**MOD** RCC/23A24/1

RESOLUTION 66 (Rev. BUENos aires, 2017)

Information and communication technology and climate change

The World Telecommunication Development Conference (Buenos Aires, 2017),

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]](#footnote-1)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)* § 20 of the Geneva Plan of Action of the World Summit on the Information Society, on e‑environment, calling for the establishment of monitoring systems using ICTs to forecast and monitor the impact of natural and man-made disasters, particularly in developing countries;

*d)* Resolution 34 (Rev. Dubai, 2014) of this conference, on the role of telecommunications/ICT in disaster preparedness, early warning, rescue, mitigation, relief and response;

*e)* Resolution 673 (Rev.WRC-12) of the World Radiocommunication Conference (Geneva, 2012), on the use of radiocommunications for Earth observation applications, in collaboration with the World Meteorological Organization (WMO);

*f)* the outcomes of the United Nations Climate Change Conference (Bali, Indonesia, 3‑14 December 2007), highlighting the role of ICTs as both a contributor to climate change and an important element in tackling the associated challenges;

*g)* Resolution 73 (Rev. Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA), on ICTs, environment and climate change, defining the role of the ITU Telecommunication Standardization Sector (ITU‑T) in this area;

*h)* the results of ITU Telecommunication Development Sector (ITU‑D) Study Group 2 Question 5/2 on the utilization of telecommunications/ICTs for disaster preparedness, mitigation and response, Question 6/2 on ICT and climate change, and Question 8/2 on strategies and policies for the proper disposal or reuse of telecommunication/ICT waste material;

*i)* Recommendation ITU‑D 21 (Dubai, 2014) on ICT and climate change;

*j)* Opinion 3 (Lisbon, 2009) of the World Telecommunication Policy Forum, on ICT and the environment, which highlighted the importance of the work associated with climate change in its many facets, including the global problems of the distribution of food, as well as the need for study on environmentally safe disposal and recycling of discarded ICT equipment;

*k)* the outcomes of the United Nations Climate Change Conference (Copenhagen, Denmark, 7‑16 December 2009);

*l)* the Nairobi Declaration on the Environmentally Sound Management of Electrical and Electronic Waste, and the adoption by the ninth Conference of the Parties to the Basel Convention of the Work Plan for the Environmentally Sound Management of E‑waste, focusing on the needs of developing countries;

*m)* Resolution 79 (Rev. Hammamet, 2016) 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;

*n)* the progress already made in the international symposia on ICTs, environment and climate change, held in various parts of the world[[2]](#footnote-2)2, by distributing their outcomes as widely as possible;

*o)* the outcomes of ITU-T Study Group 5 (Environment and climate change), including the work in the Joint Coordination Activity on ICT and climate change, which are responsible for studies on methodologies for evaluating the ICT effects on climate change and also for studying design methodologies to reduce environmental effects, for example recycling of ICT facilities and equipment;

*p)* the Luxor Call to Action on "Building a Water Resource Efficient Green Economy", adopted at the ITU Workshop on ICT as an Enabler for Smart Water Management, held in Luxor, Egypt on 14‑15 April 2013;

*q)* UNGA resolution A/70/1 "Transforming Our World: the 2030 Agenda for Sustainable Development",

taking into consideration

*a)* that the United Nations Intergovernmental Panel on Climate Change (IPCC) estimated that global greenhouse gas (GHG) emissions had risen by more than 70 per cent since 1970, having an effect on global warming, changing weather patterns, rising sea-levels, desertification, shrinking ice cover and other long‑term effects;

*b)* that climate change is acknowledged as a threat to all countries and calls for a global response;

*c)* the role that ICTs and ITU can play in promoting green ICTs to mitigate climate‑change effects;

*d)* the importance of promoting sustainable development and the ways in which ICTs can enable clean development;

*e)* that the consequences of developing countries' lack of preparation in the past have recently come to light, and that they will be exposed to incalculable dangers and considerable losses, including the consequences of rising sea levels for many coastal areas in developing countries;

*f)* that the strategic plan for the Union for 2012-2015 gives clear priority to combating climate change using ICTs;

*g)* that radio-based remote sensing applications on board satellites are the main global observation tools employed by the Global Climate Observing System (GCOS) for climate monitoring, disaster prediction, detection and mitigation of the negative effects of climate change;

*h)* 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; and the use of ICTs to warn the public of dangerous weather events and provide communication support for governmental and non-governmental aid providers;

*i)* Recommendation ITU‑T L.1000, on the universal power adapter and charger solution for mobile terminals and other handheld ICT devices, and Recommendation ITU‑T L.1100, on the procedure for recycling rare metals in ICT goods;

*j)* the final report of ITU-D Study Group 1 on Question 24/1 (Strategies and policies for the proper disposal or reuse of telecommunication/ICT waste material) (study period 2010-2014),

taking into consideration further

*a)* the outcome document adopted by Rio+20, entitled "The Future We Want", reflecting the renewal of commitment towards advancing sustainable development and achieving environmental sustainability;

*b)* that this outcome document recognizes that ICTs are facilitating the flow of information between governments and the public, highlighting the need to continue working towards improved access to ICTs, especially broadband networks and services, and bridging the digital divide, recognizing the contribution of international cooperation in this regard;

*c)* that the Rio+20 conference has called for further mainstreaming of the three dimensions of sustainable development throughout the United Nations system, inviting UN specialized agencies to consider appropriate measures for integrating the social, economic and environmental dimensions across the UN system's operational activities and to support developing countries, on request, in achieving sustainable development,

aware

*a)* that ICTs also contribute to GHG emissions, a contribution which, although relatively small, will grow with the increased use of ICTs, and that the necessary priority must be given to reducing GHG emissions from equipment;

*b)* that ICTs will make a major contribution to mitigating and adapting to the effects of climate change, as well as monitoring changes,

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 ICT environmental aspects of electromagnetic phenomena and climate change;

*b)* the use of ICTs as energy-efficient and eco-friendly working methods, as exemplified by the Virtual International Symposium on ICTs and Climate Change (23 September 2009, Seoul, Republic of Korea);

*c)* 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[[3]](#footnote-3)3;

*d)* the positive impact of ICTs in mitigating climate change, insofar as they offer more energy-efficient alternatives to other applications by providing more efficient energy-management systems (buildings/homes) and distribution systems (smart grid);

*e)* the outcomes of the conferences of the United Nations Framework Convention on Climate Change (UNFCCC);

*f)* that there are other international forums that are working on climate-change issues with which ITU should cooperate,

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 and climate change in order to contribute to the wider global efforts to moderate climate change being made by the United Nations;

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[[4]](#footnote-4)4 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 assist in bridging the standardization gap by providing technical assistance to countries in developing their national green ICT action plans;

7 to set up e‑learning programmes on ITU‑D Recommendations related to ICT, the environment and climate change,

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 Buenos Aires Action Plan dealing with ICTs and climate change, 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 on ICTs and climate change;

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 (BR) and the Telecommunication Standardization Bureau (TSB) 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 (TDAG);

6 to ensure, in implementing the Buenos Aires Action Plan, that appropriate resources are allocated for initiatives related to ICTs and climate change;

7 to provide input to the ITU‑T calendar of events relevant to ICTs, the environment and climate change, based on proposals by TDAG and in close collaboration with the other two Sectors;

8 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, the environment and climate change, within available resources;

9 to support the development of reports on ICTs, the environment and climate change, taking into consideration relevant studies, in particular the ongoing work under ITU‑D Study Group 2 Questions 5/2, 6/2 and 8/2 related to, *inter alia*, ICTs and climate change, and to assist affected countries with utilizing relevant applications for disaster preparedness, mitigation and response, and management of telecommunication/ICT waste;

10 to assist developing countries in undertaking proper assessment of the size of e‑waste and in initiating pilot projects to achieve environmentally sound management of e‑waste through e‑waste collection, dismantling, refurbishment and recycling;

11 to assist developing countries in initiating projects that achieve the sustainable and smart management of water resources through the use of ICTs;

12 to assist developing countries in initiating projects on disaster prediction, detection, monitoring, response and relief,

instructs the Telecommunication Development Advisory Group

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 and climate change;

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 (ITU-R) in remote sensing (active and passive) for environmental observation[[5]](#footnote-5)5 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 into national adaptation and mitigation plans;

6 to incorporate the environmental indicators, conditions and standards in their national ICT plans;

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 UNFCCC.

1. 1 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition. [↑](#footnote-ref-1)
2. 2 Kyoto, Japan, 15-16 April 2008; London, United Kingdom, 17-18 June 2008; [Quito, Ecuador](http://www.itu.int/ITU-T/worksem/climatechange/200907/index.html), 8‑10 July 2009; Seoul Virtual Symposium, 23 September 2009; Cairo, Egypt, 2‑3 November 2010; Accra, Ghana, 7-8 July 2011; Seoul, Republic of Korea, 19 September 2011; and Montreal, Canada, 29-31 May 2012. [↑](#footnote-ref-2)
3. 3 This includes areas such as water management, air quality, agriculture, fishing, health, energy, environment, ecosystems and pollution control. [↑](#footnote-ref-3)
4. 4 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. [↑](#footnote-ref-4)
5. 5 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. [↑](#footnote-ref-5)