

RESOLUTION 11 (Rev. Baku, 2025)

Telecommunication/information and communication technology services in rural, isolated, unserved and underserved areas

The World Telecommunication Development Conference (Baku, 2025),

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 37 (Rev. Baku, 2025) of this conference, on bridging the digital divide;
- c)* Resolution 46 (Rev. Baku, 2025) of this conference, on assistance to Indigenous Peoples and communities through ICTs;
- d)* Resolution 69 (Rev. Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on non-discriminatory access and use of Internet resources and telecommunications/ICTs;
- e)* Resolution 77 (Rev. New Delhi, 2024) of WTSA, on enhancing standardization work in the ITU Telecommunication Standardization Sector (ITU-T) for software-defined networking;
- f)* Resolution 90 (Hammamet, 2016) of WTSA, on open source in ITU-T;
- g)* Resolution 135 (Rev. Bucharest, 2022) 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 countries¹ and in implementing relevant national, regional and interregional projects;

¹ These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

h) Resolution 137 (Rev. Bucharest, 2022) of the Plenipotentiary Conference, on deployment of future networks in developing countries;

i) Recommendation ITU-D 20 (Dubai, 2014) of WTDC, 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;

j) Recommendation ITU-D 19 (Dubai, 2014) of WTDC, 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;

k) Resolution 209 (Rev. Bucharest, 2022) of the Plenipotentiary Conference, encouraging the participation of small and medium enterprises in the work of the Union;

l) the Global Digital Compact, as adopted by the United Nations General Assembly in Annex I to its Resolution 79/1²;

m) Resolution 71 (Rev. Kigali, 2022) of WTDC, on strengthening cooperation between Member States, Sector Members, Associates and Academia of the ITU Telecommunication Development Sector (ITU-D), including the private sector, which resolves that the Director of the Telecommunication Development Bureau, when implementing the ITU-D operational plan, should consider facilitating the development of public-private sector partnerships for the implementation of global, regional and national flagship initiatives,

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;

² Noting that some Member States have not endorsed the Global Digital Compact.

- b) the outputs of the first and second phases of the World Summit on the Information Society (WSIS) in relation to the importance of ensuring telecommunication/ICT services in those areas and communities;
- c) that broadband-satellite and terrestrial radiocommunication 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;
- d) the critical role of telecommunication/ICT services in ensuring the safety of lives, including life at sea, and supporting the economic and social development of communities with limited access in the least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS);
- e) that the WSIS process has assessed progress and challenges over the past two decades;
- f) that the Global Digital Compact recognizes the need to promote inclusion in the digital economy, facilitating market access and participation by micro, small and medium enterprises (MSMEs),

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 and modernization in developing countries, which helps to enhance access to services, particularly in rural, isolated or unserved and underserved areas;
- c) the findings of the ITU-D Smart Seas project, which highlight that certain populations³ in many SIDS and coastal countries remain underserved in terms of access to ICTs, despite their high vulnerability at sea, and are often excluded from the benefits of ICT advancements owing to limited capital, capacity, policy and regulatory provisions and adoption at the national and international levels;

³ Including small-scale fishers, shipping operators and tourism providers.

- d) that very few Member States, where applicable, explicitly consider territorial waters as unserved/underserved areas within the scope of their universal service frameworks or universal service funds;
- e) the annual reports of the ITU/United Nations Educational, Scientific and Cultural Organization Broadband Commission for Sustainable Development, after 15 years of work, which highlight its efforts to promote universal access to broadband and digital inclusion, especially with the results of the Working Group on connectivity for MSMEs;
- f) that submarine cables are essential infrastructures for global communications and for supporting high-capacity and resilient connectivity to rural, isolated, 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 unserved and underserved areas in which the greater part of their populations live,

recognizing

- a) that significant progress has been made in many developing countries through universal access to telecommunication/ICT services in rural, isolated, underserved and unserved 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, underserved and unserved areas, under appropriate regulatory and market conditions;
- c) that Member States have implemented financing mechanisms for the benefit of rural and underserved areas, where feasible taking into account the capabilities and resources of all countries, especially LDCs;
- d) that sustainable business models are key to long-term service continuity, and that local community involvement could be beneficial;

e) that high-altitude platform stations (HAPS) are solutions in the terrestrial service, among others, which can be used to provide backhaul and direct access connectivity in rural and remote areas, and are defined in No. 1.66A of the Radio Regulations,

recognizing further

a) that there are new and emerging telecommunications/ICTs that may help to facilitate innovation in the provision of telecommunication/ICT services, in particular broadband technologies, to rural, isolated, unserved and underserved areas, including when considering territorial waters;

b) that various new and emerging telecommunication/ICT solutions (such as terrestrial and satellite systems, software-defined networking and open-source systems) and their potential combination play an important role in implementing the strategy of bridging the digital divide, leaving no one behind;

c) that access to telecommunication/ICT services in rural, isolated, unserved and underserved areas can only be achieved by adopting a technology-neutral and interoperable approach when considering all available connectivity solutions/technologies;

d) that ITU-D study groups, in the course of their work under related study Questions 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;

e) that, under 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 groups to continue their studies, under the appropriate study Questions, on the best means for providing access to telecommunication/ICT services in rural, isolated, underserved and unserved areas, including when considering territorial waters, 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 invite the ITU-D study groups to consider studies on MSME telecommunication operators who provide telecommunication/ICT services in rural, isolated, underserved and unserved areas, including when considering territorial waters, with a view to promoting innovation and reducing the digital divide;

3 to invite the ITU-D study groups 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 using new and emerging telecommunication/ICT services in rural, isolated, underserved and unserved areas, with special emphasis on LLDCs and SIDS,

instructs the Director of the Telecommunication Development Bureau

1 to submit reports to the relevant ITU-D study groups, in particular, on the lessons learned from the projects it has implemented and the seminars and training programmes it is conducting to satisfy the objectives of this resolution;

2 to assist Member States in developing frameworks and strategies for telecommunication/ICT development using universal service funds effectively;

3 to assist in disseminating information on best practices for the deployment and operation of broadband networks in rural, isolated, underserved and unserved areas, with special emphasis on LLDCs and SIDS;

4 to provide assistance to Member States so that they can identify and develop policies, mechanisms and regulatory initiatives to reduce the digital divide by promoting the deployment and adoption of broadband,

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 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, underserved and unserved areas of the world through the relevant programmes;
- 3 to continue efforts to promote the optimum use by developing countries of all available new and emerging telecommunication/ICT services provided by satellite and terrestrial systems, including submarine cables, as appropriate, to serve these rural, isolated, underserved and unserved areas and communities;
- 4 to coordinate efforts on supporting governments for the development and provision of telecommunication/ICT services in rural, isolated, underserved and unserved areas;
- 5 to provide specialized assistance to Member States to enable them to identify and develop adaptive policies, mechanisms and regulatory initiatives to reduce the digital divide by promoting available, affordable, accessible deployment and adoption of broadband;
- 6 to continue to promote initiatives in order to identify isolated, underserved and unserved 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;
- 7 within the framework of available resources, to continue to promote the exchange of experiences and capacity building on financing mechanisms, including the study of universal service funds, for the development of telecommunication networks in unserved or underserved areas involving rural, isolated and other underserved communities and small operators, including blended finance and social impact investments, among other things;

8 to encourage the active participation of MSMEs, with special emphasis on small telecommunication operators, in collaboration with stakeholders, through dissemination and training mechanisms, for the benefit of developing countries;

9 to explore appropriate partnerships with the relevant international and regional organizations to implement this resolution,

invites Member States

1 to consider sharing best practices on the use of renewable energy and energy-efficient technologies for powering telecommunication/ICT infrastructure in off-grid areas;

2 to raise awareness of different licensing and deployment models for impacted rural, isolated, underserved and unserved areas;

3 to share successful models of development of telecommunication/ICT services and applications, including public-private partnership models, in the fields of health, education, trade, etc., in rural, remote, isolated, underserved and unserved areas,

invites Member States and Sector Members

1 to consider reviewing and, where appropriate, revising the scope of universal service frameworks and universal service funds to include territorial waters as unserved or underserved areas, and submitting associated progress reports, findings and lessons learned to the relevant ITU-D study groups;

2 to continue investing in and researching new technological developments to address the access and usage gaps in communities with limited access, through innovative solutions.