

I n t e r n a t i o n a l T e l e c o m m u n i c a t i o n U n i o n

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

WORLD TELECOMMUNICATION STANDARDIZATION
ASSEMBLY

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Resolution 73 – Information and communication technologies and climate change

ITU-T



FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

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RESOLUTION 73

Information and communication technologies and climate change

(Johannesburg, 2008)

The World Telecommunication Standardization Assembly (Johannesburg, 2008),

considering

- a) that the issue of climate change is rapidly emerging as a global concern and requires global collaboration;
- b) 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;
- c) that ITU, at the United Nations Conference on Climate Change in Bali, Indonesia, on 3-14 December 2007, highlighted the role of information and communication technologies (ICTs) as both a contributor to climate change, and an important element in tackling the challenge;
- d) the work being undertaken following agreement to the Bali roadmap, and the importance of reaching international agreement on an effective post-2012 outcome;
- e) the role that ICTs and ITU can play in contributing to the implementation of such an agreement;
- f) the importance of promoting sustainable development and the ways in which ICTs can enable clean development;
- g) the initiatives taken in some regions,

considering also

- a) the ITU Telecommunication Standardization Sector (ITU-T) Technology Watch Briefing Report No. 3 (2007), which highlighted the issue of climate change and the role of ICTs;
- b) in addition to the work in ITU-T, the ITU Radiocommunication Sector (ITU-R) and ITU Telecommunication Development Sector (ITU-D) initiatives in considering climate change and the role of ICTs;
- c) that ITU Recommendations that focus on energy-saving systems and applications can play a critical role in the development of ICTs;
- d) the leadership of ITU-R, in collaboration with the ITU membership, in identifying the necessary radio-frequency spectrum for climate monitoring and disaster prediction, detection and relief, including the establishment of cooperative arrangements with the World Meteorological Organization (WMO) in the field of remote-sensing applications;
- e) the report entitled "Strategy for a climate-neutral United Nations", prepared by the Environment Management Group, and the endorsement by the Chief Executives Board (CEB) in October 2007 of the strategy committing the United Nations system to attain climate neutrality within three years;
- f) the standards-development activities on ICTs and climate change by, for example, relevant ITU-T study groups in work related to ubiquitous sensor networks (USN), which allow the detection, storage, processing and integration of situational and environmental information gathered from sensor devices connected to telecommunication networks;

- g) the outcomes of the Symposia on "ICTs and Climate Change", held in Kyoto, Japan, on 15-16 April 2008, and in London, United Kingdom, on 17-18 June 2008;
- h) the establishment of a Focus Group on ICTs and Climate Change by the Telecommunication Standardization Advisory Group (TSAG) at its July 2008 meeting,

noting

that, in the report of the conclusions from the Global Standards Symposium (GSS), it was recognized that the ICT industry and its members can set an example by committing to specific programmes, with objectives, that reduce overall GHG emissions (e.g., the power consumption of ICT devices) and to ensuring that the expansion of the global communications network is done in an environmentally-friendly manner,

recognizing

- a) that ICTs can make a substantial contribution to mitigating and adapting to the effects of climate change;
- b) that ICTs play a vital role in monitoring and addressing climate change by supporting basic scientific research, which has helped to bring the issue of climate change into the public domain and to raise awareness of future challenges;
- c) that a future high-bandwidth, lower-carbon information society offers a platform for economic, social and cultural development that is sustainable;
- d) that the adverse effects of climate change may be uneven in their impact and may fall disproportionately on the most vulnerable countries, mainly the developing countries¹, given their limited capacity to adapt;
- e) that ICTs contribute approximately 2-2.5 per cent of GHG emissions, which may grow as ICTs become more widely available;
- f) that ICTs can, however, be a major mitigating factor in efforts to moderate climate change and to limit and ultimately reduce GHG emissions through, for example, the development and introduction of energy-efficient devices, applications and networks;
- g) that the use of ICTs as a key component of energy-efficient work methods could include the reduction of emissions through, for example, paperless meetings, virtual conferencing, teleworking, etc., which in turn would be beneficial in terms of reducing the need to travel,

resolves

- 1 to continue and further develop the ITU-T work programme initially launched in December 2007 on ICTs and climate change, as a high priority, in order to contribute to the wider global efforts to moderate climate change, as part of the United Nations processes;
- 2 to take into account the progress already made in the international symposia on ICTs and climate change, held in Kyoto, Japan, 15-16 April 2008 and in London, United Kingdom, 17-18 June 2008, by distributing their outcomes as widely as possible;
- 3 to create, within ITU-T, a repository and knowledge base on the relationships between ICTs and climate change;

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

4 to promote the adoption of Recommendations for enhancing the use of ICTs to serve as a potent and cross-cutting tool to measure and reduce GHG emissions across economic and social activities;

5 to increase awareness and promote information sharing on the role of ICTs in combating climate change, in particular by promoting the use of more energy-efficient² 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;

6 to work towards the reductions in emissions of GHGs arising from the use of ICTs that are necessary to meet the goals of the United Nations Framework Convention on Climate Change (UNFCCC),

instructs the Telecommunication Standardization Advisory Group

1 to review the results of the Focus Group on ICTs and Climate Change and take appropriate actions in accordance with Resolution 22 of this assembly, including, for example, the identification of possible structural mechanisms and a lead study group, and to progress the work on this topic by encouraging the involvement of all ITU-T study groups;

2 to ensure that study groups carry out a review of both the appropriate existing ITU-T Recommendations and all future Recommendations to assess their implications and the application of best practices in the light of climate change;

3 to consider possible changes to working procedures in order to meet the objective of this resolution, including extending the use of electronic working methods to reduce the climate-change impact, such as paperless meetings, virtual conferencing, teleworking, etc.,

invites all ITU-T study groups

1 to develop appropriate Recommendations on climate-change issues within the mandate and competency of ITU-T, including telecommunication networks used for monitoring climate change, for example signalling and quality of service issues, taking into account any economic impact on all countries and in particular on developing countries;

2 to identify best practices and opportunities for new applications using ICTs to reduce the impact of climate change and to identify appropriate actions;

3 to commence such studies prior to the approval of the necessary Questions, taking into consideration the output of the Focus Group, in accordance with Resolution 1 of this assembly;

4 to liaise with the relevant ITU-R and ITU-D study groups and promote liaison with other standards development organizations in order to avoid duplication of work and to optimize the use of resources,

instructs the Director of the Telecommunication Standardization Bureau

1 to report on progress on the application of this resolution annually to the ITU Council and to the 2012 world telecommunication standardization assembly;

2 to establish a calendar of events relevant to ICTs and climate change based on proposals by TSAG and in close collaboration with the other two Sectors;

3 to organize, in close collaboration with the Directors of the Telecommunication Development (BDT) and Radiocommunication (BR) Bureaux, workshops and seminars for developing countries, to raise awareness and identify their needs in this domain, as they are the most vulnerable countries affected by climate change;

² With respect to efficiency, promotion of efficient use of materials used in ICT devices and network elements should also be a consideration.

4 to report to TSAG on the progress regarding *invites the Secretary-General* below,

invites the Secretary-General

1 to bring the content of this resolution to the attention of the Council and invite it to study the issue of climate neutrality for all ITU activities and take appropriate actions, taking into consideration the United Nations commitment to lead by example, to achieve climate-neutral status within three years;

2 to continue to cooperate and collaborate with other entities within the United Nations in formulating future international efforts for the effective addressing of climate change,

invites Member States, Sector Members and Associates

1 to continue to contribute actively to the ITU-T 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-T Recommendations and relevant work;

3 to support and contribute to the wider United Nations process on climate change, such as the United Nations Climate Change conferences in Poznan, Poland (1-12 December 2008) and Copenhagen, Denmark (30 November-11 December 2009).