, and supporting administrations and international and regional telecommunication/ICT organizations in the implementation of that Convention.

RESOLUTION 36 (Rev. Kigali, 2022)

Support for the African Telecommunications Union

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 70/1 of the United Nations General Assembly (UNGA), on transforming our world: the 2030 Agenda for Sustainable Development;

b) UNGA Resolution 73/291, on the Buenos Aires outcome document of the second High-level United Nations Conference on South-South Cooperation;

c) Resolution 25 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening the regional presence;

d) Resolution 58 (Rev. Busan, 2014) of the Plenipotentiary Conference, particularly its *resolves*;

e) Resolution 21 (Rev. Kigali, 2022) of this conference, on strengthening coordination and collaboration with regional and subregional organizations,

recalling further

a) UNGA Resolution 68/198, on information and communication technologies (ICTs) for development;

b) Resolution 135 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in the durable and sustainable development of telecommunications/ICTs, in providing technical assistance and advice to developing countries and in implementing relevant national, regional and interregional projects;

c) the first United Nations System-wide Strategy on South-South and Triangular Cooperation for Sustainable Development, which points the way towards even greater use of this invaluable vehicle,

considering

a) the key role of the African Telecommunications Union (ATU) in continental coordination and as a driver for implementation of the outcomes of ITU conferences and assemblies;

b) ATU's continuous and urgent need for assistance, support and cooperation;

c) the rapid development of the telecommunication/ICT environment, obliging ATU to adapt to these changes in order to serve its membership, while considering its current human and financial resources;

d) that in the context of digital transformation, telecommunications/ICTs become a major catalyst for economic growth in developing countries[1];

e) the need for an African convening platform to coordinate, harmonize and combine efforts to accelerate the development of telecommunications/ICTs at the regional, interregional and global levels with a view to achieving the objectives and targets adopted in the ITU strategic plan, the 2030 Agenda for Sustainable Development and the African Union's Agenda 2063;

f) that the ITU Telecommunication Development Sector should provide adequate support to regional and subregional telecommunication organizations in order to facilitate their active involvement in the different phases of the project management model established by ITU, as well as in forging partnerships and resource mobilization, to support implementation of regional initiatives,

recognizing

a) that the regional organizations are better acquainted with the real issues and challenges facing Member States of the region, and can better envision how to efficiently and effectively overcome those challenges;

b) that ITU and regional organizations share a common belief that close cooperation can promote regional telecommunications/ICTs in order to support Member States of the region;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

c) that there is a continuing need for ITU to cooperate more closely with regional organizations in order to support Member States of the region;

d) that the regional organizations play an effective role in identifying common priorities and interests, while ensuring better coordination among Member States as well as their involvement in all telecommunication/ICT activities, plans, projects, events, etc.,

noting

that the relevant regional organizations play a prominent and important role in supporting developing countries in areas such as regional cooperation and technical assistance activities,

resolves to instruct the Director of the Telecommunication Development Bureau, in collaboration with the Director of the Radiocommunication Bureau and the Director of the Telecommunication Standardization Bureau

1 to take all necessary steps to associate ATU in the implementation of the Kigali Action Plan 2022, in respect of support to the African telecommunication/ICT sector;

2 to mobilize and provide the necessary support to ATU for it to assume the leading and coordination role among relevant entities involved in ICT activities at the regional level;

3 to strengthen relations with regional and subregional telecommunication organizations in order to identify synergies with their activities that may support the implementation of the regional initiatives;

4 to continue to deploy, and enhance the availability of, the necessary human and financial resources in the ITU regional presence, in support of ATU,

requests the Secretary-General and instructs the Director of the Telecommunication Development Bureau

1 to take all necessary steps to identify new areas of cooperation on an annual basis and provide ATU with all required support and assistance, including administrative, financial, logistical and information technology/technical support, in particular by stepping up, fostering and enhancing cooperation between ATU and the ITU Regional Office for Africa, and by making experts available to that organization;

2 to coordinate and cooperate with relevant United Nations system organizations, such as the United Nations Office for South-South Cooperation, in telecommunication/ICT matters, including the related financing mechanisms, in support of ATU;

3 to develop an ATU-ITU partnership framework, based on an annual work plan, that could better contribute to the implementation of the regional initiatives and all identified joint activities;

4 to bring this resolution to the attention of the Plenipotentiary Conference for consideration and required action.

RESOLUTION 37 (Rev. Kigali, 2022)

Bridging the digital divide

The World Telecommunication Development Conference (Kigali, 2022),

recognizing

a) the continuing disparity between those who have and those who do not have access to telecommunications/information and communication technologies (ICTs), cannot afford them or do not have the skills to use them, referred to as the "digital divide";

b) that the distribution of the benefits brought about by ICTs and the digital economy is not equitable between developing[1] and developed countries, and between social categories within countries, taking into account the commitments of both phases of the World Summit on the Information Society (WSIS) to bridge the digital divide and transform it into a digital opportunity;

c) that telecommunications/ICTs and ICT applications are essential for political, economic, social and cultural development, that they play an important role in poverty alleviation, job creation, environmental protection and the prevention and mitigation of natural and other disasters (in addition to the importance of disaster prediction), and that they must be placed at the service of development in other sectors; and that, therefore, opportunities offered by ICTs should be accelerated and fully exploited in order to foster digital inclusion towards sustainable development;

d) that gaps in access to and adoption of ICTs would lead to an extreme escalation of economic and social disparities, with negative impacts on the social and economic environment in the various regions excluded from the use of ICTs;

e) that the digital divide is characterized by inequality in the technical and economic availability of telecommunication/ICT facilities and services, as well as in the level of the development of the regulatory environment, and in the level of awareness and skills required to use them;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

f) that there is a clear connection between, *inter alia*, the affordability of telecommunications/ICTs in general, Internet access in particular, and the level of their use,

recalling

a) United Nations General Assembly (UNGA) Resolution 70/1, on transforming our world: the 2030 Agenda for Sustainable Development;

b) the Addis Ababa Action Agenda of the 2015 Third International Conference on Financing for Development, endorsed in UNGA Resolution 69/313, and its commitment to bridging the digital divide;

c) UNGA Resolution 70/125, on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society (WSIS);

d) Resolution 25 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening the regional presence;

e) Resolution 135 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in the durable and sustainable development of telecommunications/ ICTs, in providing technical assistance and advice to developing countries and in implementing relevant national, regional and interregional projects;

f) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the use of telecommunications/ICTs to bridge the digital divide and build an inclusive information society;

g) Resolution 191 (Rev. Dubai 2018) of the Plenipotentiary Conference, on the strategy for the coordination of efforts among the three Sectors of the Union;

h) Resolution 200 (Rev. Dubai 2018) of the Plenipotentiary Conference, on the Connect 2030 Agenda for global telecommunication/ICT, including broadband, for sustainable development;

i) Resolution 11 (Rev. Kigali, 2022) of this conference, on telecommunication/ICT services in rural, isolated and poorly served areas;

j) Resolution 16 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference (WTDC), on special actions and measures for the least developed countries (LDCs), small island developing states (SIDS), landlocked developing countries (LLDCs) and countries with economies in transition;

k) Resolution 23 (Rev. Buenos Aires, 2017) of WTDC, on Internet access and availability for developing countries and charging principles for international Internet connection;

l) Resolution 46 (Rev. Kigali, 2022) of this conference, on assistance to indigenous peoples and communities through ICTs;

m) Recommendation ITU-D 19 (Dubai, 2014) of WTDC, on telecommunications for rural and remote areas;

n) Resolution 30 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on special measures for LDCs, SIDS, LLDCs and countries with economies in transition;

o) Resolution 58 (Rev. Kigali, 2022) of this conference, on telecommunication/ICT accessibility for persons with disabilities and persons with specific needs;

p) Resolution 201 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on creating an enabling environment for the deployment and use of ICT applications;

q) Resolution ITU-R 69-1 (Rev. Sharm el-Sheikh, 2019) of the Radiocommunication Assembly, on the development and deployment of international public telecommunications via satellite in developing countries,

noting

a) that broadband connectivity is critical to accelerate digital transformation in order to bridge the digital divide and to achieve, *inter alia*, digital inclusion;

b) that the coronavirus disease COVID-19 pandemic has intensified the global demand for Internet access, speed and affordability following major shifts in Internet use and traffic patterns, where ICTs have enabled billions of people to continue to work, study, shop and transact, care for others, and stay in touch with loved ones virtually;

c) that digital literacy is a requirement for closing the digital divide;

d) that digital transformation will benefit all walks of society, especially women and girls, youth, children, persons with disabilities, persons with specific needs, older persons and indigenous people, as well as people living in remote areas;

e) that digital transformation is a requirement to bridge the digital divide and drive resilient recovery from and beyond the global pandemic and crisis, and will improve education and quality of life, assist in connecting all citizens globally, and facilitate effective use of national resources for the future of society,

noting further

a) the provisions of the Tunis Agenda for the Information Society, defining WSIS action lines falling under ITU's responsibility;

b) the WSIS+10 statement on the implementation of WSIS outcomes and WSIS+10 vision for WSIS beyond 2015, adopted at the ITU-coordinated WSIS+10 High-Level Event (Geneva, 2014) and endorsed by the Plenipotentiary Conference (Busan, 2014);

c) the global targets set by the Broadband Commission for Sustainable Development to be achieved by 2025;

acknowledging

a) that the telecommunication environment has undergone significant changes due to a global surge in connectivity demand as a result of the COVID-19 pandemic that has shifted Internet use and traffic from offices to residential premises;

b) that the COVID-19 pandemic has magnified the digital divides between and within countries, gender, age, disability, socio-economic status and geography;

c) that development of and increased demand for telecommunications/ICTs has contributed to reducing and should continue to reduce the cost of relevant equipment and services towards ensuring equal access and use of ICTs for all;

d) that there is an urgent need to continue to create digital opportunities and accelerate the adoption of telecommunications/ICTs in developing countries, including LDCs, SIDS, LLDCs and countries with economies in transition, taking advantage of the revolution that ICTs have witnessed and are currently witnessing, and acknowledging the role ICTs will play in ensuring resilient recovery from global pandemic and crisis;

e) that relevant activities of ITU-D study groups included studies on telecommunication/ICT complementary access networks and solutions and their possible relevance to the connectivity ecosystem and help to bridge the digital divide;

f) that ITU has committed itself to narrowing the digital divide in accordance with the WSIS outcomes, as well as the relevant Sustainable Development Goals (SDGs);

g) that it is important for ITU to assist in bridging the national, regional and international digital divide in telecommunications/ICTs and ICT applications by facilitating interoperability, interconnection and global connectivity of telecommunication networks and services, and by playing a leading role in the process for follow-up and implementation of the relevant goals and objectives of WSIS, and to focus on bridging the digital divide and providing broadband for all;

h) that UNGA will assess the outcomes and implementation both of the SDGs in 2030 and the WSIS outcomes in 2025,

considering

a) ITU's role as a catalyst, and in particular that of the ITU Telecommunication Development Sector (ITU-D) as coordinator and promoter of the rational use of resources in the context of the various projects intended to narrow the digital divide;

b) that the programmes of the Telecommunication Development Bureau (BDT) under its action plans, on information and communication infrastructure and technology development, have provided assistance to developing countries in the area of spectrum management and in the efficient and cost-effective development of rural, national and international broadband telecommunication networks, including satellite;

c) that various activities are being executed towards bridging the digital divide by many international and regional organizations, such as, in addition to the ITU, the Organisation for Economic Co-operation and Development (OECD), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Development Programme (UNDP), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Economic and Social Council (ECOSOC), the United Nations economic commissions, the World Bank, the Asia-Pacific Telecommunity (APT), the regional economic communities, the regional development banks and many others, and that such activities have increased following the conclusion of WSIS and the adoption of the Tunis Agenda, particularly in relation to implementation and follow-up;

d) that many stakeholders in the public, private, academic, non-governmental organization and multilateral sectors are seeking to bridge this divide;

e) that the development of radiocommunication technologies and deployment of terrestrial, stratospheric (e.g. high-altitude platform stations) and space services and applications enable sustainable and affordable access to information and knowledge, through the provision of communication services with high connectivity (broadband) and wide coverage (regional or global reach), which contribute significantly to bridging the digital divide, efficiently complementing other technologies and enabling countries to be connected directly, quickly and reliably;

f) that using systems, such as low-cost wired and wireless technologies, such as the ones used for telecommunication/ICT complementary access networks and solutions, can be an effective solution for connecting rural, remote, and underserved communities;

g) that, in many ITU Member States, regulations have been adopted dealing with regulatory issues such as interconnection, determination of tariffs, universal service, etc., designed to bridge the digital divide at the national level;

h) that it is necessary to coordinate the efforts of both the public and private sectors to ensure that opportunities arising from the information society yield benefits, especially for the most disadvantaged;

i) that each region, country and area should tackle its own specific issues regarding the digital divide, while stressing the importance of cooperation in this area at regional and international level in order to benefit from experience gained;

j) that national strategies for the provision of telecommunication services in developing countries contribute to reducing costs to users and bridging the digital divide,

considering further

a) that the goal of integrating ICTs and accelerating digital transformation is to improve the quality of all aspects of our daily life, and that equitable and affordable access to ICTs is a key to digital inclusion, as well as resilient recovery from global pandemic and crisis;

b) that the security of these applications requires the building of confidence and trust in the use of telecommunications/ICTs;

c) that, as ICTs are being rapidly integrated into all sectors of society, the applications referred to in WSIS Action Line C7 are triggering profound changes in social productivity and hastening a major leap forward in industrial productivity, thus creating a good opportunity for developing countries to raise their level of industrial development and improve social and economic growth, as well recovery from global pandemic and crisis;

d) that sharing of telecommunications/ICT experiences and best practices among ITU members will help to facilitate and accelerate digital transformation;

e) that, despite the previous decade's achievements in ICT connectivity, digital divides remain, both between and within countries, and in particular many developing countries do not have the necessary basic infrastructure, long-term plans, laws, appropriate regulations and the like in place for telecommunication/ICT development that need to be addressed through, among other actions, strengthened enabling policy environments and international cooperation to improve affordability, access, education, capacity building, multilingualism, cultural preservation, investment and appropriate financing, as well as measures to accelerate digital literacy and skills, and to promote cultural diversity,

confirms

a) the importance of approaches to transparent funding for bridging the digital divide in the Geneva Plan of Action, the Tunis Agenda and the strategic plan for the Union and their translation into equitable mechanisms for action, particularly in respect of issues related to Internet management, having regard to women and girls, youth and vulnerable groups, indigenous peoples, older persons, persons with disabilities and persons with special needs, telecommunications/ICTs for disaster relief and mitigation, and the Child Online Protection initiative,

b) that the international and regional financial institutions and other organizations have programmes aimed at bridging the digital divide, and that these funding and technical assistance programmes are essential to bridging that divide in developing countries, especially LDCs, LLDCs and SIDS,

undertakes

to expedite and prioritize work from which all countries, especially the developing countries, may benefit, with a view to establishing international methods and specific mechanisms to strengthen international cooperation for narrowing the digital divide, through connectivity and digital literacy solutions and digital transformation to accelerate sustainable, inclusive and affordable access to telecommunications/ICTs, and, in parallel, to continue to shorten the time-frames for implementation of the Digital Solidarity Agenda, beginning with the Geneva Plan of Action, the outcomes of the Connect the World summits, the Tunis Agenda and the strategic plan as well as urgent priorities for the Union,

resolves

that BDT, in collaboration with the Telecommunication Standardization Bureau and the Radiocommunication Bureau, continue to adopt the necessary measures to accelerate the implementation of regional projects, to actively link all stakeholders, organizations and institutions of the various sectors in an ongoing relationship of cooperation in which information is disseminated over networks, so as to bridge the digital divide in line with the outputs of Phases 1 and 2 of WSIS, and to contribute and work towards the Connect 2030 Agenda, as well as the United Nations' 10 priorities for 2021 that, *inter alia*, call for seizing the opportunities of digital technologies through the implementation of the United Nations Secretary-General's Roadmap for Digital Cooperation which was launched in 2020,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to continue to assist the Member States and Sector Members in developing a pro-competition policy and regulatory framework for telecommunications/ICTs, in order to bridge the digital divide, including for online services and e-commerce, as well as capacity building in connectivity and accessibility, taking into account the specific needs of women and marginal, vulnerable and disadvantaged groups;

2 to continue to follow up BDT's work pursuant to Resolution 8 (Rev. Kigali, 2022) of this conference in creating social connectivity indicators for the digital divide, standard indicators for each country and a single index, in cooperation with the competent organizations and the relevant United Nations agencies, using available statistics so that information on the current situation for each country and region in terms of the digital divide is continuously available online on the ITU website in a clear and user-friendly manner;

3 to continue to advocate the advantages of developing low-cost, modern, high-quality telecommunication/ICT customer equipment, that can be directly connected to the networks supporting the Internet and Internet services and applications, so that economies of scale and social benefits can be achieved on account of their acceptability at the global level, taking into consideration the possibility of the use of terrestrial, stratospheric and space-based emerging technologies, and to promote human-centred approaches to regulatory and policy frameworks;

4 to continue to assist in developing a user-awareness campaign in order to build user trust and confidence in ICT services and applications;

5 to encourage the use of new and emerging technologies, and the development of business models or other ways to help the diverse ecosystem of telecommunication operators in reducing costs and thereby bridging the digital divide;

6 to continue to advocate the need for affordable devices and services and assist in reducing access costs by inviting Sector Members to develop appropriate technology scalable to broadband applications and having a low operating and maintenance cost, this having been adopted as a key objective of the Union as a whole and ITU-D in particular;

7 to continue to foster the development of innovative models and digital transformation in order to successfully reduce poverty and bridge the digital divide in the developing countries;

8 to continue to make these applications a major strand for the activities of the relevant BDT programme, focusing on its key role for the implementation of study Questions related to ICT applications for the previous and forthcoming study periods;

9 to continue to help bridging the digital divide between urban and rural areas;

10 to continue to support and coordinate efforts to connect women and girls, youth and vulnerable groups, indigenous peoples, older persons, persons with disabilities and persons with specific needs using telecommunication/ICT services and applications;

11 to ensure that special programmes under the ITU Academy training centres (ATCs) and the digital transformation centres (DTCs) continue to address the specific issue of ICT training and development of digital literacy and skills for poverty alleviation and improving quality of life, and to give top priority to these centres;

12 to ensure BDT plays a central, agile and fit-for-purpose role in bridging the digital divide and collaborates closely with ITU Member States, through the ITU regional offices, to implement relevant programmes and projects, in addition to maintaining an active communication channel between strategic stakeholders;

13 to facilitate discussion and exchange of best practices regarding the challenges and benefits of implementing projects or activities relating to ICT-applications as referred to in WSIS Action Line C7 through strategic partnerships;

14 to continue to identify key, fit-for-purpose telecommunication/ICT applications in rural areas and to cooperate with specialized organizations, national initiatives, and the study groups of the ITU Telecommunication Standardization Sector (ITU-T) in relation to bridging the standardization gap between developing and developed countries, with a view to developing a standardized user-friendly content format that overcomes the barrier of digital literacy and language;

15 to encourage innovation and accelerate the use and adoption of emerging digital technologies and the development of business models or other innovative ways to help telecommunication operators, as well as telecommunication/ICT complementary access networks and solutions, for reducing costs and overcoming geographic obstacles, leading to acceleration of digital inclusion to bridge the digital divide;

16 to take into consideration the importance of security and confidentiality of the ICT applications highlighted in WSIS Action Line C7 and of protection of privacy, in order to facilitate discussions regarding guidelines, tools and mechanisms; improve collaboration between government authorities; implement user-friendly government services, through integration and personalization of services; improve the quality and use of e-government services; and increase awareness of such services;

17 to continue supporting Member States, where requested, in developing policy and regulatory frameworks that could expand and support the engagement of telecommunication/ICT complementary access networks and solutions in bridging the digital divide;

18 to continue to help in promoting greater participation of women and girls, youth, children, persons with disabilities, persons with specific needs, older persons, indigenous people and people living in remote areas in digital transformation initiatives;

19 to promote the implementation of studies or projects and activities, in collaboration with the ITU Radiocommunication Sector (ITU-R), with a view to building capacities in efficient use of the orbit/spectrum resource for the provision of terrestrial, stratospheric and space-based technologies, including emerging radiocommunication technologies, in order to support utilization of the orbit/spectrum resource to stimulate broadband development and bridge the digital divide, especially in developing countries;

20 to continue to identify key telecommunication/ICT applications in rural areas and to cooperate with ITU-T to bridge the standardization gap between developing and developed countries;

21 that BDT continue to play a central role in bridging the digital divide, and collaborate closely, through the ITU regional offices, with ITU Member States in order to implement relevant programmes and projects, in addition to maintaining an active communication channel between strategic stakeholders and playing a central, agile and fit-for-purpose role;

22 to promote studying, exchanging and applying public-private partnership (PPP) models for developing digital infrastructure as well as models for centres providing Internet access and digital capacity development in rural and isolated areas;

23 to continue to take measures to develop cooperation, while ensuring a high level of transparency, with international financial institutions, donor agencies and private-sector associations, regarding projects aimed at bridging the digital divide, to inform Member States of the status of these efforts on a regular basis, and to create and maintain a resource on the ITU website where members of the Union can find information on ITU-partnered institutions and United Nations agencies that have available programmes for funding and technical assistance related to bridging the digital divide;

24 to ensure that the necessary resources within the budgetary limits are allocated to comply with this resolution;

25 to circulate the outputs of the implementation of this resolution to all Member States on a regular basis;

resolves to instruct the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Radiocommunication Bureau and the Telecommunication Standardization Bureau

1 to support Member States, in particular developing countries, in increasing awareness and understanding about disaggregated[2], open[3], and interoperable network technologies, such as open radio access networks (Open RAN) and others, by organizing workshops and other capacity-building activities;

2 to work in collaboration with Member States, Sector Members and other stakeholders to facilitate information-sharing about the development and implementation of these technologies and solutions referred to in *resolves* 1 above, as well as others, with the objective of promoting reliable broadband access at affordable cost, in particular in unserved and underserved areas and communities,

invites the Secretary-General

1 to include the subject of the digital divide in the list containing the areas of mutual interest to the three Sectors and the General Secretariat[4];

2 to suggest to the Inter-Sector Coordination Group on issues of mutual interest (ISCG) that it consider the digital divide as a subject of mutual interest to the three Sectors,

calls upon international financial institutions, donor agencies and private-sector entities

to assist in developing capacity in bridging the digital divide, as well as various inclusive, fit-for-purpose and sustainable business models for developing telecommunication/ICT applications towards digital transformation, including through PPP projects and programmes in developing countries, in a transparent manner,

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2 Disaggregated refers to separation of hardware and software.

3 Open may refer, among others, to open standards and open interfaces to support interoperable network technologies.

4 Such a list is maintained by the ITU Secretary-General in accordance with Resolution 191 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

invites Member States

1 to develop and promote relevant policies to foster public and private investment in the development and construction of terrestrial, stratospheric and space-based emerging technologies in their countries and regions, and to consider including the use of such systems in their national and/or regional broadband plans, as an additional tool that will help to bridge the digital divide and meet digital transformation needs, especially in the developing countries;

2 when implementing Resolution 17 (Rev. Kigali, 2022) of this conference, on implementation of and cooperation on approved regional initiatives at the national, regional, interregional and global levels, to consider the possibility of implementing projects in the framework of regional initiatives on bridging the digital divide that reflect optimal integration of telecommunications/ICTs;

3 to consider the possibility of promoting digital literacy policies and mechanisms, as a means to help bridge the digital divide, and to participate actively in regional and global collaborative forums dealing with experiences and best practices in the implementation of e-government strategies and programmes;

4 to create policy conditions for effective competition in the domestic Internet access services market as an important factor for lowering the cost of Internet access for users and service providers;

5 to consider inclusive and innovative policies to close the digital divide, taking into account national initiatives and telecommunication/ICT complementary access networks and solutions,

invites Member States and Sector Members

1 to incorporate, in their e-government strategies and programmes, actions to accelerate the use of ICTs to improve collaboration between government authorities, actions to accelerate the implementation of user-friendly digital services, potentially including integration and personalization of services to improve the quality and use of e-government services, and actions to increase awareness of such services;

2 to support the collection and analysis of data and statistics on telecommunication/ICT applications and services, including in agriculture, education, health care, manufacturing and processing, entertainment and media, oil and gas, transportation, tourism and smart sustainable cities, that will contribute to the formulation and implementation of public policies, and cross-country comparisons related to the digital divide;

3 to participate actively in regional and global collaborative forums dealing with experiences and best practices in the implementation of e-government strategies and programmes;

4 to participate in the study of the role of telecommunications/ICTs in education systems by contributing their own experiences regarding the implementation of telecommunications/ICTs to achieve universal education worldwide;

5 to consider expanding the implementation of projects and programmes to promote development of the telecommunication/ICT sector, including with the participation of ITU, in order to bridge the digital divide, and provide information on such projects and programmes for BDT;

6 to provide ITU with up-to-date ICT connectivity and rural experiences, which can then be put on the ITU-D website,

invites Member States, Sector Members and other stakeholders

to participate in and contribute to the activities referred to in *resolves* 1 and 2 of *resolves to instruct the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Radiocommunication Bureau and the Telecommunication Standardization Bureau* above and to undertake all efforts to foster an enabling environment for the greater growth and development of technology-neutral broadband connectivity, in particular in developing countries.

RESOLUTION 40 (Rev. Kigali, 2022)

Group on capacity-building initiatives

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) the principles relating to capacity building in the World Summit on the Information Society (WSIS) Geneva Declaration of Principles, in §§ 29 and 34 thereof;

b) the provisions of § 11 in the WSIS Geneva Plan of Action;

c) the provisions of §§ 14 and 32 of the WSIS Tunis Commitment;

d) the provisions of §§ 22, 23a), 26g), 51 and 90c), d), k) and n) of the WSIS Tunis Agenda for the Information Society;

e) that ITU is one of the moderators/facilitators identified under Action Line C4 in the Annex to the Tunis Agenda, alongside the United Nations Development Programme, the United Nations Educational, Scientific and Cultural Organization and the United Nations Conference on Trade and Development;

f) Resolution 73 (Rev. Kigali, 2022) of this conference, on ITU Academy training centres (ATCs);

g) United Nations General Assembly Resolution 70/125, on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the WSIS outcomes,

considering

a) that human resources are still the most vital asset of any organization, and that technical, development and management skills continuously need to be reviewed;

b) that critical to the development of human and institutional capacity is the continuation of ongoing training and exchange of ideas with other experienced technical, regulatory and development professionals and institutions;

c) that the Telecommunication Development Bureau (BDT) continues to play a pivotal role in the development of such skills through its numerous activities, including its capacity-development and digital inclusion programme, and its activities in the field;

d) that the major capacity-building initiatives undertaken by BDT, including the ITU Academy, global and regional human capacity-development forums, and the centres of excellence and digital transformation centres (DTCs), have greatly contributed to addressing these issues, and that their aims are in line with the outputs of WSIS, in cooperation with all programmes, and with the two ITU Telecommunication Development Sector (ITU-D) study groups, each according to their respective field of competence;

e) that it is necessary for BDT to systematize its capacity and skills-development activities, treating them in a holistic, coordinated, integrated and transparent manner to meet the overall strategic objectives of ITU-D and make the most efficient use of resources;

f) that it is necessary for BDT to consult regularly with members on their capacity- and skills-development priorities and to implement activities accordingly;

g) that it is necessary for BDT to report to the Telecommunication Development Advisory Group (TDAG) on the initiatives and activities undertaken and results achieved, in order to allow members to be fully informed of difficulties encountered and progress made, and to guide BDT in its activities in this field,

taking into account

a) the success, and demonstrated value in terms of providing practical skills and hands-on learning, of forums such as regional seminars and the World Radiocommunication Seminar;

b) the large number and diversity of organizations and individuals who participate in and with BDT, whose value as educational resources should be recognized;

c) the capacity- and skills-development initiatives, needs and priorities identified by regions,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to maintain the Group on capacity-building initiatives (GCBI), composed of competent capacity-development experts familiar with the needs of their regions, to enhance the ability of ITU Member States, Sector Members, Associates, Academia, experienced and expert professionals and organizations with relevant expertise to assist ITU-D, and to contribute to the successful implementation of its capacity- and skills-development activities in an integrated manner in cooperation with the two ITU-D study groups and in accordance with adopted Kigali Action Plan priorities and regional initiatives , each according to its respective field of competence;

2 that GCBI shall include two capacity-building experts representing each of the six regions, that participation shall also be open to all interested Member States, Sector Members and regional telecommunication organizations, and that the group shall work with BDT staff electronically or, where appropriate, face-to-face, in order to:

i) assist in identifying global trends in the domain of telecommunication/information and communication technology (ICT) capacity and skills development;

ii) assist in identifying regional needs and priorities for capacity- and skills-development activities, considering, above all, the regional initiatives and the topics addressed by the study groups, evaluate the progress of related BDT activities, and make proposals to eliminate any overlap in activities and harmonize ongoing initiatives, etc.;

iii) coordinate, as appropriate, with organizations and professionals that have expertise in human skills development and building capacity in areas of identified need, leveraging their expertise by either directing members to those experts or facilitating their involvement in ITU capacity-building activities;

iv) assist BDT in the continuous implementation of an integrated framework for ITU Academy activities;

v) provide advice on the development of formal telecommunication/ICT curricula design and content for both general digital literacy and specialized skills;

vi) provide advice on accreditation and certification based on regional and/or international standards;

vii) provide advice on initiatives, academic alliances and partnerships that further the overall strategic objectives of the ITU Academy, including integration with, *inter alia*, ATCs, DTCs and ITU regional offices;

viii) provide advice on standards for quality assurance and monitoring of courses delivered through the ITU Academy and its partners, including those delivered through the ATCs, DTCs and/or academic institutions;

ix) assist in submitting an interim annual report to be presented and discussed during the TDAG meeting, including achievements and proposed recommendations that may need to be taken to fulfil the respective programme;

x) act as regional representatives in the related forums organized by BDT;

3 provide the necessary support for GCBI to carry out its work effectively;

4 take due account of any recommendations of GCBI.

RESOLUTION 43 (Rev. Buenos Aires, 2017)

Assistance in implementing International Mobile Telecommunications and future networks

The World Telecommunication Development Conference (Buenos Aires, 2017),

recalling

a) Resolution 15 (Rev. Buenos Aires, 2017) of this conference, on applied research and transfer of technology;

b) Resolution 200 (Busan, 2014) of the Plenipotentiary Conference, on the Connect 2020 Agenda for global telecommunication/information and communication technology (ICT) development;

c) Resolution 59 (Rev. Buenos Aires, 2017) of this conference, on strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest;

d) Resolution 135 (Rev. Busan, 2014) of the Plenipotentiary Conference, on ITU's role in the development of telecommunications/ICTs, in providing technical assistance and advice to developing countries[1] and in implementing relevant national, regional and interregional projects;

e) Resolution 178 (Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role in organizing the work on technical aspects of telecommunication networks to support the Internet;

f) Resolution ITU-R 23 (Rev. Geneva, 2015) of the Radiocommunication Assembly (RA), on extension of the international monitoring system to a worldwide scale;

g) Resolution ITU-R 50 (Rev. Geneva, 2015) of RA, on the role of the Radiocommunication Sector (ITU-R) in the ongoing development of International Mobile Telecommunications (IMT);

h) Resolution ITU-R 56 (Rev. Geneva, 2015) of RA, on naming for IMT;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

i) Resolution ITU-R 57 (Rev. Geneva, 2015) of RA, on principles for the process of development of IMT-Advanced;

j) Resolution ITU-R 65 (Rev. Geneva, 2015) of RA, on principles for the process of future development of IMT for 2020 and beyond;

k) Resolution 238 (WRC-15) of the World Radiocommunication Conference (WRC), on studies on frequency-related matters for IMT identification, including possible additional allocations to the mobile services on a primary basis in portion(s) of the frequency range between 24.25 and 86 GHz for the future development of IMT for 2020 and beyond;

l) Recommendation 207 (Rev.WRC-15) of WRC, on future IMT systems;

m) Resolution 92 (Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on enhancing the standardization activities in the ITU Telecommunication Standardization Sector (ITU-T) related to non-radio aspects of IMT;

n) Resolution 93 (Hammamet, 2016) of WTSA, on interconnection of 4G, IMT-2020 networks and beyond,

considering

a) the tremendous growth of data traffic and expansion of IMT networks, and the continuous need to promote the use of IMT throughout the world, particularly in developing countries;

b) the important role of ITU in contributing to the standardization and harmonized use of IMT, which will promote global broadband connectivity and accelerate the uptake of advanced mobile applications and services;

c) that IMT systems have contributed to global economic and social development, and are intended to provide telecommunication services on a worldwide scale, regardless of location, network or terminal used;

d) that IMT-2020 will be utilized widely in the near future to build a connected smart society and information ecosystem, and will make a positive and important contribution to the United Nations Sustainable Development Goals (SDGs);

e) that ITU-R and ITU-T are actively continuing their studies on standardization and development of mobile communication systems, overall network aspects of IMT and future networks;

f) that the ITU-T and ITU-R study groups have had, and continue to have, effective informal coordination via liaison activity with respect to the development of Recommendations relating to IMT and future networks;

g) that the ITU-R Handbook on Global Trends in International Mobile Telecommunications defines IMT and provides general guidance to relevant parties on issues related to the deployment of IMT systems and for the introduction of their IMT-2000 and IMT-Advanced networks;

h) that the ITU Telecommunication Development Sector (ITU-D) study groups of the are currently involved in activities closely coordinated with ITU-T Study Groups 11 and 13 and ITU-R Study Group 5 in order to identify the factors influencing the effective development of broadband, including IMT and future networks, for developing countries;

i) that IMT systems are now being evolved to provide diverse usage scenarios and applications such as enhanced mobile broadband, massive machine-type communications and ultra-reliable and low-latency communications, and a substantial number of countries have started implementing these;

j) that ITU-T Study Group 13 initiated the study of non-radio aspects of IMT-2020 and future networks;

k) that many aspects of the research and development of designs for IMT and future networks are linked to big data, cloud computing and fog computing;

l) the need to develop relevant documents on the smooth transition of existing mobile networks to IMT-2020 and a handbook on deployment of IMT-2020 systems;

m) the increasing global reliance on the use of IMT to support the achievement of, among other objectives, the 17 SDGs adopted in Resolution 70/1 of the United Nations General Assembly, particularly in key sectors such as health, agriculture, finance and education;

n) the positive impact of IMT and future networks on economic development and improvement of communication as well as social inclusion;

o) the very important role of IMT and future networks in broadband services and the crucial role of IMT-2020 for new services;

p) that IMT-2020 will provide many very important benefits to developing countries (such as smart transportation systems to prevent traffic accidents, remote surgery with e-health, augmented/virtual reality-based e-learning, smart energy, smart water management, smart agriculture, new innovative applications for persons with disabilities and persons with specific needs, etc.), and successful planning and deployment of IMT-2020 is very important;

q) that ITU has successfully focused on the promotion of IMT during the last 16 years, coverage of these networks having reached 84 per cent of the world's population in 2016, and that it is important for ITU-D to include IMT-2020 in the next four-year period, the other two Sectors, ITU-R and ITU-T, having already prioritized IMT-2020;

r) the need for assistance to developing countries to provide high-speed and high-quality mobile broadband in those countries, insofar as developed and developing countries are using the same mobile broadband technologies but there are very important differences between the mobile data speeds and service qualities;

s) the need for assistance for affordable mobile broadband and widespread usage by all people and sectors,

noting

a) the excellent work of the relevant ITU-R and ITU-T study groups in this regard;

b) the handbooks for deployment of IMT systems prepared jointly by the three Sectors and their subsequent supplements adopted by ITU-R and ITU-T;

c) the adoption by this conference of Question 1/1,

recognizing

a) that deploying IMT in low-frequency bands has benefited operators in providing service in wider areas, as well as enabling investment efficiency and competitive prices for wireless broadband services in developing countries;

b) that developing and developed countries should cooperate though exchanges of experts, the organization of seminars, specialized workshops and meetings relating to the deployment of IMT and future networks;

c) that Member States, especially developing countries, would require continued assistance in the adoption of IMT technologies and systems that meet their national requirements and needs;

d) that the emerging Internet of Things (IoT) applications have resulted in a rapid increase in the number of devices accessing the telecommunication network which, in turn, makes the need to coordinate work among the three Sectors in implementing IMT throughout the world more pressing;

e) that there are many issues to consider in deploying IMT and future networks, such as suitable IMT technologies, frequency-band harmonization and strategic planning;

f) that ITU-T Recommendations to address network architectures, roaming principles, numbering issues, charging and security mechanisms as well as interoperability and conformance testing for interconnection of IMT and future networks and beyond shall be progressed as quickly as possible,

resolves

1 to include support for implementation aspects of IMT, including suitable IMT technologies, a transition roadmap, frequency-band harmonization and re-planning of certain frequency bands to facilitate deployment of IMT, including the technologies currently used, and support for their implementation as a priority in the action plan adopted by this conference for developing countries;

2 to include support for ITU work on the deployment of IMT and future networks in developing countries in the action plan and the work plans of ITU study groups:

i) ITU-R study groups: in the area of development of suitable technologies, a transition roadmap, frequency-band definition and harmonization and re-planning of certain frequency bands to facilitate deployment, including the technologies currently used;

ii) ITU-T study groups: in the area of standardization of non-radio aspects of network management, protocols and interoperability, quality of service, future networks, transport, fronthaul/backhaul and security,

instructs the Director of the Telecommunication Development Bureau

in close collaboration with the Directors of the Radiocommunication Bureau (BR) and the Telecommunication Standardization Bureau (TSB), as well as the relevant regional telecommunication organizations:

1 to continue to involve the membership in activities to define and establish priorities with regard to challenges pertaining to the deployment of IMT and future networks, especially in developing countries;

2 to provide assistance to developing countries in their planning and optimization of spectrum usage for the medium to long term for the implementation of IMT, taking into account national and regional specificities and needs;

3 to continue encouraging and assisting developing countries to implement IMT systems and future networks using the relevant ITU Recommendations and studies carried out by the ITU study groups, taking into account the need to protect existing services;

4 to devote particular attention to work on questions related to the technologies and the radiocommunication standards recommended by ITU, in order to meet national requirements for the implementation of IMT in the short, medium and long term, with a view to encouraging the use of harmonized spectrum and associated band plans and standards to achieve economies of scale;

5 to disseminate as widely as possible the above-mentioned guidelines and amendments thereto, which are recommended to be used for the evolution of existing networks to IMT-2020 and future networks;

6 to provide assistance to administrations on the use and interpretation of ITU Recommendations relating to IMT and future networks adopted by both ITU-R and ITU-T;

7 to conduct seminars, workshops or training on strategic planning for the transition from networks operated primarily to IMT and future networks, taking into account specific national and regional requirements and characteristics;

8 to promote the exchange of information among international organizations, donor countries and recipient countries on upgrading to and deploying IMT-Advanced/IMT-2020 systems in certain frequency bands used by previous-generation IMT (particularly those operated below 2 GHz);

9 to provide expert advice on the creation of roadmaps for the evolution of IMT;

10 to encourage administrations to take heed of Reports ITU-R M.2078, ITU-R M.2290 and ITU-R M.2370 as well as Recommendation ITU-R M.2083, by making available a sufficient quantity of spectrum to enable the proper development of IMT, including IMT-2020, with the aim of expanding the provision of mobile-broadband services in an efficient manner;

11 to support projects and training on the use of IMT and future networks in key sectors, including health, finance, education and public safety, among others, through strategic partnerships;

12 to take into account the results of the work under Question 1/1 in relevant BDT programmes, that are components of the toolkit BDT uses when solicited by Member States and Sector Members in order to support their efforts to build broadband and deploy IMT networks,

invites the study groups of the ITU Telecommunication Development Sector

1 to take into account the contents of this updated resolution when conducting studies, and to maintain close cooperation in this matter with ITU-R study groups;

2 to take into account the decisions of RA-15, WRC-15 as well as WTSA-16 when implementing this resolution;

3 to take into account the importance of transition to IMT-2020;

4 to take into account the challenges to enhancing mobile-broadband services, including the need for greater data speeds, service quality and affordability in developing countries,

encourages Member States

to provide all possible support for the implementation of this resolution and for the future work on studies relating to the relevant Questions.

RESOLUTION 45 (Rev. Kigali, 2022)

Mechanisms for enhancing cooperation on cybersecurity, including countering and combating spam

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 130 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening the role of ITU in building confidence and security in the use of information and communication technologies (ICTs);

b) Resolution 174 (Rev. Busan, 2014) of the Plenipotentiary Conference, on ITU's role with regard to international public policy issues relating to the risk of illicit use of ICTs;

c) Resolution 179 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in child online protection;

d) Resolution 181 (Guadalajara, 2010) of the Plenipotentiary Conference, on definitions and terminology relating to building confidence and security in the use of ICTs;

e) Resolution 45 (Rev. Dubai, 2014) of the World Telecommunication Development Conference (WTDC);

f) Resolution 50 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA), on cybersecurity;

g) Resolution 52 (Rev. Hammamet, 2016) of WTSA, on countering and combating spam;

h) Resolution 58 (Rev. Geneva, 2022) of WTSA, on encouraging the creation of national computer incident response teams (CIRTs), particularly for developing countries[1];

i) Resolution 69 (Rev. Kigali, 2022) of this conference, on facilitating the creation of CIRTs, particularly for developing countries, and cooperation among them;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

j) Resolution 67 (Rev. Kigali, 2022) of this conference, on the role of the ITU Telecommunication Development Sector (ITU-D) in child online protection;

k) the relevant opinions of the sixth World Telecommunication Policy Forum (WTPF-21) that fall under the mandate of ITU-D;

l) the noble principles, aims and objectives embodied in the Charter of the United Nations and the Universal Declaration of Human Rights;

m) that ITU is the lead facilitator for Action Line C5 in the Tunis Agenda for the Information Society (Building confidence and security in the use of ICTs) of the World Summit on the Information Society (WSIS);

n) the cybersecurity-related provisions of the WSIS Tunis Commitment and the Tunis Agenda;

o) the goals set out in the strategic plan for the Union in force;

p) ITU-D study Question on ''Securing information and communication networks: Best practices for developing a culture of cybersecurity'', under which in the previous cycle many members collaborated to produce reports, including course materials for use in developing countries, such as a compendium of national experiences, best practices for public-private partnerships (PPPs), best practices for building a CIRT with accompanying course material, and best practices for a CIRT management framework;

q) the report of the Chairman of the High-Level Group of Experts of the Global Cybersecurity Agenda (GCA), established by the ITU Secretary-General pursuant to the requirements of Action Line C5 on building confidence and security in the use of ICTs and in accordance with Resolution 140 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the role of ITU as sole facilitator for WSIS Action Line C5, and Resolution 58 (Rev. Geneva, 2022), on encouraging the creation of national CIRTs, particularly for developing countries;

r) that the ITU Council approved, at its 2022 session, guidelines for the utilization of the GCA by ITU in its work;

s) that ITU and the United Nations Office on Drugs and Crime have signed a memorandum of understanding (MoU) in order to strengthen security in the use of ICTs,

considering

a) the role of telecommunications/ICTs as effective tools to promote peace, economic development, security and stability and to enhance democracy, social cohesion, good governance and the rule of law, and the need to confront the escalating challenges and threats resulting from the abuse of this technology, including for criminal and terrorist purposes, while respecting human rights (see also § 15 of the Tunis Commitment);

b) the need to build confidence and security in the use of telecommunications/ICTs by strengthening the trust framework (§ 39 of the Tunis Agenda), and the need for governments, in cooperation with other stakeholders within their respective roles, to develop necessary legislation for the investigation and prosecution of cybercrime at national levels, and cooperate at regional and international levels having regard to existing frameworks;

c) that United Nations General Assembly (UNGA) Resolution 64/211 invites Member States to use, if and when they deem appropriate, the voluntary self-assessment tool that is annexed to the resolution for national efforts;

d) the need for Member States to develop national cybersecurity programmes centred around a national plan, PPPs, a sound legal foundation, an incident management, watch, warning, response and recovery capability, and a culture of awareness, using as a guide the reports on best practices for a national approach to cybersecurity: building blocks for organizing national cybersecurity efforts;

e) that the considerable and increasing losses which users of telecommunication/ICT systems have incurred from the growing problem of cybercrime and deliberate sabotage worldwide alarm all developed and developing nations of the world without exception;

f) the reasons behind the adoption of Resolution 37 (Rev. Kigali, 2022) of this conference, on bridging the digital divide, having regard to the importance of multistakeholder implementation at the international level and to the action lines referenced in § 108 of the Tunis Agenda, including building confidence and security in the use of ICTs;

g) the outcomes of several ITU activities related to cybersecurity, especially, but not limited to, the ones coordinated by the Telecommunication Development Bureau, in order to fulfil ITU's mandate as facilitator for the implementation of Action Line C5 (Building confidence and security in the use of ICTs);

h) that various organizations from all sectors of society work in collaboration to enhance cybersecurity of telecommunications/ICTs;

i) that the fact, among others, that critical telecommunication/ICT infrastructures are interconnected at global level means that low infrastructure security in one country could result in greater vulnerability and risks in others;

j) that various information, materials, best practices and financial resources, as appropriate, are available to Member States from national, regional and other relevant international organizations, according to their respective roles;

k) that the ITU GCA encourages international cooperation aimed at proposing strategies for solutions to enhance confidence and security in the use of telecommunications/ICTs;

l) that cybersecurity has become a very important issue at the international level for sustainable development, and that ITU-D, within its mandate, can continue to contribute to these efforts towards building confidence and security in the use of ICTs,

recognizing

a) that measures undertaken to ensure the stability and security of telecommunication/ICT networks, to protect against cyberthreats/cybercrime and to counter spam must protect and respect the provisions for privacy and freedom of expression as contained in the relevant parts of the Universal Declaration of Human Rights (see also § 42 of the Tunis Agenda) and the International Covenant on Civil and Political Rights;

b) that UNGA Resolution 68/167, on the right to privacy in the digital age, affirms, *inter alia*, that "the same rights that people have offline must also be protected on line, including the right to privacy";

c) the need to take appropriate actions and preventive measures, as determined by law, against abusive uses of telecommunications/ICTs, as mentioned in connection with "Ethical dimensions of the information society" in the WSIS Geneva Declaration of Principles and Plan of Action (§ 43 of the Tunis Agenda), the need to counter terrorism in all its forms and manifestations on telecommunication/ICT networks, while respecting human rights and complying with other obligations under international law, as outlined in operative paragraph 81 of UNGA Resolution 60/1 on the 2005 world summit outcome, the importance of the security, continuity and stability of telecommunication/ICT networks and the need to protect telecommunication/ICT networks from threats and vulnerabilities (§ 45 of the Tunis Agenda), while ensuring respect for privacy and the protection of personal information and data, whether via adoption of legislation, the implementation of collaborative frameworks, best practices and self-regulatory and technological measures by business and users (§ 46 of the Tunis Agenda);

d) the need to effectively confront challenges and threats resulting from the use of telecommunications/ICTs such as for purposes that are inconsistent with objectives of maintaining international stability and security and may adversely affect the integrity of the infrastructure within States to the detriment of their security, and to work cooperatively to prevent the abuse of information resources and technologies for criminal and terrorist purposes, while respecting human rights;

e) the role of telecommunications/ICTs in the protection of children and in enhancing their development, and the need to strengthen action to protect children and youth from abuse and defend their rights in the context of telecommunications/ICTs, emphasizing that the best interests of the child are a key consideration;

f) the desire and commitment of all concerned to build a people-centred, inclusive and secure development-oriented information society, premised on the purposes and principles of the Charter of the United Nations, international law and multilateralism, and respecting fully and upholding the Universal Declaration of Human Rights, so that people everywhere can create, access, utilize and share information and knowledge in complete security, in order to achieve their full potential and to attain the internationally agreed development goals and objectives, including the United Nations Sustainable Development Goals (SDGs);

g) the provisions of §§ 4, 5 and 55 of the Geneva Declaration of Principles, and that freedom of expression and the free flow of information, ideas and knowledge are beneficial to development;

h) that the Tunis phase of WSIS represented a unique opportunity to raise awareness of the benefits that telecommunications/ICTs can bring to humanity and the manner in which they can transform people's activities, interaction and lives, and thus increase confidence in the future, conditional upon the secure use of telecommunications/ICTs, as the implementation of the Summit outcomes has demonstrated;

i) that spam is a global problem, with different characteristics in different regions, and a multistakeholder cooperative approach is necessary to counter it;

j) the need to deal effectively with the significant problem posed by spam, as called for in § 41 of the Tunis Agenda, as well as, *inter alia*, spam, cybercrime, viruses, worms and denial-of-service attacks;

k) the need for effective coordination within ITU-D,

noting

a) the continuing work of ITU-T Study Group 17 (Security) and other standards-development organizations on various aspects of security of telecommunications/ICTs;

b) that spam is a significant problem and continues to pose a threat for users, networks and the Internet as a whole, and that the issue of cybersecurity should be addressed at appropriate national, regional and international levels;

c) that cooperation and collaboration among Member States, Sector Members and relevant stakeholders contributes to building and maintaining a culture of cybersecurity,

resolves

1 to continue to recognize cybersecurity as one of ITU's priority activities, taking into account new and emerging telecommunication/ICT services and technologies, and to continue to address, within its area of core competence, the issue of building confidence and security in the use of telecommunications/ICTs, by raising awareness, identifying best practices, providing assistance in implementing technical measures, and developing appropriate tools and training materials in order to promote a culture of cybersecurity;

2 to enhance collaboration and cooperation with, and share information among, all relevant international and regional organizations on cybersecurity, including cyber-resilience-related initiatives, within ITU's areas of competence, taking into account the need to assist developing countries,

instructs the Director of the Telecommunication Development Bureau

1 to promote a culture in which security is seen as a continuous and iterative process, built into products from the beginning and continuing throughout their lifetime, and is accessible and understandable for users;

2 to continue to organize, in collaboration with relevant organizations, as appropriate, taking into account member contributions, and in cooperation with the Director of the Telecommunication Standardization Bureau (TSB), meetings of Member States, Sector Members and other relevant stakeholders to discuss ways and means to enhance cybersecurity;

3 to continue, in collaboration with relevant organizations and stakeholders, to carry out studies on strengthening the cybersecurity of developing countries at the regional and international level, based on a clear identification of their needs, particularly those relating to telecommunication/ICT use, including countering and combating spam, and new and emerging telecommunication/ICT services and technologies as well as the online protection of children and youth and any vulnerable persons;

4 to consider the results of the Global Cybersecurity Index (GCI) to guide BDT cybersecurity-related initiatives, especially taking into account the gaps identified through the GCI process;

5 to change how the results of the GCI are presented so that countries are represented in tiers rather than by individual ranking in order to more accurately reflect the development of cybersecurity in Member States;

6 to identify and document practical steps to support developing countries in building capacity and skills in cybersecurity, taking into account the specific challenges they face;

7 to support Member States' initiatives, especially in developing countries, regarding mechanisms for enhancing cooperation on cybersecurity, including countering and combating spam;

8 to disseminate to the developing countries information on guidelines, recommendations, technical reports and best practices related to cybersecurity which have been developed by the ITU-T study groups, in collaboration with the Director of TSB;

9 to assist Member States, particularly developing countries, by providing guidance and best practices to overcome challenges in terms of cybersecurity and spam arising from new and emerging technologies;

10 to assist the developing countries in enhancing their states of preparedness in order to ensure a high and effective level of cybersecurity, including cyberresilience, for their critical telecommunication/ICT infrastructures, including through the holding of workshops and training to promote cyberhygiene;

11 to assist Member States in the establishment of an appropriate framework between developing countries allowing rapid response to major incidents, including promoting voluntary information-sharing between interested administrations, and propose an action plan to increase their protection and strengthen cyberresilience, taking into account mechanisms and partnerships, as appropriate;

12 to collect from Member States and share, in conjunction with the work under Question 3/2 of ITU-D Study Group 2, information regarding regulations, policies and other approaches for building confidence and security in the use of telecommunications/ICTs developed and/or implemented by national telecommunication regulatory authorities and other stakeholder organizations;

13 to facilitate the consideration by relevant ITU-D study groups of cybersecurity-related research, in collaboration with different stakeholders;

14 to encourage all relevant stakeholders to participate in the activities of the ITU Academy training centres to train, educate and raise awareness in relation to cybersecurity issues, within the framework of the GCA;

15 to assist Member States by enhancing sharing of up-to-date information on cybersecurity issues and best practices for consideration by Member States;

16 to assist developing countries with improving their capacity development by holding workshops, seminars or events, within the framework of the GCA pillars, on organizational and technical measures, in collaboration with the Director of TSB;

17 to report the results of the implementation of this resolution to the next WTDC;

18 to continue to consult with the membership on improving the GCI process, including discussion on the methodology, structure, weightage and questions, using the GCI Expert Group, as appropriate, taking into account the financial implications,

invites the Secretary-General, in coordination with the Directors of the Radiocommunication Bureau, the Telecommunication Standardization Bureau and the Telecommunication Development Bureau

1 to report on MoUs between countries, as well as existing forms of cooperation, providing analysis of their status and scope and the application of these cooperative mechanisms to strengthen cybersecurity and combat cyberthreats, with a view to enabling Member States to identify whether additional memoranda or mechanisms are required;

2 to support regional and global cybersecurity initiatives and to invite all countries, particularly developing ones, to take part in these activities;

3 to continue to mobilize ITU's development expertise with a view to strengthening national, regional and international cybersecurity in support of the SDGs, working with other relevant bodies/agencies within the United Nations and other relevant international bodies, taking into account the specific mandates and areas of expertise of the different agencies, while remaining mindful of the need to avoid duplicating work between organizations and among the Bureaux and the General Secretariat,

requests the Secretary-General

1 to bring this resolution to the attention of the next plenipotentiary conference for consideration and required action, as appropriate;

2 to report the results of these activities to subsequent Council meetings and to plenipotentiary conferences, as appropriate,

invites Member States, Sector Members, Associates and Academia

1 to provide the necessary support for and engage actively in the implementation of this resolution;

2 to recognize cybersecurity and countering and combating spam as high-priority items, and to take appropriate action and contribute to building confidence and security in the use of telecommunications/ICTs at the national, regional and international level;

3 to encourage service providers to protect themselves from the risks identified, endeavour to ensure the continuity of services provided and notify security infringements;

4 to collaborate at the national level in order to enhance solutions to protect the cybersecurity and resilience of networks;

5 to inform ITU about existing cooperation frameworks between members and with other entities and agencies, regional or international, at the bilateral level,

invites Member States

1 to collaborate closely in order to strengthen regional and international cooperation aimed at addressing current and future issues related to cybersecurity and spam;

2 to establish an appropriate framework allowing rapid response to major incidents, and propose an action plan to prevent, mitigate and recover from such incidents;

3 to establish strategies and capabilities at the national level to ensure protection of national critical infrastructures, including enhancing the resilience of telecommunication/ICT infrastructures;

4 to foster information-sharing on cybersecurity at the national, regional and international levels.

RESOLUTION 46 (Rev. Kigali, 2022)

Assistance to indigenous peoples and communities through information and communication technologies

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the use of telecommunications/information and communication technologies (ICTs) to bridge the digital divide and create an inclusive information society;

b) Resolution 200 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the Connect 2030 Agenda for global telecommunication/ICT development,

recognizing

a) the need to achieve the goal of digital inclusion, enabling universal, sustainable, ubiquitous and affordable access to ICTs for all, including indigenous peoples, and to facilitate accessibility of ICTs for all, in the framework of access to information and knowledge;

b) the need to ensure the inclusion of indigenous peoples in the information society, as outlined in the Geneva Declaration of Principles and the Tunis Commitment of the World Summit on the Information Society (WSIS), and to contribute to the development of their communities using ICTs, based on tradition and self-sustainability,

considering

a) that the Telecommunication Development Bureau (BDT) provides assistance to indigenous peoples through all of its programmes in general;

b) that the multistakeholder report delivered by the United Nations Permanent Forum on Indigenous Issues (UNPFII) and the International Indigenous Steering Committee to the Tunis WSIS plenary (November 2005) highlighted the size of the population of indigenous peoples around the world and the fact that public-private partnerships and multistakeholder cooperation are essential to meet the needs of indigenous peoples more effectively towards their integration in the information society,

taking into account

a) that the WSIS Geneva Plan of Action and the Tunis Commitment established that the attainment of their objectives with regard to indigenous peoples and communities is a priority;

b) that Article 16 of the United Nations Declaration on the Rights of Indigenous Peoples states the following: "Indigenous peoples have the right to establish their own media in their own languages and to have access to all forms of non-indigenous media without discrimination";

c) that Article 41 of the aforementioned Declaration states that: "The organs and specialized agencies of the United Nations system and other intergovernmental organizations shall contribute to the full realization of the provisions of this Declaration through the mobilization, *inter alia*, of financial cooperation and technical assistance";

d) that according to the WSIS+10 statement on implementation of the WSIS outcomes, digital integration remains an overall priority, beyond affordability and access to ICT networks, services and applications, particularly in rural and remote areas;

e) the linkage between WSIS Action Lines C2, C5 and C6 and the targets of Goal 9 of the Sustainable Development Goals (SDGs), which include significantly increasing access to ICTs and striving to facilitate universal and affordable Internet access in the least developed countries by 2020 at the latest,

recognizing further

a) that the public policy recommendations and best practices developed through the Connect a School, Connect a Community initiative, in accordance with the principles established by WSIS, indicate that there are minimum conditions in the sphere of technology, capacity building, regulatory framework, self-sustainability and participation, and content development, which must be ensured to achieve ICT development in indigenous regions;

b) that the Declaration of the Second Summit on Indigenous Communication of Abya Yala, held in Mexico in 2013, decided to move ahead on consultation processes with international organizations in the interests of operationalizing the rights of indigenous peoples to communication laid down in the above-mentioned United Nations Declaration on the Rights of Indigenous Peoples;

c) the necessity of continuing to foster the training of indigenous technicians on the basis of their cultural practices and technological innovation solutions, while at the same time ensuring the availability of resources and spectrum to support the development and sustainability of telecommunication/ICT networks operated by indigenous peoples;

d) that telecommunication networks operated by indigenous peoples themselves have been developed and that, in order to ensure their development and sustainability, it is necessary to continue fostering the training of indigenous technicians on the basis of their cultural practices and technological innovation solutions, while at the same time ensuring the availability of resources and spectrum for implementing those networks;

e) that it is important to monitor closely the evolving communication experiences of the peoples in question and add to the public policy recommendations and best practices developed by ITU, taking into account the underlying technological innovations and organizational approaches that have stimulated their growth,

resolves

1 to reinforce assistance to indigenous peoples in all BDT programmes;

2 to support digital inclusion of indigenous peoples in general, and in particular their participation in workshops, seminars, forums and training on ICT for social and economic development, considering the generation of information in linguistic variations;

3 to support, through the ITU Academy[1], human-resource training programmes in the design and management of public policies aimed at the development of ICTs for indigenous peoples and communities, within available BDT funds and human resources;

4 to support, through the ITU Academy, capacity-building programmes for indigenous peoples in the installation, operation, maintenance and development of ICTs and networks in indigenous communities;

[1] The ITU Academy initiative encompasses the ITU Academy training centres (ATCs) and Internet training centres initiatives.

5 to incorporate, in these training programmes, best practices, experience and knowledge that the indigenous peoples have developed on the matter and, where appropriate, include the participation of indigenous experts and mechanisms for exchange and internships among their members, in accordance with applicable ITU rules and regulations governing recruitment;

6 to update the research on best practices and public policy recommendations for the development of ICTs in indigenous communities and foster the study of mechanisms that ensure the availability of spectrum for network deployment;

7 to promote training and innovative solutions through pilot projects that enable the implementation of local communication networks administered and operated by indigenous peoples,

8 in line with the above, the ITU mandate, the WSIS outcomes and the SDGs, to recognize the global initiative of assistance to indigenous peoples worldwide as an integral part of the activities of BDT,

instructs the Director of the Telecommunication Development Bureau

1 to carry out the necessary actions to reinforce the implementation of the Kigali Action Plan as it relates to indigenous peoples, establishing collaboration mechanisms with the Member States, other relevant regional and international organizations and cooperation agencies;

2 to invite Study Group 1 of the ITU Telecommunication Development Sector (ITU-D) to continue its studies under Question 5/1 (Telecommunications/ICTs for rural and remote areas), on the best means for providing access to telecommunication/ICT services in rural, isolated and poorly served areas and indigenous communities;

3 to promote further the use of all appropriate means of telecommunication/ICT in order to facilitate effective development and implementation of telecommunication/ICT services to indigenous communities through the relevant programmes;

4 that, within the allocated resources in the financial plan and biennial budget as approved by the ITU Council, as well as partnerships to be implemented, the necessary financial and human resources be allocated within BDT to respond to the existing global initiative for indigenous peoples;

5 to recognize the importance of issues of concern to indigenous peoples worldwide in the determination of priority activities for ITU-D;

6 in line with the above, the ITU mandate, the WSIS outcomes and the SDGs, to recognize the global initiative of the assistance to indigenous peoples worldwide as an integral part of the activities of BDT;

7 to coordinate efforts on supporting governments for the development of telecommunication/ICT services in indigenous communities,

requests the Secretary-General

1 to bring the continuous assistance provided by BDT to indigenous peoples through its activities to the attention of the next plenipotentiary conference, with a view to providing appropriate financial and human resources for the relevant actions and projects to be implemented in the telecommunication sector;

2 to submit a report on the BDT outcomes and activities in implementing this resolution to the Plenipotentiary Conference (Dubai, 2018), with a view to providing appropriate financial and human resources for the relevant actions and projects to be implemented in the telecommunication sector,

invites Member States

to provide the necessary facilities and information to allow the participation of members of indigenous peoples and communities in the activities provided for in this resolution.

RESOLUTION 47 (Rev. Kigali, 2022)

Enhancement of knowledge and effective application of ITU Recommendations in developing countries, including conformance and interoperability testing of systems manufactured on the basis of ITU Recommendations

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 177 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on conformance and interoperability (C&I);

b) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on use of telecommunications/information and communication technologies (ICTs) to bridge the digital divide and build an inclusive information society;

c) Resolution 123 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on bridging the standardization gap between developing[1] and developed countries;

d) Resolution 15 (Rev. Kigali, 2022) of this conference, on applied research and transfer of technology;

e) Resolution 37 (Rev. Kigali, 2022) of this conference, on bridging the digital divide;

f) Resolution 40 (Rev. Kigali, 2022) of this conference, on the Group on capacity-building initiatives (GCBI),

considering

a) that Resolution 177 (Rev. Dubai, 2018), on C&I, calls to assist developing countries in establishing regional or subregional C&I centres suitable to perform C&I testing, as appropriate and according to their needs;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

b) the efforts made by regions (e.g. Maghreb, ECOWAS, CTU, South America and EAC), with the collaboration of the Telecommunication Development Bureau (BDT), to promote the collaboration and creation of societies aimed at promoting the efficient use of infrastructures for testing conformance, such as the harmonization of standards and testing services in laboratories;

c) that strengthening the capacity of Member States in the matter of conformance assessment and testing, as well as the availability of facilities for national and regional conformance assessment testing, can help to combat counterfeit telecommunication/ICT equipment and devices,

considering further

a) the action plan of the ITU C&I programme as updated at the 2013 session of the ITU Council, the pillars of which are 1) Conformity assessment, 2) Interoperability events, 3) Capacity building, and 4) Establishment of test centres and C&I programme in developing countries;

b) that ITU should take a leading role in the implementation of the ITU C&I programme, with the ITU Telecommunication Standardization Sector (ITU-T) taking lead responsibility for Pillars 1 and 2, and the ITU Telecommunication Development Sector (ITU-D) for Pillars 3 and 4;

c) that C&I of telecommunication/ICT equipment and systems, thanks to the implementation of relevant programmes, policies and decisions, can enhance market opportunities and reliability, and promote world integration and trade,

recognizing

a) that the provisions of ITU Recommendations may guide ITU Member States in the development of national standards;

b) the importance of bridging the standardization gap in the application of appropriate ITU Recommendations that relate to C&I issues;

c) that Resolution 44 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA) instructs the Director of the Telecommunication Standardization Bureau (TSB), in collaboration with the Directors of the Radiocommunication Bureau (BR) and BDT, to provide support and assistance to developing countries, if requested, in drafting/developing a set of guidelines on the application of ITU-T Recommendations at the national level in order to enhance their participation in ITU-T study groups, with the assistance of the ITU regional offices, for bridging the standardization gap, and to assist developing countries with their studies, particularly in respect of their priority Questions and towards developing and implementing ITU-T Recommendations;

d) that conformance systems and testing, encompassing items such as security, interoperability, spectrum occupancy, quality and national technical regulation of ICT equipment, constitute important tests from the standpoint of ICT infrastructure and the consumer;

e) the importance of assisting developing countries in identifying human and institutional capacity-building and training opportunities on C&I testing and in establishing regional or subregional C&I centres suitable to perform C&I testing, as appropriate, encouraging cooperation with governmental and non-governmental, national and regional organizations and international accreditation and certification bodies;

f) that having infrastructure applications in developing countries which are compatible with ITU Recommendations is desirable, so as to maintain a competitive environment, reduce costs, increase the chances of interoperability and ensure satisfactory quality of service and quality of experience;

g) that interoperability of international telecommunication networks was the main reason for creating the International Telegraph Union in 1865, and that this remains one of the main goals in the ITU strategic plan;

h) that emerging technologies could have needs for C&I testing;

i) that conformity assessment is the accepted way of demonstrating that a product adheres to an international standard and/or specific requirements, and conformity assessment procedures continue to be important in the context of World Trade Organization members' international standardization commitments under the Agreement on Technical Barriers to Trade,

further recognizing

that the ITU C&I programme was initiated at the request of the ITU membership, particularly the developing countries, in order to enhance the conformity and interoperability of ICT networks and products implementing ITU Recommendations or part thereof, solicit feedback to improve the quality of ITU Recommendations, and reduce the digital divide and the standardization gap by assisting developing countries with human-resources and infrastructure capacity building,

taking into account

that technical training and capacity building for testing and certification are essential for countries to increase global connectivity and promote the deployment of advanced telecommunication networks,

noting

a) that some countries, especially developing countries, have not as yet acquired the capacity to test equipment and provide security with respect to the consumers in their countries;

b) that the activities of ITU-D Study Group 2 under Question 4/2 and of ITU-T Study Group 11, especially in the field of C&I testing, have created growing interest in developing countries in building capacities related to C&I;

c) that C&I testing can facilitate the interoperability of certain emerging technologies such as Internet of Things and International Mobile Telecommunications (IMT-2020);

d) that having infrastructure applications in developing countries which are compatible with the Recommendations and standards of ITU-T and/or other international and internationally recognized organizations is desirable, as against those based on proprietary technologies and equipment, so as to maintain a competitive environment, reduce costs, increase the chances of interoperability and ensure satisfactory quality of service and quality of experience;

e) the need for C&I testing in order to reduce the probability of errors being introduced during the network integration period, which can impact on commercial deployment schedules;

f) that, when interoperability experiments or testing have not been performed, users may have suffered from the lack of interconnection performance between equipment from different manufacturers;

g) that ITU is implementing human resources capacity building in the regions on conformity, interoperability and testing, which will also be organized in cooperation with other relevant regional and international organizations, to clarify fundamental aspects and accreditation;

h) that, along with ITU-T Recommendations, there are a number of specifications for C&I testing developed by other standards-development organizations (SDOs), forums and consortia;

i) that understanding ITU Recommendations and related international standards in order to apply new technology to the network appropriately and effectively is essential for the implementation of Resolution 76 (Rev. Geneva, 2022) of WTSA,

resolves

1 to continue engaging in activities to enhance knowledge and effective application of ICT standards, including ITU Radiocommunication Sector (ITU-R) and ITU-T Recommendations, in developing countries;

2 to enhance efforts to introduce best practice and share experiences on the application of ICT standards, including ITU-R and ITU-T Recommendations, in, for example, but not limited to, fibre-optic transmission technology, broadband network technology, IMT, next-generation networks and emerging technologies and building confidence and security in the use of ICTs, by organizing training courses and workshops especially for developing countries, involving academia in the process;

3 to evaluate the benefits of using equipment tested in accordance with ITU-T and ITU-R Recommendations, particularly in developing countries, and share necessary information and recommendations based on best practices,

instructs the Director of the Telecommunication Development Bureau, in close collaboration with the Directors of the Telecommunication Standardization Bureau and the Radiocommunication Bureau

1 to continue to encourage the participation of developing countries in training courses and workshops organized by ITU-D, so as to introduce best practices and to share experience in the application of ICT standards, including ITU-R and ITU-T Recommendations;

2 to assist developing countries in taking advantage of the guidelines established and developed by ITU-T on how to apply ITU-T Recommendations;

3 to provide assistance in developing methodological guidance (manuals) on implementing ITU Recommendations;

4 to assist developing countries in building their capacity, in collaboration with the other Bureaux, so as to be able to perform conformance testing and interoperability testing of equipment and systems, relevant to their needs, in accordance with the relevant Recommendations, including the development or recognition of, as appropriate, conformity assessment bodies;

5 to assist the Director of TSB, in collaboration with the Director of BR and, as appropriate, with equipment and systems manufacturers and internationally and regionally recognized SDOs, in holding conformance assessment and interoperability testing events, preferably in the developing countries, to encourage developing countries to attend these events;

6 to collaborate with the Director of TSB in order to build the capacity of the developing countries to effectively participate and be involved in these events, and to provide the views of developing countries on this issue on the basis of a questionnaire addressed by the relevant BDT programme to the ITU members;

7 to promote, with the collaboration of regional C&I bodies (for example, regional standardization bodies, accreditation bodies, certification bodies and testing laboratories, among others), the establishment of technical collaboration with respect to conformance assessment;

8 to assist developing countries in establishing regional or subregional C&I centres and encourage public and private collaboration with governmental and non-governmental, national and regional organizations and international accreditation and certification bodies;

9 to identify regional and subregional ICT testing centres in developing countries as ITU centres of excellence for testing, training and capacity building of ITU members, as part of the strategies to fulfil the objectives of this resolution;

10 to use the ITU seed fund meant for projects and encourage donor agencies to fund annual capacity-building and training programmes in testing centres adopted as ITU centres of excellence;

11 to coordinate and foster capacity building, by facilitating participation from developing countries in the work of international or regional test laboratories of organizations or entities specialized in conformance testing and interoperability testing, in order to gain on-the-job experience;

12 to collaborate with the Director of TSB in order to implement the recommended actions under Resolution 76 (Rev. Geneva, 2022) in the C&I programme action plan as agreed by the Council at its 2012 session and revised at its 2013 session;

13 to assign to the BDT programme concerned the responsibility for following up implementation of this resolution;

14 to submit a periodic report to the Telecommunication Development Advisory Group on the implementation of this resolution, as well as a report to the next world telecommunication development conference on implementation of this resolution, which shall also contain lessons learned with a view to updating the resolution for the cycle after 2024;

15 to continue fostering the participation of developing countries in training courses and workshops organized by ITU-D to introduce suitable practices for implementing ICT standards, including ITU-R and ITU-T Recommendations;

16 to support the review, amendment, updating or drafting of various regulatory instruments such as technical standards, rules, conformance assessment procedures, guidelines for the type-approval and certification of products, equipment, devices or apparatus that can be connected to a telecommunication network;

17 to foster harmonization of C&I procedures, strengthening international, regional and national capacity in this matter;

18 to facilitate, through the ITU regional offices, meetings of experts at the regional and subregional levels, in order to promote awareness in developing countries on the question of the establishment of an appropriate C&I programme in such countries;

19 to assist Member States in enhancing their capabilities for conformance assessment and testing in order to combat counterfeit devices and to provide experts for developing countries;

20 to submit the progress reports on the activities to the Council for its consideration and required actions,

invites the ITU Council

to consider the Director's report,

invites Member States and Sector Members

1 to contribute to the implementation of this resolution by means of the following, among others:

i) the specification of requirements to conduct C&I testing, actively submitting contributions to the relevant study groups;

ii) consideration of the possibility of collaborating in future C&I activities;

2 to encourage national and regional bodies in charge of ICT equipment and system conformance to contribute to the implementation of this resolution;

3 to exchange C&I expertise in order to enhance knowledge and share experiences;

4 to create an enabling environment for ICT equipment manufacturers to consider the local design and manufacture of equipment in developing countries;

5 to develop and improve the mutual recognition of C&I test and results, including mechanisms and data analysis techniques between different regional testing centres;

6 to work together to combat counterfeit equipment using nationally and/or regionally established conformance assessment systems;

7 to evaluate the risks and costs of lack of conformity with acceptable international standards, especially in developing countries, and to share the necessary information and recommendations on best practices, in order to prevent losses,

invites eligible organizations under Recommendation ITU-T A.5

in collaboration with the Director of BDT and the Director of TSB, in accordance with Resolution 177 (Rev. Dubai, 2018), on C&I, to work on building the capacity of developing countries in C&I testing, including training.

RESOLUTION 48 (Rev. Kigali, 2022)

Strengthening cooperation among telecommunication regulators

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 48 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference;

b) Resolution 138 (Antalya, 2006) of the Plenipotentiary Conference, on the Global Symposium for Regulators (GSR);

c) Resolution 135 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in the development of telecommunications/information and communication technologies (ICTs), in providing technical assistance and advice to developing countries[1] and in implementing relevant national, regional and interregional projects;

d) Resolution 2 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the world telecommunication/ICT policy forum;

e) Resolution 70/125 of the United Nations General Assembly (UNGA), on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society (WSIS);

f) UNGA Resolution 70/1, on transforming our world: the 2030 Agenda for Sustainable Development,

considering

a) that market liberalization, technological development and service convergence have resulted in new challenges, requiring new regulatory competencies among telecommunication regulators;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

b) that an effective regulatory framework requires a balance of interest among all stakeholders, promoting fair competition and ensuring an equal-opportunity environment for all players, including addressing issues of consumer protection;

c) that ITU plays a fundamental role in providing global perspectives on the development of the information society, and one of the main tasks of the ITU Telecommunication Development Sector (ITU-D) under the terms of No. 127 of the ITU Constitution is to "offer advice, carry out or sponsor studies, as necessary, on technical, economic, financial, managerial, regulatory and policy issues, including studies of specific projects in the field of telecommunications";

d) that the rapid development of telecommunications/ICTs in recent years and the introduction of new technologies and systems calls for new approaches in the field of regulation;

e) that there is no single correct approach to telecommunication/ICT regulation in all countries, and the particular characteristics of each country must be taken into account; in an increasingly dynamic digital ecosystem, however, it is essential to seek harmonization of general principles;

f) that in the light of the considerable changes in telecommunications/ICTs, and the development of markets and society, telecommunication/ICT reforms have globally been implemented in most countries of the world, both developed and developing, including reforms of telecommunication/ICT regulation;

g) that the success of telecommunication/ICT reform will mostly depend on the establishment and implementation of an effective regulatory framework, regulatory mechanisms and laws,

recognizing

a) that telecommunication regulators have been increasing, and that newly established regulators and regulators in developing countries would require strengthening of their competencies to cope with the increasing complexity of regulatory work with regard to the design and implementation of new laws and policies as part of telecommunication reform, especially in the rapidly changing telecommunication environment;

b) the need to exchange information and share experiences among regulators on telecommunication development and reform, particularly between regulators and newly established ones;

c) the importance and necessity of cooperation among these entities at the regional and international level,

recalling further

a) the relevant Kigali Action Plan programmes, especially telecommunication/ICT regulatory symposia, forums, seminars and workshops;

b) the recommendations of past GSRs on the creation of a global exchange programme for regulators;

c) the success and continuation of the global exchange programme for regulators, which provides a platform for exchange of views on regulatory issues,

resolves

1 to continue the specific platform (G-REX) for telecommunication regulators to share and exchange information and experience electronically on matters concerning regulatory issues;

2 that ITU, and in particular ITU-D, should continue to support regulatory reform and help members address regulatory challenges by facilitating information- and experience-sharing among the membership;

3 that the Telecommunication Development Bureau should continue to coordinate and facilitate joint activities relating to telecommunication/ICT policy and regulatory issues with regional and subregional regulatory organizations and associations;

4 that ITU-D should continue to provide further technical cooperation, regulatory exchange, capacity building and expert advice, with the support of its regional offices,

instructs the Director of the Telecommunication Development Bureau

1 to continue to rotate GSR in different regions, to the extent possible, and reflect balanced regional representation of participants, speakers and relevant stakeholders, to the extent possible;

2 to consult Member States and relevant stakeholders in advance on topics for the annual GSR and the thematic priorities for the best-practice guidelines issued by GSR every year, in order to ensure that the outputs of the GSR reflect the interests of all stakeholders and fully attract the participation of all countries;

3 to promote the formal meetings of regulators and regulatory associations at GSR and encourage the participation of other stakeholders;

4 to continue to have a specific platform for regulators and regulatory associations;

5 to organize, coordinate and facilitate activities that promote information-sharing among regulators and regulatory associations on key issues at the international, interregional and regional level;

6 to organize seminars, regional workshops and training programmes and other activities to help strengthen regulators, and to provide resources and assistance in consolidating all work relating to key policy and regulatory issues within ITU-D and provide easier access to and strengthened transfer of knowledge, information and experience-sharing among the regulators,

invites the study groups of the ITU Telecommunication Development Sector

each within its mandate, to adopt the guidelines and best practices issued annually by GSR and to take them into account in their studies on relevant Questions,

calls upon Member States

1 to provide to the governments of countries in special need all possible assistance and support for regulatory reform, whether bilaterally, multilaterally or through the special action of the Union;

2 to share knowledge, skills and experiences in adapting, designing and implementing new laws and policies as part of telecommunication/ICT reform,

requests the Secretary-General

to transmit this resolution to the forthcoming plenipotentiary conference in order to ensure that appropriate attention is given to these activities, in particular within the framework of the implementation of the WSIS outcomes, and in regard to the role of regulators in the implementation of the strategic plan for the Union.

RESOLUTION 51 (Rev. Kigali, 2022)

Provision of assistance and support to Iraq to continue rebuilding and re-equipping its telecommunication/ICT systems

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 51 (Doha, 2006) of the World Telecommunication Development Conference (WTDC);

b) Resolution 193 (Busan, 2014) of the Plenipotentiary Conference;

c) the efforts of the United Nations to implement the outcomes of the World Summit on the Information Society and the 2030 Agenda for Sustainable Development;

d) the noble principles, intentions and goals embodied in the Charter of the United Nations and the Universal Declaration of Human Rights;

e) the purposes of the Union, as enshrined in Article 1 of the ITU Constitution,

conscious

a) that a secure telecommunication network infrastructure and related services and applications, as appropriate, are indispensable to support the social and economic development of nations, particularly those that have suffered natural disasters or wars;

b) that the damage caused to Iraq's telecommunication infrastructure and the illicit use of information and communication technology (ICT) services is a matter of concern for the entire international community and relevant international bodies/agencies;

c) that telecommunication systems are fundamental for rebuilding and rehabilitation and for enhancing the social and economic development of nations, particularly those that have suffered the effects of war;

d) that Iraq continues to build and develop its telecommunication/ICT systems to an acceptable level, which requires assistance from the international community, provided bilaterally or through international organizations;

e) that similar resolutions have been adopted in relation to countries experiencing similar circumstances to those which Iraq is experiencing,

having regard to

the difficulties that were faced in the implementation of Resolution 51 (Rev. Hyderabad, 2010) of WTDC,

noting

a) that ITU had provided assistance to Iraq, yet the work of rebuilding and developing the telecommunication/ICT systems in Iraq still requires focused attention and support;

b) that the provision of suitable assistance to Iraq by the Union will contribute to the development of its telecommunication/ICT systems to meet the country's economic, service and information needs in the telecommunication field;

c) the efforts which have been and are being deployed by the Secretary-General and the Director of the Telecommunication Development Bureau to provide assistance to other countries that have recently emerged from the conditions of war they endured,

resolves

1 that special measures need to be taken, within the framework and available budgetary resources of the ITU Telecommunication Development Sector, to provide the appropriate assistance to Iraq;

2 to support Iraq in rebuilding and overhauling its telecommunication infrastructure, establishing institutions, establishing tariffs, developing human resources and setting up training operations outside Iraqi territory if necessary, and to provide other forms of assistance, including technical assistance,

calls upon Member States

to offer all possible assistance and support to the Administration of Iraq in:

– contributing to the development of its ICT sector;

– supporting Iraq in the field of cybersecurity to enhance confidence and security in the use of ICTs, in order to mitigate telecommunication/ICT risks;

– achieving the most effective use of ICTs for economic and social benefits,

encourages Sector Members

1 to provide all forms of support and assistance to Iraq in order to increase investment in the telecommunication/ICT sector;

2 to contribute in the form of assistance to Iraq in order to build human capacities and to enhance confidence and security in the use of ICTs, in addition to technical assistance,

instructs the Director of the Telecommunication Development Bureau

1 to continue taking immediate measures to assist Iraq to the extent possible within available resources;

2 to take all possible measures to mobilize additional resources to this aim;

3 to submit an annual report to the ITU Council on the progress achieved in implementing this resolution and the mechanisms employed to tackle difficulties as they arise,

requests the Secretary-General

to bring to the attention of the Plenipotentiary Conference (Bucharest, 2022) the need to allocate a specific budget for Iraq as from the beginning of 2023.

RESOLUTION 52 (Rev. Dubai, 2014)

Strengthening the executing agency role of the ITU Telecommunication Development Sector

The World Telecommunication Development Conference (Dubai, 2014),

recalling

a) Resolution 135 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role in the development of telecommunications/information and communication technologies (ICTs), in providing technical assistance and advice to developing countries and in implementing relevant national, regional and interregional projects;

b) Resolution 157 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on strengthening of the project execution function in ITU;

c) Resolution 13 (Rev. Hyderabad, 2010) of the World Telecommunication Development Conference (WTDC), on resource mobilization and partnerships for accelerating telecommunication/ICT development;

d) Resolution 52 (Rev. Hyderabad, 2010) of WTDC,

considering

a) that, in accordance with No. 118 of the ITU Constitution, one of the functions of the ITU Telecommunication Development Sector (ITU-D) is to discharge, within its specific sphere of competence, the Union's dual responsibility as a United Nations specialized agency and executing agency for implementing projects under the United Nations development system or other funding arrangements, so as to facilitate and enhance telecommunication development by offering, organizing and coordinating technical cooperation and assistance activities;

b) Resolution 17 (Rev. Dubai, 2014) of this conference, on implementation of regionally approved initiatives at the national, regional, interregional and global levels;

c) that Resolution 140 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on ITU's role in implementing the outcomes of the World Summit on the Information society (WSIS), recognized the key role that ITU can play in executing many of the projects pursuant to the WSIS outcomes;

d) that, through programmes, projects and initiatives of the Telecommunication Development Bureau (BDT) and the regional offices, and some other efforts, including partnerships, there is significant local expertise that has developed over time;

e) that partnerships between the public and private sectors are recognized as an efficient way of implementing sustainable ITU projects,

recognizing

a) that the final outputs of the WSIS process have an impact on the definition of the future activities of ITU in general and ITU-D in particular;

b) that ITU-D undertakes a significant number of projects and activities each year, corresponding to its goals and objectives, including in relation to the various ITU-D programmes, projects and regional initiatives,

noting

a) that BDT has taken several steps to strengthen its project execution role by developing necessary tools and methodologies, including guidelines and templates for project management;

b) that both large-scale and small-scale activities should contribute to the goals and objectives of ITU-D and the broader strategic plan for the Union;

c) that BDT continues to build effective partnerships around specific projects and long-term activities, particularly in relation to the initiatives adopted by the six regions;

d) that, to the greatest extent possible, it is important to develop and maintain the professional project-implementation potential of BDT staff at ITU headquarters and in the regional offices,

taking into account

a) the continued implementation of results-based budgeting (RBB) and results-based management (RBM) in ITU, the main purpose of which is to ensure that activities within this framework are adequately resourced in order to achieve planned results;

b) that the main pillars of RBB and RBM are the process of planning, programming, budgeting, monitoring and evaluation; delegation of authority and accountability; and staff performance and contract management;

c) the potential for improved sharing of information, experiences and lessons learned which would assist in reducing fragmentation and duplication among the wide range of projects undertaken by BDT,

resolves to instruct the Director of the Telecommunication Development Bureau

on the basis of experience acquired in implementing Resolution 52 (Rev. Hyderabad, 2010), the contents of Resolutions 135 and 157 (Rev. Guadalajara, 2010) and other relevant resolutions:

1 to recognize the various benefits of involving locally available expertise, in the region and the country, as the case may be, in executing ITU projects in their region or country, and to stress the involvement of this expertise in the relevant ITU-D projects;

2 to encourage use of the ITU project toolbox for implementing projects and the regional initiatives in the capacity of executing agency;

3 to ensure, as specified in Resolution 157 (Rev. Guadalajara, 2010), that, as far as possible, support costs and expenses borne by ITU-D in respect of project implementation under United Nations Development Programme (UNDP) arrangements or other agreed financing arrangements are recovered;

4 to continue to conclude partnerships with Member States, Sector Members, financial institutions and international and regional organizations in order to finance activities pertaining to implementation of this resolution;

5 to encourage collaboration and information sharing among ITU headquarters, regional offices and area offices, in order to optimize resources and efforts in implementing ITU-D projects;

6 to consider enhancing the projects portfolio on the ITU website, as far as practicable within existing resources, along with project activities and outcomes, where appropriate, in order to learn from past experiences.

NOTE – When implementing this resolution, the updating of relevant resolutions by the next Plenipotentiary Conference (Busan, 2014) may be taken into consideration.

RESOLUTION 53 (Rev. Dubai, 2014)

Strategic and financial framework for the elaboration and implementation of the Dubai Action Plan

The World Telecommunication Development Conference (Dubai, 2014),

considering

a) that, in accordance with No. 118 of the ITU Constitution and No. 209 of the ITU Convention, the duties of world telecommunication development conferences (WTDC) shall include: i) establishing work programmes and guidelines for defining telecommunication development questions and priorities, and ii) providing direction and guidance for the work programme of the ITU Telecommunication Development Sector (ITU-D);

b) that Resolution 71 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference contains the strategic plan for ITU-D for the period 2012-2015 and defines the strategic goal and objectives of ITU-D for that period;

c) that Resolution 72 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference determined that there should be a linkage between strategic, financial and operational planning in ITU;

d) that Decision 5 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, in defining the income and expenditure of the Union for the period 2012-2015 and in recognizing the current financial constraints of the Union, has identified in its Annex 2 several measures for reducing expenditure to be taken into account by all three Sectors of the Union,

considering further

a) that, pursuant to Resolution 31 (Rev. Dubai, 2014) of this conference, the identification, analysis and elaboration of regional initiatives and projects at the regional preparatory meetings provides a key input to this conference;

b) that Resolution 1358 of the ITU Council, adopted at its 2013 session, established the Council Working Group for the elaboration of the draft strategic plan and draft financial plan of the Union for 2016-2019 (CWG-SPFP), which was to provide the Telecommunication Development Advisory Group and this conference with the principles, glossary of terms, structure and guidelines for the elaboration of the strategic plan for ITU-D, on the basis of a clear linkage of strategic and operational planning with financial planning and budgeting,

taking into account

a) that Resolution 1359 adopted by the Council at its 2013 session approved the biennial budget of ITU for the period 2014-2015 with a view to achieving financial stability, securing unfunded long-term liabilities, preserving a positive net asset value and avoiding withdrawals from the Reserve Account;

b) the continued implementation of results-based budgeting (RBB) in ITU, the main feature of which is the identification of costs, objectives, expected results, performance indicators and priorities presented within the framework of well-defined outputs (defined as Sector or intersectoral products or services provided by ITU),

taking into account further

a) that the Dubai Action Plan strategic framework is based on:

– Resolutions 71 (Rev. Guadalajara, 2010) and 72 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;

– the strategic objectives of ITU-D for the period 2016-2019, elaborated by this conference;

– the aim of fulfilling the mandates of ITU-D, in accordance with the Constitution, avoiding duplication of efforts with the other Sectors and implementing the strategic goals set forth in the strategic plans of the Union for 2012-2015 and 2016-2019;

b) that the Dubai Action Plan financial framework is based on:

– Decision 5 (Rev. Guadalajara, 2010), particularly the measures to reduce expenditure identified in Annex 2 thereto;

– the approved biennial budget of the Union for the period 2014-2015 and the forecast of revenues and expenses for the period 2016-2017;

– the aim of achieving long-term financial stability, preserving the net asset value and avoiding withdrawals from the Reserve Account;

c) that the Dubai Action Plan defines programmes, objectives, regional initiatives and expected results that correlate to the principles, terminology and structure of the draft strategic plan for ITU-D for 2016-2019 elaborated by this conference;

d) that the Dubai Action Plan is elaborated in conformity with results-based management/budgeting (RBM/RBB) methodologies, with a view to ensuring that high-priority activities are adequately resourced in order to achieve the planned results,

recognizing

a) the overall review process of the outcomes of the World Summit on the Information Society (WSIS) to take place in 2014/2015;

b) that Resolution 30 (Rev. Dubai, 2014) of this conference has defined ITU-D's role in implementing the WSIS outcomes;

c) that Resolution 140 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference resolved that ITU-D shall assign high priority to the implementation of WSIS Action Line C2, on building information and communication infrastructure;

d) that Resolution 1332 adopted by the Council at its 2011 session instructed the Director of the Telecommunication Development Bureau to take into account ITU's tasks as lead facilitator of WSIS Action Lines C2, C5 and C6 and as co-facilitator of WSIS Action Lines C1, C3, C4, C7, C8, C9, C11 in the preparations for this conference,

resolves to instruct the Director of the Telecommunication Development Bureau

in the implementation of the Dubai Action Plan:

1 to provide the ITU regional and area offices with the assistance necessary for the full implementation of the regional initiatives approved by this conference in Resolution 17 (Rev. Dubai, 2014);

2 to integrate the mandates handed down to ITU-D by the Plenipotentiary Conference and the Council on the implementation of WSIS action lines, taking into account the national development goals established by Member States;

3 to formulate and structure the activities and programmes of the Dubai Action Plan in a manner that facilitates their evaluation, given the critical need to ensure that such activities are assessed on an ongoing basis;

4 to take into account the human and financial resource constraints identified in the biennial budget for 2014-2015 and expected to continue for the next financial planning cycle (2016-2019);

5 to identify and implement multistakeholder partnership arrangements with, *inter alia*, international financial institutions, regional development banks, regional commissions of the Department of Economic and Social Affairs (UNDESA) and other agencies and departments of the United Nations, with international development agencies, regional telecommunication organizations and the private sector, in order to optimize the use of resources and avoid duplication of effort;

6 to continue efforts to identify additional sources of revenue and funding, in order to ensure that the programmes and activities of ITU-D can be fully implemented;

7 to report on the results of implementation of this resolution to the next WTDC.

RESOLUTION 55 (Rev. Kigali, 2022)

Mainstreaming a gender perspective in ITU to enhance women's empowerment through telecommunications/ICTs

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) that Resolution 70/1 of the United Nations General Assembly (UNGA) identifies the realization of gender equality and the empowerment of women and girls as a crucial contribution to progress across all the goals and targets and contains Sustainable Development Goal (SDG) 5 (Achieve gender equality and empower all women and girls), which recognizes that gender equality is necessary to contribute to achieving a peaceful, prosperous and sustainable world, and specifically SDG 5 target 5.b (Enhance the use of enabling technology, in particular information and communication technology (ICT), to promote the empowerment of women), as well as SDG 9 (Build resilient infrastructure, promote sustainable industrialization and foster innovation), which promotes subject areas that cut across other goals;

b) Resolution 70 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on mainstreaming a gender perspective[1] in ITU and promotion of gender equality and the empowerment of women through telecommunications/ICTs, which resolves to continue the work being done at ITU, and particularly in the Telecommunication Development Bureau (BDT), to promote gender equality in telecommunications/ICTs by recommending measures at the international, regional and national levels on policies and programmes for the economic and social empowerment of women and girls, helping to tackle disparities and facilitate the acquisition of life skills;

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[1] "Gender perspective": Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of design, implementation, monitoring and evaluation so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality. (Source: Report of the United Nations Inter-Agency Committee on Women and Gender Equality, third session, New York, 25-27 February 1998).

c) Resolution 55 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly, on promoting gender equality in ITU Telecommunication Standardization Sector (ITU-T) activities, which ensures gender mainstreaming in ITU-T activities,

noting

a) UNGA Resolution 64/289, on system-wide coherence, adopted on 2 July 2010, establishing the United Nations Entity for Gender Equality and the Empowerment of Women, known as "UN Women", with the mandate to promote gender equality and the empowerment of women and girls;

b) the United Nations Secretary-General's commitment to achieve full gender parity across the United Nations system through the launch of a strategy in 2017 as the start of a system-wide campaign to advance this priority, referenced in UNGA Resolution 72/234;

c) Resolution 2012/24 of the United Nations Economic and Social Council (ECOSOC), on mainstreaming a gender perspective into all policies and programmes in the United Nations system, which welcomed the development of the UN System-Wide Action Plan on Gender Equality and the Empowerment of Women (UNSWAP);

d) that the United Nations Chief Executives Board (CEB), in April 2013, advocated the "Action Plan to measure gender equality and the empowerment of women across the United Nations system", under which ITU will participate in the dissemination, coordination, communication and networking activities forming part of the strategy, as well as the United Nations Secretary-General's launch of the System Wide Strategy on Gender Parity in September 2017;

e) the United Nations HeForShe initiative (2014) to involve men and boys in the promotion of gender equality;

f) the EQUALS Global Partnership, of which ITU is a founding member, which is made up of other United Nations agencies, governments, the private sector, academia and civil-society organizations, and which aims to reduce the gender digital divide in the world;

g) the United Nations International Gender Champion initiative and the ITU Secretary-General's commitment to promote the Panel Parity Pledge;

h) ITU's role as co-leader of the Technology and Innovation Action Coalition part of the Generation Equality Forum, a global five-year action journey and roadmap for gender equality to achieve the SDGs;

i) the Network of Women (NoW) in the ITU Telecommunication Development Sector (ITU-D), launched as a way to improve the number of women taking up leadership roles in the structures that make up ITU-D, such as chairing committees and working groups, and other key management roles related to the preparation of the next world telecommunication development conference (WTDC), and beyond,

noting further

a) the outcomes of the World Summit on the Information Society (WSIS), namely the Geneva Declaration of Principles, the Geneva Plan of Action, the Tunis Commitment and Tunis Agenda for the Information Society, as well as the WSIS+10 review;

b) the four-year rolling operational plans for the ITU Radiocommunication Sector (ITU-R), ITU-T, ITU-D and the General Secretariat adopted by the ITU Council;

c) the decision of the Council at its 2013 session to endorse the ITU Gender Equality and Mainstreaming Policy (GEM), with the aim of integrating a gender perspective throughout the Union and leveraging the power of telecommunications/ICTs to empower both women and men;

d) the establishment (endorsed at Council 2013) of an internal Gender Task Force by the Secretary-General, with the aim of fulfilling the main objectives of ensuring coordinated implementation of Resolution 70 (Rev. Dubai, 2018), reporting progress to the governing bodies of ITU, preparing a Union-wide action plan to implement the ITU GEM Policy (Council 2013) and overseeing its implementation,

recognizing

that telecommunications/ICTs can help to create a world in which societies are free of discrimination, women and men enjoy the same opportunities, and the economic and social potential of women and girls is guaranteed in order to improve their conditions as individuals, taking into account the 2030 Agenda for Sustainable Development,

considering

a) the progress made by BDT in promoting the use of telecommunications/ICTs for the purpose of economic and social empowerment of women and girls, in particular the results of International Girls in ICT Day, within the framework of Resolution 70 (Rev. Dubai, 2018);

b) the contributions made by ITU's Gender Task Force, proposing ways of ensuring that gender mainstreaming and the empowerment of women is underscored in policies and programmes and fully integrated in ITU's work and strategic plan,

resolves

1 that ITU-D, taking into account the above considerations, shall continue to support the development of activities, projects and events aimed at closing the gender digital divide;

2 that BDT should maintain close links and collaborate, as appropriate, with the Gender Task Force set up by the Secretary-General, to support gender mainstreaming in the Union's activities, with the aim of eliminating inequalities in access to and use of telecommunications/ICTs;

3 that BDT should continue to work to promote gender equality in the field of telecommunications/ICTs, recommending and supporting the implementation of actions on policies and programmes at the international, regional and national level in order to improve the socio-economic condition of women, with greater emphasis on developing countries[2], taking into account the 2030 Agenda for Sustainable Development;

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[2] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

4 that inclusion of the gender perspective should be ensured in the implementation of all relevant BDT initiatives and projects and of the outcomes of this conference;

5 that high priority be accorded to the incorporation of gender equality-related goals, policies, and relevant guidelines in the management, staffing and operation of ITU-D, while taking into account geographical representation;

6 that BDT should contribute to the economic empowerment and high-level professional employment of women in decision-making posts, encouraging women's leadership in the sphere of telecommunications/ICTs, collaborating to promote a plural, inclusive and integrating information society;

7 that telecommunications/ICTs may contribute to preventing and eliminating violence against women and girls in both public and private spaces, while also exposing women and girls to new risks that should be taken into account in initiatives dedicated to addressing the gender digital divide, including in enhancing digital literacy and skills;

8 to invite the Telecommunication Development (TDAG), Radiocommunication (RAG) and Telecommunication Standardization (TSAG) advisory groups to assist in the identification of subjects and mechanisms to foster the mainstreaming of a gender perspective, as well as matters of mutual interest in that regard;

9 that BDT should inform the ITU regional offices on, and ensure their participation in, progress and results achieved in implementing this resolution;

10 to encourage Member States to have gender parity in their delegations to ITU-D activities to solve the issue of underrepresentation of women,

further resolves

to endorse the following measures:

1 design, implement and support projects and programmes in developing countries, including countries with economies in transition, that are either specifically targeted to women and girls or are gender sensitive, for the purpose of tackling the barriers that women and girls encounter in access to and use of ICTs in terms of digital literacy and skills, training in science, technology, engineering and mathematics (STEM) fields, affordability, trust and confidence, at the international, regional and national levels, taking into account SDG 5 target 5.b;

2 support the collection and analysis of sex-disaggregated data and the development of gender-sensitive indicators that will enable cross-country comparisons and highlight trends in the digital gender divide in the sector;

3 evaluate relevant projects and programmes to assess gender implications, in connection with Resolution 17 (Rev. Kigali, 2022) of this conference;

4 provide gender mainstreaming training and/or capacity building to BDT staff responsible for the design and implementation of development projects and programmes and work with them to develop gender-sensitive projects as appropriate;

5 incorporate a gender perspective into study group Questions, as appropriate;

6 mobilize resources for gender-sensitive projects, including projects to ensure that women and girls can use ICTs for their own empowerment and in daily personal and professional activities, and create services and develop applications that contribute to the equality and empowerment of all women and girls;

7 develop partnerships with other United Nations agencies to promote the use of telecommunications/ICTs in projects aimed at women and girls in line with ITU's mandate, with the aim of encouraging women and girls to connect to the Internet, increasing training for women and girls, and monitoring the telecommunication/ICT gender divide, including actively participating in and promoting EQUALS – The Global Partnership for Gender Equality in the Digital Age;

8 promote educational programmes to protect women and girls from online forms of abuse and harassment and to address their safety needs;

9 support International Girls in ICT Day and efforts of the ITU membership to undertake all-year-round activities to make girls aware of STEM studies and careers and job opportunities in the ICT sector and develop their ICT skills;

10 promote efforts to enhance educational opportunities for women and girls in STEM and telecommunication/ICT skills and careers across their lifespan, with particular attention to women and girls in rural and underserved areas;

11 continue to assist developing countries to close the gender digital divide, including enhancing women's and girls' access to reliable connectivity, digital literacy and digital skills;

12 support the continuation of the NoW advisory group, working on a voluntary basis, composed of two women representative coordinators per region designated in collaboration with the regional groups,

instructs the Director of the Telecommunication Development Bureau

1 to report to TDAG and the Council annually on the results and the progress made on the inclusion of a gender perspective in the work of ITU-D, and on the implementation of this resolution;

2 to give high priority to gender mainstreaming in the management, financial assistance, staffing and operation of ITU-D;

3 to conduct an annual review on progress made in the Sector in advancing gender mainstreaming, including by circulating questionnaires and collecting and reviewing statistics on ITU-D development activities by gender and region, in order to identify challenges to women's participation, and subsequent solutions; and to share findings with TDAG and the next WTDC;

4 to continue the work of BDT in promoting the use of telecommunications/ICTs for the economic and social empowerment of women and girls, taking into account the 2030 Agenda for Sustainable Development and the United Nations Secretary-General's strategy on gender parity,

invites the Director of the Telecommunication Development Bureau

to assist members:

1 to encourage the mainstreaming of a gender perspective through appropriate administrative and policy mechanisms and processes within regulatory agencies and ministries and to promote inter-organizational cooperation on this issue within the telecommunication sector, including with non-governmental stakeholders, taking into account the 2030 Agenda for Sustainable Development;

2 to provide concrete advice, in the form of guidelines for gender-sensitive project development and evaluation in the telecommunication sector as well as guidelines for projects aimed at bridging the gender digital divide;

3 to increase awareness of gender issues among members through the collection and dissemination of information related to gender issues and telecommunications/ICTs and through best practices on gender-sensitive programming;

4 to assist Member States to review existing national ICT policies and regulations, assess their gender responsiveness and share best practices on how to fully integrate women's participation in the development of relevant policies, strategies, regulations and other plans related to the development of telecommunications/ICTs to support the digital economy;

5 to establish partnerships with Sector Members in order to develop and/or support specific telecommunication/ICT projects that target women and girls in developing countries, including countries with economies in transition;

6 to encourage Sector Members to promote gender equality in the telecommunication/ICT sector through financial commitments to specific projects involving women and girls, taking into account SDG 5 target 5.b;

7 to support active involvement of women delegates in ITU-D study groups and other ITU-D activities, including project implementation,

invites the Plenipotentiary Conference

1 to build on and consolidate past accomplishments, by providing the necessary financial and human resources for the effective and sustained integration of a gender perspective in the development activities of ITU-D;

2 to instruct the Secretary-General to bring this resolution to the attention of the United Nations Secretary-General in an effort to promote increased coordination and cooperation for development policies, programmes and projects that link access to and use and appropriation of telecommunications/ICTs and broadband for women and girls, taking into account the 2030 Agenda for Sustainable Development;

3 to support the promotion of gender equality, empowerment and the social and economic development of women and girls, taking into account SDG 5 target 5.b,

invites Member States and Sector Members

1 to submit candidatures for chairman/vice-chairman posts in order to support the active involvement of women as well as men in development groups and activities and in their own administrations and delegations;

2 to actively support and participate in the work of BDT, and to nominate experts for the ITU-D NoW group;

3 to designate, in liaison with the regional coordinators of NoW, national representatives in order to encourage in each part of the world the participation of women and girls in ITU-D activities;

4 to encourage and actively support ICT education that promotes girls' and women's participation, and to support all measures that will help prepare them for a professional career in ICT;

5 to encourage greater participation of women in ICT development as delegates and foster their expertise;

6 to encourage the adoption of proven measures to increase globally the number of women pursuing academic degrees at all levels in STEM fields.

RESOLUTION 57 (Rev. Hyderabad, 2010)

Assistance to Somalia

The World Telecommunication Development Conference (Hyderabad, 2010),

recalling

Resolution 57 (Doha, 2006) of the World Telecommunication Development Conference (WTDC) and Resolutions 34 (Rev. Marrakesh, 2002) and 34 (Rev. Antalya, 2006) of the Plenipotentiary Conference,

recalling further

the purposes of the Union, as enshrined in Article 1 of the ITU Constitution,

recognizing

a) that the telecommunication infrastructure in the Somali Democratic Republic remains completely destroyed by civil conflict, with limited recovery, and that the Somali network requires rehabilitation and reconstruction;

b) that Somalia at present does not have an adequate national telecommunication infrastructure, access to international telecommunication networks or access to the Internet;

c) that a telecommunication system is an essential input for the reconstruction, rehabilitation and relief operations in the country after Somalia was hit by the tsunami;

d) that, under the present conditions and in the foreseeable future, Somalia will not be able to rebuild its telecommunication systems without assistance from the international community, provided bilaterally or through international organizations,

noting

that Somalia has not effectively benefited from the Union's assistance over a long period due to war in the country and the lack of a national government since 1991,

resolves

that special action be initiated by the Secretary-General and the Director of the Telecommunication Development Bureau, with specialized and increased assistance from the ITU Telecommunication Standardization Sector and the ITU Radiocommunication Sector, resulting in the launch of a special initiative with funds allocated, within available budgetary resources, aimed at providing assistance and support to Somalia in rebuilding and modernizing its telecommunication infrastructure and in training activities,

calls upon Member States

to offer all possible assistance and support to the Government of Somalia, either bilaterally or through the special action of the Union,

invites the Council

to allocate the necessary funds within available resources for the implementation of this resolution,

instructs the Director of the Telecommunication Development Bureau

1 to implement fully a programme of assistance for the least developed countries, of which reconstruction and rehabilitation of telecommunication/information and communication technology infrastructure is an integral part, and from which Somalia can receive focused assistance in various areas determined to be of high priority by the country;

2 to take immediate measures, to the extent possible within available resources, to assist in the period up to WTDC-14, focusing on staff training,

requests the Secretary-General

to coordinate the activities carried out by the three ITU Sectors in accordance with *resolves* above, to ensure that the Union's action in favour of Somalia is as effective as possible, and to report on the matter to the ITU Council.

RESOLUTION 58 (Rev. Kigali, 2022)

Telecommunication/information and communication technology accessibility for persons with disabilities and persons with specific needs

The World Telecommunication Development Conference (Kigali, 2022),

recognizing

a) Resolution 70/1 of the United Nations General Assembly (UNGA), on the 2030 Agenda for Sustainable Development;

b) Resolution 175 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on telecommunication/information and communication technology (ICT) accessibility for persons with disabilities and persons with specific needs;

c) Resolution 70 (Rev. Geneva 2022) of the World Telecommunication Standardization Assembly, on telecommunication/ICT accessibility for persons with disabilities and persons with specific needs;

d) Article 12 of the International Telecommunication Regulations, adopted by the World Conference on International Telecommunications (Dubai, 2012), which states that Member States should promote access for persons with disabilities to international telecommunication services, taking into account the relevant Recommendations of the ITU Telecommunication Standardization Sector (ITU-T);

e) the United Nations flagship report ''Disability and Development Report, 2018'', which sees telecommunication/ICT accessibility as a critical element for ensuring inclusion and the achievement of the Sustainable Development Goals (SDGs) for persons with disabilities and persons with specific needs, and UNGA Resolution 73/142, which encourages Member States to promote access to information and communication, including information and communication technologies and systems, to ensure that accessibility is promoted as a means of achieving inclusive societies and development;

f) the ITU Telecommunication Development Sector (ITU-D) Digital Inclusion initiative, which promotes telecommunication/ICT accessibility and use for the economic and social development of persons with disabilities and persons with specific needs;

g) the formation of the Global Initiative for Inclusive Information Communication Technologies (G3ict), an ITU-D Sector Member and flagship partnership initiative of the United Nations Global Alliance for ICT and Development (UN-GAID), and its activities;

h) the Model ICT Accessibility Policy Report for policy-makers, regulators and service providers, produced by the Telecommunication Development Bureau (BDT) in partnership with G3ict and available online, in order to: i) facilitate development of best policies and strategies for implementation of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD); and ii) set forth action steps for an effective policy framework;

i) the related issues being examined in the work of ITU-T and the ITU Radiocommunication Sector (ITU-R) in relation to telecommunication/ICT accessibility;

j) the formation by the Internet Governance Forum (IGF) of the Dynamic Coalition on Accessibility and Disability (DCAD), sponsored by the Director of the Telecommunication Standardization Bureau and in partnership with ITU-T, as well as involving the participation of ITU-D, in order to promote equal access to the information society by addressing issues of accessibility in relation to Internet governance;

k) the related resolutions from the Global Standards Collaboration (GSC) meetings;

l) activities relating to the development of new standards (e.g. ISO TC 159, JTC 1 SC35, IEC TC100, ETSI TC HF and W3C WAI), and the implementation and maintenance of existing standards (e.g. ISO 9241-171);

considering

a) that the World Health Organization estimates that over one billion of the world's inhabitants live with some form of disability, and that there are different types of disabilities (e.g. physical, cognitive and sensorial disabilities), each requiring special considerations when designing telecommunication/ICT public policy;

b) that the UNCRPD, which came into force on 3 May 2008, requires States Parties to take appropriate measures, including:

1) undertake or promote research and development on, and promote the availability and use of, new technologies, including ICTs, mobility aids, devices and assistive technologies, suitable for persons with disabilities, giving priority to technologies at an affordable cost (Article 4, section 1 (*g*));

2) ensure ICT and emergency service access for persons with disabilities on an equal basis (Article 9, § 1(*b*));

3) promote ICT access for persons with disabilities to new ICT services, including Internet (Article 9, § 2 (*g*));

4) promote the design, production and distribution of accessible ICT at an early stage (Article 9, § 2(*h*));

5) ensure that persons with disabilities can exercise the right to freedom of expression and opinion (Article 21);

6) provide information in accessible formats and technologies appropriate to different kinds of disabilities in a timely manner and without additional cost (Article 21, § (*a*));

7) urge private entities that render services to the public to provide information and services in accessible and usable formats for persons with disabilities (Article 21, § (*c*));

8) encourage mass media (including information providers through Internet) to make their services accessible to persons with disabilities (Article 21, § (*d*));

c) that, in addition, the UNCRPD further states that there is discrimination on the basis of disability if there is denial of reasonable accommodation, considering "reasonable accommodation" to mean necessary and appropriate modification or adjustments not imposing a disproportionate or undue burden, to ensure to persons with disabilities the enjoyment or exercise of all human rights and fundamental freedoms (i.e. freedom of speech, access to information) (Article 2);

d) that States Parties to the UNCRPD undertake to collect adequate information for formulating and implementing policies to give effect to the Convention, and that this information must be disaggregated, and should help identify and address barriers faced by persons with disabilities in exercising their rights (Article 31);

e) that the outcome document of the UNGA high-level meeting on the realization of the Millennium Development Goals and other internationally agreed development goals for persons with disabilities: the way forward, a disability-inclusive development agenda towards 2015 and beyond, considers, *inter alia*, that the universal design approach should be followed in ensuring accessibility of information, assistive devices and other ICTs, including in remote or rural areas, as a means of achieving such goals, so that persons with disabilities can achieve their fullest potential throughout their lives;

f) that UNGA Resolution 66/288 endorses the outcome document of the United Nations Conference on Sustainable Development (Rio+20), entitled "The future we want", which states as follows: "... 9. We reaffirm the importance of the Universal Declaration of Human Rights, as well as other international instruments relating to human rights and international law. We emphasize the responsibilities of all States, in conformity with the Charter, to respect, protect and promote human rights and fundamental freedoms for all, without distinction of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, disability age or other status";

g) that UNGA Resolution 61/106 adopting the UNCPRD requests the Secretary-General in § 5 "... to implement progressively standards and guidelines for the accessibility of facilities and services of the United Nations system, taking into account relevant provisions of the Convention, in particular when undertaking renovations";

h) General comment No. 2 (2014) of the United Nations Committee on the Rights of Persons with Disabilities in relation to Article 9: Accessibility, on the need to promote access for persons with disabilities to new information and communication technologies and systems, including the Internet;

i) that maximizing access to telecommunication/ICT services, equipment, software and applications for persons with disabilities and persons with specific needs will help to increase digital literacy and support equal access to education, health care and employment;

j) that persons with disabilities, both acting as individuals and through relevant organizations, should be involved in and participate in the process of elaborating legal/regulatory provisions, public policy and standards, pursuant to the rationale of "nothing about us without us";

taking into account

a) that the World Summit on the Information Society (WSIS) acknowledged that special attention should be given to the needs of older persons, persons with disabilities and persons with specific needs: i) when elaborating national cyberstrategies, including educational, administrative and legislative measures; ii) for using ICTs in education and human-resources development; iii) in order that equipment and services offer easy and affordable access, under the principles of universal design and assistive technology; iv) for promoting telework and increasing employment opportunities for persons with disabilities; v) for creating content that is pertinent to persons with disabilities; and vii) for creating the required abilities for the use of ICTs by persons with disabilities;[1]

b) that the implementation of the relevant WSIS action lines will contribute to the achievement SDG 9 target 9.c (Significantly increase access to ICT and strive to provide universal and affordable access to the Internet in least developed countries by 2020);

c) the need to apply accessibility principles and features in relation to telecommunication/ICT services, equipment, software and applications in order to be accessible, namely: universal design, equal access, functional equivalence and affordability;

d) that telecommunication/ICT accessibility for persons with disabilities and persons with specific needs should be achieved through the formulation of coherent policy and cooperation between government bodies, the private sector, non-governmental organizations, civil society and persons with disabilities and persons with specific needs themselves;

e) the importance of coordination and exchange of information on issues concerning persons with disabilities and persons with specific needs by and between United Nations bodies concerned in order to establish a comprehensive approach to issues of accessibility;

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[1] Geneva Declaration of Principles, §§ 13 and 30; Geneva Plan of Action, §§ 9 e) and f), 19 and 23; Tunis Commitment, §§ 18 and 20; Tunis Agenda for the Information Society, § 90 c) and e).

f) the prevailing difference in telecommunication/ICT accessibility for persons with disabilities and persons with specific needs in the regions, in countries, and within each country, emphasizing that 80 per cent of persons with disabilities live in developing countries[2], according to the United Nations Development Programme;

g) that women and girls with disabilities suffer multiple disadvantages, being excluded on account of their gender and their disability,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to ensure that ITU-D programmes, projects or activities take into account, where possible, telecommunication/ICT accessibility issues and/or are adaptable for persons with disabilities and persons with specific needs;

2 to promote the development and updating of tools and guidelines for use/reference by Member States in mainstreaming telecommunication/ICT accessibility issues in their national/regional policies and regulations, and the building of necessary capacity, taking into account the 2030 Agenda for Sustainable Development;

3 to provide assistance to Member States, as appropriate, in the establishment of their national strategies, including funding strategies, aimed at addressing the needs of persons with disabilities and persons with specific needs in terms of access to telecommunication/ICT services;

4 to continue to work closely with Member States for the sharing and dissemination of best practices, and to encourage them to submit contributions on ensuring accessibility of telecommunication/ICT services, equipment, software and applications;

5 to support the holding of seminars, symposia or forums on telecommunication/ICT accessibility, involving a wide range of stakeholders, and also support the preparation of outcome documents that address telecommunication/ICT accessibility for persons with disabilities and persons with specific needs;

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[2] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

6 to collaborate and cooperate with relevant United Nations entities with a mandate to address accessibility issues and with international and regional organizations for persons with disabilities in order to support the social and economic inclusion of persons with disabilities and persons with specific needs through the use of telecommunications/ICTs;

7 to collaborate with ITU-R and ITU-T on issues of telecommunication/ICT accessibility, to take into account the outcomes of their work in preparing toolkits, guidelines and programmes for Member States on telecommunication/ICT accessibility issues and, where necessary, to report to the ITU Council on the outcomes of this collaboration;

8 to consider the development of an internship programme for persons with disabilities and persons with specific needs who have expertise in the field of telecommunications/ICTs, so as to build capacity in the development of public policy to meet accessibility requirements;

9 to ensure that the needs of the communities of persons with disabilities are taken into account in the provision of telecommunication/ICT accessibility equipment, services and software;

10 to strengthen the Digital Inclusion programme to promote telecommunication/ICT accessibility for persons with disabilities;

further instructs the Director of the Telecommunication Development Bureau

1 to review, in consultation with the Secretary-General, the accessibility of ITU services and facilities, including meetings and events, to consider taking actions, where appropriate, pursuant to UNGA Resolution 61/106, and to inform Member States and Sector Members about the implementation of such actions, as appropriate;

2 to contribute, within the scope of BDT, to uniting efforts for the implementation of the provisions of Resolution 70 (Rev. Geneva, 2022) and Resolution 175 (Rev. Dubai, 2018);

3 to provide advice to, evaluate and supervise initiatives, projects and programmes, so as to determine their impact in terms of telecommunication/ICT accessibility for persons with disabilities and persons with specific needs, under Resolution 17 (Rev. Kigali, 2022) of this conference on regional initiatives, where appropriate;

invites the Plenipotentiary Conference

1 to build on and consolidate past accomplishments, by providing the necessary financial and human resources for the effective and sustained integration of telecommunication/ICT accessibility for persons with disabilities and persons with specific needs in the development activities of ITU;

2 to instruct the Secretary-General to bring this resolution to the attention of the Secretary-General of the United Nations in an effort to promote increased coordination and cooperation for development policies, programmes and projects for achieving telecommunication/ICT accessibility for persons with disabilities and persons with specific needs, in line with the principles of universal design, equal access, functional equivalence and affordability, and fully harnessing the available tools, guidelines and standards, to eliminate obstacles and discrimination,

instructs Study Group 1 of the ITU Telecommunication Development Sector

1 to assist in identifying the needs of persons with disabilities and persons with specific needs in relation to telecommunication/ICT accessible services, equipment, software and applications;

2 to assist in identifying best practices in relation to telecommunication/ICT accessible services, equipment, software and applications, on the basis of contributions from Member States, Sector Members and other stakeholders and in collaboration with ITU-T and ITU-R;

3 to promote the exchange of experiences and best practices in terms of accessibility of telecommunication/ICT services, equipment, software and applications for persons with disabilities and persons with specific needs, in order to reduce digital inequality and achieve the SDGs,

invites Member States

1 to ratify the UNCPRD and to consider the interests of persons with disabilities and persons with specific needs in the development of legal frameworks, including laws, regulations, policies and guidelines, on telecommunications/ICTs at the national and local levels, in order to support the social and economic inclusion of all members of society, taking into account the 2030 Agenda for Sustainable Development;

2 to mainstream telecommunication/ICT accessibility for persons with disabilities and persons with specific needs and to emphasize adopting a comprehensive approach to addressing the matter, which involves taking into consideration accessibility principles in a cross-cutting manner;

3 to take the relevant measures to ensure that telecommunication/ICT services, equipment, software and applications contribute to the development of telecommunication/ICT accessibility and are effectively accessible to persons with disabilities and persons with specific needs;

4 to develop national legal frameworks, including laws, regulations, policies, guidelines or other national and local mechanisms for telecommunication/ICT accessibility for persons with disabilities, taking into account the principles of equal access, functional equivalence, affordability and universal design, in order to ensure accessibility of telecommunication/ICT services, equipment, software and applications;

5 to encourage and enable active participation by persons with disabilities and persons with specific needs, both as individuals and as organizations, in the policy-making process for telecommunications/ICTs and related areas where ICTs have an impact, by ensuring the accessibility of the consultation process, meetings and/or surveys;

6 to consider establishing a government procurement policy for accessible telecommunications/ICTs, establishing accessibility criteria;

7 to raise awareness of activities and decisions of government bodies, the private sector and non-governmental organizations in relation to ensuring telecommunication/ICT accessibility so that persons with disabilities and persons with specific needs are timeously and fully informed of new opportunities;

8 to continue strengthening the collection and analysis of data and statistics on disability related to telecommunication/ICT accessibility for persons with disabilities and persons with specific needs and similarly relevant indicators that will contribute to the public policy design, planning and implementation process in the area of telecommunication/ICT accessibility;

9 to facilitate the introduction and mainstreaming of telecommunication/ICT relay services[3], captioning and audiodescription for persons with hearing, speech or vision impairments, or any combination thereof, to ensure accessibility of television programmes and digital television content;

10 to consider financial incentives on ICT devices and assistive equipment for persons with disabilities, in accordance with the national regulations on this matter;

11 to promote the development of accessible websites, in particular those of high social significance for persons with disabilities and persons with specific needs, such as websites for e-government services;

12 to support the establishment of educational institutions, in particular at the primary level, other institutions and community centres with accessible equipment and to promote the accessibility of public phones;

13 to promote and undertake research and development of telecommunication/ICT accessible equipment and software, with emphasis on free and open-source software and affordable equipment and services;

14 to establish ongoing and permanent collaboration between developed and developing countries in order to exchange information, technology and best practices related to telecommunication/ICT accessibility for persons with disabilities and persons with specific needs;

15 to participate actively in telecommunication/ICT accessibility-related studies in ITU-D, ITU-T and ITU-R, and to encourage and promote self-representation by persons with disabilities and persons with specific needs in the development and standardization process, so as to ensure that their experiences, views and opinions are taken into account in all the work of the study groups;

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[3] Telecommunication relay services enable users of different modes of communication (e.g. text, sign, speech) to interact by providing convergence between the modes of communication, usually through human operators.

16 to promote the development of learning and capacity-building opportunities to train persons with disabilities and persons with specific needs to use telecommunications/ICTs for their social and economic development, including through train-the-trainer courses and distance learning, for a more inclusive society;

17 to create dissemination and awareness-raising mechanisms that enable persons with disabilities to learn about the rights that can help them and how to require their enforceability, as well as policies for their benefit, current assistance technologies, and accessible equipment available on the market,

invites Sector Members

1 to consider accessibility issues, including adoption of a self-regulation approach in their activities, in the field of telecommunications/ICTs;

2 to adopt a universal design principle from an early stage when designing, producing and creating telecommunication/ICT equipment, services, software and applications, so as to avoid costly measures to adapt them for persons with disabilities and persons with specific needs;

3 to promote research and development on telecommunication/ICT-accessible equipment, services, software and applications, having due regard to affordability for persons with disabilities and persons with specific needs;

4 to collaborate with Member States for the sharing of experiences and best practices in relation to telecommunication/ICT accessibility;

5 to collaborate with Member States on dissemination and awareness-raising to enable persons with disabilities to learn about current assistance technologies, tools and accessible and affordable equipment available on the market.

RESOLUTION 59 (Rev. Kigali, 2022)

Strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 123 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on bridging the standardization gap between the developing[1] and developed countries;

b) Resolution 191 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strategy for the coordination of efforts among the three Sectors of the Union – the ITU Radiocommunication Sector (ITU-R), the ITU Telecommunication Standardization Sector (ITU-T) and the ITU Telecommunication Development Sector (ITU-D);

c) Resolution 5 (Rev. Kigali, 2022) of this conference, on enhanced participation by developing countries in the activities of the Union;

d) Resolution ITU-R 7-4 (Rev. Sharm el-Sheikh, 2019) of the Radiocommunication Assembly, on telecommunication development including liaison and collaboration with ITU-D;

e) Resolution 44 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA), on bridging the standardization gap between developing and developed countries;

f) Resolution 18 (Rev. Geneva, 2022) of WTSA, on principles and procedures for the allocation of work to, and strengthening coordination and cooperation among, the three ITU Sectors,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

considering

a) that a basic principle for collaboration and cooperation among the three ITU Sectors is the need to avoid duplication of activities of the Sectors, and ensure that the work is undertaken efficiently and effectively, respecting the specific functions defined in the ITU Constitution and the ITU Convention for each Sector;

b) that the mechanism for cooperation at secretariat level among the three Sectors and the General Secretariat of the Union was established to ensure close cooperation between the secretariats and with the secretariats of external entities and organizations that deal with key priority issues, such as emergency telecommunications and climate change;

c) that interaction and coordination in the joint holding of seminars, workshops, forums, symposia and so forth have yielded positive results in terms of financial and human resource savings,

taking into account

a) the expanding sphere of joint studies between the three Sectors and the need for coordination and cooperation among them in this regard;

b) the growing number of issues of mutual interest and concern to the three Sectors;

c) the ongoing discussion among representatives of the three Sector advisory groups on the modalities for enhancing cooperation among the Sectors;

d) the need to support efficient and effective integration among the Sectors;

e) that the Inter-Sector Coordination Group (ISCG) on issues of mutual interest, which is composed of representatives from the three advisory groups, identifies subjects of common interest and mechanisms to enhance collaboration and cooperation among the Sectors;

f) that the Secretary-General has established the Inter-Sectoral Coordination Task Force (ISC-TF) comprising senior management from the General Secretariat, the Telecommunication Development Bureau (BDT), the Radiocommunication Bureau (BR) and the Telecommunication Standardization Bureau (TSB) to consider options for improving cooperation and coordination at the secretariat level,

resolves

that the Telecommunication Development Advisory Group and the Director of BDT shall continue to cooperate actively with the Radiocommunication Advisory Group and the Director of BR and with the Telecommunication Standardization Advisory Group and the Director of TSB, as called for by Resolution 191 (Rev. Dubai, 2018),

invites the Telecommunication Development Advisory Group, in collaboration with Radiocommunication Advisory Group and Telecommunication Standardization Advisory Group

to assist in identifying subjects common to the three Sectors, or, bilaterally, subjects common to ITU-D and either ITU-R or ITU-T, and in identifying the necessary mechanisms to strengthen cooperation and joint activity among the three Sectors or with each Sector, on issues of joint interest, paying particular attention to the interests of the developing countries, including through participation in ISCG,

invites the Director of the Telecommunication Development Bureau, in collaboration with the Secretary-General, the Director of the Radiocommunication Bureau and the Director of the Telecommunication Standardization Bureau

to continue to create cooperation mechanisms at secretariat level on matters of mutual interest to the three Sectors,

invites Member States and Sector Members

to support efforts to improve inter-Sector coordination;

invites the Director of the Telecommunication Development Bureau, the Director of the Radiocommunication Bureau and the Director of the Telecommunication Standardization Bureau

to report to the respective Sector advisory groups, including taking an active part in groups established by those advisory groups, in respect of coordination activities,

instructs the Director of the Telecommunication Development Bureau

1 in cooperation with the Director of TSB and the Director of BR, to provide an annual report to ITU-D study groups on the latest developments in the activities of ITU-T and ITU-R study groups;

2 to continue the enhancement of bilateral cooperation with ITU-R and ITU-T, as required;

3 to inform TDAG annually on the implementation of this resolution,

instructs the ITU Telecommunication Development Sector study groups

to continue cooperation with the study groups of the other two Sectors so as to avoid duplication of effort and proactively make use of the results of work done by the study groups of those two Sectors.

RESOLUTION 60 (Hyderabad, 2010)

Assistance to countries in special situations: Haiti

The World Telecommunication Development Conference (Hyderabad, 2010),

recalling

Resolution 34 (Rev. Antalya, 2006) of the Plenipotentiary Conference,

further recalling

the purposes of the Union, as enshrined in Article 1 of the ITU Constitution,

recognizing

a) that the telecommunication infrastructure in the Republic of Haiti has been significantly affected by the earthquake that struck the country on 12 January 2010;

b) that Haiti at present does not have a sufficient national information and communication infrastructure with adequate international and Internet access;

c) that an adequate telecommunication system is an essential tool in the process of rebuilding the country;

d) that, under the present conditions and in the foreseeable future, Haiti will require the support of the international community in order to build a national information infrastructure that is compatible with its socio-economic development objectives,

noting

a) that Haiti received emergency telecommunication assistance from ITU immediately following the earthquake;

b) the efforts deployed by the ITU Secretary-General and the Director of the Telecommunication Development Bureau (BDT) to assist other countries following armed conflicts or natural disasters,

resolves

that the special action initiated by the Secretary-General and the Director of BDT, with specialized assistance from the ITU Radiocommunication Sector and the ITU Telecommunication Standardization Sector, should be continued in order to provide assistance and support to Haiti in rebuilding its telecommunication/information and communication technology (ICT) infrastructure, establishing appropriate institutions, human capacity building, developing telecommunication legislation and a regulatory framework and harnessing the recognized potential of telecommunications/ICTs for the country's socio-economic and cultural development,

calls upon Member States

to offer all possible assistance and support to the Government of Haiti, either bilaterally or through the special action of the Union referred to above,

invites the Council

to allocate the necessary funds for the implementation of this resolution,

instructs the Director of the Telecommunication Development Bureau

1 to provide focused assistance in the different fields identified by Haiti;

2 to take immediate measures to implement a framework of cooperation allowing the country's systematic adoption of ICTs with a view to its sustainable development,

requests the Secretary-General

1 to bring this resolution to the attention of the Plenipotentiary Conference (Guadalajara, 2010) and seek the allocation of the necessary resources;

2 to coordinate the activities carried out by the three ITU Sectors in accordance with *resolves* above;

3 to ensure that the Union's action in favour of Haiti is as effective as possible, and to report on the matter to the ITU Council.

RESOLUTION 61 (Rev. Dubai, 2014)

Appointment and maximum term of office of chairmen and vice-chairmen of study groups in the ITU Telecommunication Development Sector and of the Telecommunication Development Advisory Group

(Abrogated by WTDC-22)

RESOLUTION 62 (Rev. Kigali, 2022)

Assessment and measurement of human exposure to electromagnetic fields

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 176 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on measurement and assessment concerns related to human exposure to electromagnetic fields (EMF);

b) Resolution 72 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly, on measurement and assessment concerns related to human exposure to EMF, which calls for close cooperation among the Directors of the three Bureaux to implement the resolution within the available financial resources in view of its importance to developing countries[1],

considering

that the World Health Organization (WHO) has issued fact sheets on EMF based on the work of the International Commission on Non-Ionizing Radiation Protection (ICNIRP),

recognizing

a) that some publications and information about EMF effects on health address questions to the ITU Telecommunication Standardization Sector (ITU-T), the ITU Radiocommunication Sector (ITU-R) and the ITU Telecommunication Development Sector (ITU-D), in particular for developing countries;

b) that the effect on humans of EMF from handheld devices has not received enough public attention, and use of a mobile phone may expose the user to stronger EMF levels than to those radiated by a base station;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

c) that the cost of the advanced equipment used for measuring, assessing and monitoring human exposure to EMF is very high and difficult for many developing countries to afford;

d) that implementing such measurement is essential for many regulatory authorities in developing countries, in order to monitor the limits for human exposure to radio-frequency energy, and that they are called upon to ensure that those limits are met in order to license different services;

e) the work of ITU-T Study Group 5 on this issue under Question 3/5 (Human exposure to electromagnetic fields due to digital technologies), including the updating of practical and affordable guidelines to help developing countries deal with this issue effectively;

f) the work of ITU-R Study Group 1 under Question 239/1 and Report ITU-R SM.2452, on measurement techniques to assess human exposure from wireless installations and presenting the measurement results;

g) the creation of the new EMF guide and mobile application launched by ITU, which provides information and education resources on EMF suitable for all communities, stakeholders and governments, especially in developing countries,

resolves to instruct the Director of the Telecommunication Development Bureau

in response to the needs of the developing countries and consistent with the substance of Resolution 72 (Rev. Geneva, 2022), and in recognition of the complementary relationship with ongoing work on EMF studies in ITU-T and ITU-R:

1 to give the necessary priority to this subject and, within the available resources, allocate the necessary funds for expediting execution of this resolution;

2 to conduct international and regional seminars and workshops to identify the needs of developing countries and to build human capacity in regard to EMF, including specific absorption rate (SAR);

3 to ensure that those responsible for ITU-D Output 2.1 in the strategic plan for the Union for 2020-2023 determine the requirements of developing countries and their regulatory authorities (at regional level) in relation to this resolution, contribute to studies on this subject, take an active part in the work of the relevant ITU-R and ITU-T study groups, and submit written contributions on the results of their work in this regard, plus any proposals they deem necessary, to ITU-D Study Group 2;

4 to provide the necessary assistance to Member States, in particular developing countries, by supplying them with measurement methods for assessing human electromagnetic exposure, including methods to manage the risk perception by the public;

5 to foster the exchange of experiences and best practices in connection with the challenges and opportunities of developing technical regulations on the adoption of limits for reference levels of non-ionizing electromagnetic radiation from radio-frequency stations, as well as SAR levels;

6 to establish and keep up a dialogue among all interested parties, such as civil society, authorities, industry, the scientific community, associations and the media, in order to provide support for measuring human exposure to EMF, and to adopt a regulatory framework on the reference levels for persons on the basis of the technical specifications drawn up by the international bodies specializing in human health and protection against non-ionizing radiation;

7 to promote the EMF Estimator software that implements the methodology described in Recommendation ITU-T K.70, in particular the calculation of the cumulative radio-frequency exposure levels in the vicinity of transmitting antennas;

8 to implement projects under the United Nations development systems or arrangements funded by international financial institutions and donor agencies to facilitate measurements of non-ionizing radiations and investigations/research in developing countries,

instructs Study Group 2

within the framework of its Questions, including Question 7/2, to cooperate with ITU-T Study Group 5 and ITU-R Study Groups 1, 4, 5 and 6, in order to achieve the following goals:

i) collaborate with ITU-T Study Group 5 in particular to update the ITU EMF guide and mobile application relating to human exposure to EMF and the guidance on its implementation, as a matter of high priority;

ii) contribute to the organization of seminars, workshops or training on the subject of EMF;

iii) ensure wide dissemination of ITU publications and literature on EMF issues in cooperation with ITU-R and ITU-T;

iv) continue to cooperate with WHO, ICNIRP, the Institute of Electrical and Electronics Engineers (IEEE) and other relevant international organizations on guidelines and limits of human exposure to EMF, and to raise awareness and disseminate information to the membership and the public with regard to human exposure to EMF,

invites Member States

1 to conduct a periodic review concerning the performance of the operators and mobile equipment manufacturers in this field to verify that they are following the national specifications or ITU Recommendations, in order to ensure the safe use of EMF;

2 to conduct public awareness campaigns on the adverse impact of EMF, and deploy successful solutions, including regulations;

3 to continue to cooperate through the exchange of experts and the organization of seminars, specialized workshops and meetings;

4 to adopt international standards for measuring and assessing EMF levels, and use effective methods for verifying compliance,

encourages members from academia and centres of excellence

to participate actively in the work under this resolution through the submission of contributions and proposals.

RESOLUTION 63 (Rev. Kigali, 2022)

Internet Protocol address allocation and facilitating the transition to and deployment of Internet Protocol version 6 in the developing countries

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolutions 101 (Rev. Dubai, 2018), 102 (Rev. Dubai, 2018) and 180 (Rev. Dubai, 2018) of the Plenipotentiary Conference;

b) Resolution 63 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference (WTDC);

c) Resolution 64 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly;

d) Opinion 3 (Geneva, 2013) of the fifth World Telecommunication/Information and Communication Technology (ICT) Policy Forum (WTPF), on supporting capacity building for the deployment of Internet Protocol version 6 (IPv6);

e) Opinion 4 (Geneva, 2013) of WTPF, in support of IPv6 adoption and transition from IPv4;

f) the results of the ITU Council Working Group on the subject of the transition from IPv4 to IPv6;

g) the partial progress that has been made towards the adoption of IPv6 over the past few years;

h) that accelerating IPv6 deployment has become an issue of the utmost importance today for Member States and Sector Members and stakeholders in the Internet community, because of IPv4 address exhaustion,

recognizing

a) that Internet Protocol (IP) addresses are fundamental resources that are indispensable for the current development of IP-based telecommunication/ICT networks, which are important for the digital economy;

b) that many countries believe that there are historical imbalances related to IPv4 allocation;

c) that the fastest deployment of IPv6 addresses available to all countries is necessary in order to respond to global appeals and needs in this regard;

d) that the deployment of IPv6 in all countries is needed to meet the growing demands for world connectivity;

e) that deployment of IPv6 facilitates Internet of Things (IoT) solutions, which require a huge amount of IP addresses;

f) that facing 5G, cloud services and industrial Internet bearer scenarios, IPv6 has developed rapidly in industry, technology and business innovation and achieved large-scale deployment in some countries;

g) that there are a number of developing countries[1] that still need expert technical and managerial assistance for making this deployment effective, despite the progress made in some other countries;

h) that the deployment of IPv6 solves the current problem of shortages in the numerical space of IPv4 addresses, enabling the allocation of publicly routable addresses on the Internet to each one of the devices;

i) the importance of providing technical and managerial assistance from experts in IPv6 deployment to those Member States and Associates that request it,

taking into account

a) that many developing countries are experiencing some challenges today in the IPv6 deployment process;

b) that it is necessary to encourage the collaboration and cooperation of all relevant stakeholders in order to be able to carry out the deployment,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

resolves

to promote the exchange of experiences and information relating to the deployment of IPv6, with the aim of unifying joint efforts of all stakeholders and ensuring the contributions that enhance the Union's efforts to support this deployment,

instructs the Director of the Telecommunication Development Bureau

1 to continue the close cooperation and coordination with the Director of the Telecommunication Standardization Bureau in this regard, continue ongoing activities to facilitate IPv6 deployment among all members, and provide the necessary information on training and education activities;

2 to continue cooperating with relevant international and regional organizations, including the regional Internet registries (RIRs), on capacity building and the enhancement of technical skills for IPv6 deployment in order to respond to the needs of developing countries;

3 to submit an annual report to the ITU Council on the progress made in this regard, and report to the next WTDC;

4 to develop guidelines to enable, if necessary, adjustment of the organizational frameworks and policies necessary for deployment of IPv6,

invites Member States

1 to examine RIRs' updates of IP addresses registered within their respective territories for the purposes of evaluation, development and monitoring;

2 to continue to stimulate and encourage the IPv6 deployment, and particularly to encourage national initiatives and strengthen interaction with government and private-sector entities, RIRs, academia and civil-society organizations in order to exchange experiences, expertise and knowledge;

3 to encourage the training of technicians and administrators from governmental agencies and private-sector organizations in IPv6 deployment, with theory and labs that show how to deploy IPv6 on their networks;

4 to raise awareness among providers on the importance of making their services available over IPv6;

5 to encourage manufacturers to supply fully-featured customer premises equipment that supports IPv6 in addition to IPv4;

6 to foster cooperation among Internet service providers, service providers and other relevant stakeholders to accelerate IPv6 deployment;

7 to encourage service providers to activate IPv6 in the telecommunication/ICT equipment and networks and offer IPv6 service to the users;

8 to encourage governmental agencies and private-sector organizations to make their websites and services such as email available over IPv6.

RESOLUTION 64 (Rev. Kigali, 2022)

Protecting and supporting users/consumers of telecommunication/ information and communication technology services

The World Telecommunication Development Conference (Kigali, 2022),

considering

a) Resolution 196 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on protecting telecommunication service users/consumers;

b) Resolution 84 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly, on studies concerning the protection of users of telecommunication/information and communication technology (ICT) services;

c) United Nations guidelines on consumer protection, reviewed and approved by the United Nations General Assembly in Resolution 70/186 of 22 December 2015, which establish the main characteristics that consumer protection laws must have, the institutions in charge of enforcing them, and compensation systems so they can be effective;

d) Resolution 188 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on combating counterfeit telecommunication/ICT devices;

e) Resolution 189 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on assisting Member States to combat and deter mobile device theft;

f) § 13 e) of the Geneva Plan of Action of the World Summit on the Information Society (WSIS), which states that governments should continue to update their domestic consumer-protection laws to respond to the new requirements of the information society;

g) §§ 4.4 and 4.5 of Article 4 of the International Telecommunication Regulations;

h) Goals 2 and 3 of the ITU Connect 2030 Agenda, on bridging the digital divide and providing broadband for all, and managing challenges resulting from telecommunication/ICT development, respectively;

i) the work of ITU-D Study Group 1 of the ITU Telecommunication Development Sector being carried out under Question 6/1, on consumer information, protection and rights,

taking into account

a) ITU's mandate to serve as coordinator and facilitator for Action Lines C5 and C6 of the Geneva Plan of Action;

b) that the basic principles of consumer and user relations include education and outreach on the appropriate consumption and use of products and services, in order to guarantee freedom of choice and fairness in contracting, together with clear and appropriate information of these products and services, with the correct information such as specification of quantities, characteristics, composition, quality and price, taking into account the 2030 Agenda for Sustainable Development;

c) that information is the main input of the digital economy, for which reason it is recognized that the cross-border flow of personal consumer and user data demands the observance of national laws and regulations;

d) that it is necessary to continue work in updating and redefining the protection needs of users and consumers in an increasingly connected world, considering new and emerging telecommunication/ICT technologies and services;

e) that there is a need to promote digital skills among users/consumers of telecommunication/ICT services;

f) that similar measures to protect and support, as well as to enhance the level of digital skills, should be taken with respect to users/consumers of telecommunication/ICT services with disabilities or specific needs, as well as other vulnerable groups[1];

g) that the establishment of effective protection for users and consumers must also take into account issues like their economic interests, information about security and protection of their personal data, the coordinated fight against device theft, and advances in financial services, among others;

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[1] Vulnerable groups are intended to include women and girls, persons with disabilities and specific needs, older persons, youth, marginalized communities and indigenous people.

h) that policies on information transparency make it possible to increase the level and quality of the information provided by operators to users and consumers;

i) that the same policies should ensure access to telecommunications/ICTs for vulnerable groups, in conditions of use comparable to all other consumers and users;

j) that telecommunication/ICT services provided to users and consumers should be based on quality standards;

k) that the coronavirus disease (COVID-19) pandemic has accelerated the adoption of telecommunications/ICTs and at the same time has given rise to an increase of risks in the use of ICT services amongst consumers and users,

resolves

to continue work aimed at the development of the guidelines and best practices on the support and protection of telecommunication/ICT users/consumers regarding issues such as information on basic telecommunication/ICT services being provided, their rates and prices, their quality and security, and the protection of personal data, among other aspects,

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Radiocommunication Bureau and the Telecommunication Standardization Bureau

1 to continue to support work aimed at raising awareness among decision-makers regarding telecommunications/ICTs as well as among regulatory agencies regarding the importance of keeping users and consumers informed and empowered about the basic characteristics, quality, security and rates and prices of the different services offered by operators, and at creating other protection mechanisms to facilitate and support the expeditious exercise of consumers' and users' rights;

2 to continue coordination with the ITU Telecommunication Standardization Sector (ITU-T) and the Radiocommunication Sector (ITU-R) on such topics as service quality, perceived quality and security and ITU-R on such topics as quality of service and quality of experience of telecommunication/ICT services;

3 to issue regular information about relations and joint efforts with other international organizations and entities involved in telecommunication/ICT consumer and user protection;

4 to invite Member States to create their end-user and consumer associations that can address issues relevant to this resolution;

5 to organize training programmes, such as workshops and seminars, in order to analyse best practices, to encourage training in telecommunication/ICT services, user and consumer education, education for sustainable consumption and data protection, and to formulate possible recommendations about tools and measures that provide support and protection for users and consumers of ICT services,

encourages Member States

1 to empower users/consumers through the formulation and promotion of policies that foster the provision of information and good practices in regard to consumer education, consumer rights, and the characteristics, quality, security, rates and prices of the telecommunication services offered by different providers, considering especially those that facilitate the provision of free-of-charge, transparent, comparable, up-to-date and accurate information;

2 to consider the creation of an enabling and collaborative regulatory environment in which telecommunication operators can provide telecommunication/ICT services for their users/consumers, with the appropriate quality, and stimulating competitive, fair and affordable rates and prices;

3 to foster measures to ensure that, in international roaming, visiting users are provided with telecommunication/ICT services of satisfactory quality, and that consumers and end users are informed in a timely manner about international telecommunication services, including international roaming rates, and relevant applicable conditions;

4 to encourage telecommunication/ICT operators/providers to develop clear, simple offers at affordable prices, with easy to understand, transparent and accessible terms of service, as well as better consumer-education practices;

5 to build the trust of telecommunication/ICT users and consumers in the utilization and leverage of telecommunications/ICTs, including through the development of policies to guarantee and encourage the provision of quality services, and transparency of comparable, updated and accurate information, in order that user and consumer decisions about services are based on ease of perception, understanding and accessibility;

6 to include users/consumers with disabilities, persons with specific needs, older persons and other vulnerable groups, so they have access to telecommunication/ICT services under equal conditions;

7 to consider improving digital skills among users/consumers of telecommunication/ICT services, particularly for users/consumers with disabilities, persons with specific needs, older persons and other vulnerable groups,

invites Member States and Sector Members of the ITU Telecommunication Development Sector

to contribute inputs that will allow the dissemination of best practices and policies they have implemented in regard to this resolution, taking into consideration ITU Recommendations, reports and guidelines.

RESOLUTION 66 (Rev. Kigali, 2022)

Information and communication technology, environment, climate change and circular economy

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 182 (Rev. Busan, 2014) of the Plenipotentiary Conference, on the role of telecommunications/information and communication technologies (ICTs) in regard to climate change and the protection of the environment;

b) Resolution 1353 adopted by the 2012 session of the ITU Council, which recognizes that telecommunications and ICTs are essential components for developed and developing countries[1] in achieving sustainable development, and instructs the Secretary-General, in collaboration with the Directors of the Bureaux, to identify new activities to be undertaken by ITU to support developing countries in achieving sustainable development through telecommunications and ICTs;

c) Resolution 73/247 (2018) of the United Nations General Assembly (UNGA), which recognizes the potential benefits for countries to transform their economies to promote sustainable consumption and production patterns, by engaging with partners to integrate or implement concepts such as circular economy and Industry 4.0 for more sustainable industrial activity and manufacturing systems, according to national plans and priorities;

d) Resolution 34 (Rev. Kigali, 2022) of this conference, on the role of telecommunications/information and communication technology in disaster preparedness, early warning, rescue, mitigation, relief and response;

e) Resolution 73 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA), on ICTs, environment, climate change and circular economy, instructing the ITU Telecommunication Standardization Sector (ITU-T) in this area;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

f) Recommendation ITU-D 21 (Dubai, 2014), on ICT and climate change;

g) the outcomes of the United Nations Climate Change Conferences, and the main outcomes of the Conference of the Parties to the Basel Convention on the Environmentally Sound Management of E-waste;

h) Resolution 79 (Rev. Geneva, 2022) of WTSA, on the role of telecommunications/ICTs in handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it;

i) the outcomes of ITU-T Study Group 5 on environment, climate change and circular economy, which is responsible for studies on methodologies for evaluating the effects of ICT on climate change and also for studying design methodologies to reduce environmental effects, for example recycling of ICT facilities and equipment;

j) UNGA Resolution 70/1, on transforming our world: the 2030 Agenda for Sustainable Development,

considering

a) the need to face the emergency derived from climate change through effective actions, the role that ITU can play in achieving sustainable use of ICTs, and the importance of promoting sustainable development and the ways in which ICTs can enable clean development;

b) that the consequences of developing countries' lack of preparation in the past have recently come to light, and that without preparation they risk significant adverse impact, including the repercussions of rising sea levels for many coastal areas in developing countries;

c) that the concept of SMART (scientific monitoring and reliable telecommunication) cables includes scientific sensors mounted in the repeaters of submarine cables to measure ocean-bottom temperature, pressure and seismic acceleration;

d) that the role of ICTs in tackling the challenge of climate change encompasses a wide array of activities, including, but not limited to: the development of energy-efficient devices, applications and networks; the development of energy-efficient working methods; the implementation of satellite and ground-based remote-sensing platforms for environmental observation, including weather monitoring, as well as innovative undersea sensing technology, including SMART submarine telecommunication cables; and the use of ICTs to warn the public of dangerous weather events and provide communication support for governmental and non-governmental aid providers;

e) that, in processes for extracting raw materials from recycled products, caution must be exercised over the procedures used in order to ensure low environmental pollution levels;

f) the results of work by Study Group 2 of the ITU Telecommunication Development Sector (ITU-D) on ICT and climate change,

considering further

the outcome document adopted by the United Nations Conference on Sustainable Development (Rio+20), entitled "The Future we want", reflecting the renewed commitment to advancing sustainable development and achieving environmental sustainability, and recognizing the important role of ICTs,

noting

a) current and future work on ICTs and climate change, including the work in relevant ITU study groups such as ITU-T Study Group 5 and ITU-D Study Group 2, which focus on the study of climate change, e-waste and human exposure to electromagnetic fields;

b) that it is important to facilitate an environment in which ITU Member States, Sector Members and other stakeholders may cooperate to obtain and effectively use remote-sensing data for the purposes of research in climate change, disaster management and public administration;[2]

[2] This includes areas such as water management, air quality, agriculture, fishing, health, energy, environment, ecosystems and pollution control.

c) that there are other international forums that are working on climate-change issues with which ITU should cooperate,

recognizing

a) that ITU, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO) and the World Meteorological Organization (WMO) established the Joint Task Force to investigate the use of submarine telecommunication cables for ocean and climate monitoring and disaster warning (JTF SMART Cable Systems) in late 2012;

b) that the information obtained from SMART cables can be used for:

i) climate-change monitoring (ocean circulation, heat content and sea-level rise);

ii) seismic monitoring (earth structure and related hazards);

iii) near-to-far field tsunami and earthquake early warning, contributing to disaster risk reduction;

iv) warning of hazards to cables, and improved routing of cable systems;

v) quantifying risk to inform sustainable development of coastal and offshore infrastructure,

resolves

1 to give priority to ITU-D activities in this area and to providing the necessary support, while ensuring appropriate coordination among the three ITU Sectors on a full range of issues, including, for example, studies on the impact of non-ionizing radiation;

2 to continue and further develop ITU-D activities on ICTs, environment, climate change and circular economy in order to contribute to the wider global efforts to mitigate and adapt to climate change;

3 to include, as a priority, assistance to developing countries in strengthening their human and institutional capacity in tackling ICTs and climate change, as well as in areas such as climate-change adaptation, as a key element of disaster-management planning;

4 to increase awareness and promote information-sharing on the role of ICTs in enhancing environmental sustainability, in particular by promoting the use of more energy-efficient[3] devices and networks and more efficient working methods, as well as ICTs that can be used to replace or displace higher energy consuming technologies/uses;

5 to promote the development and application of renewable energy systems where appropriate, to support ICT operations and in particular continuity and resilience during disasters;

6 to set up e-learning programmes related to ICT, environment, climate change and the circular economy, including on relevant ITU Recommendations, within available resources,

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the other Bureaux

1 to formulate a plan of action for the role of ITU-D in this regard, taking into account the role of the other two Sectors;

2 to ensure that the plan of action is implemented under the relevant objective of the Kigali Action Plan dealing with ICTs, environment, climate change and circular economy, taking into account the needs of developing countries, and cooperating closely with the study groups of the other two Sectors and with ITU-D Study Group 2 in its implementation of the relevant Questions;

3 to promote liaison with other relevant organizations in order to avoid duplication of work and optimize the use of resources;

4 to organize, in close collaboration with the Directors of the Radiocommunication Bureau and the Telecommunication Standardization Bureau and with other competent bodies, workshops, seminars and training courses in developing countries at the regional level for the purpose of raising awareness and identifying key issues;

5 to report on progress on the implementation of this resolution annually at the meeting of the Telecommunication Development Advisory Group;

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[3] With respect to efficiency, promotion of efficient use of materials used in ICT devices and network elements should also be a consideration in ITU-D activity.

6 to ensure, within the available budget of the Union, in implementing the Kigali Action Plan, that appropriate resources are allocated for initiatives related to ICTs and climate change;

7 to develop pilot projects aimed at bridging the standardization gap on environmental sustainability issues, in particular in developing countries, and gauge the needs of the developing countries in the field of ICTs, environment, climate change and circular economy, within available resources;

8 to support the development of reports on ICTs, environment, climate change and circular economy, taking into consideration relevant studies in ITU-D study groups, and to assist affected countries with utilizing relevant applications for disaster preparedness, mitigation and response, and management of telecommunication/ICT waste;

9 to assist developing countries in undertaking proper assessment of the magnitude of e-waste and pilot projects, to achieve environmentally sound management of e-waste through e-waste collection, dismantling, refurbishment and recycling, as well as a lifecycle approach to electronic products, considering the work carried out by ITU-T Study Group 5;

10 to assist developing countries in initiating projects that achieve the sustainable and smart management of water resources through the use of ICTs;

11 to assist developing countries in initiating projects on disaster prediction, detection, monitoring, response and relief;

12 to support the ITU study groups in examining the benefits of undersea sensing technologies and in studying the technical, financial, legal and regulatory issues, including the standardization and specification of sensors and cables undertaken in ITU-T that could foster their adoption, in particular in relation to near-to-far field tsunami and earthquake early warning and in seismic monitoring;

13 to continue collaboration with relevant stakeholders to increase ITU members' awareness/knowledge of undersea sensing technologies and to exchange up-to-date information that allows the reuse and repair of telecommunication/ICT equipment for sustainable use of ICTs;

14 to consider possible changes to working methods in order to meet the objectives of this resolution, such as extending the use of electronic means, virtual conferencing, teleworking, etc.,

invites Member States, Sector Members and Associates

1 to continue to contribute actively to the ITU-D work programme on ICTs, environment, climate change and circular economy;

2 to continue or initiate public and private programmes that include ICTs and climate change, giving due consideration to relevant ITU initiatives;

3 to take necessary measures to reduce the effects of climate change by developing and using more energy-efficient ICT devices, applications and networks;

4 to continue supporting the work of the ITU Radiocommunication Sector in remote sensing (active and passive) for environmental observation[4] in accordance with relevant resolutions adopted by radiocommunication assemblies and world radiocommunication conferences;

5 to integrate the use of ICTs as an enabling tool to address and combat the effects of climate change in national adaptation and mitigation plans;

6 to incorporate environmental indicators, conditions and standards in their national ICT plans;

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[4] Environmental observation can be used to forecast weather and warn the public in the case of natural disasters, and to gather information on dynamic environmental processes and systems.

7 to liaise with their relevant national entities responsible for environmental issues in order to support and contribute to the wider United Nations process on climate change, by providing information and developing common proposals related to the role of telecommunications/ICTs in mitigating and adapting to the effects of climate change, so that they can be taken into consideration within the United Nations Framework Convention on Climate Change (UNFCCC).

RESOLUTION 67 (Rev. Kigali, 2022)

The role of the ITU Telecommunication Development Sector in child online protection

The World Telecommunication Development Conference (Kigali 2022),

recognizing

a) that children's rights is a relevant topic in the context of the United Nations 2030 Agenda for Sustainable Development;

b) high Internet user growth rates, particularly in the young population of all Member States;

c) that there is an urgent need and global demand for the protection of children from exploitation and exposure to risks and harm when using telecommunications/ information and communication technologies (ICTs), particularly mobile technologies;

d) that many of them will participate in the youth programmes of the Telecommunication Development Bureau (BDT) and will become active members in the development of coordination mechanisms with youth forums,

recalling

a) the memorandum of understanding between the secretariat of the Union and Child Helpline International (CHI);

b) Resolution 1306 adopted by the ITU Council at its 2009 session, under which the Council Working Group on Child Online Protection (CWG-COP) was set up, and the group's mandate defined by the ITU members in close collaboration with the secretariat of the Union;

c) the outcomes of the work accomplished by CWG-COP;

d) Resolution 179 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in child online protection;

e) that the United Nations adopted the Convention on the Rights of the Child (New York, 1989), bearing in mind that the need to extend particular care to the child has been stated in the Geneva Declaration of the Rights of the Child of 1924 and in the Declaration of the Rights of the Child adopted by the United Nations General Assembly on 20 November 1959 and recognized in the Universal Declaration of Human Rights, in the International Covenant on Civil and Political Rights (in particular in Articles 23 and 24), in the International Covenant on Economic, Social and Cultural Rights (in particular in Article 10) and in the statutes and relevant instruments of specialized agencies and international organizations concerned with the welfare of children;

f) that, within the framework of the Convention on the Rights of the Child, the States Parties undertook to protect the child from all forms of exploitation and sexual abuse, and for that purpose, in particular, to take all appropriate national, bilateral and multilateral measures to prevent (a) the inducement or coercion of a child to engage in any unlawful sexual activity; (b) the exploitative use of children in prostitution or other unlawful sexual practices; (c) the exploitative use of children in pornographic performances and materials (Article 34);

g) that the Convention on the Rights of the Child establishes for States Parties that children have the right to freedom of expression, which includes the freedom to seek, receive and impart information and ideas, especially those aimed at promoting their social, spiritual and moral well-being and their physical and mental health;

h) that pursuant to Article 10 of the Optional Protocol to the Convention on the Rights of the Child (New York, 2000) on the sale of children, child prostitution and child pornography, the States Parties shall take all necessary steps to strengthen international cooperation by multilateral, regional and bilateral arrangements for the prevention, detection, investigation, prosecution and punishment of those responsible for acts involving the sale of children, child prostitution, child pornography and child sex tourism; and shall also promote international cooperation and coordination between their authorities, national and international non-governmental organizations and international organizations;

i) that United Nations Human Rights Council Resolution 20/8, adopted on 5 July 2012, states that "the same rights that people have offline must also be protected online";

j) that the Committee on the Rights of the Child adopted its General comment No. 25 (2021), on children's rights in relation to the digital environment, which outlines how States Parties should implement the Convention on the Rights of the Child in relation to the digital environment;

k) that the World Summit on the Information Society (WSIS), in the Tunis Commitment of 2005 (§ 24), recognized the role of ICTs in the protection of children and in enhancing the development of children, urging Member States to strengthen action to protect children from abuse and defend their rights in the context of ICTs;

l) that Resolution 45 (Rev. Kigali, 2022) of this conference, on mechanisms for enhancing cooperation on cybersecurity, including countering and combating spam, recognizes the role of telecommunications/ICTs in the protection of children and in enhancing their development and that action to protect children from abuse and defend their rights in the context of telecommunications/ICTs should be strengthened, emphasizing that the best interests of the child are a key consideration;

m) that, during the 2012 WSIS Forum in Geneva, a meeting was organized with partners in the Child Online Protection (COP) initiative, which achieved an important outcome, namely the agreement to work closely with the Family Online Safety Institute and the Internet Watch Foundation in order to provide the necessary assistance to Member States;

n) Resolution 17 (Rev. Kigali, 2022) of this conference, which invites nations to pursue regional initiatives;

o) the work under way in Question 3/2 of Study Group 2 of the ITU Telecommunication Development Sector (ITU-D), on cybersecurity, which includes child online protection, as well as other relevant activities in the ITU Sectors, and activities of CWG-COP,

taking into account

a) that there are online risks that children are exposed to on the Internet, which have diversified and multiplied with the rapid development of information technology and telecommunication devices;

b) that the Internet is a major platform for many different types of educational, cultural and entertainment activities and plays a very important role in the provision of education for children, enriching the curriculum and helping to bridge language and other barriers between the children of all nations;

c) the increasingly widespread access to telecommunications/ICTs worldwide, in particular the Internet, and use thereof by children, at times with no control or guidance;

d) the importance of empowering children in the use of telecommunications/ICTs, so they can develop ICT knowledge and skills to make critical and safe use of the Internet, through digital literacy;

e) the need for children to use telecommunication/ICT tools, with emphasis on the importance of protecting them online;

f) the need to protect children's data when they are being collected to produce statistics and indicators on child online protection;

g) the requirement for a multistakeholder approach, as envisaged by WSIS, in order to promote social responsibility in the telecommunication/ICT sector so as to effectively make use of the variety of tools available to build confidence and security in the use of telecommunications/ICTs, reducing the risks identified for children;

h) that, in order to address the issue of cybersecurity for children, it is critical that proactive measures be taken in order to protect children online at an international level;

i) the technical difficulties involved in establishing a single harmonized global child helpline number;

j) that the number of children who possess or use devices such as mobile phones is constantly increasing;

k) the need to continue working at global and regional levels to find available technological solutions to protect children online, as well as innovative applications to make it easier for children to communicate with child online protection helplines;

l) the activities undertaken by ITU in the area of child online protection at the regional and international levels, including the development of guidelines and multimedia training courses for children, parents, carers, guardians and educators, and representatives of the private and public sectors;

m) the activities undertaken by many countries in recent years, including those related to the regional initiatives approved at world telecommunication development conferences (WTDCs),

resolves to instruct the Director of the Telecommunication Development Bureau

1 to continue with the activities in the area of child online protection, including supporting activities of the COP initiative with the relevant ITU study group Questions, with a view to providing guidance to Member States on strategies, best practices and cooperative efforts that can be promoted for the benefit of children;

2 to support the coordination of ITU-D study group studies with CWG-COP, including through the mutual provision of information on the results of their meetings in the liaison statement format, so as to avoid duplication of efforts and maximize impact related to child online protection;

3 to encourage Member States and Sector Members to submit best practices on issues of child online protection to CWG-COP as well as relevant ITU-D study group meetings;

4 to support the coordination of the COP initiative with other similar initiatives being undertaken at the national, regional and international levels in order to build partnerships to maximize efforts in this important area;

5 to continue to assist Member States, in particular developing countries[1], in developing their national child online protection strategies in collaboration with stakeholders;

6 to promote the dissemination of methodological frameworks for the collection of statistics on child online protection with the purpose of maximizing global data comparison among countries and capacity development;

7 to encourage regional coordination in addressing the issue of child online protection, such as through the development and dissemination of guiding principles, in cooperation with ITU regional offices and relevant entities;

8 to investigate suitable ways of encouraging developing countries to participate in the work of CWG-COP;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

9 to coordinate with the ITU regional offices on the submission of quarterly reports to CWG-COP and on ways of progressing work on child online protection;

10 to support the work of CWG-COP by organizing orientation sessions for experts in connection with meetings of the group;

11 to facilitate the dissemination, including through the ITU website, of training materials and guidance on child online protection programmes that have been developed through BDT processes, including their translation into ITU official languages, within the limits of available financial resources;

12 to submit a report on the results of implementation of this resolution to the next WTDC,

invites Member States and Sector Members

1 to participate actively in all relevant ITU activities, including, *inter alia*, CWG-COP, Study Group 2 Question 3/2, and related programmes within ITU-D, for the purposes of comprehensive discussion and exchange of information on legal, technical, organizational and procedural issues as well as capacity building and international cooperation for protecting children online;

2 to facilitate the availability of child online protection resources in order to educate children, parents, carers, guardians, educators, industry and other relevant stakeholders,

invites Member States

1 to consider establishing national child online protection strategies;

2 to implement the above-mentioned actions in collaboration with other stakeholders, such as the private sector, academia and non-governmental organizations, so as to improve the effectiveness of child online protection;

3 to work closely with all stakeholders to promote the allocation of national and regional telephone numbers for child online protection;

4 to support the collection and analysis of data to obtain statistics and indicators on child online protection that will contribute to public policy design and implementation, enabling cross-country comparisons;

5 to develop self-regulatory approaches in cooperation with the private sector, academia and non-governmental organizations;

6 to facilitate the dissemination of training courses and guidance on child online protection that have been developed through BDT processes, among interested parties and training establishments,

invites Sector Members

1 to develop solutions and applications to help protect children by making it easier for children to communicate with child online protection helplines;

2 to keep Member States informed of modern technological solutions for protecting children online, taking into account best practices from industry and other interested stakeholders.

RESOLUTION 69 (Rev. Kigali, 2022)

Facilitating the creation of national computer incident response teams, particularly for developing countries, and cooperation among them

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolutions 101, 102 and 130 (Rev. Dubai, 2018) of the Plenipotentiary Conference, which stress the need for collaboration;

b) Resolution 58 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA), on encouraging the creation of national computer incident response teams (CIRTs), particularly in developing countries[1];

c) Resolution 50 (Rev. Geneva, 2022) of WTSA, on cybersecurity,

recognizing

a) the highly satisfactory results obtained by the regional approach adopted within the framework of Resolution 69 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference;

b) the increasing level of computer use and computer dependency in information and communication technologies (ICTs) in developing countries;

c) the exposure of developing countries to malicious cyberactivities targeting ICT networks, and that they could be better prepared for such malicious cyberactivities and for the increasing level of fraudulent activities by these means;

d) the need to improve cooperation and capacity to respond to cybersecurity challenges;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

e) the results of the work carried out to date under Question 3/2 by Study Group 2 of the ITU Telecommunication Development Sector (ITU-D) and its reports and course-work on this subject, which include support for the creation of CIRTs and establishing public-private partnerships;

f) the work carried out to date by the Telecommunication Development Bureau (BDT), to bring together Member States and other stakeholders to assist countries in building national incident management capabilities, such as CIRTs;

g) the importance of having an appropriate level of computer emergency preparedness in all countries, particularly developing countries, by establishing CIRTs on a national basis, and the importance of coordination within and among the regions and of taking advantage of regional and international initiatives in this regard, including ITU cooperation with regional and global projects and organizations, such as the Forum of Incident Response and Security Teams (FIRST), the Organization of American States and the Asia-Pacific Computer Emergency Response Team, among others;

h) that emerging telecommunications/ICTs are being applied as part of technical measures against malicious cyberactivities;

i) the work of Study Group 17 of the ITU Telecommunication Standardization Sector (ITU-T) on cybersecurity information exchange (CYBEX) techniques,

noting

a) that there is an improved, but still low, level of computer emergency preparedness within developing countries;

b) that the high level of interconnectivity of telecommunication/ICT networks could be affected by malicious cyberactivity from networks of less-prepared nations, which are mostly the developing countries;

c) *considering g)* in Resolution 130 (Rev. Dubai, 2018), which states that, in order to protect these infrastructures and address these challenges and threats, coordinated national, regional and international action is required for prevention, preparation, response and recovery from computer security incidents, on the part of government authorities, at the national (including the creation of CIRTs) and sub-national levels, the private sector and citizens and users, in addition to international and regional cooperation and coordination, and that ITU has a lead role to play within its mandate and competencies in this field;

d) that the establishment of CIRTs requires ongoing and appropriate resourcing in order to be successful and sustainable;

e) the work of ITU-T Study Group 17 in the area of national CIRTs, particularly for developing countries, and cooperation between them, as contained in the outputs of that study group;

f) the need for the establishment of CIRTs on a national basis, as appropriate, including CIRTs responsible for government-to-government cooperation, and the importance of coordination among all relevant organizations;

g) the ITU Global Cybersecurity Agenda;

h) the increasing use of new and emerging telecommunications/ICTs in all aspects of life, including digitalization of government services, which need to be highly protected;

i) that CIRTs can help address the urgent need to enhance security and build confidence and trust in the use of ICTs,

resolves

1 to invite Member States and Sector Members with experience in this area:

i. to establish national CIRTs, including CIRTs responsible for government-to-government cooperation, where needed or currently lacking, as appropriate;

ii. to collaborate closely with relevant organizations, and ITU-T, in this regard, taking into consideration Resolution 58 (Rev. Geneva, 2022);

iii. to facilitate exchanging best practices among their national CIRTs;

iv. to encourage the use of emerging telecommunications/ICTs to enhance technical capabilities of CIRTs;

v. to raise their needs with the ITU regional and area offices;

2 to instruct the Director of BDT to give the necessary priority to this, by:

i. promoting national, regional and international best practices for establishing CIRTs, as identified to date by the relevant ITU study groups, such as ITU-D Study Group 2 under Question 3/2 and ITU-T Study Group 17, and by other relevant organizations and experts;

ii. providing CIRTs with capacity development, particularly in areas of new and emerging telecommunications/ICTs, through the ITU regional and area offices, taking into account the financial resources;

iii. preparing the training programmes necessary for this purpose and continuing to provide support as required to those developing countries that so wish;

iv. promoting collaboration between and among national CIRTs, including CIRTs responsible for government-to-government cooperation, industry CIRTs and academia CIRTs, in accordance with national legislation, at the regional and global level, by encouraging the participation of developing countries in regional and global projects and in the work of relevant organizations such as FIRST, and regional organizations, among others;

v. working to achieve these goals while avoiding duplication of effort with other organizations;

3 to instruct ITU-D Study Group 2, under Question 3/2, within its mandate, to contribute to the implementation of this resolution, also taking into consideration the work carried out by ITU-T Study Group 17, on this issue.

RESOLUTION 71 (Rev. Kigali, 2022)

Strengthening cooperation between Member States, Sector Members, Associates and Academia of the ITU Telecommunication Development Sector and the evolving role of the private sector in the ITU Telecommunication Development Sector

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) No. 126 of the ITU Constitution, which encourages participation by industry in telecommunication development in developing countries[1];

b) Article 19 of the ITU Convention, on the participation of Sector Members in the Union's activities;

c) Resolution 169 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the admission of academia to participate in the work of the Union;

d) Resolution 209 (Dubai, 2018) of the Plenipotentiary Conference, on encouraging the participation of small and medium enterprises (SMEs) in the work of the Union;

e) Resolution 205 (Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in fostering telecommunication/information and communication technology (ICT)-centric innovation to support the digital economy and society,

considering

a) the ITU Telecommunication Development Sector (ITU-D) provisions of the strategic plan for the Union relating to the promotion of partnership arrangements between the public and private sectors in developed countries;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

b) the importance placed, in the outcome documents of the World Summit on the Information Society (WSIS), including the Geneva Plan of Action and the Tunis Agenda for the Information Society, on private-sector participation in meeting the objectives of WSIS, including public-private partnerships;

c) Sustainable Development Goals (SDGs) 8 and 9 of the 2030 Agenda for Sustainable Development, on promoting sustained, inclusive and sustainable economic growth;

d) that Sector Members, Associates and Academia, in addition to their financial contributions to the three Sectors of ITU, also provide professional expertise and support to the Telecommunication Development Bureau (BDT) and, conversely, can benefit from participation in ITU-D activities,

considering also

a) that it is in the interest of ITU to achieve its development objectives, increase the number of Sector Members, Associates, which include SMEs, and Academia and promote their participation in the activities of ITU-D;

b) that partnerships between and among the public and private sectors, including ITU and other entities such as national, regional, international and intergovernmental organizations, as appropriate, continue to be key to promoting sustainable telecommunication/ICT development and maximizing resources for, and the benefits of, development projects and initiatives,

recognizing

a) that telecommunications/ICTs are of critical importance to overall economic, social and cultural development;

b) the rapidly changing environment and rate of development in telecommunications/ICTs and in industry groups dealing with telecommunications/ICTs;

c) the important contribution that Sector Members, Associates and Academia make towards the increased provision of telecommunications/ICTs in all countries;

d) the progress achieved, through BDT special initiatives such as partnership meetings and colloquiums, in strengthening cooperation with the private sector and increased support at the global, regional and national levels;

e) the continued need to ensure increased participation of Sector Members, Associates and Academia,

recognizing also

a) that Nos. 241A, 248B and 483A of the Convention describe the principles governing the participation of Associates;

b) that entities or organizations, in particular those with highly focused areas of activity, may be interested only in a small part of the development work of ITU-D and, therefore, do not intend to apply for membership in the Sector, but would be willing to join in the activity of a given study group of the Sector if simpler conditions existed;

c) that Associates in their activities in study groups and its subordinate groups (such as rapporteur groups) are limited to participation in the process of preparing Recommendations within a single study group, including the roles of participating in meetings, submitting contributions and providing comments before the adoption of a Recommendation, and excluded from any other roles;

d) that Associates shall have access to documentation required for their work;

noting

a) the important role played by Sector Members, Associates and Academia in suggesting and implementing ITU-D activities such as initiatives, projects and programmes;

b) that a large number of ITU-D activities are of interest to Sector Members, Associates and Academia;

c) the importance of the principles of transparency and non-exclusivity for partnership opportunities and projects;

d) the need to facilitate exchange of views and information between Member States, Sector Members, Associates and Academia at the highest possible level;

e) that dissemination of the work of the Sector to SMEs can build capacity, transfer telecommunications/ICTs and critical best practices, and serve as a factor in fostering national economic development,

noting further

a) that the role of the private sector is increasing in all countries;

b) that economic development relies, among others, on the resources and capacity of ITU-D Sector Members;

c) that ITU-D Sector Members can provide ongoing support and expertise to facilitate the work of ITU-D;

d) that ITU-D Associates and Academia are engaged in the work accomplished within ITU-D and can provide scientific and knowledge background to support the work of ITU-D;

e) that an essential part of the work within the ITU Sectors, and in particular in the development of telecommunications/ICTs, is done by representatives of industry;

f) that ITU-D Sector Members, Associates and Academia have a key role in addressing ways by which private-sector issues can be incorporated into ITU-D strategy development, programme design and project delivery, with the overall goal of increasing mutual responsiveness to the requirements of telecommunication/ICT development;

g) that ITU-D Sector Members, Associates and Academia could also advise on ways and means of enhancing partnerships with the private sector and of reaching out to the private sector of developing countries and the many companies that are not knowledgeable of ITU-D activities;

h) the excellent results achieved through the high-level discussions that took place between Member States and Sector Members during the Chief Regulatory Officers' (CRO) meetings and the Industry Leaders Debate (ILD),

resolves

1 that the ITU-D operational plans should continue to respond to issues relevant to Sector Members, Associates and Academia by strengthening the communication channels between BDT, Member States and ITU-D Sector Members, Associates and Academia at the global, regional and national levels;

2 that ITU-D, and the ITU regional and area offices in particular, should employ the necessary means to liaise with the private sector and to encourage its representatives to take a more active part through partnerships with telecommunication/ICT entities in developing countries, and especially with those in the least developed countries, in order to help bridge the digital divide;

3 that ITU-D should take into account the interests and requirements of its Sector Members, Associates and Academia in its programmes so as to enable them to participate effectively in achieving the objectives of the Kigali Action Plan, the objectives set forth in the Geneva Plan of Action and the Tunis Agenda, and the targets of the SDGs;

4 that a permanent agenda item dedicated to private-sector issues will continue to be included in the plenary agenda of the Telecommunication Development Advisory Group (TDAG);

5 that the Director of BDT, when implementing the ITU-D operational plan, should consider the following actions:

i) to improve regional cooperation between Member States, Sector Members, Associates and Academia and other relevant entities, through the continuation of regional meetings addressing issues of common interest, in particular for Sector Members, Associates and Academia;

ii) to facilitate the development of public-private sector partnerships for the implementation of global, regional and national flagship initiatives;

iii) to promote through its various programmes an enabling environment for investment in telecommunication/ICT development;

iv) to provide support to regional and area offices so that they have tools within budgetary resources available to encourage representatives of the private sector and universities not previously involved in the Union's activities to participate in regional and global ITU events and projects, in order to demonstrate the advantages of ITU membership and attract investment in the implementation of ITU projects of great importance to Member States,

resolves further

that appropriate steps should continue to be taken for the creation of an enabling environment at the international, regional and national levels to encourage development and investment in the telecommunication/ICT sector by Sector Members,

instructs the Director of the Telecommunication Development Bureau

1 to continue working closely with ITU-D Sector Members, Associates and Academia for their participation in successful implementation of the Kigali Action Plan;

2 to continue encouraging the participation of ITU-D Sector Members, Associates and Academia in relevant ITU-D activities;

3 to address, as appropriate, in the ITU-D activities, issues of interest to Sector Members, Associates and Academia;

4 to facilitate communications between Member States and Sector Members on issues which contribute to an enabling environment for investment, particularly in developing countries, and in particular to further deploy and strengthen the ITU-D Sector Members, Associates and Academia website in order to help exchange and disseminate information for all ITU members;

5 to facilitate participation of ITU Sector Members, in their own capacity, at all ITU-D meetings in which they are involved, including those at regional level, as appropriate;

6 to continue to organize meetings for high-level industry executives, for example the Industry Advisory Group for Development Issues (IAGDI), possibly back-to-back with the Global Symposium for Regulators and other major ITU events, in order to foster exchange of information and assist in identifying and coordinating development priorities and in identifying regulatory barriers;

7 to further deploy and strengthen the ITU-D Sector Members, Associates and Academia portal in order to help exchange and disseminate information for all ITU members, bring the needs of developing countries to the high-level industry meetings by consulting them prior to the meetings, and encourage the participation of local industry representatives;

8 to develop a comprehensive strategy for raising the motivation of representatives of the private sector, including academia, to join ITU, as well as a strategy for more active involvement of current Sector Members, Associates and Academia in the Union's activities, including participation in the work of ITU-D study groups;

9 to encourage participation in IAGDI of a wide representation of industry from the ITU-D Sector Members from all regions;

10 to develop effective mechanisms to organize participation by industry representatives in the meetings (for example, by having a stable composition for IAGDI and regular participation in the group by a member or alternate);

11 to take the results of IAGDI into account in ITU-D work, especially under the dedicated agenda item in TDAG and within the ITU-D study groups, as appropriate;

12 to produce a regular report to TDAG on the follow-up of the CRO meeting conclusions;

13 to produce a report to the next world telecommunication development conference, assessing the outcomes of the CRO group over the period and examining the need to continue or enhance its activities,

encourages Member States, Sector Members, Associates and Academia of the ITU Telecommunication Development Sector

1 subject to the relevant provisions of the Constitution and the Convention, to participate together and actively in the work of TDAG, to submit contributions, in particular regarding private-sector issues to be discussed, and to provide relevant guidance for the Director of BDT;

2 to participate actively at the appropriate level in all activities of ITU-D;

3 to identify means of enhancing cooperation and arrangements between the private and public sectors in all countries, working closely with BDT;

4 to participate actively towards attainment of the SDGs and to contribute to ITU-D activities through the sharing of their experience and expertise,

5 to participate at the level of their executives in the IAGDI meetings, and to raise proposals in regard to their priorities and specific needs of developing countries.

RESOLUTION 73 (Rev. Kigali, 2022)

ITU Academy training centres

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on use of telecommunications/information and communication technologies (ICTs) to bridge the digital divide and build an inclusive information society;

b) Resolution 123 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on bridging the standardization gap between developing[1] and developed countries;

c) the terms of the Kigali Declaration;

d) Resolution 15 (Rev. Kigali, 2022) of this conference, on applied research and transfer of technology;

e) Resolution 37 (Rev. Kigali, 2022) of this conference, on bridging the digital divide;

f) Resolution 40 (Rev. Kigali, 2022) of this conference, on the Group on capacity-building initiatives (GCBI);

g) Resolution 47 (Rev. Kigali, 2022) of this conference, on enhancement of knowledge and effective application of ITU Recommendations in developing countries, including conformance and interoperability testing of systems manufactured on the basis of ITU Recommendations;

h) Resolution 70/125 of the United Nations General Assembly, on the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

considering

a) that ITU centres of excellence (CoEs) have been operating since 2001 in several languages, including English, Arabic, Chinese, Spanish, French, Russian and Portuguese, in different regions of the world;

b) that, in every country, specialists in the field of telecommunications/ICTs hold great potential for development of the sector;

c) that there is a need for constant upgrading of the qualifications of all stakeholders, and especially telecommunication/ICT specialists;

d) that key ITU Telecommunication Development Sector (ITU-D) projects in regard to the training of telecommunication/ICT staff, including the work of the ITU CoEs, make a significant contribution to upgrading the qualifications of telecommunication/ICT specialists;

e) that a broad strategic review of the CoE Programme was carried out during the 2019-2022 cycle, as provided for in Resolution 73 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference;

f) that this strategic review recommended a rebranding of the CoE programme as the ITU Academy training centres (ATC) programme;

g) that the ATCs would continue to be financially self-sustaining,

recognizing

a) that telecommunication/ICT staff training and capacity building and development, taking into account gender equality, youth and persons with disabilities, as well as the population as a whole, should be constantly developed and improved;

b) that the ITU ATCs fulfil an important role in the ITU capacity-building and development scheme, under the ITU Academy activities;

c) that partnerships and cooperation between ATCs and other relevant stakeholders contribute to effective training of specialists;

d) the sovereign right of each State to formulate its own policy in regard to the licensing of services for capacity building and development;

e) the need to attract, first and foremost, qualified experts from academia to the work of the ATCs;

f) that activities in the field of human capacity building and development are being organized and held in parallel in the ATCs and in the regional/area offices under the operational plan of ITU-D,

resolves

1 that this ITU capacity-building and development activity should be continued and executed in accordance with this resolution, while cognizant of the results of the major strategic review;

2 that the current CoEs be rebranded as ITU ATCs, as recommended by the major strategic review;

3 that the programme's themes be agreed by the Telecommunication Development Advisory Group (TDAG) and constitute a high priority for the ITU members and other stakeholders, in accordance with a prior assessment of needs conducted at the global and regional levels in consultation with regional organizations in the telecommunication/ICT sector and regional offices, and in accordance with the ITU strategic plan;

4 when setting priorities for the work of the ITU ATCs, to proceed from the current needs of the region, which are to be identified based on needs assessment using, *inter alia*, the Kigali Action Plan and regional initiatives, regional organizations or associations in the telecommunication/ICT sector, as well as through consultations with ITU members;

5 to consider that human capacity-building and development efforts should be concentrated in the ITU ATCs, whose activities should be included in the operational plans;

6 that a biennial regular assessment of the activities of ATCs shall be conducted and reported to TDAG for TDAG's evaluation and recommendations, and application by the Telecommunication Development Bureau;

7 that in establishing the new ITU ATCs, ITU shall take into consideration regional balance while also taking into consideration the capacity needs or challenges of each region;

8 that ITU and the ATCs actively engage in seeking programme partners, in order to engage additional sources of support and expertise, including sponsorship for courses and students in order to extend the programme's reach to those who would otherwise be unable to attend, while maintaining the highest quality of the training,

instructs the Director of the Telecommunication Development Bureau

1 to provide assistance for the work of the ITU ATCs, according it the necessary priority attention;

2 to facilitate the implementation of the results of the strategic review of the ITU CoE programme after the termination of the current cycle in consultation with regional organizations, starting in 2023, and to make appropriate changes to the document entitled "Operational processes and procedures for a new ITU centres of excellence strategy", including the new programme name ''ITU Academy training centres'';

3 in drawing up ITU-D operational plans, to incorporate therein activities prepared and carried out by the ITU ATCs under the corresponding ITU-D action plans;

4 to make the necessary organizational arrangements for the formulation of standards for ITU human capacity-building and development activities;

5 to facilitate the work of the ITU ATCs, providing them with the necessary support;

6 to make the necessary organizational arrangements for setting up, within the ITU regional/area offices, a database of experts and participants in ITU ATC activities, for exchanges of experts in the field;

7 to establish mechanisms for the ITU ATCs to have contact with designated focal points in regional offices and area offices, so that emerging demands and new priorities in each region can be known, allowing the ITU ATCs to make adjustments in their offers,

calls upon Member States, Sector Members and Academia of the ITU Telecommunication Development Sector

1 to participate actively in the ITU ATC programme, including through the provision of recognized experts, training materials, promotion of training courses and also financial support;

2 to seek to adopt strategies so that entities within the ITU membership related to telecommunications/ICTs, whenever possible, have the ITU ATCs as a preferred training provider.

RESOLUTION 75 (Rev. Buenos Aires, 2017)

Implementation of the Smart Africa Manifesto and support for the development of information and communication technologies sector in Africa

The World Telecommunication Development Conference (Buenos Aires, 2017),

considering

a) the provisions of the ITU Constitution, as contained in Chapter IV thereof on the Telecommunication Development Sector (ITU-D), particularly with regard, *inter alia*, to the functions of the Sector for building awareness of the impact of telecommunications/information and communication technologies (ICTs) on national economic and social development, its catalytic role in promoting the development, expansion and operation of telecommunication services and networks, especially in developing countries[1], and the need to maintain and enhance cooperation with regional and other telecommunication organizations;

b) that, at its 22nd ordinary session, it was decided that the African Union Assembly "ENDORSES the key outcomes of the Transform Africa Summit hosted by H.E. Paul Kagame, President of the Republic of Rwanda in October 2013 which adopted the SMART Africa Manifesto highlighting the need to place ICT at the centre of national socio-economic development agenda and SMART Africa Alliance as implementation framework";

c) Resolution 30 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on special measures for the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition;

d) the Sustainable Development Goals (SDGs) 2015-2020 adopted by the United Nations General Assembly in September 2015;

e) the outcome of the Geneva (2003) and Tunis (2005) phases of the World Summit on the Information Society (WSIS) as well as the WSIS+10 Statement and WSIS+10 vision beyond 2015,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

noting

that, in its Declaration and resolutions, the World Telecommunication Development Conference (Doha, 2006) reaffirmed a commitment to enhancing expansion and development of telecommunication services in developing countries and harnessing capacity for the application of new and innovative services,

taking note of

a) the recognition by the United Nations General Assembly in its Resolution 56/37 of the adoption by the Assembly of Heads of State and Government of the Organization of African Unity at its 37th ordinary session (Lusaka, July 2001) of the New Partnership for Africa's Development (NEPAD);

b) the actions for NEPAD set out in annex hereto;

c) the declaration by the Economic and Social Council on the role of the United Nations system in supporting the efforts of African countries to achieve sustainable development,

taking cognizance of

a) the work under way to implement the African Regional Action Plan for the Knowledge Economy (ARAPKE);

b) the request, formulated in the Addis Ababa Declaration adopted by the Heads of State and Government during the 14th Conference of the African Union, that an African digital agenda be set;

c) the appeal made by the conference referred to in *b)* above to development partners, especially financing institutions, to integrate telecommunications/ICTs into their priorities by granting them financing conditions similar to those of other basic public utility infrastructures;

d) the African Union's Agenda 2063 and NEPAD;

e) the decisions taken by the Connect Africa summit held in Kigali in October 2007,

recognizing

that, in spite of the impressive growth and expansion in infocommunication services recorded in the African region in recent years, many areas of major concern still exist and considerable disparities persist in the region, and the digital divide continues to widen,

recalling

the Connect Africa summit goals adopted by African Heads of State present on 29-30 October 2007, which reflect the challenges and opportunities in the Africa region,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to mobilize the resources needed to implement this resolution, which complements the resolutions resulting from the 14th Assembly of Heads of State and Government of the African Union, held in Addis Ababa in February 2010, on the theme "Information and communication technologies in Africa: challenges and prospects for development";

2 to pay particular attention to implementation of the provisions of the ITU-D action plan relating to the recommendations of the report "Partnership framework for ICT infrastructure development in Africa", earmarking resources so that this can be permanently monitored;

3 to continue supporting the Smart Africa Manifesto in accordance with Resolution 195 (Busan, 2014) of the Plenipotentiary Conference, and to provide technical expertise to carry out feasibility studies and project management for the implementation of the Smart Africa Manifesto,

instructs the Secretary-General

1 to engage the different United Nations agencies to support various components of the Smart Africa programmes, in areas within their scope and mandate;

2 to mobilize financial support from the existing networks, including broadcasters, satellite providers, etc.,

invites Member States

1 to cooperate with African countries in promoting regional, subregional, multilateral and bilateral projects and programmes for the implementation of the Smart Africa Manifesto;

2 to transmit this resolution to the Plenipotentiary Conference (Dubai, 2018) for consideration and in order to make available the financial resources required to implement it.

Annex to Resolution 75 (Rev. Buenos Aires, 2017)

Recommendations of the report "Partnership framework for ICT infrastructure development in Africa"

1 Infrastructure

i) Support to the Ministerial Committee of the African Union for the establishment of the Inter-Agency Coordinating Forum

ii) Preparation of master plans for ICT infrastructure development (PIDA)

iii) Facilitation of the introduction of digital technologies, especially for broadcasting

iv) Support for all projects which promote ICT development and subregional and regional integration, for example, the East African Submarine Cable project (EASSy), the NEPAD e-school initiative, the telecommunication/ICT component of the Programme for Infrastructure Development in Africa (PIDA), RASCOM, e-Post Africa, COMTEL, SRII, INTELCOM II, the ARAPKE projects, etc.

v) Establishment and interconnection of national Internet exchange points

vi) Evaluation of the impact and adoption of measures for strengthening functional capacities and the new missions of subregional maintenance centres

vii) Encourage the establishment of technological alliances in order to promote research and development at a regional level

2 Environment

Development and implementation of:

i) an Africa-wide vision, strategy and action plan for ICT

ii) a national vision and strategies for the development of ICT with maximum linkage to other national development strategies, notably the Poverty Reduction Strategy Paper (PRSP)

iii) elaboration of a national policy framework and strategy for universal access

iv) provision of support for the harmonization of policy and regulatory frameworks at the subregional level

3 Capacity building, cooperation and partnerships

i) Support for the elaboration of the planning and management of the frequency spectrum at national, subregional and regional levels

ii) Support the strengthening of ICT training institutions and the network of centres of excellence in the region

iii) Establishment of a cooperation mechanism amongst regional institutions that provide development assistance to African countries in the ICT sector

iv) Regional or multi-national approach to provision of support

v) Establishment of an ad hoc regional ICT think tank for Africa

vi) Strengthening of subregional telecommunication regulatory associations

vii) Strengthening of public-private partnership

viii) Establishment of an African ICT database

ix) Strengthening the capacities of regional economic communities for better implementation of the ICT projects and initiatives.

RESOLUTION 76 (Rev. Kigali, 2022)

Promoting information and communication technologies among young women and men for social and economic empowerment

The World Telecommunication Development Conference (Kigali, 2022),

noting

a) Resolution 70 (Rev. Dubai, 2018) of the Plenipotentiary Conference, which calls for promoting and increasing the interest of, and opportunities for, women and girls in information and communication technology (ICT) careers during elementary, secondary and higher education so as to encourage girls to choose a career in the field of ICT and foster the use of ICTs for the social and economic empowerment of women and girls;

b) Resolution 198 (Rev. Dubai, 2018) of the Plenipotentiary Conference, which calls for empowerment of young women and men through telecommunications/ICT;

c) the BYND 2015 Global Youth Summit, held in Costa Rica in September 2013 led by ITU, which brought together some 700 participants and over 3 000 young people around the world who logged in virtually to contribute their ideas to shape the sustainable development agenda in the post-2015 era;

d) that the world's young women and men have set priorities for the post-2015 development agenda in their "Costa Rica Declaration", as an outcome of the BYND 2015 Global Youth Summit, which have been presented for consideration to the United Nations General Assembly (UNGA) at its 68th session;

e) the fact that the United Nations Secretary-General has put "listen to and work with youth" as one of the 12 commitments in his report entitled ''Our Common Agenda'' towards the acceleration of the Sustainable Development Goals (SDGs);

f) that the ITU Telecommunication Development Sector (ITU-D) advances national, regional and international events that promote ICTs that can be used by young women and men for social and economic empowerment, such as Global Youth Summits;

g) UNGA Resolution 70/1, on the 2030 Agenda for Sustainable Development, in particular SDG 8 on promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, including the development and implementation of a global strategy for youth employment,

recognizing

a) that young women and men are digital natives, the best promoters of ICTs and a world force for progress;

b) that in 2020, 71 per cent of the world's youth (aged between 15 and 24 years) were using the Internet, compared with 57 per cent of the other age groups and that, on the global scale, young people are therefore more likely to connect than the rest of the population, despite the numerous barriers to connectivity across the world;[1]

c) that some young women and men have had their education disrupted during the coronavirus disease (COVID-19) pandemic;

d) that the ITU Youth Strategy, in line with the United Nations Youth Strategy: Youth 2030, on working with and for young women and men, promotes youth engagement in digital development and has supported the empowerment of young women and men, bringing young women and men together to engage with ITU and its members, and is fostering dialogue of young women and men and their participation in ITU activities and decision-making processes;

e) that the United Nations Inter-Agency Network on Youth Development Statement on COVID-19 and Youth highlights the unequal impact of the COVID-19 pandemic on marginalized or vulnerable communities of young women and men, including, but not limited to, young women and men living in rural/remote communities, young migrants and refugees, young women, indigenous young women and men, and young persons with disabilities,

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[1] Source: ITU Measuring digital development: Facts and figures 2021

considering

a) the progress made by the Telecommunication Development Bureau (BDT) in promoting gender equality, in the development and implementation of projects that target young women and men and are gender sensitive, as well as in increasing awareness on the importance of education in the ICT sector and awareness on career development for young girls in ICTs and related fields within the Union and among Member States and Sector Members;

b) the results achieved within the framework of Resolution 70 (Rev. Dubai, 2018), through which, since 2011, by promoting more than 11 700 celebrations of International Girls in ICT Day, over 377 000 girls and young women in over 171 countries have been made aware of the job opportunities in the ICT sector with the support of BDT;[2]

c) the fact that ICTs play an important role in the promotion of education, career development and work opportunities, as well as for social and economic development of young women and men;

d) the fact that ITU, through the Global Youth Summit, engaged a worldwide community to gather their opinions and ideas on how technology can contribute to a better world and shape the post-2015 development agenda;

e) the fact that BDT plays a substantive role, through its activities, towards empowerment and engagement of young women and men and their involvement in the decision-making processes related to ICTs for development-related issues,

resolves

1 that ITU-D, taking into account the above considerations, shall continue to support the development of activities, projects and events aimed at promoting ICT applications among young women and men in particular, and thereby contribute to the educational, social and economic development and empowerment of young women and men, taking into account the 2030 Agenda for Sustainable Development;

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[2] Source: https://www.itu.int/women-and-girls/girls-in-ict/home/history/

2 that ITU-D continue leading the implementation of the ITU Youth Strategy and promoting young women and men initiatives, such as Generation Connect, and continue coordinating the work for young women and men with the rest of ITU;

3 that the established ITU-D objective on digital inclusion will continue to support the work promoting ICTs to young women and men;

4 to empower young women and men in the use of telecommunications/ICT, particularly in developing countries, by promoting a greater number of regular dialogues and consultations with young women and men, incorporating their opinions into the implementation of ITU-D activities;

5 that ITU-D continues to mainstream engagement and participation of young women and men in the work of ITU to support the achievement of the overall goals of the Union; encourage the participation of young women and men in ITU programmes, events and activities; and contribute to promoting ICT policies related to young women and men within ITU Member States;

6 to encourage innovation and engagement of young women and men to foster sustainable development and address current and future challenges such as poverty alleviation, job creation, gender inequality and cybersecurity,

resolves further

1 to establish partnerships with academia concerned with development programmes for young women and men;

2 to add a dimension related to young women and men to study Questions, wherever possible, and encourage young women and men to contribute to ITU-D study groups,

instructs the Director of the Telecommunication Development Bureau

1 to seek appropriate means to integrate issues related to young women and men into the activities of BDT and to actively pursue diversity through the ongoing implementation of the ITU Youth Strategy;

2 to continue to engage with all ITU Sectors in order to coordinate the ongoing implementation of the Youth Strategy throughout the Union;

3 to ensure that the necessary resources, within budgetary limits, are allocated to these activities;

4 to promote ICTs among young women and men and their social and economic development and empowerment;

5 to provide guidance on measuring the extent of the empowerment of young women and men at national and international levels;

6 to provide guidance on digital citizenship among young women and men, including digital government services;

7 to amplify the representation and participation of young women and men in BDT activities and initiatives,

invites the Director of the Telecommunication Development Bureau

to assist Member States:

1 to promote enrolment in ICT-oriented education programmes, including from early education, and to promote ICTs and science, technology, engineering and mathematics (STEM) careers for the social and economic development and empowerment of young women and men, taking into account the 2030 Agenda for Sustainable Development;

2 to provide concrete advice, in the form of guidelines, to integrate young women and men in the information society;

3 to establish partnerships with Sector Members, in order to develop and/or support specific ICT projects for the implementation of the ITU Youth Strategy that target young women and men in developing countries, including countries with economies in transition, taking into account the 2030 Agenda for Sustainable Development;

4 to include a component related to young women and men in BDT activities aimed at raising awareness of the challenges that young women and men are facing in the ICT area, and calling for implementation of concrete solutions;

5 to promote ICT-friendly frameworks in education and careers for young women and men without gender discrimination, and thus encourage young girls and women to be part of the ICT sector,

encourages Member States

1 to share best practices on national approaches targeting the use of ICTs for the social and economic development of young women and men, taking into account the 2030 Agenda for Sustainable Development;

2 to develop national strategies for increasing access to and use of ICTs as a tool for the educational, social and economic development of young women and men;

3 to promote ICTs for the engagement and empowerment of young women and men and their involvement in the decision-making processes of the ICT sector;

4 to support ITU-D activities in the field of ICTs for the social and economic development of young women and men, through the ongoing implementation of the ITU Youth Strategy;

5 to promote the relevance of ICTs as facilitators of new ideas for creating alternative work options;

6 to acknowledge the importance of entrepreneurship among young women and men, particularly in innovative sectors and new technology, for adding social and economic value and helping to create skilled jobs by promoting the use of ICTs among young women and men;

7 to aim to have an impact on the lives of young women and men around the world and to ensure meaningful participation of young women and men in ITU as key stakeholders in the implementation of the 2030 Agenda for Sustainable Development,

encourages Member States, Sector Members and Academia

1 to coordinate global and regional forums and other initiatives dedicated to young women and men, considering available resources, taking into account the 2030 Agenda for Sustainable Development;

2 to provide access to telecommunications/ICTs and provide up-to-date digital-skills training and opportunities for young women and men;

3 to foster collaboration with civil society and the private sector in order to provide specialized training for young innovators;

4 to promote participation of young women and men in work related to ITU-D, including in the composition of delegations to ITU-D meetings,

invites Academia

1 to equip young women and men with job-ready digital skills and, thereby, foster their empowerment and ability to compete in the global labour market to improve their quality of life, including through academic exchange programmes;

2 to promote ICT-related research by university students;

3 to encourage young women and men to use the opportunity of the ITU internship programme to gain their first work experiences,

requests the Secretary-General

1 to bring this resolution to the attention of the Plenipotentiary Conference with a view to releasing appropriate resources, within the budgetary limits, for the corresponding activities and functions;

2 to bring this resolution to the attention of the United Nations Secretary-General in an effort to promote increased coordination and cooperation for development policies, programmes and projects that link ICTs to the promotion and empowerment of young women and men.

RESOLUTION 77 (Rev. Buenos Aires, 2017)

Broadband technology and applications for greater growth and development of telecommunication/information and communication services and broadband connectivity

The World Telecommunication Development Conference (Buenos Aires, 2017),

recalling

a) Resolution 71 (Rev. Busan, 2014) of the Plenipotentiary Conference, on the strategic plan for the Union;

b) Resolution 139 (Rev. Busan, 2014) of the Plenipotentiary Conference, on telecommunications/information and communication technologies (ICTs) to bridge the digital divide and build an inclusive information society;

c) the outcome documents of the 2005 phase of the World Summit on the Information Society (WSIS);

d) Resolution 135 (Rev. Busan, 2014) of the Plenipotentiary Conference, on ITU's role in the development of telecommunications/ICTs, and the importance of telecommunications/ICTs for economic and social progress;

e) Opinion 2 (Geneva, 2014) of the World Telecommunication/ICT Policy Forum, on fostering an enabling environment for the greater growth and development of broadband connectivity;

f) Resolution 20 (Rev. Buenos Aires, 2017) of this conference, on non-discriminatory access to modern telecommunication/ICT facilities, services and related applications;

g) Resolution 37 (Rev. Buenos Aires, 2017) of this conference, on bridging the digital divide;

h) Resolution 43 (Rev. Buenos Aires, 2017) of this conference, on assistance for implementing international mobile telecommunications (IMT);

i) Resolution 203 (Busan, 2014) of the Plenipotentiary Conference, on connectivity to broadband networks;

j) Resolution ITU-R 65 (Geneva, 2015) of the Radiocommunication Assembly, on principles for the process of future development of IMT for 2020 and beyond;

k) Resolution 92 (Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on enhancing the standardization activities of the ITU Telecommunication Standardization Sector (ITU-T) related to non-radio aspects of IMT;

l) Resolution 93 (Hammamet, 2016) of WTSA, on interconnection of 4G, IMT-2020 networks and beyond;

m) Resolution 9 (Rev. Buenos Aires, 2017) of this conference,

considering

a) the role of ITU, and the role of the ITU Telecommunication Development Sector (ITU-D) in particular, in the development of telecommunication/ICT facilities and services;

b) the potential benefits of the rapid introduction of new and diverse telecommunication services, including those highlighted in Resolution 66/184 of the United Nations General Assembly, and consistent with § 54 of the Tunis Agenda for Information Society, and the role of broadband connectivity are essential elements in attaining the UN Sustainable Development Goals (SDGs);

c) the importance of broadband capacity to facilitate the delivery of a broader range of services and applications, promote investment and provide Internet access at affordable prices to both existing and new users in underserved and unserved communities using a technology-neutral approach to bridging the existing digital divide;

d) that new innovative terrestrial, wireless access systems, as well as satellite system technologies, can help bridge the digital divide, not only between developing countries[1] and developed countries but also between urban, remote and rural regions where coverage by conventional fixed telecommunication services may not be adequate;

e) that broadband terrestrial and satellite systems are an effective, and in many cases – particularly for rural areas – the most effective, means of performing many practical tasks to open up new prospects to help bridge the digital divide and afford developing countries access to new technologies;

f) that ITU and the United Nations Educational, Scientific and Cultural Organization (UNESCO) set up the Broadband Commission for Sustainable Development, which agreed a set of four ambitious but achievable targets that countries around the world should strive to meet in order to ensure their populations participate fully in tomorrow's emerging knowledge societies;

g) that in accordance with Resolution 9 (Rev. Buenos Aires, 2017), the Director of the Telecommunication Development Bureau (BDT), in close consultation with the Director of the Radiocommunication Bureau (BR), is collecting pertinent information and preparing, over the period between world telecommunication development conferences (WTDCs), appropriate documents and other relevant outputs that are responsive to the specific needs of developing countries on national, economic, regulatory and financial approaches to, and challenges of, spectrum management and spectrum monitoring,

taking into account

a) the report of the fifth WTDC (Hyderabad, 2010), highlighting the importance of telecommunication infrastructure and technology development, particularly in developing countries, and adopting regional initiatives and the Hyderabad Action Plan to assist developing countries in achieving, to a greater degree, universal access to telecommunication services;

b) that many countries are interested in introducing a comprehensive technology-neutral approach for broadband services in activities such as e-health, e-government and e-education;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

c) that, despite considerable improvements in the availability and affordability of broadband, almost two-thirds of the world population lacks access to affordable broadband;

d) that unequal access to broadband telecommunication services does nothing to eradicate social inequality and has an adverse impact on the social and economic situation in different countries and regions;

e) the importance of competition in promoting investment, as presented in the report of the Broadband Commission for Digital Development[2];

f) that, as part of the work of ITU-T Study Group 3, on tariff and accounting principles including related telecommunication economic and policy issues, a rapporteur group was set up for the purpose of drafting a supplement to Recommendation ITU-T D.50 to facilitate the adoption of specific measures to reduce international Internet connection costs, especially for developing countries;

g) that ITU-T Study Group 3 adopted Recommendation ITU-T D.52, on establishing and connecting regional Internet exchange points (IXPs) to reduce costs of international Internet connectivity, which guides regional collaboration to establish central hubs or IXPs that enable local Internet traffic to be routed locally, saving international bandwidth and reducing the costs of international Internet connectivity,

recognizing

a) the important role of ITU-D in coordinating the rational use of resources in the context of various projects aimed at securing more widespread deployment of technology-neutral telecommunication services in different countries of the world;

b) that broadband-enabled terrestrial, wireless access and satellite communications are a factor in eliminating the isolation of certain categories of population who live in parts of a country where coverage by conventional telecommunication networks remains inadequate and who lack resources;

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[2] "Broadband: A Platform for Progress". A report by the Broadband Commission for Digital Development, September 2010. (Available at http://www.broadbandcommission.org/Documents/publications/Report_2.pdf)

c) that studies suggest that broadband penetration is higher in countries with national broadband plans, policies or strategies than in countries without them;

d) that, pursuant to § 22 of the Geneva Declaration of Principles adopted by WSIS, a well-developed information and communication network infrastructure that is easily accessible and affordable and makes greater use of broadband can accelerate the social and economic progress of countries and the well-being of all individuals, communities and peoples;

e) the policy recommendations in the report of the Broadband Commission for Digital Development[3], advocating broadband infrastructure development and the creation of a favourable environment for investment in telecommunication infrastructure by encouraging all Member States to:

i) enable government services that will stimulate demand for and investment in telecommunications, especially in developing countries;

ii) establish a universal service programme to support technology-neutral telecommunication infrastructure investment;

iii) encourage efficient and innovative broadband practices for new market entrants and consumers;

iv) ensure the availability and affordability of broadband-enabled services;

f) that development and implementation of a national broadband plan, policy or strategy is essential to broadband development and economic growth;

g) the work of the Internet Society (ISOC), the Internet Exchange Federation (IEF) and the regional IXP associations and other stakeholders to support the establishment of IXPs in developing countries in order to promote better connectivity,

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[3] "The State of Broadband 2012: Achieving Digital Inclusion for All". A report by the Broadband Commission for Digital Development, September 2012. (Available at http://www.broadbandcommission.org/Documents/publications/bb-annualreport2012.pdf).

resolves

1 to encourage greater coordination by BDT, and encourage the private sector to continue playing a significant role in supporting initiatives that foster access to and uptake of broadband connectivity by utilizing the most appropriate technology mix approach, with the aim of providing citizens greater access to ICT applications in support of national broadband strategies;

2 to promote availability, accessibility, reliability and affordability of broadband in developing countries by enabling Member States to develop national broadband policies and implementation strategies based on careful evaluation of supply and demand for broadband;

3 that BDT should support the implementation of regional and national projects for the use of terrestrial and satellite broadband communication systems to provide the population with services, including mobile services and applications such as e-government, e-health and e-education, as well as mobile money transfer and transactions, mobile payment, mobile banking and mobile marketing, on the basis of cooperation with interested Member States, relevant international organizations and the private sector;

4 that BDT, taking into account available experience and the strategy for bridging the digital divide and building the global information society, should formulate and implement a programme to develop proposals and recommendations on the most effective and efficient use of technology, including telecommunication services for broadband connectivity at regional and national level, acting in association with ITU connectivity initiatives as appropriate,

instructs the Director of the Telecommunication Development Bureau

1 to seek partnerships and cooperation with parties directly involved in the provision of services to the population using the most practical telecommunication technology, facilities and networks, to ensure effective implementation of the relevant ITU programmes and activities in the development of broadband connectivity, providing reliable broadband access at affordable prices to both existing and new users in underserved and unserved communities;

2 to establish clear links between the broadband study Question(s), programmes and regional initiatives in order to maximize the use of human and financial resources and, most importantly, better meet the needs of developing countries;

3 to assist Member States in increasing connectivity and reducing costs by establishing national and regional IXPs to help connect landlocked developing countries (LLDCs);

4 to work in collaboration with ITU-T, ISOC, IEF and the regional IXP associations and other stakeholders to support developing countries, particularly LLDCs, in accessing effective advice and support on the establishment of IXPs;

5 to explore options to facilitate broadband connectivity, in close collaboration with the ITU Radiocommunication Sector (ITU-R) and ITU-T,

invites Member States

1 to create and promote widespread affordable access to broadband communication infrastructure through enabling legal and regulatory environments, including the availability of spectrum for new broadband wireless access technologies and licensing policies that are fair, transparent, stable, predictable and non-discriminatory;

2 to undertake all efforts to foster an enabling environment for the greater growth and development of technology-neutral broadband connectivity, in particular in developing countries;

3 to actively contribute to the broadband study Question(s);

4 to implement the results of the work performed on the study Question(s), including legal, regulatory and market reforms that create an enabling environment for broadband by promoting competition, private investment and public-private partnerships;

5 to implement policies and plans to encourage the availability of services, applications and content that stimulate demand for broadband;

6 to adopt measures that promote human capacity building, including digital literacy programmes and technical education, taking account of the need to promote broadband access for women and girls, persons with disabilities, people living in rural and remote areas and indigenous peoples.

RESOLUTION 78 (Rev. Kigali, 2022)

Capacity building for countering and combating misappropriation and misuse of ITU Telecommunication Standardization Sector numbering resources

The World Telecommunication Development Conference (Kigali, 2022),

considering

the provisions of Chapter IV the ITU Constitution, on the ITU Telecommunication Development Sector (ITU-D), particularly with regard, *inter alia*, to the functions of ITU-D for building awareness of the impact of telecommunications/information and communication technologies on national economic and social development, its catalytic role in promoting the development, expansion and operation of telecommunication services and networks, especially in developing countries, and the need to maintain and enhance cooperation with regional and other telecommunication organizations,

considering further

a) Resolution 22 (Rev. Kigali, 2022) of this conference, on alternative calling procedures on international telecommunication networks and identification of origin in providing international telecommunication services;

b) Resolution 190 (Busan, 2014) of the Plenipotentiary Conference, on countering misappropriation and misuse of international telecommunication numbering resources;

c) Resolution 61 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA), on countering and combating misappropriation and misuse of international telecommunication numbering resources;

d) Resolution 20 (Rev. Geneva, 2022) of WTSA, on procedures for allocation and management of international telecommunication numbering, naming, addressing and identification resources;

e) the resolutions from previous world telecommunication development conferences in regard to countries in special need;

f) the work carried out to date in ITU-D to assist countries in understanding and countering the misappropriation of Recommendation ITU-T E.164 telephone numbers, through ITU-D programmes, activities and projects,

noting

a) the significantly reduced number of cases reported to the Director of the Telecommunication Standardization Bureau (TSB) regarding misappropriation and misuse of E.164 international telecommunication numbering resources;

b) that Member States are responsible for managing E.164 international telecommunication numbering resources behind country codes assigned to them under Recommendation ITU-T E.164;

c) that many Member States, particularly developing countries[1], have been significantly and adversely affected by misappropriation of E.164 international telecommunication numbering resources;

d) that many telecommunication operators have been significantly and adversely affected by misappropriation of E.164 international telecommunication numbering resources;

e) Recommendation ITU-T E.156, which sets out guidelines for ITU Telecommunication Standardization Sector (ITU-T) action on reported misuse of ITU-T E.164 numbers, Supplement 1 to Recommendation ITU-T E.156, which provides a best-practice guide on countering misuse of ITU-T E.164 numbering resources, and Supplement 2 to Recommendation ITU T E.156, which provides a set of possible actions to counter misuse,

recognizing

a) that there is a need to counter and combat misappropriation and misuse of E.164 international telecommunication numbering resources assigned in accordance with Recommendation ITU-T E.164;

b) that the allocation of global telephone numbering resources is managed by the Director of TSB in accordance with ITU-T Recommendations;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

c) that the management and allocation of national telephone numbering resources is the responsibility of Member States, and that such management is their sovereign right and reflected in national regulatory and legal frameworks;

d) that differences exist between Member States in their approach to managing their national telephone numbering resources;

e) that Member States have the right to impose rules on the parties to whom they allocate telephone numbering resources, for example through national numbering plan authorities;

f) that telecommunication operators and operating agencies must act in accordance with all international rules and applicable national regulatory and legal frameworks of the Member State in which the number is being used,

requests the Director of the Telecommunication Development Bureau

1 to publish, identify, promote and use the documents and research produced thus far as a template for future activity in order to allow consistent identification of the issues and to combat misappropriation of E.164 international telecommunication numbering resources;

2 to utilize notifications of misappropriation of E.164 international telecommunication numbering resources submitted to support consistent identification of E.164 international telecommunication numbering resource misappropriation issues;

3 to assist, at the request of Member States, in developing their capability to counter misappropriation of E.164 international telecommunication numbering resources;

4 to continue to work with regions, subregions and countries, in particular developing countries, including least developed countries, to develop national legal and regulatory frameworks that are sufficient to ensure best practices in the management of E.164 international telecommunication numbering resources in order to counter their misappropriation,

requests the Director of Telecommunication Development Bureau, in cooperation with the Director of the Telecommunication Standardization Bureau

1 to ensure that national numbering plans are available, either directly from the Member State or via the ITU Operational Bulletin, using the format specified in Recommendation ITU-T E.129, in order to contribute to countering misappropriation of E.164 international telecommunication numbering resources;

2 to be responsive to Member State requests, particularly those from developing countries, including small island developing states, with a view to developing, supporting and acting on best practices in combating misappropriation of E.164 international telecommunication numbering resources, resulting in templates, proposals, guidelines and resolutions to counter and combat such misappropriation;

3 to work cooperatively in order to continue to develop measures based on proven best practices for countering misappropriation of E.164 international telecommunication numbering resources,

invites Member States

1 to collaborate in order to identify, counter and combat activities associated with misappropriation of E.164 international telecommunication numbering resources;

2 to support the development and deployment of best practices in the management of E.164 international telecommunication numbering resources within their jurisdiction;

3 to work collaboratively with other Member States, with telecommunication operators and with operating agencies in order to keep them informed of the rules, guidelines and allocation methods for E.164 international telecommunication numbering resources within their country;

4 to gather information on legislative initiatives for countering the misappropriation and misuse of E.164 international telecommunication numbering resources and to facilitate the dissemination of that information,

invites Member States and Sector Members

to contribute to the development of best practices for countering misappropriation of E.164 international telecommunication numbering resources, and to encourage administrations and international telecommunication operators to ensure that E.164 international telecommunication numbering resources are used only by the assignees and only for the purposes for which they were assigned, and that unassigned resources are not used.

RESOLUTION 79 (Rev. Kigali, 2022)

The role of telecommunications/information and communication technologies in combating and dealing with counterfeit and tampered telecommunication/information and communication devices

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 177 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on conformance and interoperability (C&I);

b) Resolution 188 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on combating counterfeit telecommunication/information and communication technology (ICT) devices;

c) Resolution 182 (Rev. Busan, 2014) of the Plenipotentiary Conference, on the role of telecommunications/ICTs in regard to climate change and the protection of the environment;

d) Resolution 96 (Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on ITU Telecommunication Standardization Sector (ITU-T) studies for combating counterfeit telecommunication/ICT devices;

e) Resolution 174 (Rev. Busan, 2014) of the Plenipotentiary Conference, on ITU's role with regard to international public policy issues relating to the risk of illicit use of ICTs;

f) Resolution 64 (Rev. Kigali, 2022) of this conference, on protecting and supporting users/consumers of telecommunication/ICT services;

g) Resolution 76 (Rev. Geneva, 2022) of WTSA, on studies related to C&I testing, assistance to developing countries[1], and a possible future ITU Mark programme;

h) Resolution 47 (Rev. Kigali, 2022) of this conference, on enhancement of knowledge and effective application of ITU Recommendations in developing countries, including C&I testing of systems manufactured on the basis of ITU Recommendations, and in particular assistance to developing countries in addressing their fears in relation to counterfeit equipment;

i) Resolution 79 (Rev. Geneva, 2022) of WTSA, on the role of telecommunications/ICTs in handling and controlling e-waste from telecommunication and information technology equipment and methods of treating it,

recognizing

a) the noticeably growing sales and circulation of counterfeit and tampered telecommunication/ICT devices in the markets, which have a negative impact on governments, manufacturers, vendors, operators and consumers through: loss of revenues, erosion of brand value/intellectual property rights (IPRs) and reputation, network disruptions, poor quality of service, data theft and potential hazard to public health and safety, as well as the environmental impact of e-waste;

b) that ITU's Conformity and Interoperability and Bridging Standardization Gap programmes are intended to add value, by bringing clarity to standardization processes and product conformity with international standards;

c) that counterfeit telecommunication/ICT products and devices have become a growing problem in the world, adversely affecting to a large extent all stakeholders in the ICT field (vendors, governments, operators and consumers);

d) that mobile devices rely on unique device identifiers to limit and deter the proliferation of counterfeit mobile devices;

e) that counterfeit telecommunication/ICT devices may negatively impact on security and privacy for users;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

f) that Recommendation ITU-T X.1255 provides a framework for discovery of identity management information that can help in combating counterfeiting of telecommunication/ICT devices;

g) that several countries have introduced some awareness-raising campaigns, practices and regulations in their markets in order to limit and deter counterfeit products and devices, which have had a positive impact, and that developing countries may benefit from this experience;

h) that counterfeit telecommunication/ICT devices may contain unacceptable levels of hazardous substances, threatening consumers and the environment,

taking into account

a) that, with the boom in telecommunications/ICTs, counterfeit and tampered telecommunication/ICT devices have increased noticeably in recent times;

b) that these counterfeit devices affect economic growth and IPRs, impede innovation, are hazardous to health and safety and have an impact on the environment and the increasing amount of harmful e-waste;

c) that counterfeiting of these devices poses a complex challenge and increases the risks of network disruption and interoperability difficulties that reduce the quality of telecommunication/ICT services;

d) that ITU and relevant stakeholders have a key role to play in fostering coordination among the parties concerned to study the impact of counterfeit devices and the mechanism for limiting them and to identify ways of dealing with them internationally and regionally,

noting

a) that individuals or entities engaged in manufacturing and trading of counterfeit telecommunication/ICT devices are continually developing and enhancing their capabilities and means of illegal activities to circumvent Member States' and other affected parties' legal and technical efforts to combat counterfeit telecommunication/ICT products and devices;

b) that supply and demand economics for counterfeit telecommunication/ICT products complicate attempts to tackle the global black/grey market, and that no single solution is easily envisaged,

aware

a) that governments play an important role in combating the manufacture of and international trade in counterfeit and copied devices by formulating appropriate strategies, policies and legislation;

b) of the related work and studies in ITU-T Study Groups 5, 11, 17, and 20;

c) of the ongoing work and studies in Study Group 1 and Study Group 2 of the ITU Telecommunication Development Sector (ITU-D);

d) that there is ongoing cooperation with standards-development organizations (SDOs), the World Trade Organization (WTO), the World Intellectual Property Organization (WIPO), the World Health Organization (WHO) and the World Customs Organization (WCO) on matters related to counterfeit products,

considering

a) that a counterfeit telecommunication/ICT device is a product that explicitly infringes the trademark, copies hardware or software designs, or infringes brand or packaging rights of an original or authentic product and, in general, infringes applicable national and/or international technical standards, regulatory requirements or conformity processes, manufacturing licensing agreements, or other applicable legal requirements;

b) that tampered (making unauthorized changes to) telecommunication/ICT devices are devices that have components, software, a unique identifier, items protected by IPRs or a trademark tentatively or effectively altered without the explicit consent of the manufacturer or its legal representative;

c) that tampered telecommunication/ICT devices, especially the ones that clone/replicate a legitimate unique identifier, may diminish the effectiveness of solutions adopted by the countries when addressing counterfeiting;

d) that ITU and other relevant stakeholders have key roles to play in fostering coordination between the parties concerned in order to study the impact of counterfeit and tampered telecommunication/ICT devices and the mechanism for limiting their use, and to identify ways of dealing with them both internationally and regionally, particularly through the ongoing work in ITU-T Study Group 11, as the leading expert in the study of combating counterfeit and tampered telecommunication/ICT devices at ITU, and also related work and studies, in particular in ITU-T Study Groups 5, 17 and 20 and ITU-D Study Group 2,

resolves to instruct the Director of the Telecommunication Development Bureau, in close collaboration with the Director of the Telecommunication Standardization Bureau and the Director of the Radiocommunication Bureau

1 to continue to increase and develop ITU activities on combating, and ways of limiting the spread of, counterfeit and tampered devices;

2 to assist Member States, particularly developing countries, in addressing their concerns regarding counterfeit and tampered devices, including through information sharing at regional or global level;

3 to continue to work in collaboration with stakeholders (such as WTO, WIPO, WHO and WCO), including academia and relevant organizations, to coordinate activities relating to combating counterfeit and tampered devices through study groups, focus groups and other related groups;

4 to organize seminars and workshops to raise awareness of the health and environmental risks of using counterfeit and tampered devices and ways of limiting them, particularly in developing countries, which are the most at risk from the dangers of counterfeit devices;

5 to continue assisting developing countries in attending these workshops and seminars by providing fellowships and remote participation;

6 to work in close collaboration with relevant stakeholders, such as WTO, WIPO, WHO and WCO, on activities relating to combating counterfeit and tampered telecommunication/ICT devices, including restricting the trading, export and circulation of these telecommunication/ICT devices internationally;

7 to submit periodic reports on the implementation of this resolution,

invites the Director of the Telecommunication Development Bureau

to provide information on a periodic basis on international and regional testing, type-approval and accreditation bodies and laboratories,

instructs Study Groups 1 and 2 of the ITU Telecommunication Development Sector, within their mandate, as appropriate, in collaboration with the relevant ITU study groups

1 to prepare and document examples of best practices on limiting counterfeit and tampered telecommunication/ICT devices, for distribution to ITU Member States and Sector Members;

2 to prepare guidelines, methodologies and publications to assist Member States in identifying counterfeit and tampered telecommunication/ICT devices and methods of increasing public awareness to restrict trade in these devices, as well as the best ways of limiting them, taking into account ongoing studies conducted by ITU-T Study Group 11;

3 to study the impact of counterfeit and tampered telecommunication/ICT devices being transported to developing countries;

4 to continue studying safe ways of disposing of the harmful e-waste from the counterfeit devices currently in circulation in the world;

5 to cooperate with relevant ITU-T study groups, in particular Study Group 11 as the lead study group in the area of combating counterfeit and tampered telecommunication/ICT devices,

invites Member States

1 to take all necessary measures to combat counterfeit and tampered telecommunication/ICT devices and to review their regulations;

2 to cooperate and exchange expertise among themselves in this area;

3 to incorporate policies to combat counterfeit and tampered devices in their national telecommunication/ICT strategies;

4 to raise awareness among consumers regarding the negative impacts of counterfeit and tampered devices.

RESOLUTION 80 (Rev. Buenos Aires, 2017)

Establishing and promoting trusted information frameworks in developing countries to facilitate and encourage electronic exchanges of economic information between economic partners

The World Telecommunication Development Conference (Buenos Aires, 2017),

recalling

a) Resolution 135 (Rev. Busan, 2014) of the Plenipotentiary Conference, on ITU's role in the development of telecommunications/information and communication technologies (ICTs), in providing technical assistance and advice to developing countries and in implementing relevant national, regional and interregional projects;

b) Resolution 181 (Guadalajara, 2010) of the Plenipotentiary Conference, on definitions and terminology relating to building confidence and security in the use of ICTs;

c) Resolution 71 (Rev. Buenos Aires, 2017) of this conference, on strengthening cooperation between Member States and Sector Members of the ITU Telecommunication Development Sector (ITU-D), including the private sector;

d) Resolution 50 (Rev. Dubai, 2014) of the World Telecommunication Development Conference (WTDC), on optimal integration of ICTs;

e) Resolution 48 (Rev. Buenos Aires, 2017) of this conference, on strengthening cooperation among telecommunication regulators;

f) Resolution 54 (Rev. Dubai, 2014) of WTDC, on ICT applications;

g) Resolution 45 (Rev. Dubai, 2014) of WTDC, on mechanisms for enhancing cooperation on cybersecurity, including countering and combating spam,

considering

a) current difficulties in establishing business partnerships in developing countries;

b) the important role that national telecommunication/ICT policy can play in stimulating innovation and investment in new technologies that enable the rapid evolution of the market for goods and services;

c) the sovereign right of each country to establish its national telecommunication/ICT priorities and policies;

d) the importance of telecommunication networks and ICT infrastructure for economic development;

e) that the amount of information being exchanged by electronic means among developing countries at national and regional levels is growing, and its development potential is undeniable;

f) the potential for broader access to a range of telecommunication/ICT applications and services that are readily available to facilitate economic development, enabling companies to adopt technologies that may potentially broaden their offering through services based on platforms capable of making them more competitive;

g) that the World Summit on the Information Society adopted specific action lines in its Plan of Action, including in particular:

– Action Line C1: The role of governments and all stakeholders in the promotion of ICTs for development
– Action Line C2: Information and communication infrastructure: An essential foundation for the information society
– Action Line C5: Building confidence and security in the use of ICTs
– Action Line C6: Enabling environment
– Action Line C7: ICT applications: Benefits in all aspects of life,

noting

a) the adoption and implementation of the Hyderabad Action Plan (WTDC-10), which incorporated provisions on the development of telecommunication/ICT services in developing countries through various programmes, in particular Programme 2 on cybersecurity, ICT applications and IP-based network-related issues and Programme 3 on the enabling environment;

b) that this conference has reaffirmed, in its Declaration and resolutions, a commitment to:

– foster international cooperation on telecommunication/ICT development issues;

– create an enabling environment conducive to telecommunication/ICT development;

– enhance confidence and security in the use of telecommunications/ICTs, and roll-out of relevant applications and services,

recognizing

a) that effective deployment and use of ICTs is an important factor in implementing social, cultural, economic and environmental development programmes, especially in developing countries;

b) the growing level of electronic communications and economic information exchanges at the regional level within and between the developing countries;

c) that ICTs have helped to transform business models and organizational structures in countries and are thus a key asset for an enterprise or a country in becoming integrated into the new global economy;

d) that the establishment of trusted information frameworks between economic partners will increase confidence in, and encourage the use of, exchanges of economic information through electronic means, and will be a key factor in future growth of the digital economy at the global level;

e) the work already being carried out by other international and private-sector organizations in the fields of trusted information frameworks and electronic commerce,

conscious

a) that the modernization of telecommunication networks and the development of services and applications associated with ICTs in these countries will be an important factor in their economic development and will offer them an opportunity to lay the foundations of an inclusive information society;

b) of the potential beneficial impact for developing countries of the establishment of trusted information frameworks to facilitate the electronic exchange of economic information in the world of business and, in particular, their importance to actors involved in the digital economy;

c) that the removal of existing obstacles to the development of electronic exchanges of economic information in the developing countries depends on establishing trusted information frameworks that encourage the creation of new regional partnerships between administrations, businesses and individuals, taking account of national regulatory frameworks governing the exchange of such information,

resolves

that relevant ITU-D and ITU Telecommunication Standardization Sector (ITU-T) study groups, to the extent possible, take into account the aims of this resolution in studies under Questions pertaining to ICT applications,

instructs the Director of the Telecommunication Development Bureau

1 to act as a catalyst in enhancing international and regional cooperation among Member States, especially regarding the use of ICT applications and services to facilitate electronic exchanges of economic information between economic partners;

2 to invite ITU-D Study Group 2 to take into account the aims of this resolution when studying new Question 1/2 (Creating smart society: Employing ICTs for sustainable social and economic development);

3 to assist developing countries to take advantage of resources and services provided by the public and private sectors and relevant organizations at the regional and international levels on global standards and best practices for establishing trusted information frameworks and mechanisms that facilitate electronic exchanges of economic information between economic partners, taking into consideration the national regulatory frameworks relating to such information,

invites Member States and Sector Members

1 to encourage the creation of an enabling framework for international and regional partnerships in which countries identify their needs in terms of electronic exchanges of economic information, and assess the feasibility of associated operational and technical interoperability frameworks;

2 to organize forums and workshops, at regional and international level, dealing with aspects of the development of trusted information frameworks for electronic exchange of economic information based on global standards and best practices.

RESOLUTION 81 (Rev. Buenos Aires, 2017)

Further development of electronic working methods for the work of the ITU Telecommunication Development Sector

(Abrogated by WTDC-22)

RESOLUTION 82 (Rev. Kigali, 2022)

Preserving and promoting multilingualism on the Internet for an inclusive information society

The World Telecommunication Development Conference (Kigali, 2022),

considering

a) the provisions of Resolutions 101 and 102 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on Internet Protocol-based networks and ITU's role with regard to international public policy issues pertaining to the Internet and the management of Internet resources, including domain names and addresses;

b) Resolution 133 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the role of administrations of Member States in the management of internationalized (multilingual) domain names;

c) Resolution 154 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the use of the six official languages of the Union on an equal footing;

d) Resolution 69 (Rev. Hammamet, 2016) of the World Telecommunication Standardization Assembly, on non-discriminatory access and use of Internet resources;

e) Resolution 37 (Rev. Kigali, 2022) of this conference, on bridging the digital divide;

f) that the mission of the ITU Telecommunication Development Sector (ITU-D) falls within the more general framework of ITU's purposes, laid down in Article 1 of the ITU Constitution, and is formulated as follows: "The mission of the ITU Telecommunication Development Sector (ITU-D) shall be to foster international cooperation and solidarity in the delivery of technical assistance and in the creation, development and improvement of telecommunication/information and communication technology (ICT) equipment and networks in developing countries. ITU-D is required to discharge the Union's dual responsibility as a United Nations specialized agency and executing agency for implementing projects under the United Nations development system or other funding arrangements, so as to facilitate and enhance telecommunication/ICT development by offering, organizing and coordinating technical cooperation and assistance activities",

recalling

Resolution 20 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference, on non-discriminatory access to modern telecommunication/ICT facilities, services and related applications,

recognizing

a) Articles 19 and 27 of the Universal Declaration of Human Rights of 1948, to the effect that: "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers", and "Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits…";

b) Article 27 of the International Covenant on Civil and Political Rights of 1966, and the International Covenant on Economic, Social and Cultural Rights of 1966, designed to impose specific obligations in regard to protection against sexual, religious, racial or other forms of discrimination, which stipulates that: "In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language";

c) United Nations General Assembly (UNGA) Resolution 47/135 of 18 December 1992, adopting the Declaration on the rights of persons belonging to national or ethnic, religious and linguistic minorities, which states that: "States shall protect the existence and the national or ethnic, cultural, religious and linguistic identity of minorities within their respective territories and shall encourage conditions for the promotion of that identity";

d) the United Nations Administrative Committee on Co-ordination (ACC) Statement of 1997 on universal access to basic communication and information services, which asserts that: "... the information and technology gap and related inequities between industrialized and developing nations are widening: a new type of poverty 'information poverty' looms";

e) § 25 of the Millennium Declaration approved by UNGA, which refers to measures aimed at increasing the effectiveness of the United Nations in human rights and public information efforts;

f) UNGA Resolution 35/201, approved at the 97th plenary session on 16 December 1980, transmitting the recommendation on promotion and use of multilingualism and universal access to cyberspace;

g) the report drawn up by the Organisation for Economic Co-operation and Development (OECD), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Internet Society in 2012, entitled "The relationship between local content, Internet development and access prices", which indicates that there is a strong correlation between the development of local network infrastructure and the growth of local content, that local content is growing in volume as a result of investment worldwide, and that its composition is changing and local content is no longer dominated by developed countries, but is more representative of the diversity of multiple cultures, languages and communities existing in the world,

emphasizing

a) the role played by ITU in the successful organization of the two phases of the World Summit on the Information Society (WSIS), and that the Geneva Declaration of Principles and the Geneva Plan of Action, adopted in 2003, and the Tunis Commitment and the Tunis Agenda for the Information Society, adopted in 2005, have been endorsed by UNGA;

b) the Geneva Declaration of Principles and its commitment to "build a people-centred, inclusive and development-oriented information society, where everyone can create, access, utilize and share information and knowledge";

c) that the Internet is a subject of valid international interest and must flow from full multistakeholder cooperation, with a duty to guarantee equitable distribution of resources, facilitate access for all and guarantee stable and secure functioning of the Internet, having due regard to multilingualism, on the basis of the outcomes of the two phases of WSIS;

d) that the Geneva Declaration of Principles aimed at "building the information society: a global challenge in the new millennium" establishes, as one of its fundamental principles, under § B8 (Cultural diversity and identity, linguistic diversity and local content), that "the creation, dissemination and preservation of content in diverse languages and formats must be accorded high priority in building an inclusive information society, paying particular attention to the diversity of supply of creative work and due recognition of the rights of authors and artists. It is essential to promote the production of and accessibility to all content – educational, scientific, cultural or recreational – in diverse languages and formats. The development of local content suited to domestic or regional needs will encourage social and economic development and will stimulate participation of all stakeholders, including people living in rural, remote and marginal areas";

e) that internationalized Internet domain names (IDNs), and more generally ICTs, must be widely accessible to all citizens without regard to gender, age, location, ability or language;

f) that the Geneva Declaration of Principles also asserts that "the preservation of cultural heritage is a crucial component of identity and self-understanding of individuals that links a community to its past. The information society should harness and preserve cultural heritage for the future by all appropriate methods, including digitization";

g) that, similarly, at the WSIS meeting in Geneva, UNESCO introduced its concept of knowledge societies, emphasizing plurality, diversity and inclusion, and highlighting that the use of ICTs has to take into account universally recognized human rights, focusing on four principles: freedom of expression, universal access to information and knowledge, cultural and linguistic diversity and quality education for all;

h) that the UNESCO Convention of 2005 on the Protection and Promotion of the Diversity of Cultural Expression stipulates that: "Equitable access to a rich and diversified range of cultural expressions from all over the world and access of cultures to the means of expressions and dissemination constitute important elements for enhancing cultural diversity and encouraging mutual understanding";

i) that UNESCO has provided assistance to Member States in the implementation of the policy guidelines assembled in the recommendations for decision-makers, and carried out various training activities in respect of universal access to information and the promotion and use of multilingualism, in conjunction with the Organization of American States (OAS);

j) that the Paris Declaration on Open Educational Resources of 2012 recommends that States, within their capacities and authority, *inter alia*, promote the understanding and use of open educational resources, facilitate enabling environments for use of ICTs, reinforce the development of strategies and policies on open educational resources and encourage the development and adaptation of open educational resources in a variety of languages and cultural contexts,

taking into account

a) that International Mother Language Day, proclaimed by the UNESCO General Conference in November 1999, has been observed yearly since 2000 to promote linguistic and cultural diversity and multilingualism, and that the 2011 edition focused on the theme "Information and communication technologies for the safeguarding and promotion of languages and linguistic diversity";

b) that, in the changing telecommunication/ICT environment, a continuing challenge facing the Union is to remain a pre-eminent intergovernmental organization where Member States, Sector Members and Associates work together to enable the growth and sustained development of telecommunication and information networks and applications, and to facilitate universal access so that people everywhere can participate in, and benefit from, the emerging information society;

c) that ITU is deploying maximum efforts, in collaboration and coordination with competent organizations in the field of Internet governance, to bring the greatest possible benefits to the world community;

d) that, at the operational level, ITU has been carrying out the tasks assigned under the WSIS outcomes, in its capacity as: lead facilitator (along with UNESCO and the United Nations Development Programme (UNDP)) for coordinating the multis-takeholder implementation of the Geneva Plan of Action; facilitator for Action Lines C2 (Information and communication infrastructure) and C5 (Building confidence and security in the use of ICTs) and, at UNDP's request, having accepted to play the role of facilitator for Action Line C6 (Enabling environment); co-facilitator for Action Lines C1 (Role of governments and all stakeholders in the promotion of ICTs for development), C3 (Access to information and knowledge), C4 (Capacity building), C7 (ICT applications: Benefits in all aspects of life) and C11 (International and regional cooperation); and partner in Action Lines C8 (Cultural diversity and identity, linguistic diversity and local content) and C9 (Media);

e) the 2012 report by the Broadband Commission for Digital Development, which makes it clear that content and broadband-enabled services in local languages as well as the capacities of local communities to create and share content are important drivers of the use of broadband infrastructure by local population;

f) the 2013 report of the Broadband Commission for Digital Development, which presents a series of strategies that governments worldwide, in particular the developing countries and other entities interested in education, should adopt in order to derive maximum benefit from the advantages offered by ICTs, including promoting mobility of education and open educational resources, supporting the development of content adapted to local contexts and languages, etc., pointing to the need to create ecosystems of online educational applications and services with local and homegrown content, all of which becomes especially relevant during the coronavirus disease (COVID-19) and possible future pandemics,

resolves to instruct the Director of the Telecommunication Development Bureau, in collaboration with the Director of Telecommunication Standardization Bureau

to include in the work programmes of relevant ITU-D study groups necessary actions to preserve and promote multilingualism on the Internet and the provision of a huge range of social services, from health to education, with focus on the development of digital content from popular cultures and minority groups using a range of non-mainstream languages which currently have limited coverage on the Internet, in order to contribute from ITU-D's vantage point, with the Member States, to guaranteeing digital inclusion, building an inclusive and plural information society, promoting digital skills and prompting calls for action within the framework of ITU so as to ensure that the importance of preserving linguistic and cultural diversity and the autonomy of traditional communities, such as indigenous people, is recognized, within the framework and available budgetary resources of ITU-D,

instructs the Director of the Telecommunication Development Bureau

1 to ensure that, in all ITU-D programmes, projects and activities, due account is taken of the need to resolve the issues that hamper the preservation and promotion of multilingualism in the digital ecosystem of the Internet and associated services, including the rural digital divide;

2 to consider holding seminars, symposia or forums for policy-makers, telecommunication/ICT regulators, Sector Members and interested stakeholders, at which public policies for protecting linguistic and cultural diversity of communities, peoples and minority groups and persons with specific needs are presented and discussed, so that their voices are heard, the preservation of their languages is promoted, and their identities, lifestyles, etc., are taken into account;

3 to collaborate with the Radiocommunication Bureau and the Telecommunication Standardization Bureau in regard to their activities to promote awareness and mainstream policies, and in the creation of programmes and projects that help developing countries to foster linguistic diversity and multilingualism on the Internet and to bring connectivity to minorities and traditional communities, such as indigenous people;

4 to provide advice to, evaluate and supervise projects, initiatives and programmes, so as to determine their impact in terms of preserving and promoting linguistic diversity and multilingualism, under Resolution 17 (Rev. Kigali, 2022) of this conference, on regional initiatives, where appropriate;

5 to report to the ITU Council on the implementation of this resolution,

invites Member States and Sector Members, Academia and Associates, as appropriate

1 to participate actively in all international discussions and initiatives for guaranteeing the preservation and promotion of multiculturalism and multilingualism in the digital ecosystem of the Internet and associated services, with a view to ensuring universal access and bringing multilingual societies to life, and strengthening dialogue between cultures, openness and mutual understanding, tolerance towards others, etc.;

2 to submit contributions within ITU-D in order to facilitate effective implementation of this resolution;

3 to promote capacity building and digital skills which foster the development of local digital content or informative resources in rural contexts and within vulnerable groups of the population, in order to preserve multiculturalism and multilingualism and promote their regional, national and local integration;

4 to promote initiatives that allow underserved communities, peoples and minority groups and persons with specific needs to become relevant actors in the development of a multiculturalism and multilingualism in the digital ecosystem of the Internet and associated services;

5 to contribute, with UNESCO, which is the facilitator for implementation of WSIS Action Line C8, focusing on concerns and requests for assistance, in particular from developing countries, to facilitating and fostering affordability and availability of international Internet connectivity, and thereby overcome language barriers and increase use of the Internet;

6 to contribute to the establishment of regional, national and local strategic plans to promote sites which ensure and foster linguistic diversity and multilingualism in the digital ecosystem of the Internet;

7 to contribute to studying appropriate mechanisms for converting digital archives in non-mainstream languages, with a view to fostering socio-economic development and information and knowledge sharing between communities and groups with specific needs, and so that more and new voices can benefit from the potential offered by telecommunications/ICTs;

8 to recommend measures within their competencies for cooperation with academia, civil society and other interested and involved stakeholders, under a multistakeholder approach, with a view to reducing disparity, exclusion and discrimination in terms of opportunities, by exploiting the potential that protecting and safeguarding languages not present in the digital ecosystem of the Internet offers;

9 to promote awareness among equipment manufacturers and designers regarding the advantages of introducing in the regions already identified by UNESCO alternative alphabets for languages not present in the digital ecosystem of the Internet, to be used by people with different native languages, and thus contribute to moving forward towards digital inclusion, respecting their cultural identity;

10 to promote universal acceptance regarding IDNs and to collaborate and coordinate in enabling their usage in the Internet;

11 to urge all stakeholders to ensure the development and deployment of IDNs in all possible language scripts using their specific character sets;

12 to promote the concept of universal acceptance,

invites the Secretary-General

1 to bring this resolution to the attention of the next plenipotentiary conference, for its consideration, taking into account past accomplishments, by allocating the necessary human resources to make effective contributions to ITU-D's activities for institutionalizing the issue of multilingualism within ITU;

2 to bring this resolution to the attention of the Secretary-General of the United Nations in an effort to promote increased cooperation and coordination for development policies, programmes and projects in order to make progress in linguistic diversity and the Internet, in line with the principles of equitable access, functional equivalence, affordability and universal design, fully harnessing the available tools, guidelines and standards, for the elimination of all forms of discrimination and digital exclusion.

RESOLUTION 83 (Buenos Aires, 2017)

Special assistance and support to the Government of Libya for rebuilding its telecommunication networks

The World Telecommunication Development Conference (Buenos Aires, 2017),

recalling

a) Resolution 34 (Rev. Busan, 2014) of the Plenipotentiary Conference, on assistance and support to countries in special need for rebuilding their telecommunication sector;

b) the noble principles, purposes and objectives enshrined in the Charter of the United Nations and in the Universal Declaration of Human Rights, as well as in the Declaration of Principles adopted by the World Summit on the Information Society;

c) the purposes of the Union as enshrined in Article 1 of the ITU Constitution,

considering

a) that reliable telecommunication systems are indispensable for promoting the socio-economic development of countries, in particular of countries in special need, which are those having suffered from domestic conflicts or war;

b) that the telecommunication infrastructure in Libya has been grievously affected by war;

c) that, under the present conditions, Libya will not be able to rebuild its war-damaged infrastructure and ensure effective operation of its telecommunication sector to meet its social and economic goals without the help of the international community, provided bilaterally or through international organizations,

noting

a) the efforts which have been and are being deployed by the Secretary-General and the Director of the Telecommunication Development Bureau (BDT) to provide assistance to countries in special need which have endured armed conflict and war;

b) the technical assistance from BDT for the purpose of telecommunication/information and communication technology development in Member States,

resolves

to initiate special action, within the framework of ITU and within available resources, with the aim of providing assistance and support to the Government of Libya in rebuilding its telecommunication infrastructure, creating appropriate institutions, building human capacities, formulating legislation in the area of telecommunications, and developing a regulatory framework,

calls upon members

to offer all possible assistance and support to the Government of Libya, either bilaterally or through the special action of the Union referred to above,

invites the ITU Council

to allocate the necessary funds for the implementation of this resolution,

instructs the Director of the Telecommunication Development Bureau

1 to use the necessary funds to implement activities in favour of the Government of Libya;

2 to mobilize extrabudgetary resources to assist Libya,

requests the Secretary-General

1 to coordinate the activities carried out by the three ITU Sectors in accordance with *resolves* above, in order to ensure that the ITU action in favour of the Government of Libya is as effective as possible;

2 to report on the implementation of this resolution to the Council and plenipotentiary conferences;

3 to bring to the attention of the Plenipotentiary Conference (Dubai, 2018) the need to allocate the necessary resources for Libya.

RESOLUTION 84 (Rev. Kigali, 2022)

Combating mobile telecommunication device theft

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 196 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on protecting telecommunication service users/consumers;

b) Resolution 189 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on assisting Member States to combat and deter mobile device theft;

c) Resolution 97 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA), on combating mobile telecommunication device theft;

d) Resolution 188 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on combating counterfeit telecommunication/information and communication technology (ICT) devices;

e) Resolution 174 (Rev. Busan, 2014) of the Plenipotentiary Conference, on ITU's role with regard to international public policy issues relating to the risk of illicit use of ICTs;

f) Resolution 79 (Rev. Kigali, 2022) of this conference, on the role of telecommunications/ICTs in combating and dealing with counterfeit telecommunication/ICT devices;

g) Resolution 64 (Rev. Kigali, 2022) of this conference, on protecting and supporting users/consumers of telecommunication/ICT services;

h) Resolution 96 (Hammamet, 2016) of WTSA, on ITU Telecommunication Standardization Sector (ITU-T) studies for combating counterfeit telecommunication/ICT devices,

recognizing

a) that governments and industry have been implementing actions to prevent and combat mobile device theft;

b) that the theft of user-owned mobile devices may lead to the criminal use of telecommunication/ICT services and applications, resulting in financial losses for the lawful owner and user;

c) that measures to combat mobile device theft adopted by some countries rely on unique device identifiers, and therefore tampering with (changing without authorization) unique identifiers can diminish the effectiveness of these solutions;

d) that some solutions to combat counterfeit telecommunication/ICT devices can also be used to combat the use of stolen telecommunication/ICT devices, in particular those devices whose unique identifier has been tampered for the purpose of re-introducing them to the market;

e) that studies on combating counterfeiting, including of telecommunication/ICT devices, and systems adopted on the basis of those studies, in some circumstances, can facilitate the detection and blocking of devices and prevention of their further use;

f) that it is important to find innovative solutions and adopt national, regional and global strategies to fight mobile device theft,

considering

a) that technological innovation driven by telecommunications/ICTs has significantly modified the ways in which people access telecommunications;

b) that the positive impact of mobile telecommunications, technological progress and the development generated by all related services have increased the penetration of mobile telecommunication/ICT devices;

c) that the widespread use of mobile telecommunications in the world has also been accompanied by a rise in the problem of mobile device theft;

d) that the act of mobile device theft can sometimes have a negative impact on the health and safety of citizens and on their sense of security;

e) that problems that occur around the crimes related to mobile device theft have become a worldwide issue, since these stolen devices may be of high monetary value and are often very easily resold on the international markets;

f) that the illicit trading of stolen mobile devices constitutes a risk to consumers and causes loss of revenue for the industry;

g) that some governments have implemented regulations, law-enforcement actions, policies and technological mechanisms to prevent and combat mobile device theft;

h) that some manufacturers of mobile devices, as well as operators and industry, offer solutions for consumers, such as free anti-theft applications, with the aim of reducing the rate of mobile device theft,

aware

a) of the related ongoing work in ITU-T Study Group 11 on combating counterfeit and mobile device theft;

b) of the related ongoing work in ITU-T Study Group 17 on security;

c) that manufacturers, operators and industry associations have been developing a range of technological solutions and governments have been developing policies and, in some cases, regulations to address the global problem of mobile device theft,

resolves

1 that the ITU Telecommunication Development Sector (ITU-D) should explore all applicable solutions and develop reports or implementation guidelines, taking into account the needs of countries, especially developing countries[1], in consultation with relevant ITU-T and ITU Radiocommunication Sector (ITU-R) study groups, to combat and deter mobile device theft, offering all interested parties a forum for encouraging discussion, member cooperation, exchange of best practices and guidelines and dissemination of information on combating mobile device theft;

2 that ITU-D study groups should include activities relating to combating mobile telecommunication device theft,

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Radiocommunication Bureau and Telecommunication Standardization Bureau

1 to provide assistance, within ITU-D's expertise and within available resources, as appropriate, in cooperation with relevant organizations, to Member States, if so requested, in order to reduce mobile device theft and the use of stolen mobile devices in their countries;

2 to compile and share information on best practices developed by governments and other stakeholders and on promising trends in combating mobile device theft, especially from regions where rate of mobile device theft has fallen,

instructs Study Groups 1 and 2 of the ITU Telecommunication Development Sector, within their mandates and in collaboration with study groups of the ITU Telecommunication Standardization Sector

1 to develop guidelines, recommendations and reports to address the problem of mobile telecommunication device theft and its negative effects;

2 to gather information about any technologies and best practices that can be used as tools for combating mobile telecommunication device theft, and to build capacities in developing countries in this regard,

invites Member States and Sector Members

1 to take all necessary measures, including raising awareness, to combat mobile telecommunication device theft and its negative effects;

2 to cooperate and share expertise in this area;

3 to participate actively in ITU studies relating to the implementation of this resolution by submitting contributions;

4 to take the necessary actions to prevent or discover and control tampering (unauthorized changing) of unique mobile telecommunication/ICT device identifiers and prevent tampered devices from accessing mobile networks, and to share information and experiences on controlling the tampering of unique mobile telecommunication/ICT device identifiers.

RESOLUTION 85 (Rev. Kigali, 2022)

Facilitating the Internet of Things and smart sustainable cities and communities for global development

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 197 (Rev. Dubai,2018) of the Plenipotentiary Conference, on facilitating the Internet of Things (IoT) and smart sustainable cities and communities (SSCCs);

b) Resolution ITU-R 66-1 (Rev. Sharm el-Sheikh, 2019) of the Radiocommunication Assembly, on studies related to wireless systems and applications for the development of IoT;

c) Resolution 98 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly, on enhancing the standardization of IoT and smart cities and communities (SCCs) for global development;

d) Resolution 50 (Rev. Kigali, 2022) of this conference, on optimal integration of information and communication technologies (ICTs);

e) the goals of the ITU Telecommunication Development Sector (ITU-D), defined by Resolution 71 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the strategic plan of the Union for 2020-2023, particularly objective D.3, under which ITU-D is entrusted with the task of fostering an enabling policy and regulatory environment conducive to sustainable telecommunication/ICT development;

f) Recommendation ITU-D 22 (Dubai, 2014) of the World Telecommunication Development Conference (WTDC), on bridging the standardization gap in association with regional groups of the study groups;

g) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on use of telecommunications/ICTs to bridge the digital divide and build an inclusive information society;

h) Resolution 77 (Rev. Buenos Aires, 2017) of WTDC, on broadband technology and applications for greater growth and development of telecommunication/ICT services and broadband connectivity;

i) Resolution 200 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the Connect 2030 Agenda for global telecommunication/ICT, including broadband, for sustainable development,

noting

the work carried out by the United for Smart Sustainable Cities (U4SSC) initiative, launched by ITU together with the United Nations Economic Commission for Europe (UNECE) in May 2016,

considering

a) that the development of IoT technologies will have a positive impact on both ICT and non-ICT sectors, including health, agriculture, transport and energy in view of the applications provided;

b) that IoT deployment will contribute significantly to the successful implementation of the 2030 Agenda for Sustainable Development;

c) that the development and deployment of IoT will benefit from cooperative efforts at the regional and global level;

d) that the development and implementation of IoT and the creation of SSCCs will hinge upon the active participation of governments, industry and other relevant international and regional organizations and stakeholders;

e) that special support should be given to developing countries[1], as they may have limited resources to build an inclusive society,

recognizing

a) the important role of ITU and, in particular, that of ITU-D, in encouraging telecommunication/ICT development at the global level; and in particular the relevant work carried out by ITU-D study groups;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

b) the role of the ITU Telecommunication Standardization Sector (ITU-T) and, in particular, that of ITU-T Study Group 20, in carrying out studies and standardization work associated with IoT and its applications, including SCCs, and coordinating with other organizations working in these two areas;

c) the role of the ITU Radiocommunication Sector (ITU-R) in conducting studies on the technical and operational aspects of radio networks and systems for IoT;

d) that U4SSC is a United Nations initiative coordinated by ITU, UNECE and the United Nations Human settlements Programme (UN-Habitat) to achieve Sustainable Development Goal (SDG) 11;

resolves

that ITU-D, in close collaboration with ITU-T and ITU-R, promote the adoption of IoT and the development of SSCCs, in order to maximize the benefits in advancing socio-economic development and contribute to achieving the SDGs and the Connect 2030 Agenda,

instructs the study groups of the ITU Telecommunication Development Sector, each according to its mandate

1 to collect national and regional experiences on the adoption of IoT and SSCCs and prepare guidelines for the implementation of IoT and SSCCs on the basis of ITU Recommendations and contributions from other organizations;

2 to carry out studies on the opportunities and challenges in the implementation of IoT and SSCCs;

3 to identify case studies on the application of IoT and SSCCs, focusing on factors affecting the roll-out of IoT and SSCCs,

instructs the Director of the Telecommunication Development Bureau

1 to support Member States, in particular the developing countries, in adopting IoT and SSCCs through providing relevant information, expertise, capacity building and accumulation of best practices aimed at facilitating the development of enabling environments and infrastructure, attracting investment and fostering digital innovation ecosystems;

2 to facilitate deployment and adoption of IoT and SSCCs, especially in developing countries, through projects under the United Nations development systems and in accordance with No. 118 (Article 21) of the ITU Constitution;

3 to work in collaboration with the ITU Sectors and in coordination with international and regional organizations and all the stakeholders in order to establish a favourable environment to enable the exchange of knowledge, expertise and best practices to support the deployment of IoT and SSCCs, including applications and services, by organizing workshops and forums at both regional and international levels,

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Telecommunication Standardization Bureau and the Radiocommunication Bureau

1 to prepare and/or update a report identifying the needs of developing countries related to IoT and SSCCs, based on the work conducted by ITU-T, ITU-R and ITU-D in connection with U4SCC;

2 to collate the work done within ITU relating to IoT and SSCCs, including studies conducted on technology and standards as well as recommendations on policy and regulation, so as to facilitate the development and adoption of IoT;

3 to facilitate discussions and exchange of best practices through the organization of workshops and training programmes on IoT and SSCCs;

4 to foster collaboration among ITU Sectors to discuss how the IoT ecosystem and SSCC technologies can further the achievement of the SDGs and the framework of the World Summit for the Information Society;

5 to provide developing countries with capacity-building opportunities in IoTs and SSCCs,

invites Member States, Sector Members, Associates and Academia

1 to participate actively in ITU studies relating to IoT and SSCCs, including applications and services, by providing all possible assistance;

2 to collaborate and exchange expertise and best practices in this area,

encourages Member States

1 to adopt appropriate strategies, policies, plans and an enabling environment to facilitate and stimulate the development of IoT and SSCCs, including applications and services;

2 to cooperate and share knowledge, expertise and best practices on IoT and SSCCs.

RESOLUTION 86 (Buenos Aires, 2017)

Use in the ITU Telecommunication Development Sector of the languages of the Union on an equal footing

(Abrogated by WTDC-22)

RESOLUTION 87 (Kigali, 2022)

Connecting every school to the Internet and every young person to information and communication technology services

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) the commitment by all Member States of the United Nations to achieving the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals (SDGs) and related targets, as reflected in Resolution 70/1 of the United Nations General Assembly (UNGA);

b) the commitment by all Member States of the United Nations to improving digital cooperation, as reflected in UNGA Resolution 75/1, on the Declaration on the commemoration of the 75th anniversary of the United Nations;

c) the Connect 2030 Agenda for global telecommunication/information and communication technology (ICT) development, adopted in Resolution 200 (Rev. Dubai 2018) of the Plenipotentiary Conference;

d) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the use of telecommunications/ICTs to bridge the digital divide and to build an inclusive information society;

e) the Buenos Aires Declaration and Buenos Aires Action Plan, as well as relevant resolutions, including Resolution 37 (Rev. Buenos Aires, 2017), on bridging the digital divide, adopted by the World Telecommunication Development Conference (WTDC-17);

f) Recommendation ITU-D 19 (Dubai, 2014) of WTDC, on telecommunications for rural and remote areas, which notes that schools, as well as other public ICT facilities, can serve to connect the communities they serve, especially in rural and remote areas of developing countries[1],

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

recalling further

a) Resolution 71 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the strategic plan for the Union, containing a set of strategic targets whose purpose is to provide the direction where ITU should focus its attention and to materialize the ITU vision for an interconnected world for 2020-2023;

b) the new set of global targets for "universal and meaningful digital connectivity" to be achieved by 2030, announced by the Office of the United Nations Secretary-General's Envoy on Technology, developed as part of the implementation of the United Nations Secretary-General's Roadmap for Digital Cooperation (Document A/74/821);

c) the 2025 Global Broadband Targets of the ITU/United Nations Educational, Scientific and Cultural Organization (UNESCO) Broadband Commission for Sustainable Development to support ''connecting the other half'',

considering

a) the United Nations system-wide implementation of the 2030 Sustainable Development Agenda and efforts towards achieving the SDGs;

b) the role of ITU as a United Nations specialized agency to support Member States and to contribute to the worldwide efforts to achieve the SDGs;

c) the relevant work already accomplished and to be carried out by ITU as part of the implementation of the WSIS outcomes, considering the 2030 Agenda for Sustainable Development;

d) the United Nations Secretary-General's Roadmap for Digital Cooperation, which calls for every person to have safe and affordable access to the Internet by 2030, including the meaningful use of digitally enabled services, in line with the SDGs;

e) the United Nations Secretary-General's report on Our Common Agenda (Document A/75/982), which presents the United Nations Secretary-General's vision on the future of global cooperation through inclusive, networked and effective multilateralism, as requested by Member States in the Declaration on the commemoration of the 75th anniversary of the United Nations,

recognizing

a) that telecommunications/ICTs can help to accelerate progress towards the SDGs;

b) that education systems need to be transformed to become more agile, more resilient, shock absorbent, crisis respondent, more innovative and more connected using appropriate telecommunication/ICT solutions that can support such transformation;

c) the importance of school connectivity to support meaningful learning experiences and to enable teachers to stay abreast of new content, technologies and teaching methods in order to reach more children and young people everywhere irrespective of their circumstances;

d) that sustainable digital and hybrid learning systems should be inclusive, generate value through contextualized and open educational resources, and celebrate local languages, while benefiting from global ecosystems, initiatives, value chains, resources and knowledge;

e) that continuous energy supply is required for connected schools,

having noted

a) that key ITU Telecommunication Development Sector projects that focus on connecting the unconnected in diverse settings can share their findings to inform national school connectivity projects and initiatives;

b) that Giga, the ITU and United Nations Children's Fund (UNICEF) initiative to connect every school to the Internet and every young person to information technology services, opportunity and choice:

i) connects schools and therefore connects students and teachers;

ii) is working actively with governments to create investment opportunities for blended public- and private-sector funding, to build the infrastructure needed to provide universal access to every school and to equip learners with high-quality, vetted and safe content;

iii) supports (through its pillars of Map, Finance, Connect and Empower) governments and national leaders in mapping schools and their connectivity levels and with analysis of the infrastructure requirements and technologies to connect all schools, and in developing sustainable financial models for universal digital access;

c) ongoing flagship partnerships of ITU with other United Nations agencies such as the World Bank, UNESCO, UNICEF and UN Women in the area of skills and ICTs, such as the Broadband Commission for Sustainable Development, Giga and EQUALS,

resolves

to commit to working towards connecting every school to the Internet, as a contribution to bridging the digital divide and to ensuring that young people everywhere have the means and skills to enable their fruitful participation in the global digital economy,

instructs the Director of the Telecommunication Development Bureau

1 to continue to carry out work on connecting every school and every young person to ICT services;

2 to set standards for school connectivity and to provide short-mid-long term global targets for connecting every school in line with the global targets of universal and meaningful connectivity, towards 2030;

3 to evaluate models for affordable and sustainable approaches and financing with a view to connecting every young person, especially those in rural or remote areas, to ICT services, based on study of these models;

4 to continue to assist Member States and Sector Members in developing policy, regulatory and financial frameworks for connecting every school to the Internet;

5 to report annually to the ITU Council on the progress made in the implementation of this resolution;

6 to bring this resolution to the attention of all interested parties, including, in particular, the United Nations Secretary-General, UNESCO, UNICEF and other relevant United Nations agencies and programmes, for cooperation in implementing this resolution,

calls upon Member States, Sector Members and Academia of the ITU Telecommunication Development Sector

1 to promote whole-of-government and public-private partnership approaches for connectivity and infrastructure to bridge the digital divide and support the local development of digital education and training systems;

2 to encourage the adoption of a national strategy for school connectivity and digital skills development for life, work and lifelong learning, encompassing students, teachers and educators;

3 to make all efforts to bring down the costs of connectivity infrastructure and of the installation and operation of ICT equipment;

4 to identify, examine and implement sustainable energy solutions and supply for connectivity to and in schools, taking into consideration the geographical and topographical context;

5 to promote innovation in infrastructure and connectivity operating models to ensure inclusive and sustainable digital learning;

6 to share knowledge, expertise, skills and experiences in connecting schools and the communities around them.

RESOLUTION 88 (Kigali, 2022)

The ITU Partner2Connect Digital Coalition

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) United Nations General Assembly Resolution 70/1, on transforming our world: the 2030 Agenda for Sustainable Development;

b) Resolution 135 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in the durable and sustainable development of telecommunications/information and communication technologies (ICTs), in providing technical assistance and advice to developing countries[1] and in implementing relevant national, regional and interregional projects;

c) Resolution 139 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the use of telecommunications/ICTs to bridge the digital divide and build an inclusive information society;

d) Resolution 140 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in implementing the outcomes of the World Summit on the Information Society (WSIS) and the 2030 Agenda for Sustainable Development;

e) Resolution 200 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the Connect 2030 Agenda for global telecommunication/ICT, including broadband, for sustainable development;

f) Resolution 16 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference, on special actions and measures for the least developed countries (LDCs), landlocked developing countries (LLDCs), small island developing states (SIDS) and countries with economies in transition;

g) Resolution 37 (Rev. Kigali, 2022) of this conference, on bridging the digital divide;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

h) Resolution 71 (Rev. Kigali, 2022) of this conference, on strengthening cooperation between Member States, Sector Members, Associates and Academia of the ITU Telecommunication Development Sector and the evolving role of the private sector in the ITU Telecommunication Development Sector,

considering

a) that, while it is widely recognized that ICTs form the backbone of today's digital economy, and have potential to accelerate progress towards the Sustainable Development Goals (SDGs), 2.9 billion people are still totally offline in 2022, while hundreds of millions more lack the affordable, accessible and reliable connectivity that would meaningfully change their lives;

b) that, the coronavirus disease (COVID–19) pandemic spotlighted that having access to the Internet and ICTs is essential, and that access and adoption and creating value though digital ecosystems is fundamental for individuals to work, learn, trade and communicate and to foster the digital economy;

c) the importance of engaging all stakeholders to mobilize resources, partnerships and commitments in order to foster meaningful connectivity and digital transformation in the hardest-to-connect communities,

noting

a) the Partner2Connect Digital Coalition (P2C), a multistakeholder alliance launched by ITU in close cooperation with the Office of the United Nations Secretary-General's Envoy on Technology, and in line with the United Nations Secretary-General's Roadmap for Digital Cooperation, to foster meaningful connectivity and digital transformation globally, with a focus on, but not limited to, hardest-to-connect communities in LDCs, LLDCs and SIDS;

b) the P2C Action Framework, developed through a multistakeholder consultative process in alignment with the WSIS action lines and the SDGs, and based on four focus areas: access, adoption, value creation and accelerating investments,

resolves to request the Secretary-General and the Director of the Telecommunication Development Bureau

1 to continue to follow up on the work of the Telecommunication Development Bureau (BDT) pursuant to Resolution 37 (Rev. Kigali, 2022), on bridging the digital divide, and Resolution 71 (Rev. Kigali, 2022), by catalysing concrete joint efforts to accelerate connectivity and mobilizing resources across the four focus areas through the P2C Coalition and the multistakeholder partnership model it represents;

2 to ensure that BDT continues to play a central role in this initiative and actively monitors and tracks commitments and engagements, and reports over time against the overall objective of achieving universal connectivity, in addition to maintaining an active communication channel among strategic stakeholders;

3 to ensure that the necessary resources, within the budgetary limits, are allocated to the above actions,

invites international financial institutions, donor agencies and private-sector entities

to make, implement and report on pledges and commitments to P2C to foster meaningful connectivity and digital transformation,

invites Member States and Sector Members

1 to advance progress towards meaningful connectivity and digital transformation by defining, implementing and scaling pledges and mobilizing new resources and partnerships, in alignment with the SDGs, the WSIS action lines, and the United Nations Secretary General's Roadmap for Digital Cooperation;

2 to participate actively in reporting and sharing experiences and best practices in the implementation of P2C pledges and commitments.

RESOLUTION 89 (Kigali, 2022)

Digital transformation for sustainable development

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 70/1 of the United Nations General Assembly (UNGA), on transforming our world: the 2030 Agenda for Sustainable Development;

b) UNGA Resolution 70/125, on the outcome document of the UNGA high-level meeting on the overall review of the implementation of the outcomes of the World Summit on the Information Society (WSIS);

c) the WSIS outcome documents, notably the Geneva Plan of Action and the Tunis Agenda for the Information Society;

d) the outcomes of the United Nations Secretary-General's High-level Panel on Digital Cooperation and its associated roadmap, as well as the United Nations Global Pulse initiative;

e) Resolution 71 of the Plenipotentiary Conference, on the strategic plan for the Union, as revised periodically;

f) Resolution 130 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on strengthening the role of ITU in building confidence and security in the use of information and communication technologies (ICTs);

g) Resolution 200 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the Connect 2030 Agenda for global telecommunication/ICT, including broadband, for sustainable development;

h) Resolution 137 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on deployment of future networks in developing countries[1];

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

i) Resolution 17 (Rev. Kigali, 2022) of this conference, on implementation of and cooperation on regionally approved regional initiatives at the national, regional, inter-regional and global levels;

j) Resolution 11 (Rev. Kigali, 2022) of this conference, on telecommunication/ICT services in rural, isolated and poorly served areas;

k) Resolution 77 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference, on broadband technology and applications for greater growth and development of telecommunication/information and communication services and broadband connectivity;

l) Recommendations and other work of ITU related to digital transformation,

considering

a) the role of ITU as a United Nations specialized agency to support Member States and to contribute to worldwide efforts to achieve the Sustainable Development Goals (SDGs);

b) that ITU is committed to inclusiveness, bridging the digital divide and providing broadband access for all;

c) that digital transformation is important for achieving the 2030 Agenda for Sustainable Development and the implementation of the WSIS outcomes;

d) that digital transformation has enormous potential for, and is an important factor in, positive change;

e) that incorporating digital transformation into national strategies and policies, with inputs from stakeholders, is an effective way to plan for digital transformation,

noting

a) that developing countries' achievement of the SDGs will depend in large part on their ability to mobilize financial and human resources;

b) that collaboration among all stakeholders on digital transformation can contribute to addressing the associated challenges and provide opportunities for all,

taking into account

a) that telecommunications/ICTs are key enablers for social, environmental, cultural and economic development, and consequently for accelerating the timely attainment of the SDGs and associated targets;

b) that new and emerging telecommunication/ICT services and technologies are key drivers for digital transformation, creating, at the same time, opportunities and challenges;

c) that it is important to foster access to, and increased use of, telecommunications/ICTs and to facilitate innovation in support of the digital transformation of society,

recognizing

a) that the digital economy continues to expand, and so, for developing countries to draw full benefit from the digital transformation, capacity building and capabilities are essential to promote socio-economic opportunities;

b) that digitalization of the economy supports digital transformation;

c) that telecommunication/ICT infrastructure and services are important components of digital transformation of the economy and should be factored into national digital transformation strategies;

d) that, given the electricity, connectivity and other infrastructure needs of the digital economy, developing an enabling environment for digital transformation is critical for developing countries, including least developed countries, landlocked developing countries and small island developing states,

recognizing further

that the study groups of the ITU Telecommunication Development Sector (ITU-D) have made significant progress in their ongoing work related to digital transformation,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to facilitate efforts within the Telecommunication Development Bureau, with the assistance of the ITU regional offices, to promote digital transformation in line with ITU-D priorities, regional initiatives, WSIS action lines, SDGs, study Questions and ITU-D projects;

2 to increase attention on projects related to new and emerging telecommunication/ICT services and technologies related to digital transformation through ITU-D priorities and regional initiatives, linking with the associated SDGs and WSIS action lines;

3 to continue to address matters related to key telecommunication/ICT enablers of digital transformation for a variety of services and local content, taking into consideration the related financing mechanisms for affordable and cost-effective solutions and the associated policies and strategies, including for a variety of services and local content;

4 to undertake studies and projects related to digital transformation policies and strategies, enabling developing countries to reap the full benefits of the digital economy;

5 to continue, and further develop, ITU-D activities on digital transformation, including training programmes and awareness campaigns, and to support global capacity-building efforts for digital transformation;

6 to promote and support national initiatives dedicated to the telecommunication/ICT dimensions of the digital economy;

7 to assist Member States, upon request, and within available resources, to develop national digital transformation strategies using relevant ITU-D tools and resources on digital transformation,

invites the Directors of the Radiocommunication Bureau, the Telecommunication Standardization Bureau and the Telecommunication Development Bureau

1 to collaborate actively to fulfil the needs addressed by this resolution in areas of mutual interest related to digital-transformation technologies, within the framework of the ''One ITU'' approach and enhancing coordination among the three Sectors;

2 to ensure that the Sector advisory groups provide for coordination with the other Sectors in relation to digital-transformation technologies,

invites Member States and Sector Members

to provide all possible support for the implementation of this resolution and to contribute actively on relevant work under ITU-D study Questions,

invites the Secretary-General

1 to include digital transformation in the list of areas of mutual interest to the three Sectors and the General Secretariat;

2 to suggest that the Inter-Sector Coordination Group on issues of mutual interest consider digital transformation an area of mutual interest to the three Sectors.

RESOLUTION 90 (Kigali, 2022)

Fostering telecommunication/ICT-centric entrepreneurship and digital innovation ecosystems for sustainable digital development

The World Telecommunication Development Conference (Kigali, 2022),

recalling

a) Resolution 30 (Rev. Kigali, 2022) of this conference, on the role of the ITU Telecommunication Development Sector (ITU-D) in implementing the outcomes of the World Summit on the Information Society and the 2030 Agenda for Sustainable Development;

b) Resolution 75 (Rev. Buenos Aires, 2017) of the World Telecommunication Development Conference, on the implementation of the Smart Africa Manifesto and support for the development of the information and communication technology (ICT) sector in Africa;

c) Resolution 76 (Rev. Kigali, 2022) of this conference, on promoting ICTs among young women and men for social and economic empowerment;

d) Resolution 85 (Rev. Kigali, 2022) of this conference, on facilitating the Internet of Things and smart sustainable cities and communities for global development;

e) Resolution 198 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on the empowerment of youth through telecommunication/ICT;

f) Resolution 205 (Dubai, 2018) of the Plenipotentiary Conference, on ITU's role in fostering telecommunication/ICT-centric innovation to support the digital economy and society;

g) Resolution 209 (Dubai, 2018) of the Plenipotentiary Conference, encouraging the participation of small and medium enterprises (SMEs) in the work of the Union;

h) Resolution 68/220 of the United Nations General Assembly (UNGA), on science, technology and innovation for development,

recognizing

a) that telecommunication/ICT innovation has a critical role for enabling infrastructure development, services for remote, rural and underserved areas, and deployment of telecommunications/ICTs to support digitalization of the economy;

b) that telecommunication/ICT innovation has a transformational effect on individuals, societies and economies throughout the world;

c) that technology-driven entrepreneurial endeavours provide a means to accelerate the achievement of the Sustainable Development Goals (SDGs) through a bottom-up stakeholder approach to problem-solving;

d) that digital innovation ecosystems, which offer a thriving environment to sustain digital development, need focused intervention by decision-makers and partners;

e) that UNGA Resolution 70/1, on the 2030 Agenda for Sustainable Development, has substantial implications for the activities of ITU, especially those fostering innovation, for the advancement of SDG 9;

f) the importance of digital innovation and the need for an enabling environment to tackle complex issues in communities during a crisis, and the need to ensure every country has the innovation capacity for futureproofing against pandemics and crises;

g) that inclusion of all of society is an essential goal for development,

resolves to instruct the Director of the Telecommunication Development Bureau

1 to support, within existing resources, the sharing of good practices in telecommunications/ICTs developed by Member States to enable blueprints for accelerated development of digital entrepreneurship initiatives, including the development of tech parks, innovation hubs, incubators, accelerators and mentoring programmes, funds and partnership mechanisms;

2 to continue providing technical assistance to developing countries in the telecommunication/ICT-related development of policies, strategies and roadmaps, where digital entrepreneurship is the key driver for digitalization of the economy, taking into account ITU experience in the matter;

3 to continue building capabilities of stakeholders at the national level that promote the uptake of entrepreneurship-driven innovation and the development of sustainable digital innovation communities using telecommunications/ICTs in support of the achievement of the SDGs;

4 to work in coordination with international and regional organizations and cooperate with other stakeholders in order to establish a supportive environment to enable the exchange of knowledge, expertise and best practices to support the deployment of entrepreneurship-driven innovation projects leveraging telecommunications/ICTs;

5 to support local initiatives, start-ups and SMEs in leveraging telecommunications/ICTs to access domestic and global markets in order to scale up their innovation, including through collaboration with the International Trade Centre and other relevant international and regional organizations;

6 to facilitate sharing of best practices and strategies that accelerate the development of ICT/telecommunication-driven entrepreneurial universities, technology-based vocational schools and a culture of entrepreneurship, as well as mechanisms to enhance multistakeholder and multisector cooperation at the national level for sustainable digital development;

7 to continue the work of ITU in supporting digital innovation ecosystems without discrimination of any kind, including in respect of age, ability, gender or location,

instructs the Director of the Telecommunication Development Bureau, in collaboration with the Directors of the Telecommunication Standardization Bureau and the Radiocommunication Bureau

1 to ensure that coordination takes place on all activities relevant to the purposes of this resolution;

2 to collate work done within ITU relating to the objectives of this resolution, including work in study groups, and facilitate knowledge-sharing and dissemination of good practices in all countries;

3 to promote, within the remit of ITU, digital entrepreneurship and the development of digital innovation, invites the Secretary-General,

invites the Secretary-General

to support the activities in ITU-D that enable telecommunication/ICT-centric entrepreneurship-driven innovation and digital innovation ecosystems, including by human and financial means for ITU members,

invites Member States and Sector Members

1 to participate actively, in collaboration with other stakeholders, in digital entrepreneurship and digital innovation ecosystem-related activities, while facilitating the participation of Tech hub, entrepreneurial support organizations, local initiatives, SMEs and start-ups;

2 to collaborate with ITU on activities related to the implementation of this resolution that leverage digital entrepreneurship to accelerate the achievement of the SDGs;

3 to establish policies/strategies in their countries/regions that foster telecommunication/ICT-centric innovation.

RECOMMENDATION ITU-D 15

Models and methods to determine the cost of national telecommunication services

(January, 2002)

Question 12/1: *Tariff policies, tariff models and methods of determining the cost of national telecommunication services*

The ITU Telecommunication Development Bureau (ITU-D),

recognizing

a) that the level and structure of telecommunication tariffs have an important role to play in creating the internally generated funds needed by telecommunication operators, which in most cases serve to finance telecommunication entities' development programmes and are also used in meeting their recurrent expenditure requirements;

b) that the establishment of a balanced and attractive telecommunication tariff structure can promote efficient use of the network and services, enhance universal service provision and have a positive effect on the development of other sectors of the economy,

noting

a) that many developing countries lack adequate experience and skills in formulating cost-orientated tariffs to enable them to benefit fully from telecommunication tariff policies, strategies and practices;

b) that these countries need assistance in obtaining tools for determining and calculating costs in the context of the implementation of cost-orientated tariff structures and levels,

recommends

1 that, in establishing of their legal and regulatory frameworks, public authorities and administrations should:

a) focus on methods for determining and calculating cost-orientated tariffs for telecommunication services, including interconnection charges;

b) take the necessary measures to ensure that they are provided with the appropriate tools for determining the costs of telecommunication services;

c) provide for appropriate training of staff responsible for the tariff structure on the various models and approaches existing worldwide, including in particular the regional tariff models relating to national costs,

2 that the following general principles identified by ITU-T Study Group 3 be implemented in determining and calculating costs:

a) transparency,

b) practicability,

c) objectivity,

d) cost causality,

e) cost recovery,

3 that ITU-D, and the Director of BDT in particular, pursuant to WTDC-98 Resolution 12, give support to administrations in the implementation of cost-orientated tariff structures.

RECOMMENDATION ITU-D 16

Tariff rebalancing and cost-oriented tariffs

(January, 2002)

Question 12/1: *Tariff policies, tariff models and methods of determining the cost of national telecommunication services*

The ITU Telecommunication Development Bureau (ITU-D),

recognizing

a) that the level and structure of telecommunication tariffs play an important role for telecommunication operators in the financing of their development programmes and meeting their recurrent expenditure requirements;

b) that the establishment of a balanced and attractive telecommunication tariff structure can promote use of the network and the operation of services, enhance universal service provision and have a positive effect on the development of other sectors of the economy,

noting

a) that many developing countries lack adequate experience and skills in formulating cost-orientated tariffs to enable them to benefit fully from telecommunication tariff policies, strategies and practices;

b) that these countries need assistance in obtaining tools for determining and calculating costs in the context of the implementation of cost-orientated tariff structures and levels,

recommends

1 that, in establishing their legal and regulatory frameworks, public authorities and administrations should take into consideration, where necessary, the impact of high inflation,

2 that public authorities:

a) gradually rebalance tariffs so as to move to cost-orientated tariffs;

b) adopt time-limited safeguards to ensure that losses of income due to the lowering of tariffs for certain services and/or in certain areas are not offset by price increases for other services and/or in other areas (peripheral, rural, …);

c) move towards rebalancing of traffic and judges its consequences on the affordability of telecom services, which need to be linked to appropriate measures that regulators and policy makers may derive,

3 that public authorities ensure:

a) that tariffs for access to and use of the fixed public telephone network are independent of the type of application which the operators and users implement, except to the extent that they require different services or facilities;

b) that the tariffs for facilities additional to the provision of connection to the fixed public telephone network and fixed public telephone services are sufficiently unbundled so that the user is not required to pay for facilities which are not necessary for the service requested;

c) that, in cases where different tariffs exist, in particular to take account of high traffic load during peak hours and low traffic load at quiet times, the differences are commercially justified,

4 that ITU-D, and the Director of BDT in particular, pursuant to WTDC-98 Resolution 12, should give support to administrations in the implementation of cost-orientated tariff structures, *inter alia* by conducting case studies, making the questionnaire an annual one and updating the database.

RECOMMENDATION ITU-D 17

Sharing of facilities in rural and remote areas

(January, 2002)

Question 10/2: *Communications for rural and remote areas*

The ITU Telecommunication Development Bureau (ITU-D),

considering

a) the work of Focus Group 7[1], Focus Group 7's Report[2], and the updated Report on Communications for rural and remote areas;

b) the need for provision of and the fundamental goal of providing access to basic and advanced telecommunication services;

c) the significance of obtaining physical access to and use of public or community communications centres (e.g. public call offices, multi-purpose community telecentres, and other community access centres; and

d) the benefit brought to underserved communities by these facilities,

bearing in mind

a) that the success of a community access focal point also depends upon access, availability, cost, community participation, reliability, sustainability, and services offered;

b) that the success of the community access focal point also depends on analysis and assessment of the needs of the community and the appropriate technology, a community action and business plan, and the development of know-how, expertise and human resources,

noting

that there is no single model that meets the needs of an individual community, but that certain elements may be applicable in other community models,

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1 Focus Group 7 was established at WTDC-98 to study various mechanisms by which to promote the development of new telecommunication technologies for rural applications. Focus Group 7 completed its work at the end of 2000.

2 The Report of Focus Group 7 entitled New technologies for rural applications was published in February 2001. Also see http://www7.itu.int/itudfg7/

recommends

1 that community stakeholders, policy makers, the private sector, and regulators facilitate the most inclusive framework for sharing community access facilities from practical and partnership perspectives, and collaborate to document successful and sustainable examples of community centres/access facilities, and

2 that stakeholders take advantage of a wealth of knowledge gained by development organizations, non-governmental organizations, ITU members and ITU experts on lessons learned in creating sustainable community access centres.

RECOMMENDATION ITU-D 19

Telecommunications for rural and remote areas

The World Telecommunication Development Conference (Dubai, 2014),

recognizing

a) that the following Recommendation resulting from the ITU-D study period 1998-2002 has provided guidance on a number of issues concerning telecommunications/information and communication technologies (ICTs) in rural and remote areas:

– RECOMMENDATION ITU-D 17, Sharing of facilities in rural and remote areas (January 2002);

b) that Focus Group 7, on rural telecommunications, addressed technological options, service potential and financing mechanisms for the provision of telecommunications/ICTs in rural and remote areas;

c) that the Telecommunication Development Bureau (BDT), through the "Connect a School, Connect a Community" initiative, has developed public policy recommendations and best practices for the development of ICTs in indigenous communities, and that therein, based on relevant cases of countries worldwide, it notes the importance of creating conditions for the provision of telecommunication services in those areas, through projects that are organized around achieving economies of scale and run by the communities themselves,

noting

a) that Focus Group 7 paid particular attention to the role of micro-finance institutions (MFI) in promoting access to ICT services and application by supporting small entrepreneurs;

b) the excellent results of the study period 2006-2010, which consolidate experiences worldwide on the successful provision of telecommunications/ICTs to rural and remote areas, based, *inter alia*, on information submitted to the case library and on e-discussions on the issues identified by the Rapporteur Group[1];

c) that experiences all over the world with emerging technologies deployed in rural and remote areas providing broadband, wired transmission media and wireless transmission media indicate rapid decrease of costs and increase of range and capacity, and that all these developments make connecting rural areas a feasible option;

d) that backhaul wireless solutions play a key role in extending broadband service delivery and coverage for rural and remote areas;

e) that the deployment of IP-based platforms serving wide areas can make a range of developmental services and applications such as education, health, agriculture, etc. available to the rural population;

f) that, in remote and rural areas, spectrum use might be improved by the use of new spectrum-access approaches;

g) that these developments make it possible for telecommunication/ICT services and applications to be provided by small and medium enterprises, local governments and non-governmental organizations in rural and remote areas with appropriate business models;

h) that technical expertise and adoption capacity are important factors to plan, implement and operate such facilities;

i) that in rural and remote areas of developing countries, low incomes and lack of literacy and computer literacy limit the number of people who can have Internet access in their homes: These communities need public ICT facilities which can be used for communication, delivery of services and various capacity building activities, and there is a role for small entrepreneurs, local governments, schools and post offices in this process;

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[1] The case library for Question 10-2/2 can be consulted at http://www.itu.int/ITUD/study_groups/SGP_2006-2010/events/Case_Library/index.asp. The address of the e-discussion web page is: http://www.itu.int/ituweblogs/ITUD-SG2-Q10/.

j) that the provision of ICT services and applications by small entrepreneurs in rural and remote areas has the potential to create employment, and these ventures can be supported by financial institutions and receive support from various government schemes;

k) that a well planned maintenance and operation programme in order to keep the infrastructure and associated equipment, including terminal equipment, in good working condition is an essential aspect of the support structures in rural areas;

l) the excellent collaboration between BDT and the Universal Postal Union in promoting the use of post offices as vehicles for the provision of access to telecommunication/ICT services and applications in rural and remote areas;

m) that energy supply is a basic bottleneck for the spread of telecommunications/ICTs in rural and remote areas, and that innovative uses of solar power, mini-hydro power and windmill power sources, sometimes in combination, are being successfully employed in many countries to provide reliable energy sources for mobile base stations,

considering

a) that the provision of telecommunications, ICT services and applications can make significant contribution to the quality of life of the population living rural and remote areas;

b) that stimulation of demand for telecommunications/ICTs through proactive government policies is a key to realizing their benefits;

c) that the accumulation of experiences worldwide on community access institutions (telekiosks, multipurpose community telecentres, multimedia centres) points to the need for proactive and supportive government policies to simulate demand of the services available;

d) that the availability of information should be reinforced by the upgrading of skills and provision of capital in order that information is properly utilized;

e) that access to telecommunications/ICTs for all will maximize social welfare, increase productivity, conserve resources and contribute to safeguarding human rights,

recommends

1 that developing countries should include the provision of telecommunications/ICTs in rural and remote areas in their national development plans;

2 that, in planning infrastructure development in rural and remote areas, it is important to assess all available technologies in the market, taking into consideration the regulatory environment, geographical conditions, climate, costs (capital expenditure and operational expenditure), maintainability, operability, sustainability, etc., based on the results of the site survey and community needs;

3 that community access to ICT facilities and services is particularly important in rural and remote areas: business models which can achieve financial and operational sustainability can be operated by local entrepreneurs supported by a variety of initiatives, and these facilities, where necessary, should also be supported by universal service funds as an essential component of rural communications;

4 that it is important to encourage the use of post offices to provide telecommunication/ICT services, owing to their communicative presence in the lives of the population in rural areas;

5 that local institutions should be involved in planning and implementing ICT facilities;

6 that enhancing local technical expertise and adoption are important for successful implementation of ICT services and applications in rural and remote areas, and attention should thus be paid to training, exchange of information and sharing of maintenance facilities in order to achieve sustainability and viability;

7 that adoption of broadband technology should be encouraged;

8 that keeping equipment in good working condition through effective preventive maintenance programmes is an essential part of making telecommunications in rural areas viable and should be encouraged, while guarding against making developing countries a dumping ground for obsolete technologies;

9 that it is important to take steps to ensure continued reliability of equipment in rural environments, such as developing an appropriate maintenance and operation strategy and encouraging training for technical staff;

10 that it is important to consider small and non-profit community operators, through appropriate regulatory measures that allow them to access basic infrastructure on fair terms, in order to provide broadband connectivity to users in rural and remote areas, taking advantage of technological advances;

11 that it is also important that administrations, in their radio-spectrum planning and licensing activities, consider mechanisms to facilitate the deployment of broadband services in rural and remote areas by small and non-profit community operators;

12 that, given that lack of energy supply is a major bottleneck in the provision of telecommunications/ICTs in rural and remote areas, and taking into consideration environmental issues, renewable energy sources should be used whenever feasible;

13 that, since the high cost of backhaul investment is another bottleneck in the provision of telecommunications/ICTs in rural and remote areas, new regulatory frameworks on shared infrastructure and accelerated licensing processes could help in developing these networks;

14 that collaboration among governments, industry, local agencies and international organizations is desirable in the development of low-cost ICT infrastructure, including renewable energy sources and terminals for the provision of telecommunications/ICTs in rural and remote areas, and should be pursued;

15 that Member States shall promote the best alternatives for the deployment of cost-effective backhaul solutions for broadband access networks in rural and remote areas.

RECOMMENDATION ITU-D 20

Policy and regulatory initiatives for developing telecommunications/ ICTs/broadband in rural and remote areas

The World Telecommunication Development Conference (Dubai, 2014),

considering

a) that the significant role of telecommunications/ICTs/broadband in providing services, particularly e-applications, in rural and remote areas of developed countries, countries with economies in transition, developing and least developed countries (LDCs) for the empowerment of their people, promotion of culture, improvement of the quality of life of the rural community, development of the economy, etc.;

b) that ITU-D Study Groups 1 and 2 have continued their study activities to address the challenges faced by the rural and remote areas of the world in general, and LDCs and developing countries in particular, on various issues including, but not limited to, the range of techniques and solutions to provide services and e-applications, based on the inputs by the membership;

c) that Recommendation ITU-D 19 (Hyderabad, 2010) compiled the past Recommendations and consolidated them into a Recommendation based on the results of the studies on techniques and solutions for the development of telecommunications/ ICTs/broadband for rural and remote areas since the establishment of the dedicated study Question during WTDC-94 (Buenos Aires),

recognizing

a) that the Telecommunication Development Bureau (BDT), under the activities of ITU-D Study Group 2 Question 10-3/2, conducted a survey to gather detailed information on policy and regulatory measures that have been taken by the governments around the world and economic and business models for telecommunication/ICT/ broadband growth in rural and remote areas;

b) that the survey also sought to collect information on the possible impact and analysis of such interventions and initiatives;

c) that the inputs received through the survey were useful for the study of ITU-D Study Group 1 and 2 Questions for the 2010-2014 study period to assist countries in strengthening the capacity to address challenges for the development of telecommunications/ICTs/broadband in rural and remote areas,

taking into account

a) the results of analysis of the survey submitted by BDT to ITU-D Study Group 2;

b) the analysis of case studies submitted to ITU-D Study Group 2 during the 2010-2014 study period;

c) the final report of ITU-D Study Group 2 Question 10-3/2, on telecommunications/ICTs for rural and remote areas (2014);

d) the report of Broadband Commission for Digital development (2012) submitted to ITU-D Study Group 2;

e) the ITU Report on measuring the information society (2012);

f) the fact that, in contrast to the large percentage of the global population that subscribe to basic mobile phone services, Internet connectivity in developing countries and LDCs is still limited, in particular in their rural and remote areas;

g) that many governments have initiated the development of a specific national broadband network plan that would also cater for the needs of their rural and remote areas;

h) that active and passive infrastructure sharing, along with the sharing of spectrum resources, are already included by some countries in their national telecommunication/ICT policy;

i) that new licensees, with the support of the universal service fund and the sharing of active and passive network elements based on reference offers, as well as spectrum resources, can service rural and remote areas with incremental addition of their own network infrastructure elements, billing systems and customer services and independent tariff plans,

noting

a) that the following major interventions/initiatives are observed in the analysis of survey input:

i) the definition of "rural and remote areas" is based on sparse population and harsh geographical conditions, and some countries have licence obligations to cover a certain percentage of the population in such areas;

ii) the majority of the countries that responded to the survey have specific government policies in place for the development of telecommunications/ICTs/broadband in rural and remote areas, including the corresponding instruments, such as universal service provisions, universal access funds, licence obligations and targets for broadband coverage, penetration rate and data speed, defined in their telecommunication law and regulation;

iii) funds are collected by the government ministry or telecommunication regulator of the country as a percentage of annual gross revenue or other scheme in proportion with income/annual net revenue/turnover and also managed and disbursed by the relevant ministry or regulator;

iv) the development and adoption of an appropriate economic model and business model is critical for the development and sustainability of telecommunication/ICT/broadband networks and service provisioning in rural and remote areas, and it has been found that various kinds of economic and business models have been adopted by Member States based on specific country situations and requirements;

v) sharing of backbone network infrastructure in rural and remote areas among operators, rather than building network infrastructure using a specific government budget and through a universal service obligation (USO) fund, is one possible option;

vi) special policy, legal and/or regulatory frameworks for infrastructure sharing in rural and remote areas, for example by using optical fibre cables and base transceiver stations (BTS)/microwave towers and related support infrastructures, is an option worth considering in developing countries and LDCs,

convinced

a) that the development of telecommunication/ICT/broadband services is essential for overall socio-economic and cultural development as well as for the promotion of other sectors;

b) that the development of ICT infrastructure is an important measure to prevent the migration of population to urban areas;

c) that telecommunication/ICT infrastructure is an important tool for measuring factors related to the protection of the environment,

recommends

1 that governments and regulators around the world in general and in the developing countries and LDCs in particular should take regulatory and policy measures to accelerate the development of telecommunications/ICTs/broadband in their rural and remote areas through specific policy and regulatory interventions/initiatives, and include them in their national development plans;

2 that operators and service providers should implement universal telecommunication/ICT service in rural and remote areas;

3 that Sector Members, Associates and Academia should take actions to increase studies on economic, energy-efficient and clean equipment suitable for ICT infrastructure development in rural and remote areas;

4 that the state-of-the-art cost-effective techniques and technologies for broadband infrastructure development most suited for the geographical and economic conditions of rural and remote areas be put in place to enable these areas to access various e-applications, especially those which integrate them into national streams like e-governance, e-health, e-education, e-agriculture, etc. for vitalizing rural community through policy and regulatory interventions/initiatives;

5 that country/area-specific poverty indices published by the United Nations/World Bank may be taken into due consideration in the implementation of universal telecommunication/ICT service in rural and remote areas,

invites the Director of BDT

to continue organizing symposiums, seminars, workshops and related activities on the subject.

RECOMMENDATION ITU-D 21

ICT and climate change

The World Telecommunication Development Conference (Dubai, 2014),

considering

a) that climate change is now an undeniable reality, and global action to reduce greenhouse gas (GHG) emissions is urgent in order to avoid devastating impacts on our societies;

b) that the World Telecommunication Development Conference (Hyderabad, 2010) (WTDC-10) stated that telecommunications/ICTs can make a substantial contribution to monitoring, mitigating and adapting to the adverse effects of climate change;

c) that the World Radiocommunication Conference (Geneva, 2012) (WRC-12) revised Resolution 673 (Rev. Geneva, 2012), on the importance of earth observation radiocommunication applications;

d) that the Plenipotentiary Conference (Guadalajara, 2010) adopted Resolution 182 (Guadalajara, 2010), on the role of telecommunications/ information and communication technologies (ICTs) in regard to climate change and the protection of the environment;

e) that WTDC Resolution 66 (Rev. Dubai, 2014), on information and communication technology and climate change, states that radio-based remote sensing applications on board satellites are the main global observation tools employed by the Global Climate Observing System for climate monitoring, disaster prediction, detection and mitigation of the negative effects of climate change;

f) that the economic costs imposed by extreme climates and disasters on humans, societies and ecosystems are growing;

g) that climate modelling indicates that, in future, continued increases in GHG concentrations may drive more extreme weather events;

h) that, according to Resolution 30 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, countries, particularly small island developing states, least developed countries (LDCs), landlocked developing countries (LLDCs) and low-lying coastal countries, are vulnerable to global climate change and rising sea levels;

i) that the process established by the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the ongoing negotiations of its Intergovernmental Negotiating Committee are important international actions aimed at addressing the threat of climate change, mitigating its adverse impacts and assisting all ITU Member States, especially LDCs, in adapting to its adverse consequences,

noting

a) that ICTs can facilitate faster development of various social and economic sectors in any country and that they lead to especially perceptible equal opportunities for all mankind;

b) the need for improvement for the most vulnerable parts of society in rural and remote areas, contributing to their inclusive growth of society;

c) that providing assistance to developing countries in formulating national and regional strategies and measures on the use of ICTs can to help mitigate and respond to the devastating effects of climate change;

d) that it is necessary to have an updated map of the potential upheavals that may occur in the long term due to the consequences of the warming of the climate;

e) that mapping areas vulnerable to natural disasters and developing computer-based information systems covering the results of surveys, assessments and observations, as part of the development of adequate response strategies, adaptation policies and measures, can minimize the impact of climate change and climate variability;

f) that assisting developing countries in the use of data from active and passive satellite-based remote sensing systems for climate monitoring, disaster prediction, detection and mitigation of the negative effects of climate change is a key issue for understanding the long-term evolution of the climate;

g) that facilitating Member States' participation in bilateral, regional and global research, assessments, monitoring and mapping of climate impacts can help in the development of response strategies;

h) that we can benefit from the experience of some countries, suffering from extreme weather events, which have already integrated in their strategy against climate change a list of concrete principles and actions;

i) that the World Summit on the Information Society (WSIS) decided to launch projects to promote ICTs in the fields of environment, natural resources, green ICT sector and natural disasters,

recognizing

a) that emissions of global warming gases continue to rise as the world burns ever more coal, oil and gas for energy;

b) that the year 2012 was the tenth warmest year since records began in 1880, with an annually averaged temperature across global land and ocean surfaces 0.57°C above the 1950s average, and around 0.8°C above the 1880 estimated average;

c) that there are changes in rainfall patterns, and wetter regions of the world (mid to high latitudes in the northern hemisphere and tropical regions) are generally getting increasing rainfall, and drier regions less rainfall;

d) that significant temperature increases have been observed over the last 50 years in the Atlantic, Pacific and Indian Ocean basins and that these increases cannot be attributed to changes in solar activity, volcanic eruptions or other natural variations;

e) that, with the operation of ground instruments since 1880 and the operation of remote sensing satellites, the constant increase in the mean sea level is a scientific fact that cannot be challenged;

f) that the increase in the mean sea level is threatening small islands and coastal cities,

recognizing further

a) that telecommunications/ICTs are of critical importance to overall economic, social and cultural development;

b) that countries believe it is essential to develop Internet access and to encourage training in ICTs as part of adaptation to climate change, as insufficient data is gathered at local level and sent for analysis;

c) that some countries want to learn more about the reduction of energy consumption and GHG emissions, and also to learn about ICTs that could operate at lower energy consumption and would require less maintenance, together with the corresponding quantified benefit for climatic change;

d) that some countries would like to learn more about the negative effects or impact of not using "green" ICTs and how can these contribute to helping reduce global warming,

recommends

1 that countries elaborate guidelines and best practices and implement national policies and related measures to facilitate the use of ICT to combat climate-change challenges;

2 that support be provided to help countries invest more in meteorology monitoring services, in order to prevent extreme events that could be devastating, as better prediction would cost relatively little and helps reduce the carnage caused by floods, droughts and tropical cyclones;

3 that, in order to help countries invest in the technologies, they need to know more about climate change in general, and have better access to and understanding of meteorological data (satellite and terrestrial) that are supplied;

4 that countries elaborate training programmes with a view to ensuring better usage of all the monitoring data;

5 that a program be developed, based on real figures, showing the effect of reduced energy consumption and the benefit of ICT;

6 that it is necessary to adopt innovative ICT-enabled strategies to tackle climate-change adaptation and mitigation on the long term;

7 that, as ICTs may need to operate in difficult meteorological conditions (hot weather, high humidity, etc.), it becomes urgent to help countries develop more affordable, as well as more robust and reliable, green ICTs;

8 that better cooperation between countries be established in areas related to the monitoring of meteorological data and for mitigating climate change using ICTs,

recommends further

1 that appropriate steps be taken for the creation of an enabling environment at the national, regional and international levels to encourage development and investment in the ICT sector, in meteorology and in prediction of extreme events by ITU members;

2 that work on further developing the field of ICTs and climate change be continued and treated by countries as a priority and urgent task,

invites the Director of the Telecommunication Development Bureau

1 to continue to contribute actively to enhancing activities related to climate-change mitigation and adaptation;

2 to continue jointly organizing events with other ITU Sectors in order to reduce duplication and enhance sharing of information across the Sectors and Member States.

RECOMMENDATION ITU-D 22

Bridging the standardization gap in association with regional groups of the study groups

The World Telecommunication Development Conference (Dubai, 2014),

considering

a) that Resolution 123 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on bridging the standardization gap between developing and developed countries, instructs the Secretary-General and the Directors of the three Bureaux to work closely with each other, in pursuing initiatives that assist in bridging the standardization gap between developing and developed countries, on follow-up and implementation of the operative paragraphs of that resolution supporting coordination in this respect at the regional level through regional offices and organizations;

b) that Resolution 44 (Rev. Dubai, 2012) of the World Telecommunication Standardization Assembly (WTSA), on bridging the standardization gap, instructs the Director of the Telecommunication Standardization Bureau (TSB), in collaboration with the Directors of Telecommunication Development Bureau (BDT) and the Radiocommunication Bureau (BR), within available resources, to provide the support needed for regional mobilization for standardization as well as to conduct workshops and seminars, as appropriate, to disseminate information and increase understanding of new Recommendations, in particular for developing countries;

c) that Resolution 54 (Rev. Dubai, 2012) of WTSA, on creation of, and assistance to, regional groups, instructs the Director of TSB, in collaboration with the Director of BDT, within the allocated or contributed resources that are available, to provide all necessary support for creating and ensuring the smooth functioning of the regional groups,

taking into account

the *further resolves* of Resolution 44 (Rev. Dubai, 2012), which states that ITU regional offices are to:

i) be engaged in the activities of TSB in order to promote and coordinate standardization activities in their regions to support the implementation of the relevant parts of that resolution and to carry out the objectives of the action plan, and launch campaigns to attract new Sector Members, Associates and Academia from developing countries to join ITU-T;

ii) assist the vice-chairmen, within the offices' budgets, in mobilizing members within their respective regions for increased standardization participation;

iii) organize and coordinate the activities of the regional groups of ITU-T study groups;

iv) provide the necessary assistance to the regional groups of ITU-T study groups;

v) provide assistance to the regional telecommunication organizations for the setting-up and management of regional standardization bodies,

recommends

1 that a functional structure for regional offices be implemented to support the activities of the regional groups;

2 that there be a budget allocation to regional offices to support the activities of the regional groups and their leaderships;

3 that the result of the activities of regional groups be sent for use, as appropriate, in the ITU Telecommunication Development Sector,

requests the Director of the Telecommunication Development Bureau

1 to implement a functional structure for the regional offices to support the activities of the regional groups;

2 to facilitate and support chairmen and vice-chairmen of ITU-T study groups from developing countries in promoting standardization activities and mobilizing members in subregional groups through workshops, seminars and forums.

Part V – ITU-D Study Questions and their terms of reference

STUDY GROUP 1

QUESTION 1/1

Strategies and policies for the deployment of broadband in developing countries

1 Statement of the situation or problem

Broadband technologies are fundamentally transforming the way we live. Broadband infrastructure, applications and services offer important opportunities for boosting economic growth, enhancing communications, improving energy efficiency, safeguarding the planet and improving people's lives.

Broadband access has had a significant impact on the world economy.

Rapid evolution and new business opportunities are driving rapid but uneven growth in digital technologies.[1] According to ITU data, 2019 marked the first full year when more than half the world begun to participate in the global digital economy by logging onto the Internet. The latest ITU data show that some 49 per cent of the world's population currently remain unconnected (ITU, 2020 estimates).[2]

The coronavirus disease (COVID-19) pandemic has also restated the importance of diverse ICTs in ensuring connectivity, as illustrated by insights shared on the Reg4Covid platform.[3]

As noted in the report of the Chairman of Study Group 1 to the TDAG virtual meetings held from 2 to 5 June 2020[4], and recognized in several instances and reports of study Question 1/1 for the ITU-D study period 2018-2021, the Question has to continue for the next study period, and the topics of interest to be reflected in the next study period under the overall theme of strategies and policies for the deployment of broadband in developing countries[5] are:

– Policies, strategies and regulatory aspects of broadband

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1 ITU Statistics. https://datahub.itu.int/

2 ITU/UNESCO Broadband Commission for Sustainable Development. The State of Broadband: Broadband as a Foundation for Sustainable Development (September 2019). https://www.itu.int/dms_pub/itu-s/opb/pol/S-POL-BROADBAND.20-2019-PDF-E.pdf

3 ITU Reg4Covid. https://reg4covid.itu.int/?page_id=59

4 See Annex 8 to Document TDAG-20/12(Rev.2).

5 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

– Broadband access technologies

– Financing and investment aspects of broadband

– Impact of COVID-19 and other pandemics on broadband networks

– Digital transformation/infrastructure

– Co-deployment and sharing of broadband infrastructure with other infrastructure networks

2 Question or issue for study

2.1 Continuing topics from previous study period

1) Policies and regulations that promote increased high-speed, high-quality broadband network connectivity in developing countries, considering trends in the various broadband access technologies, barriers for infrastructure deployment and investment, best practices on cross-border connectivity and challenges for small island developing states.

2) Effective and efficient ways to fund increased broadband access for the unserved and underserved populations in non-rural or urban areas.

3) The regulatory and market conditions necessary to promote deployment of broadband networks and services, including, as appropriate, the establishment of asymmetric regulation for operators with significant market power (SMP), such as local loop unbundling, if required, for such SMP operators, and organizational options for national regulatory authorities resulting from convergence.

4) Promoting incentives and an enabling regulatory environment for the investments required to meet the growing demand for access to the Internet generally, and bandwidth and infrastructure requirements in particular, for delivering affordable broadband services to meet development needs, including consideration of public, private and public-private partnerships for investment.

5) Methods and strategies influencing the effective deployment of wireline and wireless, including satellite, broadband access technologies, including backhaul considerations, for unserved and underserved populations in non-rural and urban areas.

6) Methodologies for the planning and implementation of migration to broadband technologies, taking into account existing networks, as appropriate.

7) National digital policies, strategies and plans which seek to ensure that broadband is available to as wide a community of users as possible.

8) Flexible, transparent approaches to promoting robust competition in the provision of network access (in possible collaboration with Question 4/1).

9) Co-investment and the co-location and shared use of infrastructure, including through active infrastructure-sharing (in possible collaboration with Question 4/1).

10) Licensing approaches and business models for promoting broadband network expansion that more effectively integrate the use of terrestrial, satellite, backhaul and submarine telecommunication infrastructure (in possible collaboration with Questions 4/1 and 5/1).

11) Holistic universal access and service strategies and financing mechanisms, including universal service funds, for both network expansion and connectivity for unserved and underserved populations in non-rural and urban areas (in possible collaboration with Questions 4/1 and 5/1).

2.2 New topics for this study period

12) Strategies to enhance the quality of service of the network with increased data traffic (in possible collaboration with Question 6/1).

13) Analysis of the impact of the expected delay in the deployment of terrestrial and non-terrestrial advanced telecommunication infrastructures, caused by the COVID-19 pandemic, and the consequent economic downturn, as well as technological alternatives complementary to the existing network to accommodate increased data traffic.

14) National digital policies, strategies and plans which seek to accelerate the deployment of advanced networks along with the promotion of e-education, e-health and telework after the COVID-19 pandemic.

15) Co-deployment and sharing of broadband infrastructure with other infrastructure networks.

3 Expected output

Revision of the Final Report on Question 1/1 for ITU-D study period 2018-2021, as appropriate.

4 Timing

Annual progress reports will be presented to Study Group 1 in 2022, 2023 and 2024. Deliverables identified in § 3 could be sent to Study Group 1 for approval when ready without waiting for the end of study period.

5 Proposers/sponsors

ITU-D Study Group 1 proposed the continuation of this Question as modified herein.

6 Sources of input

1) Results of related technical progress in relevant ITU-R and ITU-T study groups.

2) Contributions from Member States, Sector Members and Associates and from relevant ITU-R and ITU-T study groups, and other stakeholders.

3) Interviews, existing reports and surveys should also be used to gather data and information for the finalization of a comprehensive set of best-practice guidelines.

4) Material from regional telecommunication organizations, telecommunication research centres, manufacturers and working groups should also be used, in order to avoid duplication of work.

5) ITU publications, reports and Recommendations on broadband access technologies.

6) Relevant output and information from study Questions related to ICT applications.

7) Relevant inputs and information from BDT programmes related to broadband and the different broadband access technologies.

7 Target audience

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes
Consumers/end users	Yes	Yes
Standards-development organizations, including consortia	Yes	Yes

a) Target audience

All national telecom policy-makers, regulators, service providers and operators, especially those in developing countries, as well as manufacturers of broadband technologies.

b) Proposed methods for implementation of the results

The results of the Question are to be distributed through ITU-D interim and final reports. This will provide a means for the audience to have periodic updates on the work carried out and to provide input and/or seek clarification/more information from ITU-D Study Group 1 should they need it.

8 Proposed methods of handling the Question or issue

Close coordination is essential with ITU-D programmes, and other relevant ITU-D study Questions, and with ITU-R and ITU-T study groups.

a) How?

1) Within a study group:

– Question (over a multi-year study period) ☑

2) Within regular BDT activity:

– Programmes ☑

– Projects ☑

– Expert consultants ☑

3) In other ways: To be defined in the work plan ☑

b) Why?

The Question will be addressed within a study group over a four-year study period (with submission of interim results), and will be managed by a rapporteur group. This will enable Member States and Sector Members to contribute their experiences and lessons learned with respect to policy, regulatory and technical aspects of the migration from existing networks to broadband networks.

9 Coordination and collaboration

The ITU-D study group dealing with this study Question will need to coordinate with: relevant ITU-R and ITU-T study groups; the relevant outputs from other ITU-D study Questions; relevant focal points in BDT and ITU regional offices; coordinators of relevant project activities in BDT; experts and experienced organizations in this field.

10 BDT programme link

Links to the ITU-D priorities of the Kigali Action Plan, specifically to ''Affordable connectivity'' and ''Enabling policy and regulatory environment''. Further information will be in the work plan.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 2/1

Strategies, policies, regulations and methods of migration to and adoption of digital technologies for broadcasting, including to provide new services for various environments

1 Statement of the situation or problem

The migration to digital broadcasting technologies has been completed in some countries, while others are in the process of completing the transition. The final reports of the last study periods indicate that the transition results in a variety of strategies, plans and implementation actions that achieve a successful process to maximize the benefits.

The ITU Telecommunication Development Sector (ITU-D) can continue playing a role in helping Member States evaluate the technical and economic issues involved in the transition to digital technologies and services. On these matters, ITU-D has been collaborating closely with both the ITU Radiocommunication (ITU-R) and the ITU Telecommunication Standardization Sector (ITU-T), thus avoiding duplication.

ITU has been working to analyse and identify best practices for the transition from analogue to digital broadcasting. It is important to emphasize the report on ITU-D Question 11-3/2 for the 2010-2014 study period, which identifies public policies that should be applied as means for countries to be able to start the digital transition.

It is also important to mention the Digital Terrestrial Television Broadcasting Switchover (DSO) database, which contains information on relevant events (e.g. workshops, frequency coordination meetings and seminars), publications (e.g. ITU-R and ITU-D, roadmaps and workshop presentations), websites (e.g. ITU-R and ITU-D, GE06), contacts and sources of information.

In this context, the reports from the last study periods presented best practices that accelerate the transition and narrow the digital divide by deploying new services; communication strategies for public awareness on digital broadcasting; and radio spectrum issues related to the analogue switch-off process, among other case studies.

It is also important to acknowledge the relationship between different environments, notably broadcasting and broadband, and the necessity to treat broadcasting in a more general manner and consider the relationship among the various networks which deliver audiovisual content.

Moreover, the broadcasting arena is changing and the offers to users are evolving. New experiences in accessing audiovisual content are being provided, and one of the consequences of these new offers is that users no longer have only the traditional media services/applications. They are instead starting to experience different ways of watching audiovisual content in their broadcasting services.

Therefore, to implement new broadcasting technologies, services and applications in this new environment, which seems to be heading towards a global media strategy for service providers and not restricting the service offers to the traditional broadcasting market, it seems that consolidation, co-investment and infrastructure-sharing are key trends to reduce costs and allow massive investments in network deployment and content delivery.

Bearing that in mind, it is beneficial to study broadcasting as a key infrastructure for delivering innovative applications and services when combined with other networks and service platforms. Additionally, it is important to consider these interactions from the regulatory, economic and technical points of view, so as to leverage the strengths of each network for the benefit of the users and to make available a more diverse range of services.

There have been developments of broadcasting systems using Internet protocol (IP) throughout the broadcasting chain, including the production, contribution and transmission parts, and these developments of IP-based technologies in these parts are progressing quite quickly.

Taking into account possible innovations for broadcasting in the UHF band, proposed by new systems like 5G Broadcast, ATSC3.0 and the expected new Brazilian second-generation system, and also with the use of VHF Band III for DAB or DTT, this could lead to new forms of broadcasting services and applications.

The use of the "digital dividend" is an important issue, and continues to be widely debated by broadcasters and operators of telecommunication and other services operating in the same frequency bands. The role of the regulatory authorities in this regard is crucial to balancing the interests of users with the demands of growth in all branches of the industry. Furthermore, it appears that the availability of the digital dividend and its effective usage, for example, to bridge the digital divide and to provide new innovative broadcasting applications and services is still a priority that needs to be addressed.

Other issues to consider are the studies from other ITU Sectors, especially taking into account the decisions of the world radiocommunication conferences (WRC-15 and WRC-19) on exploiting the digital dividend in the future. In this regard, it is relevant to consider maintaining study topics related to technical and economic aspects involved in the transition from analogue to digital broadcasting.

Finally, another important issue for the future of broadcasting is the emergence of new broadcasting technologies and standards that could be taken into account when developing countries[1] are implementing the digital television transition. At the same time, traditional broadcasting services, with or without the interaction with other platforms and networks, should also be considered.

2 Question or issue for study

The Question will continue to cover the topics in the scope of possible revision of the Final Report on Question 2/1 for the ITU-D study period 2018-2021, and new topics targeted at new deliverables for the ITU-D study period 2022-2025, as appropriate. Studies under the Question will focus on the following issues:

1) Analysis of methods and issues for the transition from traditional digital broadcasting (sound and television) to video-centric converged service provisioning, including the deployment of new services and applications, such as UHDTV, AR/VR, interactive applications, for consumers/viewers in various environments (in possible collaboration with Question 2/2).

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2) Analysis of the effects for public broadcasting services in the developing countries of the rapid growth of traditional and online linear TV and video-on-demand subscription services.

3) National experiences on strategies for the introduction of new broadcasting technologies, emerging services and capabilities, including regulatory, economic and technical aspects, reflecting the need for massive investments to cope with the ever-growing demand for video content (in possible collaboration with Questions 2/2 and 4/1, where appropriate).

4) Analysis of the development of broadcasting systems using IP-based technologies throughout the broadcasting chain, including the production, contribution and transmission parts.

5) Best practices and national experiences on spectrum-planning activities related to the implementation of video-centric converged service providers.

6) National experiences on interference mitigation measures in the context of the transition scenarios.

7) Analysis of the gradual transition to digital sound broadcasting, study cases, sharing of experiences and strategies implemented, including the use of VHF Band III for DAB or DTT.

8) Analysis of possible innovations for broadcasting in the UHF band, proposed by new systems for broadcasting, such as 5G Broadcast, ATSC3.0 and other next-generation systems.

9) Costs of the transition from traditional digital broadcasting (sound and television) to video-centric converged service providers, including sharing best practices on new innovative business models, derived from this transition, for the various players: broadcasters, operators, technology providers, Internet enterprises, manufacturers and distributors of receivers, and consumers, among others (in possible collaboration with Questions 4/1 and 2/2).

10) The use of the digital-dividend frequency bands resulting from the transition to terrestrial digital broadcasting (sound and television), including technical, regulatory and economic aspects, such as:

a) status of the use of the digital-dividend frequency bands;

b) sharing of the digital-dividend frequency bands;

c) harmonization and cooperation at regional level;

d) the role of the digital dividend in saving financing, cost savings on the transition to digital, and best experience and practice in this regard;

e) use of the digital dividend to help bridge the digital divide, especially for the development of communication services for rural and remote areas;

f) guidelines on the transition to digital sound broadcasting, focusing on the experiences of those countries that completed the process.

3 Expected output

a) A report reflecting the studies outlined in items 1 to 10 in § 2 above, and possible revisions to the report for the previous study period, as appropriate.

b) Periodic dissemination of relevant data emanating from the organizations and groups listed in § 7 below. Periodic updates on studies taking place in the other ITU Sectors.

c) National experiences on strategies and socio-economic aspects of the introduction of new broadcasting technologies, services and capabilities.

4 Timing

An annual progress report is expected at each study group meeting. Other deliverables, including annual deliverables and the revision of the report for the previous study period, sent for study group's approval when ready, as appropriate.

5 Proposers/sponsors

ITU-D Study Group 1 proposed the continuation of this Question as modified herein.

6 Sources of input

1) Collection of related contributions and data from Member States and ITU-D Sector Members, and those organizations and groups listed in § 9 below.

2) Updates and outputs of ITU-R and ITU-T study groups; relevant Recommendations and reports related to digital broadcasting.

3) Collection of information on the impact on developing countries of transition to digital broadcasting, re-planning and interactivity, and to the implementation of video-centric service providers across various environments.

4) Outputs of WTDC Resolution 9 (Rev. Kigali, 2022), including relevant Recommendations, guidelines and reports.

7 Target audience

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Broadcasting operators	Yes	Yes
ITU-D programme	Yes	Yes

a) Target audience – Who specifically will use the output

Beneficiaries of the output are expected to be middle and higher-level managers in broadcasters, telecommunication/ICT operators and regulators worldwide.

b) Proposed methods for implementation of the results

Activities include conducting technical studies, observing best practices, and developing comprehensive reports serving the target audience's interests.

8 Proposed methods of handling the Question or issue

a) How?

1) Within a study group:
   - Question (over a multi-year study period) ☑

2) Within regular BDT activity:
   - Programmes ☑
   - Projects ☑
   - Expert consultants ☑
   - Regional offices ☑

3) In other ways: To be defined in the work plan ☑

b) Why?

To be defined in the work plan.

9 Coordination and collaboration

The ITU-D study group dealing with this study Question should coordinate closely with:

- Other ITU-R and ITU-T study groups dealing with similar issues, and in particular other relevant ITU-D groups, for example the ITU-D Working Group on Gender Issues;
- The Technical Committee of the World Broadcasting Unions;
- UNESCO and relevant international and regional broadcasting organizations, as appropriate;
- The Director of BDT shall, through the appropriate BDT staff (e.g. regional directors, focal points) provide information to rapporteurs on all relevant ITU projects in different regions. This information should be provided to the meetings of the rapporteurs when the work of the programmes and regional offices is in the planning stages and when it is completed.

It is worth mentioning that it is beneficial to the membership that collaboration be incentivized with other study Questions and ITU Sectors in the investigation of other networks and service platforms which can be combined with broadcasting to implement new experiences in content delivery, for instance ITU-D Questions 1/1, 4/1 and 2/2; ITU-R SG1, SG5 and SG6; and ITU-T SG9 and SG16, each of the groups within their mandates and within their scopes of work.

10 BDT programme link

WTDC resolutions: Resolution 10 (Rev. Hyderabad, 2010), Resolution 9 (Rev. Kigali, 2022), Resolution 17 (Rev. Kigali, 2022) and Resolution 33 (Rev. Dubai, 2014).

Links to the ITU-D priorities of the Kigali Action Plan, specifically to ''Affordable connectivity'' and ''Enabling policy and regulatory environment''. Further information will be in the work plan.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 3/1

The use of telecommunications/ICTs for disaster risk reduction and management

1 Statement of the situation or problem

The importance of telecommunications and ICTs to support disaster mitigation, preparedness, response and recovery is well established. Over the study period from 2018 to 2021, under Question 5/2 ITU-D Study Group 2 examined the use of ICTs in disaster risk reduction with case studies, examples of technologies, applications, checklists, guidelines for exercises and drills, planning aspects, etc. Before that, during the study period 2010-2017, the focus had been on the utilization of telecommunications/ICTs for disaster preparedness, mitigation and response'.

The period 2019-2020 witnessed significant disaster events in terms of numbers and fatalities. There was widespread loss of lives and property. According to the Emergency Events Database (EM-DAT), in 2019 a total of 396 natural disasters were recorded with 11 755 deaths, 95 million people affected and a total of USD103 billion worth of economic loss across the world. The burden was not equally shared by the world, as Asia suffered the highest impact and accounted for 40 per cent of disaster events, 45 per cent of deaths and 74 per cent of the total affected. Floods were the deadliest type of disaster, accounting for 43.5 per cent of deaths, followed by extreme temperatures at 25 per cent (mainly due to heatwaves in Europe) and storms at 21.5 per cent. Storms affected the highest number of people, accounting for 35 per cent of the total affected, followed by floods with 33 per cent and droughts with 31 per cent. There have been more wildfires reported in 2019 (14) compared to the annual average number of wildfires (9) during the period 2009-2018. Similarly, a greater number of floods (194) were recorded in 2019 compared to the annual average of 149 floods during the period 2009-2018.

By the end of 2019 and beginning of 2020, the world had been hit by another disaster, namely the coronavirus disease (COVID-19) pandemic. It resulted in widespread loss of lives across the world, unemployment and huge economic loss due to lockdown in various countries.

Most developed and developing[1] countries recognize disaster communications as a priority and are taking steps to:

– build national preparedness plans;

– develop early warning systems; and

– put technologies and systems in place to ensure a disaster-resilient system.

The latter system enables operational continuity and rapid restoration of networks which support disaster communication requirements. This study Question has been able to establish a baseline of information about country experiences, plans, tools, stakeholders and policies for disaster preparedness, mitigation and risk reduction, with guidelines for drills and exercises, policy guidelines, technologies related to disaster communications, etc. It will be possible for countries to incorporate these in their national emergency telecommunication plans (NETP) so as to utilize the knowledge gained by exchange of information and best practices amongst the various countries. Based on the past two years' experience, it is felt that during the next phase of study the focus should be on disaster response and recovery, as telecommunications/ICTs can help in ensuring effective response and in recovery from the disasters.

In view of the above, the focus of the study Question for the year 2022-2025 should be: ''The use of Telecommunications/ICTs for disaster response and recovery''.

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2 Question or issue for study

1) Continue examination of terrestrial, space-based and integrated telecommunications/ICTs to assist affected countries in utilizing relevant applications for disaster prediction, detection, monitoring, early warning, response, relief and recovery, including consideration of best practices/guidelines for implementation, and in ensuring a favourable regulatory environment to enable rapid deployment and implementation.

2) Continue gathering and examining national experiences and case studies in the use of telecommunications/ICTs for disaster preparedness, mitigation, response and recovery, including response to pandemics like COVID-19, and analysing lessons learned and common themes between them.

3) Examine the role that administrations and Sector Members and other expert organizations and stakeholders share in collaboratively addressing disaster management and the effective use of telecommunications/ICTs, particularly in the areas of disaster response and recovery.

4) Examine the enabling environment for more resilient communication networks and for the deployment of emergency communication systems and the latest digital communication technologies, which includes, but is not limited to, emergency preparedness, response and recovery.

5) Gather national experiences and case studies and develop best practices for the elaboration, implementation and refinement of national and regional disaster-management plans or frameworks for the use of telecommunications/ICTs in natural and man-made disaster and/or emergency situations, including pandemics, working in coordination with the relevant BDT programmes, regional offices and other partners.

6) Continue updating the online toolkit with relevant information and materials collected during the study period.

3 Expected output

It is proposed that succinct outputs summarizing case studies and capturing lessons learned, best practices and tools/templates will be prepared and presented to the study Question for approval.

Additionally, throughout the study period, Question 3/1 welcomes contributions on new technologies, systems and applications for disaster communications and management for mitigation, preparedness, risk reduction, response and recovery, as well as considerations to support implementation. The focus will be on both technology examples and deployment case studies of new and emerging systems and applications for disaster communications and response.

4 Timing

1) Annual progress reports should be submitted to ITU-D Study Group 1.

2) Succinct outputs/annual reports summarizing case studies and capturing lessons learned, best practices and tools/templates on the agreed themes discussed.

3) Draft final reports and any proposed draft Recommendations/guidelines should be submitted to ITU-D Study Group 1 within the study period.

4) The rapporteur group will work in close collaboration with relevant BDT programmes, regional offices, regional initiatives and relevant ITU-D study Questions, and ensure proper liaison with the ITU Radiocommunication (ITU-R) and Telecommunication Standardization (ITU-T) Sectors.

5) The activities of the rapporteur group will come to an end within the study period.

5 Proposers/sponsors

The new text for this revised Question stems from the final report of ITU-D Study Group 2 for the period 2018-2021.

6 Sources of input

Contributions are expected from Member States, Sector Members and Associates, as well as inputs from relevant BDT programmes and relevant ITU-R and ITU-T study groups, and any relevant ITU-D study Question. International and regional organizations responsible for the utilization of telecommunications/ICTs for disaster management are encouraged to provide contributions related to experiences and best practices. The intensive use of correspondence and online exchange of information is encouraged for additional sources of inputs.

7 Target audience

a) Target audience

Depending on the nature of the output, middle to upper-level managers in operators and regulators in developed and developing countries will be the predominant users of the outputs.

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes

b) Proposed methods for implementation of the results

The results of the Question are to be distributed through ITU-D reports, or as agreed during the study period in addressing the study Question.

8 Proposed methods of handling the Question

The study Question will be addressed within a study group over a four-year study period (with submission of interim results), and will be managed by a rapporteur and vice-rapporteurs. This will enable Member States and Sector Members to contribute their experiences and lessons learned with respect to emergency communications.

9 Coordination and collaboration

The ITU-D study group dealing with this study Question will need to coordinate with:

– Relevant ITU-D Question(s)
– Relevant BDT programme(s)
– Regional offices
– Relevant ITU-R and ITU-T study groups
– Working Group on Emergency Telecommunications (WGET)
– Relevant international, regional and scientific organizations with mandates relevant to this Question.

10 BDT programme link

Links to the ITU-D priorities of the Kigali Action Plan, specifically to ''Affordable connectivity'' and ''Enabling policy and regulatory environment''. Further information will be in the work plan.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 4/1

Economic aspects of national telecommunications/ICTs

1 Statement of the situation or problem

As recognized in the Final Report on Question 4/1 for the ITU-D study period 2018-2021, consideration of economic aspects of national telecommunications/ICTs continues to be important.

With the emergence of new types of telecommunication enterprise, such as mobile virtual network operators (MVNOs), tower companies and capacity wholesale operators, and the convergence of traditional telecom businesses, regulators and operators are having to adapt their policies and strategies to this new digital reality. Finding suitable authorizations, cost models and business models and using relevant policy and regulatory tools such as infrastructure-sharing should be considered by national regulatory authorities (NRAs) in order to help their national markets thrive, as shown in contributions received from NRAs, policy-makers and operators alike which were considered by the Rapporteur Group for Question 4/1 in the most recent study period.

At the same time, further global forces pushing towards increased digitalization, as well as national economic and global emergencies like the coronavirus disease (COVID-19) pandemic, are throwing up many new relevant issues that call for additional study and investigation in the next ITU-D study period.

Expansion of the number of topics stems from the need to divide up the work on final reports on Question 4/1. Thus, the topics which will continue from the ITU-D study period 2018-2021 could be reviewed in the scope of revision of the Final Report on Question 4/1 for that study period, whereas new topics could be considered under the Final Report on the new Question 4/1 for the 2022-2025 study period.

Accordingly, the work programme set out below to guide the activities related to Question 4/1 should cover:

– identification of active collaborators;

– expected outputs of the Question;

– working methods; and

– work programme.

2 Question or issue for study

2.1 Continuing topics from previous study period with some expansion

The Question will continue to cover the following main topics from national perspectives in the scope of possible revision of the Final Report on Question 4/1 for the ITU-D study period 2018-2021:

1) New charging methods (or models, if applicable) for services provided over NGN networks:

   1.1) Methods for determining the costs of wholesale services.

2) The impact of infrastructure-sharing (local loop unbundling, tower companies, etc.) on investment cost, provision of telecommunication/ICT services, competition and prices to consumers: case studies with quantitative analysis.

   2.1) For what type of infrastructure (or facilities) is the provider party free to negotiate reasonable commercial terms and conditions with a requesting party?

   2.2) Methods for determining the costs of passive and active infrastructure-sharing services.

3) Consumer price evolution and impact on ICT service usage, innovation, investment and operator revenues:

   3.1) New and innovative business models for services deployed in an NGN environment.

   3.2) Trends, offers and prices of telecommunication/ICT services, including international mobile roaming.

   3.3) Assessment of telecommunication/ICT service bundles, bonuses and their impact.

4) Trends in the development of virtual mobile operators and their regulatory framework.

2.2 New topics for next study period

The Question will cover the following main topics from a national perspective in the scope of developing the Final Report on new Question 4/1 or other deliverables for the ITU-D study period 2022-2025:

1) Impact of new converging ICTs on cost-modelling strategies traditionally carried out by stakeholders constituting the ICT networked value chain (e.g. telecom operators, over-the-top, digital service providers, etc.) (in possible collaboration with Question 2/2):

   1.1) The role and design of new tariffs for convergent networks/services (e.g. bundling)

   1.2) The role and impact of tower companies as new entrants for a converging telecommunication/ICT market.

2) The role and impact on achieving the United Nations Sustainable Development Goals (SDGs) of new types and modes of investment in telecommunications/ICTs, e.g. blended investment and crowdfunding.

3) Analysis of case studies on the economic contribution of digital telecommunication/ICT technologies and services to the national economy.

4) Framework for establishing the contribution of telecommunications/ICTs to a country's GDP.

5) Economic incentives and mechanisms for bridging the digital divide.

6) Analysis of the economic impact of the COVID-19 pandemic on telecommunication/ICT markets.

7) Analysis of the contribution of telecommunications/ICTs on the economic recovery from the COVID-19 pandemic.

8) Economic aspects/implications of digital transformation:

   8.1) The economic value of usage of personal data (in possible collaboration with Questions 6/1 and 3/2)

   8.2) Impact on innovation and productivity and other national economic aspects of digital financial inclusion.

2.3 New topics for this study period to be addressed in collaboration with other ITU-D Questions[1]

1) National experiences on the contribution to the national economy of bridging the digital divide to provide accessible and affordable connectivity (in possible collaboration with Questions 1/1, 5/1 and 7/1).

2) Different models of infrastructure-sharing, including on commercially negotiated terms (in possible collaboration with Question 1/1)

2.1) Usage and impact of alternative infrastructure from other actors (e.g. aerial optical fibre using electric poles belonging an energy company, telephone poles of an incumbent operator, a railway company's optical fibre) (in possible collaboration with Question 1/1).

3 Expected output

a) Revision of the Final Report for Question 4/1 for the ITU-D study period 2018-2021 on the topics set out in § 2.1, as appropriate.

b) Revision of the Question 4/1 Guidelines on cost modelling, as appropriate.

c) Final Report for new Question 4/1 and other deliverables for the ITU-D study period 2022-2025, covering one/some/all of proposed new topics set out in § 2.2.

d) Joint deliverables with other ITU-D Questions on the topics set out in § 2.3, as appropriate.

e) Inputs for ITU Regional Economic Dialogues, as appropriate.

f) Inputs for ITU Tariff Policies Survey, as appropriate.

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[1] Topics in § 2.3 will not be included in the Report on Question 4/1 but will be topics for joint deliverables with other ITU-D Questions.

4 Timing

Annual progress reports will be presented to Study Group 1 in 2022, 2023 and 2024. Deliverables identified in § 3 could be sent to Study Group 1 for approval when ready without waiting for the end of study period.

5 Proposers/sponsors

ITU-D Study Group 1 proposed the continuation of this Question as modified herein.

6 Sources of input

The major source of input will be the experiences of Member States and Sector Members on economic aspects on national telecommunications/ICTs. Contributions from Member States and Sector Members will be essential to the successful study of the issue.

Interviews, existing reports, materials from relevant ITU events, particularly, ITU Regional Economic Dialogues, and surveys should also be used to gather data and information for expected outputs of Question. Material from regional telecommunication organizations, telecommunication research centres, manufacturers and working groups should also be used, in order to avoid duplication of work.

Contributions are expected from Member States, Sector Members, Associates and Academia, from ITU-D study groups and from relevant ITU Radiocommunication Sector (ITU-R) and ITU Telecommunication Standardization Sector (ITU-T) study groups and working parties, in particular ITU-T Study Group 3 and ITU-R Working party 1B, and other stakeholders.

7 Target audience

All the target audiences mentioned below, with particular attention to the needs of developing countries[2].

[2] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes
ITU-D programme	Yes	Yes

a) Target audience – Who specifically will use the output

All national telecom policy-makers, regulators, service providers and operators, especially those in developing countries, as well as regional and international organizations.

b) Proposed methods for implementation of the results

The results of the Question are to be distributed, including through ITU regional offices, through ITU-D interim reports, final reports and other relevant deliverables. This will provide a means for the audience to have periodic updates of the work carried out and to provide input and/or seek clarification/more information from ITU-D Study Group 1 should they need it.

8 Proposed methods of handling the Question or issue

Electronic distribution of the reports and guidelines to all Member States, Sector Members and their respective NRAs, and ITU regional offices.

Distribution of the report and guidelines at the Global Symposium for Regulators (GSR), ITU Regional Economic Dialogues and relevant Telecommunication Development Bureau (BDT), Radiocommunication Bureau (BR) and Telecommunication Standardization Bureau (TSB) seminars.

How?

1) Within a study group:
   - Question (over a multi-year study period) ☑
2) Within regular BDT activity:

– Programmes ☑
– Projects: regional initiatives ☑
– Expert consultants ☑

9 Coordination and collaboration

The ITU-D study group dealing with this study Question will need to coordinate with:

– Relevant ITU-D study Questions, particularly Question 1/1 and Question 3/1
– Relevant ITU-T study groups, particularly Study Group 3 and its regional groups for Africa (SG3RG-AFR), Asia and Oceania (SG3RG-AO), Arab region (SG3RG-ARB), Latin America and the Caribbean (SG3RG-LAC) and Eastern Europe, Central Asia and Transcaucasia (SG3RG-EECAT)
– Relevant ITU-R study groups and working parties, particularly Working Party 1B
– Relevant focal points in BDT and ITU regional offices
– Experts and experienced organizations in this field.

10 BDT programme link

Links to the ITU-D priorities of the Kigali Action Plan, specifically to ''Affordable connectivity'' and ''Enabling policy and regulatory environment''. Further information will be in the work plan.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 5/1

Telecommunications/ICTs for rural and remote areas

1 Statement of the situation or problem

In order to continue to contribute to achieving the objectives set by the Geneva Plan of Action of the World Summit on the Information Society (WSIS) in the era of digital transformation, and to promote attainment of the United Nations Sustainable Development Goals (SDGs) set in September 2015, it is necessary to address the challenge of digital infrastructure development to make available the benefits of various e-services (e-education, e-health, e-government, e-agriculture, e-commerce, etc.) in the rural and remote areas of developing countries[1], including least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS), where more than half of the world's population live and people need broadband connectivity in general, including terrestrial and non-terrestrial high-speed and high-quality broadband network technologies that support the most common broadband applications required by citizens for digital equity and attainment of the SDGs.

The installation of cost-effective and sustainable digital infrastructure, through the deployment of emerging technologies such as next-generation high-speed mobile terrestrial and non-terrestrial networks and fixed-broadband wireline and wireless transmission systems suited for rural and remote areas, is an important aspect calling for further studies, and specific outcomes need to be available for the vendor community to make available broadband Internet connectivity to support up-to-date e-services for the quality of life of inhabitants in rural and remote areas.

Existing network systems are primarily designed for urban areas, where the necessary support infrastructure (adequate power, building/shelter, accessibility, skilled manpower to operate, etc.) for setting up a broadband telecommunication network is assumed to exist. Hence, current and future systems need to be more adequately adapted to specific rural requirements in order to be widely deployed.

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

In particular, terrestrial and non-terrestrial high-speed Internet and applications offer a new way to promote the balanced allocation of public resources. Internet has broken through time and space constraints, and delivered high-quality education, medical care and other public resources to residents in rural and remote areas, thereby fostering a more balanced allocation of public resources.

Shortage of power, difficult terrain, lack of skilled manpower, poor road access and transportation, and the difficulty of installing and maintaining networks are some of the known challenges that developing countries planning to extend ICT infrastructure to rural, isolated and landlocked areas and remote islands must tackle.

More detailed studies addressing the challenges of deploying cost-effective and sustainable next-generation broadband ICT infrastructure in rural and remote areas are expected to be undertaken within the ITU-D study groups, taking into account the global perspective in the era of digital transformation and social innovation.

Therefore, the WSIS target "Connect villages with telecommunications/ICTs and establish community access points" should be promoted more intensively, taking into account the sharing economy, by employing emerging advanced digital broadband technologies for various e-application services to stimulate social and economic activities for improving the quality of life of inhabitants in rural and remote areas. Multipurpose community telecentres (MCT), public call offices (PCO), community access centres (CAC) and e-posts are still valid in terms of cost effectiveness for sharing of infrastructure and facilities by community residents, leading to the goal of provision of individual telecommunication access.

It is also important to consider broadband demand creation and affordability programmes for the adoption of broadband and e-services by people in rural and remote areas, who need affordable broadband and devices for access to the Internet. Government incentives, subsidies and other financing mechanisms are necessary. Work on the effective use of universal service funds and best practices is also crucial.

2 Question or issue for study

There are still many challenges to overcome for spreading terrestrial and/or non-terrestrial telecommunications/ICTs and meeting the potential for the provision of high-speed broadband in rural and remote areas. Throughout the studies conducted in the past study periods, it has been clear from the experience of many countries that technologies and strategies for rural and remote areas are various and diversified from country to country. Also, the social, economic and technological situation in rural and remote areas is rapidly moving forward to the new economy. Therefore, it is important to update the study of broadband digital connectivity for rural and remote areas and to adapt to social innovation for rural inhabitants of developing countries, including LDCs, LLDCs and SIDSs, in respect of the following items:

1) Techniques and sustainable solutions that can impact on the provision of telecommunications/ICTs and the availability of broadband digital infrastructure in rural and remote areas, with emphasis on those that employ up-to-date technologies designed to lower infrastructure capital and operating costs and support convergence between services and applications.

2) Challenges in creating or building broadband digital infrastructure in rural and remote areas.

3) Needs and policies, mechanisms and regulatory initiatives to reduce the digital divide between rural and urban areas by increasing broadband digital access.

4) Quality of the services provided, and the cost effectiveness, degree of sustainability in different geographies and sustainability of the techniques and solutions.

5) Business models for sustainable deployment of networks and services in rural and remote areas, taking into consideration priorities based on economic and social indicators (in possible collaboration with Question 4/1).

6) Financing mechanisms, including universal service funds (in possible collaboration with Question 4/1).

7) Integration and implementation of ICT services in rural and remote areas, including new and emerging technologies.

8) Increasing availability of telecommunications/ICTs that provide enhanced connectivity at progressively lower costs, with lower energy consumption and lower levels of greenhouse gas (GHG) emissions.

9) General approaches for:

   i) Integration of Internet applications (especially smart applications for e-learning, e-health, e-agriculture, e-commerce) for rural and remote areas into national strategies (in possible collaboration with Question 2/2).

   ii) Promotion of Internet applications such as rural e-commerce, online education and telemedicine, and full release of the important role of information technology in rural economic and social development (in possible collaboration with Question 2/2).

   iii) Encouragement of the development of new Internet applications and digital solutions for the socio-economic development of rural and remote areas, and promotion of innovation and digital transformation for rural and remote areas (in possible collaboration with Question 5/2).

10) Opportunities for and challenges to access to services in locally relevant languages for indigenous people and for persons with specific needs.

11) Description of evolving system requirements for rural network systems specifically addressing the identified challenges of rural deployment.

12) Analysis of case studies.

During the study carried out on each of these items, the following matters should also be studied and reflected in the outputs of the Question:

13) Maintenance and operational aspects to provide a quality and continuous service.

14) Strategies on the integration of ICT in education in rural areas.

15) Relevant localization of content for rural and remote people.

16) Affordability of services/devices for rural users to adopt so as to fulfil their development needs.

17) Strategies to promote small and medium enterprises (SMEs), and complementary access and village connectivity networks, in accordance with national regulations, to provide telecommunication/ICT services in rural and remote areas for promoting innovation and achieving national economic growth, in order to reduce the digital divide between rural and urban areas.

In addressing the above studies, the work under way in response to other ITU-D study Questions and close coordination with relevant activities under those Questions should be taken into consideration. Questions 1/1, 3/1 and 4/1 and Questions 1/2, 2/2, 4/2 and 5/2, in particular, are highly relevant. Likewise, the studies shall take into account cases related to persons with specific needs, indigenous communities, isolated and poorly served areas, LDCs, SIDS and LLDCs, and highlight their specific needs and other particular situations which need to be considered in developing broadband digital facilities for these areas.

3 Expected output

The output will be a report on the results of the work conducted for each item studied, together with a handbook, case-study analysis reports, and one or more Recommendations and other relevant materials at appropriate times, either during the course of or at the conclusion of the cycle.

Information shall be consolidated and disseminated to the membership to enable them to organize seminars and workshops for sharing best practices on the digital deployment of broadband infrastructure in rural and underserved areas.

4 Timing

The output will be generated on an annual basis. The output from the first year will be analysed and assessed in order to update the work plan for the next year, and so on.

5 Proposers/sponsors

The study Question was originally approved by WTDC-94, and subsequently revised by WTDC-98, WTDC-02, WTDC-06, WTDC-10, WTDC-14, WTDC-17 and now WTDC-22.

6 Sources of input

Contributions are expected from Member States, Sector Members, Academia and Associates, as well as inputs from relevant BDT programmes, particularly those that have successfully implemented telecommunication/ICT projects in rural and remote areas. These contributions will enable those responsible for work on this Question to develop the most appropriate conclusions, recommendations and outputs. The intensive use of correspondence and online exchange of information, workshops and field experiences is encouraged for additional sources of inputs.

7 Target audience

Target audience	Developed countries	Developing countries
Relevant policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Rural authorities	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers, including software developers	Yes	Yes
Vendors	Yes	Yes

8 Proposed methods of handling the Question

How?

1) Within a study group:
   - Question (over a multi-year study period) ☑
2) Within regular BDT activity:
   - Programmes ☑
   - Projects ☑
   - Expert consultants ☑
   - Regional offices ☑
3) In other ways: To be defined in the work plan ☑

9 Coordination and collaboration

The ITU-D study group dealing with this study Question will need to coordinate with:

– Focal points of the relevant Questions in BDT

– Coordinators of relevant project and programme activities in BDT

– Regional and scientific organizations with mandates covering the subject matter of the Question

– Other relevant stakeholders (see Recommendation ITU-D 20), as may become apparent within the life of the Question.

10 BDT programme link

WTDC resolutions: Resolution 11 (Rev. Kigali, 2022) and Resolution 68 (Rev. Dubai, 2014), and Recommendation ITU-D 19.

Links to the ITU-D priorities of the Kigali Action Plan, specifically to ''Affordable connectivity'' and ''Enabling policy and regulatory environment''. Further information will be in the work plan.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 6/1

Consumer information, protection and rights

1 Statement of the situation or problem

In the context of increasing convergence and the advent of advanced communication technologies, consumer protection remains a highly relevant subject and a moving target. The telecommunication/ICT sector is dynamic and technology and business models keep changing, giving rise to new consumer-protection issues. Further, Member States are at various stages of telecommunication/ICT penetration and adoption of new technologies, and policy/regulatory evolution, and accordingly face different challenges making exchange of information and best practices very important.

The coronavirus disease (COVID-19) pandemic and resulting widespread use of telecommunications/ICTs underline both the importance of digital connectivity and also the need for sharing of best practices so as to harness the benefits of telecommunications/ICTs while protecting the interests of consumers.

There is a need to promote the responsible use of telecommunications/ICTs as well as ways of fostering consumer trust in new technologies while protecting competition and innovation.

Member States must prepare for improved collaborative regulation. Consumer protection is an important policy aspect of telecommunications/ICTs. Various models of policy and regulation, including better self-regulation by service providers and co-regulation, need to be explored.

Consumer protection is necessary to foster consumer trust, which in turn would encourage the continued uptake of new technologies in a manner that is safe, secure and respects consumer rights. The protection of vulnerable users such as new users, especially those from economically disadvantaged populations, women, children, older persons and persons with disabilities, must be given special attention.

2 Question or issue for study

The Question will continue to cover the topics in the scope of possible revision of the Final Report on Question 6/1 for the ITU-D study period 2018-2021, and new topics targeted at new deliverables for the ITU-D study period 2022-2025, as appropriate.

Studies under the Question will focus on the issues set out below:

1) Telecommunication/ICT policy and regulation being adopted for consumer protection by NRAs and other national, regional and international organizations to enable digital transformation, while balancing the interests of all stakeholders, including consumers and service providers. This would include institutional and regulatory mechanisms to promote cross-sectoral and cross-border collaboration along with revisiting policy and regulatory approaches, such as co-regulation and self-regulation. In particular it would include:

   (i) Methods and tools to protect consumers from unsolicited commercial communications, online fraud and the misuse of personally identifiable information as an integral part of telecommunication/ICT policy.

   (ii) Information sharing about policy frameworks to protect consumers, promote competition and innovation, enhance customer care, with the advent of new and emerging telecommunication/ICT technologies such as the Internet of Things (IoT), and ensure that the frameworks facilitate online communications and transactions.

2) Organizational methods and strategies being developed by public consumer-protection agencies with regard to institutional/legal and regulatory mechanisms to tackle new challenges arising from rapid uptake of new telecommunication/ICT services, including setting up of institutions, such as consumer education centres, dedicated consumer complaint-handling centres or commissions, and dedicated consumer complaint-resolution mechanisms to protect consumers effectively.

3) Best practices to ensure that policies and regulations for consumer protection in telecommunications/ICTs are sustainable instruments of protection. This includes being:

(i) based on consultation and collaboration, balancing the expectations, ideas and expertise of all market stakeholders and players, including academia, industry, civil society, consumer associations, data scientists, end users and relevant government agencies from different sectors;

(ii) evidence-based, since evidence is critical for creating a sound understanding of the issues at stake and identifying the options going forward as well as assessing their impact;

(iii) outcome-based, in order to address the most pressing issues, such as market barriers and enabling synergies: policy and regulation responses to new telecommunication/ICT technologies should be grounded in the impact on consumers, societies and market players;

(iv) incentive-based, rewarding players who uphold consumer protection.

4) Institutional and policy/regulatory mechanisms/means put in place by Member States and regulators in the telecommunication/ICT sector, so that operators/service providers publish transparent, comparable, adequate, up-to-date information on, *inter alia*, prices, tariffs, expenses and terms of service, including protection of personal information and contract termination, and accessing and updating telecommunication/ICT services, in order to keep consumers informed and to develop clear and simple offers, as well as best practices for consumer education. This includes:

(i) Availability of tools to test the actual speed of users' connection and best practices about consumer-protection measures related to the mandate, if applicable, of quality of service provided and communicated by telecommunication/ICT operators/service providers.

(ii) Any transparency requirements for traffic management and zero-rating practices of telecommunication/ICT operators/service providers.

(iii) Transparency about main forms of billing, including third-party payments such as direct carrier billing, premium-rate services, mobile payment etc. and consumer-protection measures in place about third-party charges in telecommunication/ICT services bills.

5) Mechanisms/means implemented by the policy-makers and/or regulators themselves to keep consumers and users informed about the basic features, quality, security, measures to protect personal information, and rates of the various services being offered by the operators, including platforms to enable them to know and exercise their rights, to use the services properly, and to make informed decisions when contracting services.

6) Specific legal, economic and financial measures adopted by national authorities in the interests of protection of specific categories of telecommunication/ICT users (new users, especially those from economically disadvantaged communities, older persons, persons with disabilities, women and children). This should include mechanisms to promote the creation of useful information and practical tools to be used for promoting consumer awareness to better enable consumer protection, including surrounding the use of new technologies.

7) Mechanisms/means implemented by policy-makers and regulators and operators/service providers to incentivize self-regulation or co-regulation that promotes confidence among all the actors involved, especially the consumer.

8) Means that may be adopted to foster effective consumer protection, cooperation and information-exchange among policy-makers and regulators.

3 Expected output

a) A report to Member States and Sector Members, consumer-protection organizations, operators and service providers, setting out guidelines and best practices for consumer protection in the provision of all telecommunication/ICT services, to include:

(i) Guidelines on increasing consumer awareness

(ii) Best practices on collaboration and consultation to promote multistakeholder input on policies and regulations for consumer protection

(iii) Guidelines and information-sharing about policy frameworks that protect consumers, promote competition and innovation, and enhance customer care, with the advent of new and emerging telecommunication/ICT technologies such as IoT.

b) Organization of seminars and workshops on the above topics related to consumer protection.

4 Timing

An annual progress report is expected at each study group meeting. Other deliverables, including annual deliverables, workshops and the revision of the report of the previous study period, could be sent for study group's approval when ready, as appropriate.

5 Proposers/sponsors

ITU-D Study Group 1 proposed the continuation of this Question as modified herein.

6 Sources of input

1) Collection of related contributions and data from Member States and ITU-D Sector Members, and those organizations and groups listed below.

2) Updates and outputs of ITU-R and ITU-T study groups; relevant Recommendations and reports related to consumer protection.

3) Collection of information on the impact on developing countries of new technologies, business models and ongoing digital transformation.

4) Outputs of WTDC Resolution 9 (Rev. Kigali, 2022), including relevant Recommendations, guidelines and reports.

7 Target audience

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Telecommunication/ICT consumer-protection organizations	Yes	Yes
Service providers/operators	Yes	Yes
Broadcasting operators	Yes	Yes
ITU-D programme	Yes	Yes

a) Target audience – Who specifically will use the output

Beneficiaries of the output are expected to be consumers, telecommunication/ICT operators and policy-makers/regulators worldwide.

b) Proposed methods for implementation of the results

Activities include conducting, observing and sharing best practices, and developing comprehensive reports serving the target audience's interests.

8 Proposed methods of handling the Question or issue

a) How?

1) Within a study group:
   - Question (over a multi-year study period) ☑

2) Within regular BDT activity:
   - Programmes ☑
   - Projects ☑
   - Expert consultants ☑
   - Regional offices ☑

3) In other ways: To be defined in the work plan ☑

b) Why?

To be defined in the work plan.

9 Coordination and collaboration

The ITU-D study group dealing with this study Question should coordinate closely with:

– Other ITU-R and ITU-T study groups dealing with similar issues, and in particular other relevant ITU-D groups, for example the ITU-D Working Group on Gender Issues and child online protection.

– Relevant international and regional organizations, as appropriate.

– The Director of BDT shall, through the appropriate BDT staff (e.g. regional directors, focal points), provide information to rapporteurs on all relevant ITU projects in different regions. This information should be provided to the meetings of the rapporteurs when the work of the programmes and regional offices is in the planning stages and when it is completed.

It is worth mentioning that it is beneficial to the membership that collaboration be incentivized with other study Questions and Sectors in the investigation of other networks and service platforms which can be combined with broadcasting to implement new experiences in content delivery, for instance ITU-D Questions 1/1, 4/1,2/2 and 5/2; ITU-R SG1, SG5 and SG6; and ITU-T SG9 and SG16, each of the groups within their mandates and within their scopes of work.

10 BDT programme link

Links to the ITU-D priorities of the Kigali Action Plan, specifically to ''Affordable connectivity'' and ''Enabling policy and regulatory environment''. Further information will be in the work plan.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 7/1

Telecommunication/ICT accessibility to enable inclusive communication, especially for persons with disabilities

1 Statement of the situation or problem

The World Health Organization (WHO) estimates that one billion persons in the world live with some type of disability. According to WHO, about 80 per cent of persons with disabilities live in low-income countries. Disability appears in different forms and degrees, regarding physical, sensitive or mental aspects. Also, increasing life expectancy results in older persons having reduced capabilities. Thus, it is likely that the number of persons with disabilities will continue to rise.

The inclusion in society of persons with disabilities is a policy of Member States. The objective of such policy is to bring about the necessary conditions for persons with disabilities to enjoy the same opportunities in life as the rest of the population. The disabilities policy has evolved, making urban infrastructure accessible and improving health and rehabilitation services for persons with disabilities. Moreover, the principles of equal opportunity and non-discrimination are common policies of Member States.

With respect to telecommunications, at the World Telecommunication Development Conference (Hyderabad, 2010) Member States resolved, by Resolution 20 (Rev. Hyderabad, 2010), that access to modern telecommunication/information and communication technology (ICT) facilities, services and related applications must be provided on a non-discriminatory basis.

The World Summit on the Information Society (WSIS) acknowledged that special attention should be given to the needs of older persons and persons with disabilities.

The United Nations General Assembly (UNGA) High-Level Meeting on the overall review of the implementation of the WSIS outcomes acknowledged the need to address the specific ICT challenges facing children, youth, persons with disabilities, older persons, indigenous peoples, refugees and internally displaced persons, migrants and remote and rural communities.

On 13 December 2006, UNGA approved the Convention on the Rights of Persons with Disabilities (CRPD), which came into force on 3 May 2008.

The CRPD establishes basic principles, and also a State's obligations to ensure equal access to telecommunications/ICTs, including Internet, by persons with disabilities.

Resolution 175 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on telecommunication/ICT accessibility for persons with disabilities and persons with specific needs, calls for the introduction of mechanisms to enhance the accessibility, compatibility and usability of telecommunication/ICT services, and encourages the development of applications enabling the use of such services by persons with disabilities and persons with specific needs on an equal basis with others.

Resolution 70 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly, on telecommunication/ICT accessibility for persons with disabilities and persons with specific needs, resolves that the ITU Telecommunication Standardization Sector (ITU-T) study groups should consider aspects of universal design, non-discriminatory standards, service regulations and measures for all persons, especially persons with disabilities.

The ITU-G3ict Model ICT Accessibility Policy Report highlights a series of elements relevant to the development of policies on public access to ICTs, mobile communications, TV and video programmes, web access and public procurement. The report also recognizes the need for flexible legislative frameworks that foster equitable access to telecommunications/ICTs for persons with disabilities in a constantly changing technological environment.

ITU-T Study Group 16 has conducted work and studies on multimedia coding, systems and applications, and Study Group 6 of the ITU Radiocommunication Sector (ITU-R) has conducted work on broadcasting services relevant to ICT accessibility for persons with disabilities.

It is also pertinent to mention that broadband access and usage are highly dependent on literacy, and ICT literacy as well. The United Nations Educational, Scientific and Cultural Organization (UNESCO) estimates that 750 million people aged 15 and above worldwide are illiterate, i.e. they cannot read or write; and two-thirds of them are women.

Several issues encountered by both disability groups and illiterate groups of people have common solutions.

It is important to gather information and data addressing many key issues relating to accessibility to telecommunications/ICTs for persons with disabilities. Therefore, a methodology should be developed to assist the information-gathering process.

During the coronavirus disease (COVID-19) pandemic, the issue of digital inclusion and telecommunication/ICT accessibility has gained significant momentum around the world. It becomes very important to mainstream ICTs through the implementation of policies, regulations and communication strategies (including education, employment and health) for the socio-economic development of all people, including persons with disabilities and persons with specific needs. Accessibility principles should be implemented at the design stage of ICT applications and services to bridge the digital divide.

2 Question or issue for study

1) Sharing good practices on implementing national ICT accessibility policies, legal frameworks, directives, guidelines, strategies and technological solutions to improve the accessibility, compatibility and usability of telecommunication/ICT services.

2) Accessibility of e-government and other socially relevant digital services.

3) Accessibility of new and emerging technologies.

4) Education and training for persons with disabilities and specific needs in the use of telecommunications/ICTs, and education and training of experts to assist persons with disabilities and specific needs to use telecommunications/ICTs.

5) Use of accessible telecommunications/ICTs to promote the employment of persons with disabilities to ensure inclusive and open society.

6) National experience in collecting information and statistics on telecommunication/ICTs accessibility.

7) Mechanisms to involve persons with disabilities and persons with specific needs in the process of elaborating legal/regulatory provisions, public policy and standards related to telecommunication/ICT accessibility.

3 Expected output

a) Raising awareness among ITU members, decision-makers, persons with disabilities and persons with specific needs, and any other stakeholders, on best practices in telecommunication/ICT accessibility.

b) Guidelines and recommendations to assist ITU members as well as all stakeholders on accessible telecommunications/ICTs to build an inclusive society.

c) Final report for Member States and Sector Members, operators, service providers and any other interested parties, providing guidance and best practices for the development and implementation of policies, regulatory frameworks and strategies for accessible telecommunications/ICTs for persons with disabilities and persons with specific needs.

d) Telecommunication/ICT accessibility training to stakeholders, especially policy-makers, on how to engage all national and/or regional stakeholders and share good practices and success stories on the implementation of ICT accessibility policies, regulatory frameworks and services.

e) Highlighting ITU products and services available to the members to empower national stakeholders in ensuring telecommunication/ICT accessibility.

f) Identifying mechanisms for the use of telecommunications/ICTs to promote the employment of persons with disabilities, including telework.

g) Identifying methodologies that make it possible to compile telecommunication/ICT statistics focused on users with disabilities, in order to monitor the impact of the implementation of ICT accessibility policies, practices and technological solutions.

4 Timing

These activities should be included in the programme of activities of ITU-D Study Group 1 for the 2022-2025 study period, as a standalone study Question.

5 Proposers/sponsors

ITU-D Study Group 1 proposed the continuation of this Question as modified herein.

6 Sources of input

The following stakeholders are encouraged to supply information for the study Question: Member States, Sector Members, relevant international and regional organizations, public and private institutions and civil-society organizations involved in the design of policies and advocacy for the development of technological solutions to alleviate the difficulties faced by persons with disabilities in accessing telecommunications/ICTs.

7 Target audience

Target audience	Developed countries	Developing countries
Telecom policy-makers	Interested	Very interested
Telecom regulators	Interested	Very interested
Service providers/operators	Interested	Very interested
Manufacturers	Interested	Interested

a) Target audience

The results of the study will serve Member States, and particularly administrations of developing countries and LDCs, in designing policies and executing strategies and actions for the implementation of technological solutions that improve accessibility to telecommunications/ICTs for persons with disabilities. Moreover, it will enable Sector Members and service providers located in those countries to design and apply proven and successful commercial practices to meet the needs of persons with disabilities and facilitate their access to telecommunications/ICTs.

b) Proposed methods for implementation of the results

Authorities from Member States could consider designing policies and strategies to implement the most suitable technological solutions in the light of the characteristics of their populations and countries. In this respect, there could be short-term, medium-term and long-term action plans so as to permit implementation in phases.

The report should also be useful for administrations of Member States, Sector Members and service providers to encourage the adoption of commercial practices geared to meeting the needs of persons with disabilities and persons with specific needs.

8 Proposed methods of handling the Question or issue

a) How?

1) Within a study group:

– Question (over a multi-year study period) ☑

2) Within regular BDT activity:

– Programmes ☑

– Projects ☑

– Expert consultants ☑

– Regional offices ☑

3) In other ways: To be defined in the work plan ☑

b) Why?

The study Question will be addressed within ITU-D Study Group 1, in close cooperation with ITU-T Study Group 16 (Question 26/16).

9 Coordination and collaboration

Coordination is recommended with relevant international and regional organizations, and with service providers that have adopted best practices to meet the needs of persons with disabilities and persons with specific needs and facilitate their access to telecommunications/ICTs.

10 BDT programme link

Links to the ITU-D priorities of the Kigali Action Plan, specifically to ''Affordable connectivity'' and ''Enabling policy and regulatory environment''. Further information will be in the work plan.

11 Other relevant information

As may become apparent within the life of the Question.

STUDY GROUP 2

QUESTION 1/2

Smart sustainable cities and communities

1 Statement of the situation or problem

All areas of society – culture, education, health, transport, trade and tourism – will depend for their development on the advances made through information and communication technology (ICT) systems and services in their activities. ICTs can play a key role in the protection of property and persons; smart management of motor vehicle traffic; saving electrical energy; measuring the effects of environmental pollution; improving agricultural yield; increasing efficiency in global travel and tourism; management of health care and education; management and control of drinking-water supplies; and solving the problems facing cities and rural areas. This is the smart society. Similarly, as highlighted by the World Summit on the Information Society (WSIS), ICT applications can support sustainable development in public administration, business, education and training, health, the environment, agriculture and science within the framework of national cyberstrategies.

The United Nations 2030 Agenda for Sustainable Development recognizes the enormous possibilities offered by ICTs and calls for significant increase in access to such technologies, which have a decisive contribution to make in support of implementation of all the United Nations Sustainable Development Goals (SDGs). ITU therefore deems it a priority to support its membership in achieving the SDGs, in close collaboration with other associates.

Delivering the promise of the smart society relies on three technological pillars – connectivity, smart devices/terminals and software – as well as on sustainable development principles.

Connectivity or the underlying infrastructure encompasses both traditional and emerging networks and new technologies. It is a key enabler upon which all smart services could be provided. Examples include machine-to-machine (M2M) communication, the Internet of Things (IoT), and resulting applications and services such as e-government, traffic management and road safety.

It is estimated that at present over 50 per cent of IoT activity is focused on manufacturing, transport, smart cities and user applications, but that in the future all industries will be able to benefit from IoT initiatives, highlighting and enabling new business models and workflow processes.

Smart devices/terminals are the things and edge components that are connected via the enabling infrastructure and connectivity layer to exchange data between the field and the city operation centre. Cars, traffic lights and cameras, water pumps, electricity grids, home appliances, street lights and health monitors are all examples of things that need to become smart so as to deliver significant advancements towards the achievement of sustainability and economic and social goals. This is especially important in developing countries[1].

Then the role of software development becomes essential to exploit and capitalize on the first two pillars (connectivity and terminals), such that all three pillars can function together to support new services that would never have been possible before. Software includes both the city platform which interfaces with all terminals seamlessly as well as the service-specific functions that are tailored to perform each vertical application or service in the city.

It will be possible for the work carried out under this study Question to be founded on Resolutions 139 (Rev. Dubai, 2018), on the use of telecommunications/ICTs to bridge the digital divide and build an inclusive information society, and 197 (Rev. Dubai, 2018), on facilitating IoT to prepare for a globally connected world, of the Plenipotentiary Conference; Resolutions 44 (Rev. Geneva, 2022), on bridging the standardization gap between developing and developed countries, and 98 (Rev. Geneva, 2022), on enhancing the standardization of IoT and smart cities and communities for global development of the World Telecommunication Standardization Assembly; and Resolution ITU-R 66-1 (Rev. Sharm el-Sheikh, 2019) of the Radiocommunication Assembly, on studies related to wireless systems and applications for the development of IoT.

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

2 Question or issue for study

Based on the statement of the situation set out in § 1 above, the issue of study will revolve around the three main pillars in addition to other complementary components, as follows:

1) Consideration of smart sustainable cities and communities (SSCCs) to enlarge the scope of study and include smart villages and any form of communities.

2) Raising awareness and sharing experiences on improving connectivity and underlying infrastructure to support the smart society and potential smart services, including smart grids, public administration, transport, business, education and training, health, the environment, agriculture, tourism and science.

3) Examination of best practices for fostering and enabling deployment and use of smart devices/terminals used for providing smart services in the city/society.

4) Survey of methods and examples of how software and platforms, both open-source and/or proprietary, enable connectivity of smart devices/terminals and integration of data for supporting smart services, cities and communities.

5) Studying policies and business models that ensure the involvement of different stakeholders and yield sustainable development of smart cities and communities.

6) Discuss and share reference data management architectures that would promote and enable development of smart cities and communities.

7) Defining performance benchmarks and assessment mechanisms for smartness in terms of quality-of-life, technical aspects and policy mechanisms.

8) Sharing of experiences and best practices in building smart cities and choosing/providing smart services and applications.

9) Promotion of capacity building and the acquisition of knowledge on ICTs for adoption of the skills required for development of a smart society.

10) Encouraging city planners and city officials to participate in the study and share their experiences.

3 Expected output

The output expected from this Question will include:

a) Guidelines on policy approaches to facilitate the development of ICT applications in society, fostering social and economic development and growth.

b) Case studies on the application of IoT, communications and ICT applications in building SSCCs, identifying the trends and best practices implemented by Member States as well as the challenges faced, in order to support sustainable development and foster smart societies in developing countries.

c) Increasing awareness among relevant participants regarding the adoption of open-source strategies for enabling access to telecommunications, and studying the drivers for increasing the degree of preparedness to use and develop open-source software to support telecommunications in developing countries, as well as creating opportunities for cooperation between ITU members by reviewing successful partnerships.

d) Analysis of factors affecting the efficient roll-out of connectivity to support ICT applications that enable e-government applications in SSCCs.

e) Organization of workshops, courses and seminars for the development of capacities allowing improved uptake of ICT applications and IoT.

f) Annual progress reports, which should include case studies, and a detailed final report containing measurement analysis, information and best practices, as well as any practical experience acquired in the areas of use of telecommunications and other means of enabling ICT applications and connecting devices for development of the smart society.

g) Development of a city's ability to respond to crises like the global pandemic through smart cities, with special emphasis on a contactless society and continuity of urban systems.

4 Timing

A preliminary report should be submitted to the study group. The studies should be concluded in 2025, by which time a final report will be submitted.

5 Proposers/sponsors

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6 Sources of input

1) Progress on study of the Questions relevant to this issue in the ITU Telecommunication Standardization Sector (ITU-T) and ITU Radiocommunication Sector (ITU-R) study groups.

2) Contributions from Member States, Sector Members, Associates, other United Nations agencies, regional groups and BDT coordinators.

3) Progress of BDT initiatives with other United Nations organizations and the private sector on using ICT applications for development of the smart society.

4) Progress on any other relevant activity carried out by the ITU General Secretariat or BDT.

7 Target audience

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers (telecommunication/ICT equipment manufacturers, automobile industry, etc.)	Yes	Yes
Corresponding ministries	Yes	Yes
BDT programmes	Yes	Yes
City planners and operational managers	Yes	Yes

a) Target audience – Who specifically will use the output

Relevant policy-makers, regulators and participants in the telecommunication/ICT and multimedia sectors, as well as manufacturers and service providers, and city planners and operational managers.

b) Proposed methods for the implementation of the results

In guidelines for implementing regional initiatives.

8 Proposed methods of handling the Question or issue

Within ITU-D Study Group 2.

9 Coordination and collaboration

The ITU-D study group dealing with this study Question will need to coordinate with:

– The relevant Questions under both ITU-D Study Groups 1 and 2. In particular joint collaboration is sought with Questions 1/1 (for broadband and connectivity infrastructure), 4/1 (for business models and economics), 2/2 (on e-services), 3/2 (on data management and trust-related issues) and 5/2 (on adoption of ICTs and improving digital skills).

– The relevant BDT unit dealing with the Question issues

– Relevant work in progress in the other two ITU Sectors

– Connection between the Question and other development projects carried out by ITU (e.g. BDT projects)

– Broad cooperation with other United Nations agencies in the relevant fields for creating a smart city or community.

10 BDT programme link

All BDT programmes are concerned by the Question as regards, in particular, aspects relating to information and communication infrastructure and technology development, ICT applications, enabling environment, digital inclusion and emergency telecommunications.

11 Other relevant information

To be identified later during the life of the new Question.

QUESTION 2/2

Enabling technologies for e-services and applications, including e-health and e-education

1 Statement of the situation or problem

In order to continue to contribute to and promote attainment of the United Nations Sustainable Development Goals (SDGs) set in September 2015 and objectives set by the Geneva Plan of Action of the World Summit on the Information Society (WSIS) in the era of digital transformation, it is necessary to address the challenge of digital infrastructure development to make available consequent benefit in developing countries.

The offerings of e-services, m-services and over-the-top (OTT) applications present new opportunities for economic development, particularly in developing countries. Enabling technologies such as cloud computing offer ubiquitous, convenient and on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications and services) that can be rapidly provisioned and released with minimal management effort or service-provider interaction.

Increased broadband networks also lead to the development and deployment of new services and applications, such as mobile money transfer, m-banking, m-commerce and e-commerce. More importantly, in developing countries, especially in remote areas, there are few health professionals, and the United Nations goal of "minimum health care for all'' will not be achieved by 2030 without the use of e-health technology. The coronavirus disease (COVID-19) pandemic has made it more difficult to meet people in person, and the relationship between patients and medical doctors, pregnant women and midwives, and older persons and visiting nurses has begun to change in many ways in the medical field. In addition, students at schools or universities in both urban and remote areas were not able to meet their instructors in person during the pandemic and demand increased sharply on different educational platforms and applications. Such a trend is expected to continue and even increase as it proves effective. OTT applications have connected communities, families, businesses, clients and partners all around the world to stay informed, socialize, practice sport or yoga and be entertained. M-services were at the core of the pandemic response, and will continue to be essential in the years to come.

2 Question or issue for study

The scope of activities is:

1) Introduce best-practice models for e-services in developing countries, including e-health and e-education.

   i) Ways to promote an enabling environment among ICT stakeholders for the development and deployment of e-services and m-services.

   ii) Study of new e-health technologies, including combating pandemics.

   iii) Sharing e-health standardization with developing countries.

2) Methods of development and deployment of cross-cutting m-services related to e-commerce, e-finance and e-governance, including money transfer, m-banking and m-commerce.

3) Regulatory frameworks for the provision of OTTs.

4) National case studies and experiences regarding legal frameworks and partnerships seeking to facilitate the development and deployment of e-services, m-services and OTTs.

5) Impact of OTTs on end-user demand for the Internet.

6) Strategies and policies to foster the emergence of a cloud-computing ecosystem in developing countries, taking into consideration relevant standards recognized or under study in the other two ITU Sectors.

3 Expected output

The output will be a report on the results of the work conducted for each item studied, together with a handbook, case-study analysis reports, and other relevant materials at appropriate times, either during the course of or at the conclusion of the cycle.

Information shall be consolidated and disseminated to the membership to organize/support seminars and workshops for sharing best practices on the deployment of e-services, e-education and e-health in developing countries. Specifically, study outputs may promote gender equality and greater access by women to communication technologies, as well as to employment, health and education.

4 Timing

The output will be generated on an annual basis. The output of the Question will be completed during the study cycle.

1) Annual progress reports should be submitted to ITU-D Study Group 2.

2) Draft final reports and guidelines should be submitted to ITU-D Study Group 2 within the study cycle.

3) The rapporteur group will work in close collaboration with relevant BDT programmes, regional offices, regional initiatives and relevant ITU-D study Questions, and ensure proper liaison with ITU-R and ITU-T.

5 Proposers/sponsors

The study Question was originally approved by WTDC-94, and subsequently revised by WTDC-98, WTDC-02, WTDC-06, WTDC-10, WTDC-14, WTDC-17 and now WTDC-22.

6 Sources of input

Contributions are expected from Member States, Sector Members, Academia and Associates, as well as inputs from relevant BDT programmes, particularly those that have successfully implemented telecommunication/ICT e-services projects in developing countries, especially in rural and remote areas. These contributions will enable those responsible for work on this Question to develop the most appropriate conclusions, Recommendations and outputs. The intensive use of correspondence and online exchange of information, workshops and field experiences is encouraged for additional sources of inputs.

7 Target audience

Target audience	Developed countries	Developing countries
Relevant policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Rural authorities	Yes	Yes

Target audience	Developed countries	Developing countries
Service providers/operators	Yes	Yes
Manufacturers, including software developers	Yes	Yes
Vendors	Yes	Yes

a) Target audience – Who specifically will use the output

Telecommunication/ICT, education and health communities, between developed and developing countries and among developing countries, as well as telecom regulators, manufacturers, medical and educational organizations, NGOs and service providers.

b) Proposed methods for implementation of the results

The outputs of this study Question will be distributed through ITU-D reports and made available via the ITU-D website.

8 Proposed methods of handling the Question or issue

a) How?

1) Within a study group:
   - Question (over a multi-year study period) ☑
2) Within regular BDT activity:
   - Programmes: ICT applications and services ☑
   - Projects ☐
   - Expert consultants ☐
   - Regional offices ☑
3) In other ways ☐

b) Why?

To take into account the ongoing/planned programmes/regional initiatives and optimize resources.

9 Coordination and collaboration

Coordination between the telecommunication/ICT, education and health communities, between developed and developing countries and among developing countries, as well as telecom regulators, manufacturers, medical organizations, NGOs and service providers. Collaboration with other study Questions will also be explored, especially Questions 5/1 (rural communications), 1/2 (smart cities and communities) and 5/2 (ICT adoption and digital skills), with possible joint deliverables.

10 BDT programme link

WTDC resolutions: Resolution 11 (Rev. Kigali, 2022) and Resolution 68 (Rev. Dubai, 2014), and Recommendation ITU-D 19.

Links to BDT programmes aimed at fostering the development of telecommunication/ICT for health and education as well as relevant applications and services.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 3/2

Securing information and communication networks: Best practices for developing a culture of cybersecurity

1 Statement of the situation or problem

The use of telecommunications and information and communication technologies (ICTs) has been invaluable in fostering development and social and economic growth globally. However, despite all the benefits and uses these technologies offer, there are risks and threats to security.

From personal finances to business operations, from national infrastructure to public and private services, all transactions are increasingly managed through information and communication networks, making them more vulnerable to some form of attack.

In order to build trust in the use and application of telecommunications/ICTs for applications and content of all kinds, especially those having a major positive impact in economic and social areas where all players exert an effect on the protection of personal data, network security and the actual network user, close collaboration is required between national authorities, foreign authorities, industry, academia and users.

Based on the foregoing, securing information and communication networks and developing a culture of cybersecurity have become key in today's world for a number of reasons, including:

a) the explosive growth in the deployment and use of ICT;

b) cybersecurity remains a matter of concern of all, and there is thus a need to assist countries, in particular developing countries[1], to protect their telecommunication/ICT networks against cyberattacks and threats;

c) the need to endeavour to ensure the security of these globally interconnected infrastructures if the potential of the information society is to be achieved;

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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

d) the growing recognition, at the national, regional and international levels, of the need to develop and promote best practices, standards, technical guidelines and procedures to reduce vulnerabilities of and threats to ICT networks;

e) the need for national action and regional and international cooperation to build a global culture of cybersecurity that includes national coordination, appropriate national legal infrastructures, watch, warning and recovery capabilities, government/industry partnerships and outreach to civil society and consumers;

f) the requirement for a multistakeholder approach to effectively make use of the variety of tools available to build confidence in the use of ICT networks;

g) United Nations General Assembly (UNGA) Resolution 57/239, on creation of a global culture of cybersecurity, invites Member States "to develop throughout their societies a culture of cybersecurity in the application and use of information technology";

h) UNGA Resolutions 68/167, 69/166 and 71/199, on the right to privacy in the digital age, affirm, *inter alia*, "that the same rights that people have offline must also be protected online, including the right to privacy";

i) best practices in cybersecurity must protect and respect the rights of privacy and freedom of expression as set forth in the relevant parts of the Universal Declaration of Human Rights, the Geneva Declaration of Principles adopted by the World Summit on the Information Society (WSIS) and other relevant international human rights instruments;

j) the WSIS Geneva Declaration of Principles indicates that "A global culture of cybersecurity needs to be promoted, developed and implemented in cooperation with all stakeholders and international expert bodies", the Geneva Plan of Action encourages sharing best practices and taking appropriate action on spam at national and international levels, and the Tunis Agenda for the Information Society reaffirms the necessity for a global culture of cybersecurity, particularly under Action Line C5 (Building confidence and security in the use of ICTs);

k) ITU was requested by WSIS (Tunis, 2005), in its agenda for implementation and follow-up, to be the lead facilitator/moderator for Action Line C5 (Building confidence and security in the use of ICTs), and relevant resolutions have been adopted by the Plenipotentiary Conference, the World Telecommunication Standardization Assembly (WTSA) and the World Telecommunication Development Conference (WTDC);

l) UNGA Resolution 70/125 adopted the outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the WSIS outcomes;

m) the WSIS+10 statement on the implementation of WSIS outcomes, and the WSIS+10 vision for WSIS beyond 2015, adopted at the ITU-coordinated WSIS+10 high-level event (Geneva, 2014) and endorsed by the Plenipotentiary Conference (Busan, 2014), which were submitted as an input into the UNGA's overall review on the implementation of WSIS outcomes;

n) WTDC Resolution 45 (Rev. Kigali, 2022) supports the enhancement of cybersecurity among interested Member States;

o) Resolution 130 (Rev. Dubai, 2018) of the Plenipotentiary Conference resolves to continue promoting common understanding among governments and other stakeholders of building confidence and security in the use of ICTs at the national, regional and international level;

p) WTSA Resolution 50 (Rev. Geneva, 2022) highlights the need to harden and defend information and telecommunication systems from cyberthreats and cyberattacks, and continue to promote cooperation among appropriate international and regional organizations in order to enhance exchange of technical information in the field of information and telecommunication network security;

q) the conclusions and recommendations set out in the Final Report of ITU Telecommunication Development Sector (ITU-D) Study Group 2 on Question 3/2, to the effect that the activities in the current terms of reference be continued and that evolving and emerging technical threats beyond spam and malware be considered for the next study period;

r) there have been various efforts to facilitate the improvement of network security, including the work of Member States and Sector Members in standards-setting activities in the ITU Telecommunication Standardization Sector (ITU-T) and in the development of best-practice reports in ITU-D; by the ITU secretariat in the Global Cybersecurity Agenda (GCA); and by ITU-D in its capacity-building activities under the relevant programme; and, in certain cases, by experts across the globe;

s) governments, service providers and end users, particularly in least developed countries (LDCs), face unique challenges in developing security policies and approaches appropriate to their circumstances;

t) reports detailing the various resources, strategies and tools available to build confidence in the use of ICT networks and the role of international cooperation in this regard are beneficial for all stakeholders;

u) spam and malware continue to be a serious concern, although evolving and emerging threats must also be studied;

v) the need for simplified test procedures at basic level for security testing of telecommunication networks to promote a security culture.

2 Question or issues for study

1) Promote awareness-raising for users and capacity building regarding cybersecurity (in possible collaboration with Question 5/2).

2) Update the perspectives, studies and experiences of the report on Question 3/2 for the last study period.

3) Share experiences on cybersecurity assurance practices.

4) Discuss approaches and best practices for cybersecurity incident responses.

5) Discuss approaches and best practices, and collect experiences on the implementation of national cybersecurity strategies and policies.

6) Discuss challenges and approaches for 5G cybersecurity.

7) Discuss challenges and approaches to addressing smishing and SMS incidents.

8) Discuss approaches and share experiences of computer incident response team (CIRT) national coordination for the resilience of critical infrastructure.

3 Expected output

a) Reports to the membership on the issues identified in § 2 above. The reports in question will reflect that secure information and communication networks are integral to building the information society and to ensuring the economic and social development of all nations. They will also provide contributions that assist countries in formulating guidelines to address cybersecurity challenges.

Cybersecurity challenges include potential unauthorized access to, destruction of and modification of information transmitted on ICT networks, as well as countering and combating spam and malware. However, the consequences of such challenges can be mitigated by increasing awareness of cybersecurity issues, establishing effective public-private partnerships and sharing successful best practices employed by policy-makers and businesses, and through collaboration with other stakeholders.

In addition, a culture of cybersecurity can promote trust and confidence in these networks, stimulate secure usage, ensure protection of data, including personal data, while enhancing access and trade, and enabling nations to achieve the economic and social development benefits of the information society more effectively.

b) Holding ad hoc sessions, seminars and workshops to share knowledge, information and best practices concerning effective, efficient and useful measures and activities to enhance cybersecurity, increase confidence and protect data and networks, taking into consideration existing and potential risks for ICTs, using outcomes of the study, to be collocated as far as possible with meetings of ITU-D Study Group 2 or of the rapporteur group for the Question.

4 Timing

This study is proposed to last four years, with preliminary status reports to be delivered on progress made after 12, 24 and 36 months.

5 Proposers/sponsors

ITU-D Study Group 2, Arab states, Inter-American proposal, Japan and the Islamic Republic of Iran.

6 Sources of input

1) Member States and Sector Members

2) Relevant ITU-T and ITU-R study group work

3) Relevant outputs of international and regional organizations

4) Relevant non-governmental organizations concerned with the promotion of cybersecurity and a culture of security

5) Surveys, online resources

6) Experts in the field of cybersecurity

7) Global Cybersecurity Index (GCI)

8) Other sources, as appropriate

7 Target audience

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes
Academia	Yes	Yes

a) Target audience

National policy-makers and Sector Members, and other stakeholders involved in or responsible for cybersecurity activities, especially those from developing counties.

b) Proposed methods for implementation of the results

The study programme focuses on gathering information and best practices. It is intended to be informative in nature and can be used to raise awareness of cybersecurity issues in Member States and Sector Members and to draw attention to the information, tools and best practices available, the results of which may be used in conjunction with BDT-organized ad hoc sessions, seminars and workshops.

8 Proposed methods of handling the Question or issue

The Question will be addressed within a study group over a four-year study period (with submission of interim results), and will be managed by a rapporteur and vice-rapporteurs. This will enable Member States and Sector Members to contribute their experiences and lessons learned with respect to cybersecurity.

9 Coordination and collaboration

Relevant study Questions under both ITU-D Study Groups 1 and 2. In particular, joint collaboration is sought with Questions 6/1 (on evaluation the impact of spam and malware from the consumer-protection perspective as well as on awareness-raising for users and capacity building) and 7/1 (on specific needs of persons with disabilities).

ITU-T, in particular ITU-T Study Group 17, which is responsible for building confidence and security in the use of ICTs.

Coordination with other relevant organizations and agencies. Given the existing level of technical expertise on the issue in these groups, they should be given the opportunity to comment and provide input on all documents (questionnaires, interim reports, draft final reports, etc.) before the documents are submitted to the full ITU-D study group for comment and approval

10 BDT programme link

The BDT programme under the ITU-D priority ''Inclusive and secure telecommunications/ICTs for sustainable development'' shall facilitate exchange of information and make use of the output, as appropriate, to satisfy programme goals and the needs of Member States.

11 Other relevant information

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QUESTION 4/2

Telecommunication/ICT equipment: Conformance and interoperability, combating counterfeiting and theft of mobile devices

1 Statement of the situation or problem

The coronavirus disease (COVID-19) pandemic brought new challenges and opportunities to conformance and interoperability (C&I) structures that merit study by the ITU-D membership and the provision of guidance to the ICT community.

Question 4/2's extended terms of reference will include the following three items:

i) Conformance and interoperability

Inclusion of an ITU Telecommunication Development Sector (ITU-D) study Question on this matter provides an effective way to further the aims of Resolutions 177 and 188 (Rev. Dubai, 2018) of the Plenipotentiary Conference, Resolution 47 (Rev. Kigali, 2022) of the World Telecommunication Development Conference (WTDC), and Resolutions 76 (Rev. Geneva, 2022), 96 (Hammamet, 2016) and 97 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA).

According to the Buenos Aires Declaration adopted by WTDC-17, widespread C&I of telecommunication/ICT equipment and systems allow increased market opportunities as well as the reliability and integration of world trade, which can be achieved through programmes, policies and decisions.

Member States and ITU-D Sector Members can assist and guide each other by conducting studies, building tools to bridge the standardization gap, and navigating issues related to matters raised in the above-mentioned resolutions. ITU-D can harness the energy of its membership to examine these important issues.

In this regard, to facilitate safe usage of products and services anywhere in the world, regardless of who is the manufacturer or service provider, it is crucial that products and services be developed in accordance with relevant international standards, regulations and other specifications, and that their compliance be tested.

The study Question will ultimately contribute to international community's effort to achieve the United Nations Sustainable Development Goals (SDGs), especially the targets on infrastructure[1] (namely 9.1, 9.a, 9.b, and 9.c), by adopting an eco-friendly set of harmonized standards, since C&I regime instruments enable countries to better control and authenticate products.

Conformity assessment increases the probability of interoperability, i.e. equipment built by different manufacturers being capable of communicating successfully. In addition, it helps to ensure that products and services are delivered according to expectations. Conformity assessment builds consumer trust and confidence in tested products and consequently strengthens the business environment and, thanks to interoperability, the economy benefits from business stability, scalability and cost reduction of systems, equipment and tariffs.

To increase the benefits of C&I, many countries have adopted harmonized C&I regimes at both national and bilateral/multilateral level. However, some developing countries[2] have not yet done so because of a number of major challenges, such as the lack of appropriate/adequate infrastructure and technology development to be in a position to test or to recognize tested ICT equipment (e.g. accredited laboratories).

The availability of high-quality, high-performing products will accelerate widespread deployment of infrastructure, technologies and associated services, allowing people to access the information society regardless of their location or chosen device, and contributing to implementation of the SDGs.

Also, simplifying the conformity assessment process will facilitate the homologation of products destined for telecommunications, will give legal certainty to users on compliance in the products they acquire, and will promote adoption of the best technological standards and measures to protect intellectual property.

Considering the role of C&I in a hyperconnected world where billions of people and objects connect with each other, study Question 4/2 will give additional focus on:

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1 SDG 9: https://sustainabledevelopment.un.org/sdg9

2 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

– New technologies and their impact in national C&I frameworks

– Efforts to manage the increasing number of devices sharing the same limited resources

– Measures to cover cost related to conformity procedures and controls of ICT products to allow only approved products to access markets

– Reassessment of how harmonization of procedures and collaboration can be achieved under this scenario, considering:

  - Robust C&I frameworks: Making sure every country has or is part of a robust C&I framework with minimal costs (e.g. agreements on the shared use of national C&I infrastructure, such as testing facilities and certificates of conformity);

  - Collaboration: Effective tools/aspects of mutual recognition agreements (MRAs) that need to be adapted to improve existing collaboration agreements or develop new ones.

In addition, this will contribute to raise the quality standards of services, making them more efficient, for the benefit of the population.

ii) Counterfeit telecommunication/ICT equipment

Counterfeit telecommunication/ICT equipment is a growing issue and socio-economic problem. It causes significant negative impact on innovation, levels of foreign direct investment, growth in the economy and levels of employment, and may also redirect resources into organized criminal networks.

iii) Mobile device theft

Preventing and combating the use of stolen mobile devices is another issue. The theft of user-owned mobile devices may lead to the criminal use of telecommunication/ICT services and applications, resulting in economic losses for the lawful owner and user.

Implementing measures to combat counterfeit telecommunication/ICT devices and mobile device theft is a matter of urgency and high interest for developing countries.

2 Question or issue for study

Study Question 4/2 is expected to examine issues related to ICT equipment and systems, a key component for spreading ICT networks, access, services and applications. The work covers the following items:

1) In close collaboration with the BDT programme(s), identifying and assessing the challenges, priorities and problems for countries, subregions or regions with respect to the application of ITU Telecommunication Standardization Sector (ITU-T) Recommendations and approaches to meeting the need for confidence in the conformity of equipment with ITU-T Recommendations.

2) Identifying critical/priority issues related to C&I in countries, subregions or regions, and related best practices.

3) Examining how information transfer, know-how, training and institutional and human capacity development can strengthen the ability of developing countries to reduce risks associated with low-quality equipment and equipment interoperability issues. Examining effective information-sharing systems and best practices to assist in this work (in possible collaboration with Questions 6/1 and 5/2).

4) Elaborating a methodology for the implementation of the study Question, in particular gathering evidence and information regarding current best practices being adopted to create C&I programmes, taking into consideration progress achieved by all the ITU Sectors in this regard.

5) Techniques designed to promote harmonization of C&I regimes, to establish administrative procedures (e.g. market surveillance) to increase resilience on ICT devices, to improve local and regional integration and to contribute to bridging the standardization gap, thereby reducing the digital divide, considering the current scenario of hyperconnected societies.

6) Information regarding the establishment of mutual recognition agreements (MRAs) between countries. Guidance on concepts and procedures to establish and manage MRAs.

7) Assessing the impact of the increase of ICT devices to the radiocommunication environment, including the Internet of Things (IoT), and providing guidelines to the ITU-D membership for ICT-readiness related to C&I (in possible collaboration with Questions 6/2 and 7/2).

8) Techniques and national experiences on combating counterfeit, sub-standard, and tampered devices:

i) prepare and document examples of best practices on limiting counterfeit and tampered devices, for distribution;

ii) prepare guidelines, methodologies and publications to assist Member States in identifying counterfeit and tampered devices and methods of increasing public awareness and restricting trade in these devices, as well as the best ways of limiting them;

iii) study the impact of counterfeit and tampered telecommunication/ICT devices being transported to developing countries.

9) Future challenges for C&I, such as:

i) new technologies outpacing regulation/testing procedures;

ii) regulatory aspects for open and interoperability adoption related to 5G (in possible collaboration with Question 1/1, on broadband infrastructure);

iii) smart objects' communication paradigms (in possible collaboration with Question 1/2, on smart objects and IoT);

iv) software modifications to ICT devices after homologation and their impacts on existing C&I frameworks (in possible collaboration with Question 3/2);

v) effective harmonization of procedures and technical collaboration, etc.

10) How to prioritize device/type-approval while achieving a good balance between providing confidence to the user (e.g. through homologation) and regulatory measures applicable by the responsible authorities.

11) C&I challenges and opportunities during the COVID-19 pandemic.

12) Ways in which new technologies can help to improve the international C&I framework and trade in and use of ICT devices.

3 Expected output

In the ITU-D study period 2018-2021, studies on various issues related to C&I, combating counterfeit ICT equipment and theft of mobile devices are to be reported. Outputs are to be prepared in three separate components.

Specifically, the following outputs are envisaged:

C&I programmes

a) Review of guidelines and best practices on technical, legal and regulatory aspects of a C&I regime.

b) Feasibility studies regarding the establishment of laboratories in different C&I domains.

c) Guidance on the framework and procedures for establishing technical collaboration on C&I and sharing of resources.

d) Questionnaire to collect and update the database of current status of C&I regimes established at national, regional or global levels.

e) Development of a methodology for assessing the status of C&I regimes in place in the regions (or subregions).

f) Experience-sharing and case-study reports on implementation of C&I programmes focusing on efficient and affordable methods to improve the level of conformity.

g) Additional topics for the study period extension:

– Future challenges to C&I facing new technologies, open and collaborative C&I frameworks;

– C&I Challenges and opportunities from COVID-19;

– Ways in which new technologies can help to improve the international C&I framework and trade in and use of ICT devices.

Combating counterfeit ICT equipment

h) Best practices and guidelines, including methodologies to combat counterfeit ICT equipment.

Mobile device theft

i) Experience-sharing and case-study reports on combating mobile device theft.

4 Timing

1) Annual progress reports will be submitted to ITU-D Study Group 2.

2) A final report will be submitted to ITU-D Study Group 2.

5 Proposers/sponsors

–

6 Sources of input

1) Member States, Sector Members and relevant experts.

2) A questionnaire covering relevant C&I matters.

3) Examination of regulations, policies and practices in countries that have created systems to manage these matters.

4) Other relevant international organizations.

5) Interviews, existing reports and surveys should also be used to gather data and information for the finalization of a comprehensive set of best-practice guidelines for administering C&I information.

6) Material from regional telecommunication organizations, telecommunication research centres, manufacturers and working groups should also be utilized in order to avoid duplication of work.

7) Close cooperation with ITU-T study groups, in particular Study Group 11 and the Joint Coordination Activity on C&I testing, and with other organizations (e.g. ILAC, IAF, ISO, IEC) involved in C&I activities and other actions within ITU-D is required and extremely important.

7 Target audience

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes
Consumers/end users	Yes	Yes
Standards-development organizations, including consortia	Yes	Yes
Testing laboratories	Yes	Yes
Certification bodies	Yes	Yes

a) Target audience

Depending on the nature of the output, policy- and decision-makers, middle to upper-level managers in operators, laboratories, standards-development organizations (SDOs), certification bodies, market-research agencies, regulators and ministries in developed, developing and least developed countries (LDCs) will be the predominant users of the output. Compliance managers at equipment manufacturers and system integrators could also use the output for information.

b) Proposed methods for implementation of the results

The results of the study Question are to be distributed through ITU-D interim and final reports. This will provide a means for the audience to have periodic updates of the work carried out and to provide input and/or seek clarification/more information from ITU-D Study Group 2 should they need it.

Virtual meetings will be used to advance the work while accommodating any COVID-19 restrictions.

8 Proposed methods of handling the Question or issue

The study Question will be addressed within a study group over a four-year study period (with submission of interim results), and will be managed by a rapporteur and vice-rapporteurs. This will enable Member States and Sector Members to contribute their experiences and lessons learned with respect to conformity assessment, type-approval and interoperability, testing laboratories, recognition of testing reports, as well as combating counterfeit devices.

9 Coordination and collaboration

The ITU-D study group dealing with this study Question will need to coordinate with:

– Relevant ITU-T study groups, particularly Study Group 11
– Relevant focal points in BDT and ITU regional offices
– Coordinators of relevant project activities in BDT
– SDOs
– Conformity-assessment bodies (including testing organizations and laboratories, accreditation organizations, etc.) and industry consortia
– Consumers/end users
– Experts in this field

10 BDT programme link

a) WTDC Resolution 47 (Rev. Kigali, 2022)
b) WTSA Resolution 76 (Rev. Geneva, 2022)
c) Resolution 123 (Rev. Dubai, 2018) of the Plenipotentiary Conference
d) ITU C&I Programme.

Links to BDT programmes aimed at human capacity development and assistance to operators in developing countries and LDCs, programmes that deal with technical assistance and programmes concerning C&I.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 5/2

Adoption of telecommunications/ICTs and improving digital skills

1 Statement of the situation or problem

Broadband technologies are fundamentally transforming the way we live. Broadband infrastructure, applications and services offer important opportunities to boost economic growth, enhance communications, improve energy efficiency, safeguard the planet and improve people's lives. Broadband access and adoption have a significant impact on the world economy and are important to bridging the digital divide.

According to the ITU 2021 edition of *Facts and Figures*, an estimated 2.9 billion people – or 37 per cent of the world's population – remain offline. In developed countries, 90 per cent of the population is online compared to 57 per cent in developing countries[1] and 27 per cent in least developed countries (LDCs). Of the 37 per cent of people who are offline, 5 per cent cannot connect even if they wanted to due to a lack of network coverage ("coverage gap"), while 32 per cent remain offline for other reasons ("usage gap").

Since the onset of the coronavirus disease (COVID-19) pandemic, Internet connectivity has played a vital role in allowing individuals to continue to participate in everyday social, political and economic activities as millions of people turned to remote work, distance learning, e-commerce and Internet-enabled telehealth services. Almost 70 per cent of the workforce in some countries shifted to remote work, and 94 per cent of the world's student population was affected by school closures. Unfortunately, of those affected, at least 31 per cent of school-age children are still unable to access online educational content.

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

Disparities are found across countries. With respect to gender, globally, only 48 per cent of women use the Internet compared to 55 per cent of men. In developing countries, women are almost 10 per cent less likely to use the Internet than men, compared to only 2 per cent less than men in developed countries. The gender gap further widens in LDCs (15 per cent women to 28 per cent men) and in LLDCs (21 per cent women to 33 per cent men). Broadband adoption directly contributes to the likelihood that a community will participate in and benefit from the digital economy.

In indigenous communities, the digital divide plays an even larger role in widening the economic, educational and social divides. Due to the sparse population in rural and remote areas where many indigenous people live combined with the challenges of broadband mapping and data collection, available information sources often provide incomplete data for Internet access and adoption. Methods to increase adoption in these areas will optimally focus on factors at the household and personal level to include price, availability of computers or other devices, content provided in local languages and digital skills.

Global stakeholders have become increasingly focused on alleviating disparities in broadband adoption by investing in approaches that address the affordability of devices and services and emphasize the importance of digital skills and digital literacy to effectively participate in the global economy. In a survey conducted by ITU, less than 40 per cent of the population in 40 per cent of countries surveyed had basic ICT skills, while, similarly, less than 40 per cent of the population in over 70 per cent of countries had standard ICT skills, and in over 95 per cent of countries less than 15 per cent of the population had advanced ICT skills.

There must be a significant uptake in broadband services and technologies for a community to participate fully in the digital economy. As stakeholders around the world work to deploy broadband networks, it is also important to develop and execute strategies that enable their citizens to adopt and effectively use broadband technologies, services and devices, supported by adequate digital skills. Increasingly, stakeholders use local languages and iconography to increase computer and overall literacy. Optimally, all strategies for adoption will be studied in the context of the social, economic and cultural factors faced by individuals in urban, rural and remote areas in both developed and developing countries.

2 Question or issue for study

1) Analysis of adoption opportunities, challenges and disparities for telecommunications/ICTs, including broadband.

2) Trends in telecommunication/ICT adoption globally, including in urban, rural, remote and other areas.

3) Trends in Internet traffic and the impact on demand for high-speed broadband, including during pandemics and disasters.

4) Trends in digital skills development and training programmes.

5) Methods to promote and encourage digital literacy, training and skills development across all levels of the global socio-economic landscape to close the digital skills gap.

6) Approaches to strengthen digital-skills training for the adoption of e-services, including e-agriculture, e-commerce, e-education and e-health.

7) Ways to encourage the adoption of telecommunications/ICT services and devices among school-aged children and youth and to teach them basic, intermediate and advanced digital skills so that they can safely participate fully in the information society.

8) Ways to encourage widespread adoption of new and emerging telecommunication/ICT services and technologies to increase fast and reliable connectivity for all, including women and individuals in developing and least developed countries (LDCs), landlocked developing countries (LLDCs), and small island developing states (SIDS).

9) Strategies and policies to improve the affordability of Internet-enabled devices, including handsets and data services to meet the growing demand for affordable Internet services and devices (in collaboration with Question 4/1).

10) The influence of cultural, social and other factors in producing unique and often creative methods of encouraging the adoption of e-services by residents of developing countries, including relevant content in local languages.

3 Expected output

Reports, best-practice guidelines, workshops, case studies and Recommendations, as appropriate, that address the issues for study, and the following expected outputs:

a) Policies, strategies and national experiences to stimulate adoption of telecommunication/ICT technologies, services and devices, including for broadband.

b) Methods and guidelines for telecommunication/ICT adoption specific to social, cultural and economic environments (in collaboration with Question 4/1).

c) Policies, strategies and national experiences to develop and promote digital skills, including training individuals at basic, standard and advanced levels.

d) Methods, guidelines and case studies for lifelong skills training on new and emerging telecommunication/ICT services and technologies for people of all ages and socio-economic backgrounds.

e) Policies, strategies and case studies promoting telecommunication/ICT adoption and skills development in indigenous communities, for women and for individuals in developing countries, LDCs, LLDCs and SIDS.

4 Timing

Annual progress reports will be presented to Study Group 2 in 2022, 2023 and 2024. Interim deliverables identified in § 3 could be sent to Study Group 2 for approval when ready without waiting for the end of study period.

5 Proposers/sponsors

The United States proposed the adoption of this new study Question.

6 Sources of input

1) Contributions from Member States, Sector Members and Associates, and from relevant ITU-R and ITU-T study groups, and other stakeholders.

2) Results of related technical progress in relevant ITU-R and ITU-T study groups.

3) Interviews, workshops, existing reports and surveys should also be used to gather data and information for the finalization of a comprehensive set of best-practice guidelines.

4) Material from regional telecommunication/ICT organizations, telecommunication/ICT research centres, manufacturers and working groups should also be used, in order to avoid duplication of work.

5) ITU publications, reports and Recommendations on broadband deployment, digital inclusion and skills.

6) Relevant output and information from study Questions related to ICT applications.

7) Relevant inputs and information from BDT programmes related to broadband and the different broadband access technologies.

7 Target audience

Target audience	Developed countries	Developing countries
Telecom/ICT policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Additional stakeholders as appropriate	Yes	Yes
Manufacturers	Yes	Yes
Consumers/end users	Yes	Yes
Standards-development organizations, including consortia	Yes	Yes

a) Target audience

All national telecom/ICT policy-makers, regulators, service providers and operators, especially those in developing countries, as well as broadband providers and non-governmental or civil-society organizations supporting broadband adoption and connectivity.

b) Proposed methods for implementation of the results

The results of the study Question are to be distributed through ITU-D interim and final reports. This will provide a means for the audience to have periodic updates of the work carried out and to provide input and/or seek clarification/more information from ITU-D Study Group 2 should they need it.

8 Proposed methods of handling the Question or issue

Close coordination is essential with ITU-D programmes, and other relevant ITU-D study Questions, and with ITU-R and ITU-T study groups.

a) How?

1) Within a study group:
   - Question (over a multi-year study period) ☑
2) Within regular BDT activity:
   - Programmes ☑
   - Projects ☑
   - Expert consultants ☑
3) In other ways ☐

b) Why?

The study Question will be addressed within a study group over a four-year study period (with submission of interim results), and will be managed by a rapporteur group. This will enable Member States and Sector Members to contribute their experiences and lessons learned related to this Question.

9 Coordination and collaboration

The ITU-D study group dealing with this study Question will need to coordinate with: relevant ITU-R and ITU-T study groups; the relevant outputs from other ITU-D study Questions; relevant focal points in BDT and ITU regional offices; coordinators of relevant project activities in BDT; experts and experienced organizations in this field.

10 BDT programme link

Links to BDT programmes aimed at promoting broadband adoption and affordability, digital inclusion and digital skills.

11 Other relevant information

As may become apparent within the life of the Question.

QUESTION 6/2

ICTs for the environment

1 Statement of the situation or problem

1.1 ICTs and climate change

The issue of climate change has emerged as a global concern and requires global collaboration by all concerned, in particular the developing countries[1] (which are the most vulnerable group of countries with respect to climate change). International initiatives in this domain are seeking to achieve sustainable development and identify ways and means in which information and communication technologies (ICTs) can monitor climate change and reduce overall global greenhouse gas (GHG) emissions. The focus of this study Question is ''responsible consumption and production''.

ICTs have a direct and indirect effect on the environment. ICTs can help emerging economies overcome and thrive despite climate change and fluctuations, while helping the world mitigate climate change.

New technologies, systems and applications can monitor climate and reduce its adverse impact by utilizing big data. They can be pivotal in helping policy-makers and industry to tackle challenges with regard to environmental changes while formulating new policies and setting new standards of production towards reduction of emissions. Also, artificial intelligence can contribute to the collection of information through various methods and channels of data collection, by utilizing both human and historical experience to face extreme and unpredictable weather scenarios.

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

Study Group 5 of the ITU Telecommunication Standardization Sector (ITU-T) is the lead study group for the study of ICT environmental aspects of electromagnetic phenomena and climate change, including design methodologies to reduce environmental effects, such as recycling related to ICT facilities and equipment; and Study Group 7 (Science services) of the ITU Radiocommunication Sector (ITU-R) is the lead study group for studies related to the use of radio technologies, systems and applications, including satellite systems, for environment and climate-change monitoring and climate-change prediction.

In this respect, the outcomes of ITU-T and ITU-R resolutions and Recommendations, and in particular Resolution 73 (Rev. Geneva, 2022) of the World Telecommunication Standardization Assembly (WTSA) and Resolution 673 (Rev. WRC-12) of the World Radiocommunication Conference, should serve as a basis for the study of this Question.

1.2 Telecommunication/ICT waste material

The growth of telecommunications/ICTs, especially in developing countries, has been exponential in recent years. For instance, between 2002 and 2007, mobile-phone penetration in the Americas region grew from 19 to 70 terminals per 100 inhabitants. Globally, the share of mobile-phone subscriptions in developing countries increased by 20 percentage points, from 44 per cent to 64 per cent over the same period of time.

The growth of electrical and electronic equipment and their peripherals, as well as the continuous updating of technology, has generated a significant growth in telecommunication/ICT waste. It is estimated that between 20 and 50 million tonnes of telecommunication/ICT waste are generated every year worldwide. However, recycling and responsible disposal of telecommunication/ICT waste remain at low levels, making it difficult to even find figures on this issue at regional level.

According to the Global E-waste Monitor 2020, the world generated 53.6 million tonnes of e-waste in 2019, whilst global waste generation is predicted to reach 74 Mt by the year 2030, which is almost double the 2014 figures. This equates to an average of 7.3 kg per person.

Recycling and efficient disposal of telecommunication/ICT waste have not been handled properly, so it is proving a major challenge even to obtain correct figures for total ICT waste/e-waste present in the world.

The consequences of not carrying out proper recycling or disposal of e-waste constitute environmental problems of large magnitude and give rise to health issues, especially for developing countries.

The exponential growth of telecommunication/ICT terminals, the associated high turn-over of terminals and advances in technology make it imperative to put forward actions in the immediate future to prevent the environmental catastrophe that would result in developing countries if we fail to produce an adequate regulatory framework and work towards policies that address this problem.

2 Question or issue for study

There are a variety of issues that members will address under this study Question in the next four years. It is expected that the following steps for the study will play a major role in the future in order to meet the objective of the Question:

1) In close collaboration with the respective BDT programme(s), identify the regional needs for relevant applications for developing countries.

2) Elaborate a methodology for the implementation of the Question, in particular gathering evidence and information regarding current best practices on how ICTs can help reduce overall GHG emissions, taking into consideration progress achieved by ITU-T and ITU-R in this regard.

3) Consider the role of Earth observation in climate change, as determined by the implementation of Resolution 673 (Rev. WRC-12), on the use of radiocommunication for Earth observation applications, in order to enhance the knowledge and understanding of developing countries in respect of the utilization and benefits of relevant applications in connection with climate change.

4) Develop best-practice guidelines for the implementation of relevant Recommendations adopted by ITU-T as a result of the implementation of Resolution 73 (Rev. Geneva, 2022), both for monitoring changes in the climate and reducing the impact of climate change using the action plan in WTSA Resolution 44 (Rev. Geneva, 2022), in particular programmes 1, 2, 3 and 4 thereof.

5) Strategies to develop a responsible approach to, and comprehensive treatment of, telecommunication/ICT waste: policy and regulatory actions required in developing countries, in close collaboration with ITU-T Study Group 5.

6) Consider the role of ICTs towards a greener world post-COVID-19.

3 Expected output

The output will be a report or reports on the results of the work concluded for each step identified above, taking into account the specific needs of developing countries.

Other outputs could be the organization of workshops in relation with the relevant ITU-D programme and in consultation with the relevant ITU-T and ITU-R study groups.

4 Timing

The output will be generated on an annual basis. The output for the first year will be analysed and assessed in order to update the work for the next year, and so on. The final report is due by 2025.

5 Proposers/sponsors

The study Question was approved by WTDC-22.

6 Sources of input

Contributions are expected from:

Member States, Sector Members and Associates, as well as inputs from:

1) Relevant BDT programmes, and particularly ICT initiatives successfully implemented for climate change and to address e-waste.
2) Regional needs as identified by workshops on the subject.
3) Regional and/or national action plans and/or national experiences in ICTs and climate change or e-waste.
4) Progress achieved by ITU-T and ITU-R study groups in this domain, in particular the results of the Joint Coordination Activity on ICTs and climate change (JCA-ICTCC).
5) Progress achieved by the United Nations Intergovernmental Panel on Climate Change (IPCC) and other similar initiatives.

7 Target audience

Target audience	Developed countries	Developing countries
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes

Target audience	Developed countries	Developing countries
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes

a) Target audience – Who specifically will use the output

The output of this study Question will be used by both developed and developing countries, and in particular the least developed countries (LDCs), small island developing states (SIDS), landlocked countries (LLDCs) and countries with economies in transition.

b) Proposed methods for implementation of the results

A set of guidelines and recommendations about strategies for a responsible and comprehensive approach to the treatment of waste related to telecommunications/ICTs: policy and regulatory actions required in developing countries and LDCs.

This guide could be implemented by the developing countries and LDCs, as well as operators and manufacturers, in establishing actions for responsible and integral treatment of waste related to telecommunications/ICTs.

8 Proposed methods of handling the Question or issue

Close coordination is essential with ITU-D programmes, and other relevant ITU-D study Questions, and with ITU-R and ITU-T study groups.

a) How?

1) Within a study group:
   - Question (over a multi-year study period) ☑

2) Within regular BDT activity:
   - Programmes ☑
   - Projects ☑
   - Expert consultants ☑

3) In other ways ☑

b) Why?

To ensure that the work and output of this study Question is not duplicated and that there is better collaboration among BDT, the other ITU Sectors, Sector Members and other United Nations agencies.

To elaborate the set of guidelines, it would be necessary to have the experience of different countries, operators and manufacturers, as well as different organizations concerned with the topic which could provide information.

9 Coordination and collaboration

– Regular ITU-D activities

– Other study Questions or issues, in particular Questions 1/1, 2/2, 5/2 and 7/2, to address environment issues

– Regional organizations, as appropriate

– Work in progress in the other ITU Sectors.

10 BDT programme link

ITU-D priority ''Enabling policy and regulatory environment''.

11 Other relevant information

To be determined during the implementation of this study Question.

QUESTION 7/2

Strategies and policies concerning human exposure to electromagnetic fields

1 Statement of the situation or problem

With the advent of the wireless technologies, human exposure to electromagnetic fields (EMF) raised public concerns. The importance of developing strategies and guidance concerning human exposure to EMF has been well discussed. Over the study cycle from 2018 to 2021, under study Question 7/2 Study Group 2 of the ITU Telecommunication Development Sector (ITU-D) has studied science-based policies, guidelines, national experiences and assessments of human exposure to radio-frequency EMF (RF-EMF). New versions of EMF standards have also been published during the study cycles: in March 2020, the International Commission on Non-Ionizing Radiation Protection (ICNIRP) published an update to the ICNIRP (1998) Guidelines. The Institute of Electrical and Electronics Engineers (IEEE) also published the updated C95.1-2019 in October 2019. The ICNIRP and IEEE limits are largely harmonized, and the power density limits for whole-body exposure to continuous fields are identical above 30 MHz.

Due to the characteristics of multiple-input multiple-output (MIMO), beamforming and millimetre-wave technologies used in the new communication systems, some pioneer studies have been conducted to evaluate RF-EMF levels. Risk communication, including the benefit of new wireless technologies for people, in particular during the pandemic, is an important method to reduce unnecessary public concerns about RF-EMF exposure. WHO and ITU constantly help the exchange of knowledge between countries and regions on the current state of the science.

2 Question or issue for study

The study Question will encompass workshops featuring subject-matter experts, administrations and Sector Members who can share expertise and experiences related to the topic; collection of case studies and input contributions related to the topic; and interactive discussions to allow the Question to compare experiences and identify lessons learned and best practices. Additionally, throughout the study cycle, the Question will continue to examine new wireless technologies, best practices in EMF management, harmonization of standards and risk communication, with priority focus on:

– Responding to EMF miscommunication

– Exposure in new EMF scenarios

– Examining the implementation of exposure limits via a broad range of country case studies, including on the ICNIRP (2020) Guidelines

– EMF aspects of new deployment methods of wireless equipment.

3 Expected output

It is proposed that succinct outputs summarizing case studies and capturing lessons learned, best practices and tools/templates will be prepared and presented to the study Question for approval.

Additionally, throughout the study cycle, Question 7/2 welcomes contributions that describe new technologies, best practices in EMF management, harmonization of standards as well as risk communication.

4 Timing

A provisional report is to be presented to Study Group 2. It is proposed that the study be completed by 2025, at which date a final report containing guidelines will be submitted.

5 Proposers/sponsors

ITU membership.

6 Sources of input

1) Member States, Sector Members, Associates and Academia
2) Regional organizations
3) Expert ITU Sectors and groups
4) World Health Organization (WHO)
5) International Commission on Non-Ionizing Radiation Protection (ICNIRP)
6) Institute of Electrical and Electronics Engineers (IEEE)
7) BDT focal points.

7 Target audience

a) Target audience – Who specifically will use the input?

Target audience	Developed countries	Developing countries[1]
Telecom/ICT decision-makers, local authorities	Yes	Yes
Telecom/ICT regulators	Yes	Yes
Service providers/operators	Yes	Yes
Constructors/equipment providers	Yes	Yes

b) Proposed methods for implementation of the results

The results of the Question are to be distributed through ITU-D reports, or as agreed during the study period in order to address the study Question.

8 Proposed methods of handling the Question or issue

Close coordination is essential with ITU-D programmes, as well as with other relevant ITU-D study Questions and ITU-R study groups dealing with spectrum matters, including RF technologies, ICT for climate change, and ITU-T Study Group 5.

a) How?

1) Within a study group:

[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

– Question (over a multi-year study period) ☑

2) Within regular BDT activity:

– Programmes ☑

– Projects ☑

– Expert consultants ☑

3) In other ways ☐

b) Why?

To ensure that the work and output of this study Question is not duplicated and that there is optimal collaboration among BDT, the other ITU Sectors, Sector Members and other United Nations agencies.

9 Coordination and collaboration

The ITU-D study group dealing with this study Question will need to coordinate with:

– Relevant ITU-D Questions

– Relevant BDT programmes

– Regional offices

– Relevant ITU-R and ITU-T study groups

– Relevant international, regional and scientific organizations with mandates relevant to the Question.

10 BDT programme link

ITU-D priority "Enabling policy and regulatory environment".

11 Other relevant information

To be defined in the work plan.

Part VI – Annexes

Annex A: Address by Honourable Paula Ingabire, Minister of Information Communication Technology and Innovation of the Republic of Rwanda, at the Opening Ceremony of the World Telecommunication Development Conference (WTDC-22), 6 June 2022 – Kigali, Rwanda

Your Excellency, President Paul Kagame, President of the Republic of Rwanda,
Mr Houlin Zhao, ITU Secretary-General, and fellow ITU elected officials,
Ambassadors, dignitaries, and esteemed colleagues,
Ladies and gentlemen,

Please accept my warm welcome to Rwanda and to the 8th edition of the World Telecommunications Development Conference, WTDC-22.

I must thank your Excellency President Paul Kagame for your kind vision and leadership that has enabled the world to congregate in Rwanda for the very first WTDC to be held on the African continent.

This WTDC-22 is our chance to work together, to achieve consensus on key issues we will deliberate, so that we can bring the 2.9 billion people worldwide into the digital world they currently do not know.

Universal, affordable and accessible connectivity for all underpins our individual and collective efforts in industrialization, in building the digital economy, in ensuring our youth have access to information that improves their lives and have access to jobs created through the new future of work.

More importantly, we have all experienced the impact of COVID-19 and we have seen why connectivity is and will continue to be a cornerstone for our individual and collective resilience of humanity.

This is why I see that the success of WTDC-22 will be measured from the yardstick of how far our collective decisions over the next two weeks lead to a better world and the achievement of the Sustainable Development Goals.

Of the 2.9 billion that remain unconnected, a majority of them are our youth.

A majority of them are African youth.

A majority of them are African women.

The just-concluded Generation Connect Global Youth Summit was one of the most exciting events I have had the pleasure of engaging in recently.

Our youth told us that they want to sit at the decision-making table, or at least, to influence decisions that impact how they live, work and play.

Let us use the opportunity provided by the Partner2Connect forum to create new and innovative partnerships that build on the success already achieved.

We used to say that the future is digital. Now, we must accept that the present is already digital.

Let us use WTDC-22 to shape the digital present we are in today into an even better digital and connected future.

Thank you.

Annex B: Address by Ms Doreen Bogdan-Martin, Director of the ITU Telecommunication Development Bureau, at the Opening Ceremony of the World Telecommunication Development Conference (WTDC-22), 6 June 2022 – Kigali, Rwanda

Your Excellency, Paul Kagame, President of the Republic of Rwanda,
The Honourable Minister Paula Ingabire, Minister for ICT and Innovation, Republic of Rwanda,
Mr Houlin Zhao, ITU Secretary-General, and fellow elected officials,
Ambassadors and dignitaries, esteemed colleagues,

Good morning, and welcome to ITU's 8th World Telecommunication Development Conference.

I thank H.E. President Kagame and his team for their extraordinary efforts to ensure that this event delivers the powerful outcomes we are all working towards.

In some sense, this event will feel familiar to many.

We understand the structure, and how things will play out over the next two weeks.

We've all been here before, right?

Wrong.

This event may have the same name as previous ITU development conferences, but in all important respects, this is a very different ballgame.

In the five years since we last came together for a WTDC, our world has changed unrecognizably.

We faced a global pandemic that devastated our communities.

Inequalities have grown. Energy- and food-security concerns are growing.

The climate crisis is accelerating.

And our SDG targets are at real risk of falling by the wayside.

Digital technologies can help in all of these areas – and yet their promise is still not being fully realized.

All of us have worked so hard, and with enormous dedication over the years, to make universal affordable connectivity a reality.

Our efforts have borne fruit. In the last five years since our WTDC in Buenos Aires, the number offline has fallen by more than 1.5 billion.

But yet, the reality is that we are still not shifting the dial fast enough in the world's hardest-to-connect communities and for people living in LDCs, LLDCs, and SIDs.

That's why this conference has to be different.

Ladies and gentlemen,

UN Secretary-General Guterres has said that the only way to confront the critical issues facing our planet and its people will be through collaboration and cooperation on a truly unprecedented scale.

Digital inclusion will be the bedrock of that global collaboration.

Not as an end in itself, but a means to empower people to improve their own lives.

That's why a more people-centric approach needs to be at the heart of our work.

And it's why this conference features new elements designed to shift our thinking and mobilize our collective energies in new ways.

One of these was the Generation Connect Global Youth Summit which took place last week.

That ground-breaking event brought together young people from the world over to debate the issues that most concern the next generation.

Their ''Call to Action'' will serve as an important input to our work at this WTDC.

Another innovation is our ITU-D Network of Women that so many of you are generously supporting.

But most important of all the innovations we have brought to this event is our Partner2Connect Digital Coalition.

This ''coalition to connect the world'' has already mobilized huge support from more than 150 entities.

The pledges made by P2C partners will be showcased throughout this first week through our Partner2Connect Digital Development Roundtable programme.

Partnership is not new, of course.

And it's not a silver bullet.

But I think, as a community, we have too often failed to take a holistic, whole-of-society approach that really pulls parties together, galvanizes all resources, most importantly, monitors our progress in a collective manner.

It's time for us to do that, so that our next WTDC can report on truly transformational change, especially in the communities where it is needed most.

Ladies and gentlemen,

Let me close with some inspiration from one of my favourite holiday films, ''It's a wonderful life''.

The film is about a man named George, who did lots of good in his life but mid-way through he loses faith… faith in his ability to make a difference to his community.

Because this film is a fairy-tale, George is briefly magically transported to an alternative future – a future in which he did not exist.

He gets to look back at what the world would have looked like without him (and the goodness he brought).

This film is so adored because it illustrates the immense power that each and every one of us has to influence the lives of others.

It shows that our smallest decisions can have a truly profound effect on the shape of the future.

That our actions ripple outwards, assuming a significance and impact we could never have imagined.

That each and every one of us has the power to change the world.

And that, by working together, we really can achieve the impossible.

Let's remember this, over the coming two weeks, and let's allow it to guide our decision-making, to inspire us to be bold, to go the extra mile, to try something new and, most importantly, to put the interests of people and planet first, and work together as collaboratively as we can towards our common goal.

We, the digital community, hold in our hands the solution to so many of today's challenges.

We truly can change the world.

So let's use this conference to do just that.

Thank you.

Annex C: Remarks by Ms Ellen Taylor (Canada), representing the ITU Generation Connect Global Youth Summit, at the Opening Ceremony of the World Telecommunication Development Conference (WTDC-22), 6 June 2022 – Kigali, Rwanda

Your Excellency,
Honourable ministers,
Mr Secretary-General of ITU,
Director Doreen Bogdan-Martin,
Delegates,
Honourable guests,

Good morning.

My name is Ellen Taylor, and I am a 23-year-old student from Canada. In 2021, I had the opportunity to develop and participate in the creation of the Youth Summit and Call to Action document. This experience has been incredible.

I would like to begin by introducing myself in a broader context. I am the youth of the world in 2022. I am the first generation of digital natives and carry the voices of many different young people from around the world – community workers, entrepreneurs, researchers, students and young professionals from various backgrounds from all regions.

I was born in an era of unprecedented technology innovation and disruption. As I come of age, I want to be able to enjoy the digital world fully, safely and inclusively.

You, decision-makers from around the world, have been the digital pioneers. You carry the power and the responsibility to accelerate digital development everywhere for all and build on it towards the achievement of the Sustainable Development Goals (SDGs) of the 2030 Agenda.

The time to act is now. At stake is my very future.

Your Excellency, I have here a Call to Action entitled ''My Digital Future''. This document represents the voices of over 420 young people from around the world and it was developed over the past few months through online consultations. Following these online consultations, it was revised and finalized over the past weekend at the Generation Connect Global Youth Summit (2-4 June 2022). The call to action addresses several areas of action that leaders can take to deliver meaningful connectivity for youth. While there are many important details represented in this document, there are a few main takeaways I would like to emphasize.

Firstly, my peers and I would like to encourage leaders to engage youth in meaningful decision-making opportunities. Youth (those under the age of 30) represent 50 per cent of our global population, yet we are consistently underrepresented and ignored in places where decisions are made about us without us. Secondly, my peers and I would like to encourage leaders to help create and support youth-led initiatives between ITU and other United Nations organizations. As I saw at the Youth Summit, young people are more than able to inspire and empower those around them to tackle complex problems that will improve our collective future, but we need your support. Lastly, my peers and I would like to encourage you to collaborate with different communities, such as the private and public sectors, academia and civil society to open pathways for sustainable digital development.

This call to action holds the aspiration of young people for decisive actions by global leaders in digital policies, governance in the digital age, youth engagement for the future, transforming education and building digital skills, creating decent jobs and livelihoods for youth and transforming culture and communities. This is our call to action; we count on your listening ear.

It is not a coincidence that the Youth Summit was held directly before this World Telecommunication Development Conference. The meaningful and equitable inclusion of youth –the digital natives – must continue to be discussed and emphasized at this conference. As a member of the Canadian delegation, I will continue to advocate for youth, particularly young women and youth from marginalized communities, during WTDC discussions. We cannot afford to dismiss young voices anymore; our digital future is today.

Thank you

Annex D: Video message from United Nations Secretary-General António Guterres, at the Opening Ceremony of the World Telecommunication Development Conference (WTDC-22), 6 June 2022 – Kigali, Rwanda

I am pleased to greet the World Telecommunication Development Conference.

My thanks to the Government of Rwanda for hosting.

The potential of digital technologies to help us make up lost ground towards the Sustainable Development Goals is tremendous.

But so too are the challenges.

Over one-third of humanity still has no access to the Internet.

This digital divide reinforces social, economic and gender divides. It exacerbates inequalities in all dimensions – from urban to rural, from literacy to health care, from childhood to older age.

Your task is to map out a new action plan to bring the nearly 3 billion unconnected people into our global digital community – because leaving no one behind means leaving no one offline.

The Kigali Action Plan must put humanity back at the centre of technology.

Your discussions will inform next year's United Nations Summit of the Future and the Global Digital Compact that I proposed in my report on *Our Common Agenda*.

The Compact will bring together governments, the private sector and civil society to agree on key principles for an open, free and secure digital future for all.

I encourage you to be bold and ambitious and I wish you every success.

Thank you.

Annex E: Remarks by ITU Secretary-General Mr Houlin Zhao, at the Opening Ceremony of the World Telecommunication Development Conference (WTDC-22), 6 June 2022 – Kigali, Rwanda

Mr President,
Ministers,
Ambassadors,
Director of the ITU Telecommunication Development Bureau,
Director of the ITU Radiocommunication Bureau,
Director of the ITU Telecommunication Standardization Bureau
Distinguished delegates,
Ladies and gentlemen,

I am very pleased to see you all here for this WTDC. It is wonderful to be here together in Kigali, one of Africa's great cities, and Rwanda — a model of digital transformation for the African continent and for the world.

Thank you to the people of Rwanda for the warm welcome and the extraordinary hospitality.

We are honoured by the presence of His Excellency, Paul Kagame, President of the Republic of Rwanda. Thank you, Mr President, for hosting and addressing the conference! Your words will be a source of inspiration for us — like those delivered just now by the United Nations Secretary-General and those from the message of His Holiness Pope Francis at our last conference five years ago, stressing the importance of leaving no one behind.

Much progress has been made, with almost 5 billion people being online today. We have seen the strongest growth in ICT uptake in the developing world, and that is very encouraging.

Yet one-third of humanity is still offline. That is close to 3 billion people, mostly people in developing countries and in poor areas, rural areas; areas where we need to attract investments — something that has been one of my priorities.

I echo the United Nations Secretary-General's call for universal connectivity with affordable services by 2030 and hope this conference will make headway on removing all remaining barriers to connectivity.

What makes me confident is all the young people we saw during the Youth Summit earlier this week… those Nelson Mandela called ''our greatest asset'' when he came to Geneva for one of our major ITU events almost 30 years ago.

We have obligations to them and to each other — to connect the unconnected, drive the development of new technologies central to achieving the United Nations Sustainable Development Goals, and continue to show the world what ITU can do as a technical and, equally importantly, as a development agency.

I must add a few words here that we established the ITU Telecommunication Development Sector almost 30 years ago. But the public still perceives ITU as a technical, and not a development agency. So, we still have to work harder to ensure that the status of ITU as a key agency for development is widely recognized and supported.

I look forward to the output from this conference, which will be fed into the ITU strategic plan to be endorsed by our Plenipotentiary Conference in Bucharest, Romania, later this year (from 26 September to 14 October 2022).

I also draw your attention to an information document I have provided for your consideration, based on the many outputs of the WSIS Forum 2022 that concluded last week in Geneva relevant to the discussion in this conference.

I call on the spirit of collaboration of the ITU family and wish you all a successful WTDC-22!

I would also like to take this opportunity to recognize two individuals, who have joined us here today: the recently appointed Chairman-Designate for PP-22 and our strong supporter from the private sector, Mr Carlos Slim, co-chair of the Broadband Commission for Sustainable Development with President Paul Kagame since 2010. Mr Slim was also here yesterday with the President for a meeting of the Commission.

I would like now to invite President Kagame to come to the stage to deliver his keynote address. I am honoured to present His Excellency with a certificate that recognizes Rwanda's digital transformation and commitment to bringing broadband connectivity across Africa and the world, and surely for his strong leadership as President of an African State and as a champion for ICT in the world.

Thank you.

Annex F: Opening address of H.E. Paul Kagame, President of the Republic of Rwanda, at the Opening Ceremony of the World Telecommunication Development Conference (WTDC-22), 6 June 2022 – Kigali, Rwanda

Mr Houlin Zhao, Secretary-General of the International Telecommunication Union (ITU),
Ms Doreen Bogdan-Martin, Director of the ITU Telecommunication Development Bureau,
Ministers, senior government officials,
Distinguished ladies and gentlemen,
My friend Carlos Slim, co-chair of the Broadband Commission for Sustainable Development

Allow me to begin by welcoming you to Rwanda.

We are happy to host you.

It is my pleasure to open the 8th edition of the World Telecommunication Development Conference, the first ever on our continent.

I thank the International Telecommunication Union, under the leadership of Houlin Zhao, for the good work being done to bridge the digital divide. Mr Zhao, your contribution in this sector has not been lost on anyone. I want to thank you for your immense contribution since you came to office. We have seen notable improvements during your tenure.

In Rwanda, and all over the world, the pandemic has accelerated the adoption of digital technologies.

But challenges remain.

Access to high-speed Internet has not kept up with the fast pace of digital transformation, and the digitalization of the economy in general.

If such inequalities are left unchecked, development will accelerate more and more in some parts of the world, while elsewhere it slows down.

The numbers speak for themselves.

One-third of the world remains offline, and the majority are women in developing countries.

The responsibility to shape the future of the digital economy, and ensure no one is left behind, lies with all of us, working together.

No company, country or institution has the resources to do it alone.

We must therefore prioritize public-private partnerships to expand affordable digital access and equip vulnerable citizens with digital literacy skills.

The Partner2Connect Digital Development Roundtable happening during this conference, is a new opportunity available to us, which we should fully exploit.

As we strive to achieve universal and affordable connectivity, youth should be at the forefront. I want to reassure the earlier speaker, representing the global youth, that some of us heard you very clearly. Young people are already the most connected members of society. But that also means they are the most exposed to online safety and privacy risks.

In the case of Rwanda, for example, last year we passed a Personal Data Protection and Privacy Law, to create a safe enabling environment for both consumers and entrepreneurs.

The COVID-19 pandemic has imposed huge costs on every country in the world.

One of the only silver linings has been the demonstration of the power of digital connectivity as a tool for resilience, knowledge transfer and economic growth.

We cannot let that go to waste.

Now, more than ever, is the time to act quickly and decisively, so that when we meet again in four years (by the way you are welcome to meet again here in Kigali) we will have exceeded our expectations.

Once again, I am happy to welcome you, and I hope you will feel at home during your stay with us.

I wish you all a productive conference, and I thank you for your kind attention.

Annex G: Statements by delegations

Statement by the Russian Federation

The Administration of the Russian Federation declares that at the Plenary Meeting held on 14 June 2022 when appointing the vice-chairman of the Editorial Committee of WTDC, the vice-chairmen of the Telecommunication Development Advisory Group and the vice-chairmen of the ITU-D study groups, a politicized decision was adopted, which violated the rights of an ITU Member State, a regional telecommunication organization and the provisions of several of the Basic Texts of the Union.

The decision adopted was in flagrant violation of:

– the provisions of Article 3 of the ITU Constitution regarding the rights of Member States;

– No. 57 of the General Rules of conferences, assemblies and meetings of the Union on the procedure for the appointment of chairmen and vice-chairmen of conference committees;

– Resolution 208 (Dubai, 2018) of the Plenipotentiary Conference establishing the appointment procedure for the chairmen and vice-chairmen of advisory groups, study groups and other working groups of the ITU Sectors.

In addition, the decision to reject the candidatures put forward by the regional telecommunication organization for the above-mentioned positions exclusively on the basis of their nationality is a flagrant violation of the provisions of Article 2 of the Universal Declaration of Human Rights, which states:

"Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty."

In view of the foregoing, it may be concluded that this decision by WTDC does not comply with the requirements of the Basic Texts of the Union, the PP resolutions or the Universal Declaration of Human Rights, and is unlawful.

The Russian Federation also notes that the recently appointed Head of the Legal Affairs Unit of the ITU General Secretariat, the Legal Counsel, when explaining the provisions of Resolution 208 (Dubai, 2018) of the Plenipotentiary Conference, arbitrarily expanded the list of requirements for chairmen and vice-chairmen of the Telecommunication Development Advisory Group and study groups, thus effectively agreeing to discriminate against candidates on the basis of nationality. It is inadmissible for a staff member of the ITU secretariat to expand the list of requirements and/or arbitrarily interpret the Basic Texts of the Union and decisions and resolutions of a plenipotentiary conference. The Secretary-General should take measures without further delay so that staff of the ITU secretariat ensure compliance with the requirements for this area of activity. — *Fourth plenary meeting, 14 June 2022, Kigali. Original: Russian*

Statement by the delegation of Argentina regarding WTDC Resolution 85

Since the launch of the United for Smart Sustainable Cities (U4SSC) initiative, the Administration of Argentina has been strongly involved, for example, organizing the World Forum on Smart Cities, from which some important cities have joined the initiative by implementing the KPIs.

On the other hand, we know that IoT devices allow us to develop and innovate in technologies that facilitate data collection in a fast, agile and simple way to convert relevant information. BDT, at the request of Argentina, through the Regional Office for the Americas, implemented the bases for the National IoT Plan.

In this framework, the possibility of Argentina being the first country to have special training on how to establish the indicators and their control was obtained, having received that training members of the National Technological University and the National University of La Plata.

For all this and with the aim that more and more cities join the initiative and implement its indicators, the Administration of Argentina offers its collaboration for those countries to which the experience acquired may be useful. We also ask BDT to strengthen collaboration with other Sectors in what corresponds to the implementation of Resolution 85. — *Sixth plenary meeting, 15 June 2022, Kigali. Original: English*

Statement of the United Arab Emirates and the Kingdom of Saudi Arabia

At the outset, the United Arab Emirates and the Kingdom of Saudi Arabia reiterate their endless support for youth of different ages, interests and skillsets and for their empowerment, as they are foundational building blocks for the digital future. The Government of the United Arab Emirates and of the Kingdom of Saudi Arabia have youth officials in many government institutions in order to drive all government efforts aimed at supporting youth and addressing their needs. The United Arab Emirates and the Kingdom of Saudi Arabia have also contributed by participating in and holding many youth-related events and activities at all local, regional and international levels.

Although the United Arab Emirates and the Kingdom of Saudi Arabia were gold sponsors for the Generation Connect Global Youth Summit 2022 and were eager to participate actively in the Summit's events in the build-up to the World Telecommunication Development Conference in Kigali, Rwanda, the United Arab Emirates and the Kingdom of Saudi Arabia firmly reject some of the Summit's outcomes as they contain texts which contradict many of the laws, principles, customs and religious values of most countries of the world, in particular Islamic and Arab States. Furthermore, the outcomes were not presented for adoption by us as Member States in accordance with the mechanisms and working methods of conferences and meetings of the International Telecommunication Union. In addition, the comments made by the youth representatives of the Arab States on the Summit outcome document were ignored.

Accordingly, the United Arab Emirates and the Kingdom of Saudi Arabia reject any reference made to the Generation Connect Global Youth Summit, held in Kigali on 2-4 June 2022, or to any of its outcomes in all resolutions of this or any other conference.
— Seventh plenary meeting, 15 June 2022, Kigali. Original: Arabic

Statement by the delegation of Canada

The delegation of Canada wishes to express its sincere congratulations to the Government of Rwanda, to H.E. Minister Paula Ingabire, and to the Director of BDT, Ms Doreen Bogdan-Martin and her team, for the extraordinarily successful first-ever Generation Connect Global Youth Summit, held in Kigali, on 2-4 June 2022.

Most importantly, we wish to convey the strongest message of congratulations and unequivocal support to the hundreds of young women and men of all ITU regions that attended the summit physically, and to the more than 5000 participants attending remotely through 70 hubs. To the Youth Summit participants: thank you. Canada stands with you.

We sincerely regret the opposition by some Member States to even acknowledge at WTDC-2022 that the Generation Connect Global Youth Summit took place, whether in Resolution 76 on youth, in the WTDC declaration or in the Kigali Action Plan.

The Generation Connect Global Youth Summit not only took place, but it did so quite successfully.

It was part of the on-going ITU Youth Strategy, and it was clearly at the forefront of the opening ceremony of WTDC-22, when a 23-year-old representative of the youth, who stood alongside the President of Rwanda H.E. Paul Kagame, Mr Carlos Slim Helú co-chair of the Broadband Commission for Sustainable Development, the Secretary-General of ITU, and the Directors of the three Bureaux, and delivered a short message reflecting on the great efforts undertaken over the last 18 months, that concluded with an incredibly empowering and uplifting event and in the adoption of the call to action document.

Canada fully endorses the call to action document and will continue to work with BDT and the ITU membership to ensure that the voices of the young generation are heard loud and clearly at ITU. —*Seventh plenary meeting, 15 June 2022, Kigali. Original: English*

Statement by the delegation of Nigeria

Madam Chairman,

First of all, allow me to congratulate you on hosting the World Telecommunication Development Conference (WTDC) for the first time in Africa. I have always seen myself as pan-African and was therefore excited to see that WTDC, a conference of great magnitude, is being held in Africa for the first time. I am glad to be part of this history.

Allow me also to remind everyone in this room that five years ago we had all gathered in Buenos Aires, Argentina, for WTDC-17. That was my first-ever WTDC, and it was exciting for me to be nominated as one of the young delegates from Nigeria. Two events would make me never forget WTDC-17. First, I was tricked and robbed in broad daylight on the streets of Buenos Aires just a few days into the conference. I was robbed of the most precious item to me as an academic: my laptop with all the academic research that I had carried out in the two years prior to the conference. Sadly, I had not made a backup as I was too naïve about such a thing happening to me. I also lost my passport and all my money and bank cards, leaving me virtually stranded in the streets of Buenos Aires. I felt my world was crashing down. It was a terrible experience for me. I could not believe that a fellow human being could do that to me. However, I had to somehow pull myself together just so that I could share the views of the younger generation at WTDC-17.

Unfortunately, though, my world came crashing down again because of the second incident that I can never forget from WTDC-17, namely the fact that some delegates literally begged for changes to be made to the resolution on cybersecurity. I can remember clearly how passionately we made our appeals, just like the appeals made in this room last night. In fact, we went further, as one of the delegates shed tears as she pleaded for recognition of our particular needs in cybersecurity. Regrettably, despite those passionate appeals, come the end of the conference, there was no revision of Resolution 45 (Rev. Dubai, 2014). The excuse we were given was that the capital was asleep. The appeals were ignored, and the work went down the drain because some felt otherwise about our specific needs in cybersecurity. Fast forward five years, and history was about to repeat itself, but it ultimately took a different course: at the last-minute last night, some of my colleagues were pushing for no change to the ITU-D priorities because they were not satisfied with the negotiations on the same critical item of cybersecurity. They believed that we were not being listened to on what we wanted when it came to issues like cybersecurity, despite having clearly stated our needs five years ago. I had to make passionate appeals to them that we must agree to a text even though we are not entirely happy with the text on the fifth ITU-D priority. I told them that we needed to tell the world that we are capable of living in a cosmopolitan world, that we are not backward as some think.

We came here determined to get the fifth ITU-D priority and to have it be solely on cybersecurity. We knew we would get this because a ''no change'' would be a great blow to the other side for obvious reasons. Today, though, we end up with a diluted fifth ITU-D priority which is not even close to what we originally wanted. I am proud to say, however, that we have agreed to consensus on this ITU-D priority for two reasons: we believe it is a gradual process and we will eventually get there through diplomatic means; and, secondly, some of us believe that life is all about give and take. Today we have given. We had hoped that we would also take. We appeal to those opposed to this issue to please listen to us on our needs in cybersecurity. We must never allow what happened in Buenos Aires to happen ever again. We must always strive to accommodate the views of others so that situations like this can be win-win. I hope we will all learn from these events.

Thank you, Madam Chairman, and I sincerely apologise for taking up some of our time.
— Ninth plenary meeting, 16 June 2022, Kigali. Original: English

Annex H: List of resolutions abrogated by WTDC-22

Number	Title
Resolution 27 (Rev. Hyderabad, 2010)	Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Development Sector
Resolution 61 (Rev. Dubai, 2014)	Appointment and maximum term of office of chairmen and vice-chairmen of study groups in the ITU Telecommunication Development Sector and of the Telecommunication Development Advisory Group
Resolution 81 (Rev. Buenos Aires, 2017)	Further development of electronic working methods for the work of the ITU Telecommunication Development Sector
Resolution 86 (Buenos Aires, 2017)	Use in the ITU Telecommunication Development Sector of the languages of the Union on an equal footing

Annex I: New numbering and allocation of ITU-D study Questions

Study Group 1

New number	Title	Origin
Q1/1	Strategies and policies for the deployment of broadband in developing countries	Continuation of Question 1/1 with additional new topics
Q2/1	Strategies, policies, regulations and methods of migration to and adoption of digital technologies for broadcasting, including to provide new services for various environments	Continuation of Question 2/1 under a revised title and updated topics
Q3/1*	The use of telecommunications/ICTs for disaster risk reduction and management	Formerly Question 5/2 of Study Group 2 continued with updated topics
Q4/1	Economic aspects of national telecommunications/ICTs	Continuation of Question 4/1 under a shortened title with updated topics
Q5/1	Telecommunications/ICTs for rural and remote areas	Continuation of Question 5/1 under a shortened title with updated topics
Q6/1	Consumer information, protection and rights	Continuation of Question 6/1 under a shortened title with updated topics
Q7/1	Telecommunication/ICT accessibility to enable inclusive communication, especially for persons with disabilities	Continuation of Question 7/1 under a revised title with updated topics

* "Emerging technologies, including cloud computing, m-services and OTTs: Challenges and opportunities, economic and policy impact for developing countries", formerly Question 3/1, was abrogated by WTDC-22.

Study Group 2

New number	Title	Origin
Q1/2	Smart sustainable cities and communities	Continuation of Question 1/2 under a shortened title with updated topics
Q2/2	Enabling technologies for e-services and applications, including e-health and e-education	Continuation of Question 2/2 expanded to cover more topics
Q3/2	Securing information and communication networks: Best practices for developing a culture of cybersecurity	Continuation of Question 3/2with updated topics
Q4/2	Telecommunication/ICT equipment: Conformance and interoperability, combating counterfeiting and theft of mobile devices	Continuation of Question 4/2 under a shortened title with updated topics
Q5/2*	Adoption of telecommunications/ICTs and improving digital skills	New Question
Q6/2	ICTs for the environment	Continuation of Question 6/2 under a shortened title with updated topics
Q7/2	Strategies and policies concerning human exposure to electromagnetic fields	Continuation of Question 7/2 with updated topics

* "Utilizing telecommunications/information and communication technologies for disaster risk reduction and management", formerly Question 5/2, was transferred to Study Group 1 as Question 3/1 (with this title slightly modified).

Annex J: Status of all resolutions, Recommendations and decisions adopted, revised or abrogated by WTDCs to date

Resolutions

Res.	Title	First approved	History	Status
1	Special Programme of Assistance for the Least Developed Countries (LDCs)	Buenos Aires, 1994	–	Obsolete
1	Adoption of AF-RTDC-96 resolutions and recommendations	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
1	**Rules of procedure of the ITU Telecommunication Development Sector**	**Doha, 2006**	**Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
2	Establishment of study groups	Buenos Aires, 1994	Replaced by Res. 3 (Valletta, 1998)	Abrogated
2	Mechanisms for monitoring, evaluation and progress review of conference resolutions	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
2	**Establishment of study groups**	**Doha, 2006**	**Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
3	Procedures to be applied by study groups	Buenos Aires, 1994	Replaced by Res. 4 (Valletta, 1998)	Abrogated
3	Establishment of study groups	Valletta, 1998	Rev. Istanbul, 2002; Replaced by Res. 2 (Doha, 2006)	Abrogated
4	Telecommunication Policies and Strategies	Buenos Aires, 1994	–	Obsolete
4	Procedures to be applied by study groups	Valletta, 1998	Rev. Istanbul, 2002; Replaced by Res. 1 (Doha, 2006)	Abrogated
5	"Buenos Aires Initiative" – Non-Discriminatory Access to Modern Telecommunication Facilities and Services	Buenos Aires, 1994	–	Obsolete

Res.	Title	First approved	History	Status
5	**Enhanced participation by developing countries in the activities of the Union**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
6	Cooperation between the ITU/BDT and regional organizations	Buenos Aires, 1994	Replaced by Res. 21 (Valletta, 1998)	Abrogated
6	Telecommunication Development Advisory Group working group on private-sector issues	Valletta, 1998	Rev. Istanbul, 2002; Rev. Doha, 2006; Abr. Hyderabad, 2010	Abrogated
7	Disaster communications	Buenos Aires, 1994	Replaced by Res. 19 (Valletta, 1998)	Abrogated
7	Gender and telecommunication policy in developing countries	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
8	Telecommunication support for the protection of the environment	Buenos Aires, 1994	–	Obsolete
8	**Collection and dissemination of information and statistics**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
9	Membership, Rules of Procedure and Working Methods of the Telecommunication Development Advisory Board	Buenos Aires, 1994	–	Obsolete
9	**Participation of countries, particularly developing countries, in spectrum management**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**

Res.	Title	First approved	History	Status
10	Coordination of the advisory bodies	Buenos Aires, 1994	–	Obsolete
10	**Financial support for national spectrum-management programmes**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010**	**In force**
11	Venue of the Regional Development Conferences	Buenos Aires, 1994	–	Obsolete
11	**Telecommunication/information and communication technology services in rural, isolated and poorly served areas**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
12	Telecommunication financing and trade	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
13	Resource mobilization and partnerships for accelerating telecommunication/information and communication technology development	Valletta, 1998	Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Abr. Dubai, 2014	Abrogated
14	Telecom Africa	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
15	**Applied research and transfer of technology**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
16	**Special actions and measures for the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Buenos Aires, 2017**	**In force**

Res.	Title	First approved	History	Status
17	**Implementation of and cooperation on approved regional initiatives at the national, regional, interregional and global levels**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
18	**Special technical assistance to Palestine**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
19	Telecommunication resources for disaster mitigation and relief operations	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
20	**Non discriminatory access to modern telecommunication/ information and communication technology facilities, services and related applications**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Buenos Aires, 2017**	**In force**
21	**Strengthening the coordination and collaboration with regional and subregional organizations**	**Valletta, 1998**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
22	**Alternative calling procedures on international telecommunication networks and identification of origin in providing international telecommunication services**	**Valletta, 1998**	**Rev. Istanbul, 2002; Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**

Res.	Title	First approved	History	Status
23	**Internet access and availability for developing countries and charging principles for international Internet connection**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017**	**In force**
24	**Authorization for the Telecommunication Development Advisory Group to act between world telecommunication development conferences**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014**	**In force**
25	**Assistance to countries in special need: Afghanistan, Burundi, Central African Republic, Democratic Republic of the Congo, Eritrea, Ethiopia, Guinea, Guinea-Bissau, Haiti, Liberia, Rwanda, Sierra Leone, Somalia and Timor-Leste**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
26	**Assistance to countries in special need: Afghanistan**	**Istanbul, 2002**	**Rev. Doha, 2006**	**In force**
27	Admission of entities or organizations to participate as Associates in the work of the ITU Telecommunication Development Sector	Istanbul, 2002	Rev. Doha, 2006; Rev. Hyderabad; 2010; Abr. Kigali, 2022	Abrogated
28	Strengthening the use of electronic document handling for the work of ITU-D study groups	Istanbul, 2002	Abr. Doha, 2006	Abrogated

Res.	Title	First approved	History	Status
29	ITU Telecommunication Development Sector initiatives on Sector Member issues	Istanbul, 2002	Rev. Doha, 2006; Abr. Hyderabad, 2010	Abrogated
30	**Role of the ITU Telecommunication Development Sector in implementing the outcomes of the World Summit on the Information Society and the 2030 Agenda for Sustainable Development**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
31	**Regional preparations for world telecommunication development conferences**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
32	International and regional cooperation on regional initiatives	Istanbul, 2002	Rev. Doha, 2006; Rev. Hyderabad, 2010, Abr. Buenos Aires, 2017	Abrogated
33	**Assistance and support to Serbia for rebuilding its destroyed public broadcasting system**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Dubai, 2014**	**In force**
34	**The role of telecommunications/information and communication technology in disaster preparedness, early warning, rescue, mitigation, relief and response**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
35	Support for development of the African information and communication technology sector	Istanbul, 2002	Rev. Doha, 2006; Rev. Hyderabad, 2010; Abr. Buenos Aires, 2017	Abrogated

Res.	Title	First approved	History	Status
36	**Support for the African Telecommunications Union**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Kigali, 2022**	**In force**
37	**Bridging the digital divide**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
38	Development of the Youth Forum in the Telecommunication Development Bureau	Istanbul, 2002	Rev. Doha, 2006; Rev. Hyderabad, 2010; Abr. Dubai, 2014	Abrogated
39	Agenda for connectivity in the Americas and Quito Action Plan	Istanbul, 2002	Abr. Buenos Aires, 2017	Abrogated
40	**Group on capacity-building initiatives**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
41	E-health (including telehealth/ telemedicine)	Istanbul, 2002	Abr. Doha, 2006	Abrogated
42	Implementation of tele-education programmes	Istanbul, 2002	Abr. Doha, 2006	Abrogated
43	**Assistance for implementing International Mobile Telecommunications and future networks**	**Istanbul, 2002**	**Rev. Doha, 2006; Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017**	**In force**
44	Mainstreaming gender in ITU-D programmes	Istanbul, 2002	Abr. Doha, 2006	Abrogated
45	**Mechanisms for enhancing cooperation on cybersecurity, including countering and combating spam**	**Doha, 2006**	**Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Kigali, 2022**	**In force**

Res.	Title	First approved	History	Status
46	**Assistance to indigenous peoples and communities through information and communication technologies**	**Doha, 2006**	**Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
47	**Enhancement of knowledge and effective application of ITU Recommendations in developing countries, including conformance and interoperability testing of systems manufactured on the basis of ITU Recommendations**	**Doha, 2006**	**Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
48	**Strengthening cooperation among telecommunication regulators**	**Doha, 2006**	**Rev. Hyderabad, 2010; Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
49	Special actions for the least developed countries and small island developing states	Doha, 2006	Abr. Hyderabad, 2010	Abrogated
50	Optimal integration of information and communication technologies	Doha, 2006	Rev. Hyderabad, 2010; Rev. Dubai, 2014; Abr. Buenos Aires, 2017	Abrogated
51	**Provision of assistance and support to Iraq to continue rebuilding and re-equipping its telecommunication/ICT systems**	**Doha, 2006**	**Rev. Hyderabad, 2010, Rev. Kigali, 2022**	**In force**
52	**Strengthening the executing agency role of the ITU Telecommunication Development Sector**	**Doha, 2006**	**Rev. Hyderabad, 2010; Rev. Dubai, 2014**	**In force**
53	**Strategic and financial framework for the elaboration and implementation of the Dubai Action Plan**	**Doha, 2006**	**Rev. Hyderabad, 2010; Rev. Dubai, 2014**	**In force**

Res.	Title	First approved	History	Status
54	Information and communication technology applications	Doha, 2006	Rev. Hyderabad, 2010; Rev. Dubai, 2014; Abr. Buenos Aires, 2017	Abrogated
55	**Mainstreaming a gender perspective in ITU to enhance women's empowerment through telecommunications/ICTs**	**Doha, 2006**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
56	Creation of a new Question in Study Group 1 regarding access to telecommunication services for persons with disabilities	Doha, 2006	Abr. Hyderabad, 2010	Abrogated
57	**Assistance to Somalia**	**Doha, 2006**	**Rev. Hyderabad, 2010**	**In force**
58	**Telecommunication/information and communication technology accessibility for persons with disabilities and persons with specific needs**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
59	**Strengthening coordination and cooperation among the three ITU Sectors on matters of mutual interest**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
60	**Assistance to countries in special situations: Haiti**	**Hyderabad, 2010**	**–**	**In force**
61	Appointment and maximum term of office of chairmen and vice-chairmen of study groups in the ITU Telecommunication Development Sector and of the Telecommunication Development Advisory Group	Hyderabad, 2010	Rev. Dubai, 2014; Abr. Kigali, 2022	Abrogated

Res.	Title	First approved	History	Status
62	**Assessment and measurement of human exposure to electromagnetic fields**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
63	**Internet Protocol address allocation and facilitating the transition to and deployment of Internet Protocol version 6 in the developing countries**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017 ; Rev. Kigali, 2022**	**In force**
64	**Protecting and supporting users/consumers of telecommunication/information and communication technology services**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
65	Improving access to healthcare services by using information and communication technologies	Hyderabad, 2010	Abr. Dubai, 2014	Abrogated
66	**Information and communication technology, environment, climate change and circular economy**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017 ; Rev. Kigali, 2022**	**In force**
67	**The role of the ITU Telecommunication Development Sector in child online protection**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
68	Assistance to indigenous peoples within the activities of the Telecommunication Development Bureau in its related programmes	Hyderabad, 2010	Rev. Dubai, 2014; Abr. Buenos Aires, 2017	Abrogated
69	**Facilitating creation of national computer incident response teams, particularly for developing countries, and cooperation between them**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**

Res.	Title	First approved	History	Status
70	Regional initiative for Central and Eastern Europe on "E-accessibility (Internet and digital television) for persons with disabilities"	Hyderabad, 2010	Abr. Dubai, 2014	Abrogated
71	**Strengthening cooperation between Member States, Sector Members, Associates and Academia of the ITU Telecommunication Development Sector, and the evolving role of the private sector in the ITU Telecommunication Development Sector**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
72	More effective utilization of mobile communication services	Hyderabad, 2010	Abr. Dubai, 2014	Abrogated
73	**ITU Academy training centres**	**Hyderabad, 2010**	**Rev. Dubai, 2014; Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
74	More effective adoption of e-government services	Hyderabad, 2010	Abr. Dubai, 2014	Abrogated
75	**Implementation of the Smart Africa Manifesto and support for the development of information and communication technologies sector in Africa**	**Dubai, 2014**	**Rev. Buenos Aires, 2017**	**In force**
76	**Promoting information and communication technologies among young women and men for social and economic empowerment**	**Dubai, 2014**	**Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**

Res.	Title	First approved	History	Status
77	**Broadband technology and applications for greater growth and development of telecommunication/information and communication services and broadband connectivity**	**Dubai, 2014**	**Rev. Buenos Aires, 2017**	**In force**
78	**Capacity building for countering and combating misappropriation and misuse of ITU Telecommunication Standardization Sector numbering resources**	**Dubai, 2014**	**Rev. Buenos Aires, 2017 ; Rev. Kigali, 2022**	**In force**
79	**The role of telecommunications/information and communication technologies in combating and dealing with counterfeit and tampered telecommunication/information and communication devices**	**Dubai, 2014**	**Rev. Buenos Aires, 2017; Rev. Kigali, 2022**	**In force**
80	**Establishing and promoting trusted information frameworks in developing countries to facilitate and encourage electronic exchanges of economic information between economic partners**	**Dubai, 2014**	**Rev. Buenos Aires, 2017**	**In force**
81	Further development of electronic working methods for the work of the ITU Telecommunication Development Sector	Dubai, 2014	Rev. Buenos Aires, 2017; Abr. Kigali, 2022	Abrogated

Res.	Title	First approved	History	Status
82	**Preserving and promoting multilingualism on the Internet for an inclusive information society**	**Dubai, 2014**	**Rev. Kigali, 2022**	**In force**
83	**Special assistance and support to the Government of Libya for rebuilding its telecommunication networks**	**Buenos Aires, 2017**	**–**	**In force**
84	**Combating mobile telecommunication device theft**	**Buenos Aires, 2017**	**Rev. Kigali, 2022**	**In force**
85	**Facilitating the Internet of Things and smart sustainable cities and communities for global development**	**Buenos Aires, 2017**	**Rev. Kigali, 2022**	**In force**
86	Use in the ITU Telecommunication Development Sector of the languages of the Union on an equal footing	Buenos Aires, 2017	Abr. Kigali, 2022	Abrogated
87	**Connecting every school to the Internet and every young person to information and communication technology services**	**Kigali, 2022**	**–**	**In force**
88	**The ITU Partner2Connect Digital Coalition**	**Kigali, 2022**	**–**	**In force**
89	**Digital transformation for sustainable development**	**Kigali, 2022**	**–**	**In force**
90	**Fostering telecommunication/ICT-centric entrepreneurship and digital innovation ecosystems for sustainable digital development**	**Kigali, 2022**	**–**	**In force**

Recommendations

Rec.	Title	First approved	History	Status
1	Application of telecommunications to health and other social services	Buenos Aires, 1994	–	Obsolete
1	Role of World Telecommunication Development Conferences	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
2	Development partnership with international education agencies	Buenos Aires, 1994	–	Obsolete
2	Future membership and functions of the Telecommunication Development Advisory Board	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
3	Application of information and communication technologies for development	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
4	Liberalization and competitive business environment	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
5	Role of telecommunications in economic, social and cultural development of indigenous peoples	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
6	Information Infrastructure	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
7	Role of telecommunication and information technologies in the protection of the environment	Valletta, 1998	Rev. Istanbul, 2002; Abr. Doha, 2006	Abrogated
8	Timely implementation of Global Mobile Personal Communications by Satellite (GMPCS)	Valletta, 1998	Rev. Istanbul, 2002; Abr. Hyderabad, 2010	Abrogated
9	Telemedicine	Valletta, 1998	Abr. Istanbul, 2002	Abrogated

Rec.	Title	First approved	History	Status
10	The importance of partnerships in support of human resources initiatives: The example of the TEMIC declaration	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
11	Operational planning in the International Telecommunication Union	Valletta, 1998	Abr. Istanbul, 2002	Abrogated
12	Consideration of disaster telecommunication needs in telecommunication development activities	Istanbul, 2002	Abr. Doha, 2006	Abrogated
13	Requests for technical assistance for developing countries	Istanbul, 2002	Rev. Doha, 2006; Abr. Hyderabad, 2010	Abrogated
14	Pilot integration project for information and communications technologies	Istanbul, 2002	Abr. Doha, 2006	Abrogated
15	**Models and methods to determine the cost of national telecommunication services**	**January 2002**	**–**	**In force**
16	**Tariff rebalancing and cost-oriented tariffs**	**January 2002**	**–**	**In force**
17	**Sharing of facilities in rural and remote areas**	**January 2002**	**–**	**In force**
18	Potential benefits for rural telecommunications	Doha, 2006	Abr. Hyderabad, 2010	Abrogated
19	**Telecommunications for rural and remote areas**	**March 2010**	**Rev. Dubai, 2014**	**In force**
20	**Policy and regulatory initiatives for developing telecommunications/ ICTs/broadband in rural and remote areas**	**Dubai, 2014**	**–**	**In force**
21	**ICT and climate change**	**Dubai, 2014**	**–**	**In force**

Rec.	Title	First approved	History	Status
22	**Bridging the standardization gap in association with regional groups of the study groups**	**Dubai, 2014**	**–**	**In force**

Decisions

Dec.	Title	First approved	History	Status
1	Minimum budget for ITU-D study groups in 2006	Doha, 2006	Abr. Hyderabad, 2010	Abrogated

International
Telecommunication
Union
Place des Nations
CH-1211 Geneva 20
Switzerland

ISBN 978-92-61-36461-8

9 789261 364618

Published in Switzerland
Geneva, 2022
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