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Report by the Secretary-General

ITU'S ACTIVITIES ON ICTS, THE ENVIRONMENT AND CLIMATE CHANGE (2013-2014)

Summary

This report summarizes ITU's objectives and achievements on climate change and the protection of the environment during the period May 2013-January 2014.

Action required

The Council is invited to **note** the report.

References

[Resolution 182 \(Guadalajara, 2010\)](#), [Resolution 71 \(Rev. Guadalajara, 2010\) Annex 1](#), [Council Resolution 1307](#), [WTDC Resolution 66 \(Hyderabad, 2010\)](#), [WTSR Resolutions 73 and 79 \(Dubai, 2012\)](#), [Resolutions 671, 672, 673 and 750 \(WRC-12\)](#) and [Resolution ITU-R 60 \(RA-12\)](#).

1. ITU's activities on climate change and the protection of the environment

Climate monitoring

1.1. *Use of radio communication services.* ITU has advanced in the adoption of the agenda for [WRC-15](#), which includes a number of items covering climate change, particularly: (a) the primary allocation for the Earth exploration-satellite service to meet requirements of future missions, and to uplink to the spacecraft a large amount of data for operations plans and dynamic spacecraft software modifications; (b) to consider an extension of the current worldwide allocation to the Earth exploration-satellite (active) service to achieve high resolution information.

1.2. *Use of submarine communication networks for climate monitoring and disaster warning.* ITU-T continues to lead the work conducted in the context of the [ITU/WMO/UNESCO IOC Joint Task Force \(JTF\)](#). The JTF is now composed by over 80 experts and is investigating the potential of using submarine. During 2013, the JTF organized the [3rd Workshop on Submarine Communications Networks For Climate Monitoring and Disaster Warning](#) (Madrid, 19-20 September 2013). The JTF is progressing two studies: a) Functional Requirements Study that will meet the detailed evaluation needs of the industry; and b) a Business Model Study to establish the financial basis for the

development of the Pilot/Demonstrator Model and the later ongoing decadal Operational Phase. The JTF is also working on publications on the engineering functional requirements and the science and societal requirements for sensors in submarine telecommunication cables.

Climate change mitigation

1.3. *Advancing Green ICT standards.* [ITU-T Study Group 5](#) (SG5) has continued working on the development of ITU-T recommendations and commonly agreed standardized methodologies to assess the environmental impact of ICTs, reduce its environmental footprint and promote environmental sustainability through the use of ICTs. A comprehensive list of ITU-T Recommendations for Green ICT standards is available at the following [link](#).

1.4. *Demonstrating the potential of ICTs to reduce GHG emissions.* In 2013 ITU published the report "[The case of Korea: the quantification of GHG reduction effects achieved by ICTs](#)". This report follows the methodology described in ITU-T Recommendation L.1410 and comprises a review of more than 30 ICT services through a literature study and global benchmarking.

1.5. *Promoting sustainable cities through ICTs.* During 2013, ITU-T initiated the new ITU-T Focus Group on Smart Sustainable Cities ([FG-SSC](#)), which has ITU-T Study Group 5 as Parent Study Group. The FG-SSC acts as an open platform for all stakeholders to exchange knowledge in the interests of identifying the frameworks needed to support the integration of ICTs in smart cities.

1.6. *Energy efficiency of radiocommunications.* ITU-R has advanced in the implementation of Resolution [ITU-R 60](#). "Reduction of energy consumption for environmental protection and mitigating climate change by use of ICT/radiocommunication technologies and systems".

1.7. *Cooperation and coordination with other organizations.* During 2013-2014 ITU has maintained a close collaboration with the Global e-Sustainability Initiative (GeSI), GSMA, TechAmerica and the ICT for Energy Efficiency Forum (ICT4EE), among others. Within the framework of the MoU between ITU and ETSI, ITU-T SG5 has strengthened collaboration with ETSI EE which is currently steering the development of common texts on environmental issues.

Adaptation to climate change

1.8. *Assistance to disaster relief and early warning systems.* ITU has continued to provide assistance to Member States for disaster preparedness in developing National Emergency Telecommunications Plans and Early Warning Systems. Through its emergency telecommunications programme, ITU-D has responded to natural disasters and provided emergency telecommunications equipment to several Member States during the reported period.

1.9. *Revision of Recommendation ITU-R F.1105-2 "Fixed wireless systems for disaster mitigation and relief operations".* The recommendation explores the use of fixed wireless systems used for transportable mobile backhaul links, which are interoperable with a transportable mobile base station in a vehicle.

1.10. *ICTs and adaptation in ITU Study Groups.* ITU-T and ITU-D Study Groups have advanced their activities on the questions related climate change adaptation (ITU-T SG-5 Question 14/5 and Question 15/5 and ITU-D SG2 [Question 24/2](#)). On the same topic, the preparatory meetings for [WTDC-14](#) also highlighted the importance of climate change for ITU Membership.

1.11. *Workshops.* ITU-T organized the [Workshop on Using ICTs for Climate Change Adaptation](#), held on 21 October 2013 in Naples, Italy. The workshop discussed how the integration of ICTs in national adaptation policies can help countries to develop effective adaptive strategies, providing support to information-gathering, decision-making, implementation and evaluation processes. ITU also held a workshop on 21 November 2013 on Emergency Broadcasting, and launched a report

on the role played by broadcasting in the dissemination of emergency information. Furthermore, ITU-T, in cooperation with UNFCCC and UNESCO published the report on “Resilient Pathways: The adaptation of the ICT sector to climate change” in February 2014.

1.12. *Focus Group on Smart Water Management (FG-SWM)*. In 2013 ITU-T initiated the new Focus Group on Smart Water Management ([FG-SWM](#)) which has ITU-T Study Group 5 as Parent Study Group. FG-SWM is championing a multi-stakeholder approach to the development of ‘smart’ water-management systems, and incorporating the views of irrigation, agriculture, environment and communications ministries, as well as those of the ICT industry and relevant intergovernmental and non-governmental organizations.

Capacity building, knowledge sharing and awareness raising

1.13. *ITU Symposia*. ITU has continued deepening the knowledge base on the relation between ICTs and climate change. ITU organized the [8th ITU Symposium on ICTs, the Environment and Climate Change](#), held on 6-7 May 2013 in Turin, Italy. The Symposium concluded with the adoption of the [Turin Roadmap: towards a planet of smart sustainable cities](#). Other events organized during the week included, *inter alia*, the [Workshop on Human Exposure to Electromagnetic Fields \(EMFs\)](#), which released the [Turin Call to Action](#) on addressing public concern regarding human exposure to EMFs and possible health effects.

1.14. *New reports*. In 2013 ITU produced the new report ITU-R M.2291-0, “The use of International Mobile Telecommunications for broadband public protection and disaster relief applications”, which addresses the current and possible future use of international mobile telecommunications (IMT) including the use of LTE in support of broadband public protection and disaster relief communications as outlined in relevant work conducted by ITU-R.

1.15. *Other ITU events*. ITU organized other events to raise awareness of the role of ICTs with regards to climate change. Key events included, *inter alia*, the [ITU Workshop on Building a Sustainable Future Through Green ICT Standards](#), held on 15-16 July 2013 in Ouagadougou, Burkina Faso, or [the 6th meeting of the Dynamic Coalition on Internet and Climate Change](#) (DCICC) held in Bali, Indonesia, on 23 October 2013.

1.16. *Green Standards Week (GSW)*. ITU-T has continued to lead the organization of GSWs. The [3rd ITU GSW](#), hosted by Telefonica, took place in Madrid, Spain on 16-20 September 2013. The event included, *inter alia*, the organization of the ITU, UNEP, UNU, CEDARE Forum on Environmentally Sound Management of E-waste and the Forum on Greening Mobile Devices: Building Eco-Rating Schemes. The 4th GSW will take place in Beijing, China from 22-26 September 2014.

1.17. [Global Portal on ICTs, Environment and Climate Change](#). In response to WTSA Resolution 73 (Dubai, 2012), a Global Portal has been created. It provides references to external resources, such as background papers, statistics, and examples covering the impacts of ICTs on the environment.

Other activities related with the protection of the environment

1.18. *E-waste*. ITU continued its key contribution to tackle the challenges of e-waste. This activity included:

- (a) The organization of several events throughout the year, including the [ITU/UNEP session on Environmentally Sound Management of E-Waste @ WSIS Forum 2013](#) held on 14 May 2013 in Geneva, Switzerland; the [ITU Workshop on Environmentally Sound Management of E-waste](#), held on 9 July 2013, in Durban, South Africa; the [ITU Workshop on E-Waste](#) held on 13-14 August 2013 in Quito, Ecuador; and the [ITU/CITEL Workshop on Environmentally Sound Management of E-waste](#), held on 9 October 2013 in Mendoza, Argentina.

(b) New ITU-T Recommendations such as an environmentally friendly universal charger for laptops and other portable devices (ITU-T L.1002), green batteries for smart phones and other handheld ICT devices (ITU-T L.1010), as well as a standardized methodology for manufacturers to report the quantity of rare metals contained in their ICT devices (Recommendation ITU-T L.1101) have been consented in December 2013.

1.19. *Green ICT Applications Challenge*. During 2013 ITU held the [3rd ITU Green ICT Applications Challenge](#), together with Telefónica. The application “Greenyplay”, designed by Andrey Srykov from Belarus, was awarded the winner of the competition. Greenyplay is a mobile application that helps solve the problem of waste disposal in cities, encouraging citizens to recycle.

1.20. *BYND 2015 Global Youth Summit*. ITU also organized during 2013 the [Global Youth Summit](#), a platform for young people to lend their voice and influence decisions at the United Nations. The event, which gathered over 500 young leaders from around the world, featured relevant topics on the use of ICTs to empower the youth. Environmental sustainability was one of the topics included in the summit’s agenda. The outcome of the Summit, the [BYND 2015 Costa Rica Declaration](#), was presented by President of Costa Rica Laura Chinchilla, at the 68th session of the UNGA.

2. ITU within the United Nations environmental agenda

2.1 *Delivering as one UN*. ITU is coordinating its participation in UN climate change conferences through the UN Chief Executives Board (CEB) and its subsidiary bodies, in particular the High-Level Committee on Programmes’ (HLCP) Working Group on Climate Change, and the recently formed Task Team on “Urban Risk Management & Climate Smart Cities”. This approach has allowed ITU to contribute to improve collaboration within the system and with other agencies, such as WMO, UNFCCC, UNU, UNIDO, UNESCO, WHO, UNEP, UN-Habitat and the Secretariat of the Basel Convention. ITU and UNESCO will host a series of events on “Smart Sustainable Cities” on 11-14 March 2014 in Montevideo, Uruguay.

2.2 *Climate change negotiations*. ITU has continued to actively participate in the negotiations held within the United Nations Framework Convention on Climate Change (UNFCCC) to reach a new global agreement on climate change. ITU participated in the 2013 United Nations Climate Change Conference (COP19-CMP9), which took place in Warsaw, Poland, in December 2013 ([link](#)).

2.3 *Implementation of WSIS action line C7 e-environment*. ITU continued to co-facilitate the implementation of WSIS action line C7, e-environment, together with WMO, UNEP and the Basel Convention.

3. ITU approaching Climate Neutrality

3.1 *Climate neutrality in the UN*. ITU has continued its efforts towards climate neutrality during 2013 in close coordination with other UN agencies, funds and programmes. ITU’s performance has been near the top of reporting UN agencies each year, with ITU’s environmental footprint per person being less than half the average reported across the UN in each reporting year to date. Future projects are dependent on the availability of financing.

3.2 *Reduction of emissions through improved working methods*. ITU advanced in the reduction of its own operational emissions through the introduction of energy saving measures, the conduction of paperless meetings and the use of remote participation in ITU events. These measures have reduced the cost of organizing meetings and are introducing significant reductions of GHG emissions. Throughout 2013 ITU provided remote participation, webcast services and a paperless working environment in most workshops, forums and conferences.
