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**Introduction, adoption of the Recommendation on ICT and climate change as an output of Question 24/2**

During the current ITU-D study period 2010-2014, Question 24/2 was established and was in charge of ICT and Climate Change. The work conducted within thus study period has led to a report (and annexes) and a recommendation. In order to achieve all this work, Q24/2 launched an ITU-D questionnaire the answers of which were quite helpful.

The report explains the main scientific aspects related to climate change and presents the last available figures in this field. The notion of ICT is introduced and the link with Climate Change is well detailed.

The recommendation approved by the last SG2 in September 2013 highlights the fact that ITU-D should develop guidelines, best practices for the purpose of implementing national policies and related measures to facilitate the use of ICT to combat climate change challenges. In addition, a support is necessary to help member states invest more in meteorology monitoring services in order to prevent extreme events that could be devastating as better prediction would costs relatively little and helps reduce the carnage caused by floods, droughts and tropical cyclones. It is also recommended that a program be developed based on real figures showing the effect of reduced energy consumption and the benefit of ICT. Innovative ICT-enabled strategies to tackle climate change adaptation and mitigation on the long-term should be promoted as well as more robust, affordable and reliable green ICT operating in difficult meteorological conditions (hot weather, high humidity…).

Administrations, sector members and stakeholders are invited to consider the following text showing some modifications compared to the initial text as proposed by SG2. Those modifications are in line with the objectives of the proposal of the continuation of Question 24/2 for the new ITU-D study period 2014-2018. Therefore, France kindly invites Com-ITU to take into account this proposal and to adopt the text below as an European Common Proposal for the next WDTC in 2014.

**Proposed text of Recommendation of Question 24/2: ICT and Climate Change**

ITU-D Study Group 2,

*considering*

1. that climate change is now an undeniable reality, and global action to reduce greenhouse gas emissions is urgent in order to avoid devastating impacts on our societies;
2. that the World Telecommunication Development Conference 2010 (WTDC-10) stated that Telecommunications/ICTs can make a substantial contribution to monitoring, mitigating and adapting to the adverse effects of climate change;
3. that the World Radiocommunication Conference 2012 (WRC-12) revised Resolution 673 (Rev. Geneva, 2012) on the importance of earth observation radiocommunication applications;
4. that the Plenipotentiary Conference 2010 (PP-10) adopted Resolution 182 on “The role of telecommunications/ information and communication technologies in regard to climate change and the protection of the environment”;
5. That the World Telecommunication Standardization Assembly (WTSA 12) adopted Resolution 73 on “information and communication technologies , environment and climate change”,
6. that Resolution 66 (Hyderabad, 2010) of the World Telecommunication Development Conference, 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 Observation Systems for climate monitoring, disaster prediction, detection and mitigation of the negative effects of climate change;
7. that the economic costs imposed by extreme climates and disasters on humans, societies, and ecosystems are growing;
8. that climate modelling indicates that, in future, continued increases in greenhouse gas concentrations may drive more extreme weather events;
9. that, according to Resolution 30 (Rev. Guadalajara) of the Plenipotentiary Conference, member states, 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;
10. that the process established by the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the on-going 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*

1. that ICTs can facilitate faster development of various social and economic sectors in any country and that they lead to equal opportunities for all mankind, especially perceptible;
2. improvement for the most vulnerable parts of society in rural and remote areas, contributing to their inclusive and sustainable growth of society;
3. that providing assistance to developing countries in formulating national and regional strategies and measures on how they use ICTs can help mitigate and respond to the devastating effects of climate change;
4. 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;
5. 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;
6. 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 to understand the climate long term evolution ;
7. that opportunities for the design of ICT system taking into account climate change impacts requires further clarification considering the wider aspects of implementing ICTs nationally, regionally, and globally;
8. 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;
9. that we can benefit from the experience of some member states, suffering from extreme weather events, which have already integrated in their strategy against climate change a list of agreed principles and concrete actions;
10. that the world summit of information society decided to launch projects to promote ICTs in the fields of environment, natural resources, green ICT Sector and natural disasters.

*recognizing*

1. that emissions of global warming gases continue to rise as the world burns ever more coal, oil and gas for energy;
2. that the year 2012 was the 10th warmest year since records began in 1880. The annually averaged temperature across global land and ocean surfaces was 0.57°C above the 1950s average, and around 0.8°C above the 1880 estimated average;
3. 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;
4. 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;
5. that due to the operation of ground instruments since 1880 and the operation of remote sensing satellites, the constant increase of the mean sea level is a scientific fact that cannot be challenged;
6. that the increase of the mean sea level is threatening small islands and cities along the coast;

that ICT enables de-materialization in the consumer goods and services sector which can reduce use of our natural resources as well as lower travel related emissions and pollution. In connection with de-materialization; and that ICT enabled services offer safer and more reliable access to critical services such as education, health and financial services.

*recognizing further*

1. that telecommunications/ICT are of critical importance to overall economic, social and cultural development;
2. that member states believe it is essential to develop Internet access, to encourage training in ICT as part of adaptation to climate change, as insufficient data is gathered at local level and sent for analysis;
3. that some member states want to learn more about how to reduce energy consumption and about greenhouse gas emissions, and also to learn about ICTs that could operate at lower energy consumption that would require less maintenance and what is the corresponding quantified benefit for climatic change;
4. that some member states would like to learn more about the negative effects or impact of not using "green" ICT and how can they contribute to help reduce the global warming.

*taking into account*

 a) that the Study Group 5, is the lead study group for study of the ICT environmental aspects of electromagnetic phenomena and climate change, including design methodologies to reduce environmental effects, such as recycling related to ICT facilities, equipment”,

*recommends*

1. that member states elaborate guidelines, best practices, national and relevant regional commitments with all stakeholder to support implementing national policies and related measures to facilitate the use of ICT to combat climate change challenges;
2. that support is provided to help member states invest more in meteorology monitoring services in order to prevent extreme events that could be devastating as better prediction would costs relatively little and helps reduce the carnage caused by floods, droughts and tropical cyclones;
3. that in order to help member states invest in the technologies they need to know more about the climate change in general, and have better access to and understanding of meteorological data (satellite and terrestrial) that is supplied;
4. that member states elaborate training programs for a better usage of all the monitoring data;
5. that member states consider using telecommunication networks and services to realize the benefits of de-materialization.
6. That member states support using metrics and common standards for calculating both ICT’s environmental impacts and the positive contribution it can make to other sectors—showing the effect of reduced energy consumption and the benefit of ICT
7. that it is necessary to adopt such innovative ICT-enabled strategies to tackle climate change adaptation and mitigation on the long-term;
8. that, as ICTs may need to operate in difficult meteorological conditions (hot weather, high humidity…), it becomes urgent to help member states develop more robust, affordable and reliable green ICTs.;
9. that better cooperation between member states is to 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 is continued and treated by member states as a priority and urgent task;
3. that the enabling potential of cloud computing be recognized for its potential to reduce the direct impact of the ICT sector’s emissions

*invites the Director of BDT*

1. to continue to actively contribute to enhancing activities related to climate change mitigation and adaptation;
2. to continue jointly organizing events with other sectors of ITU in order to reduce duplication and to enhance sharing of information across the sectors and member states;

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