

## **Question 22-1/2 – Utilization of telecommunications/ICTs for disaster preparedness, mitigation and response**

### **1 Statement of the situation**

In light of recent natural and man-made disasters, great attention and effort has been directed towards the application of telecommunications/ICTs for the purpose of disaster preparedness, mitigation, response, and recovery.

#### **1.1 Recognizing**

- a) Resolution 34 [Rev. Hyderabad, 2010] on the role of telecommunications/ICT in early warning and mitigation of disasters, as well as to support humanitarian assistance;
- b) The Tunis Agenda for the Information Society, in § 91 b and c which recognizes and identifies many important elements that need to be addressed in the application of telecommunications in the area of disaster prediction, detection and mitigation;
- c) Resolution 646 (WRC-03) of the World Radiocommunication Conference (WRC) on the radiocommunication aspects of public protection and disaster relief;
- d) Resolution 36 (Rev. Antalya, 2006) of the Plenipotentiary Conference on telecommunications/information and communication technologies in the service of humanitarian assistance;
- e) Resolution 136 (Antalya, 2006) of the Plenipotentiary Conference on the use of telecommunications/ICTs for monitoring and management in emergency and disaster situations, and for early warning, prevention, mitigation and relief;
- f) Resolution 644 (Rev. WRC-07) of the World Radiocommunication Conference on radiocommunication resources for early warning, disaster mitigation and relief operations;
- g) Resolution 647 (WRC-07) of the World Radiocommunication Conference on spectrum management guidelines for emergency and disaster relief radiocommunications;
- h) Resolution 673 (WRC-07) of the World Radiocommunication Conference on radiocommunications for Earth observation applications, such as for prediction of disasters and monitoring of the effects of climate change.

#### **1.2 recognizing further**

- a) that Resolution ITU-R 53 of the Radiocommunication Assembly (Geneva, 2007) relates to a database of frequencies for use in emergency situations maintained by the Radiocommunication Bureau;
- b) that Resolution ITU-R 55 of the Radiocommunication Assembly (Geneva, 2007) relates to guidelines for management of radiocommunications in disaster prediction, detection, mitigation and relief, collaboratively and cooperatively, within ITU and with organizations external to the Union;
- c) that ITU-D Recommendation 13-2 recommends that administrations include the amateur services in their national disaster plans, reduce barriers to effective use of the amateur services for disaster communications, and develop memoranda of understanding (MoU) with amateur and disaster relief organizations;
- d) that Recommendation ITU-R M.1637 offers guidance to facilitate the global circulation of radiocommunication equipment in emergency and disaster relief situations;
- e) that Report ITU-R M.2033 contains information on some bands or parts thereof which have been designated for disaster relief operations;

- f) that ITU-T Recommendations E.106 International Emergency Preference Scheme for Disaster Relief Operations and E.107 Emergency Telecommunications Service (ETS) and Interconnect Framework for National Implementations of ETS Numbering relate to use of public telecommunications by national authorities in emergency and disaster relief operations.
- 1.3 considering
- a) the work being undertaken by BDT Programme 5 to provide assistance on disaster communications/emergency telecommunications assistance to ITU Member States;
  - b) the activities of the Inter-Sectoral Emergency Telecommunications Team, an internal ITU Secretariat mechanism to ensure coordination across all the Secretariats activities for emergency telecommunications;
  - c) the role of IT Sector Members and relevant international, regional and non-governmental organizations in providing telecommunications/IT equipment and services, expertise, and capacity building assistance to support disaster relief and recovery activities throughout the world, particularly through IT Framework for International Cooperation in Emergencies (ICE);
  - d) the ongoing work of the United Nations Working Group on Emergency Telecommunications (WET) in which BET former programme 6 participates, to facilitate the use of telecommunications/IT in the service of humanitarian assistance;
  - e) the ongoing work of the IMO, CIAO and IT related to Search and Rescue and distress alerting that may be applicable to disaster communications management frameworks;
  - f) that IT Publications Handbook on Emergency Telecommunications (2005), Compendium on the It's Work on Emergency Telecommunications (2007), and Best Practices on Emergency Telecommunications (2008) provide information to enhance the emergency communications capacities of IT Member States;
  - g) that the IT Global Forum on Effective Use of Telecommunications/IT for Disaster Management: Saving Lives (December 2007) outlined ways for IT and Member States to integrate ITS into disaster management plans;
  - h) that ITU-D Study Group 2 Reports on Guidelines for using a content standard for alerts and notifications in disasters and emergency situations (2008) regarding implementation of ITU-T Recommendation X.1303 on the Common Alerting Protocol (CAP), and Report on use of remote sensing for disaster prediction, detection and mitigation (2008) provide further guidance for ITU Members on disaster communications management;
  - i) developing countries continue to require support in development of disaster communications management expertise. BDT can continue to assist and guide developing countries in building comprehensive disaster management plans, setting up early warning centres, addressing climate change adaptation, and promoting regional and international cooperation in the time of disasters through coordinated efforts, such as for efficient dissemination of disaster-associated information. Moreover, ongoing or planned telecommunications/ICT development projects can often be leveraged to address emergency communications requirements and to support relief and recovery operations;
  - j) furthermore, there is a need for the development of an ICT disaster-oriented framework that will be used in ITU-D studies related to disaster management, and for additional information on the effective use of telecommunications/ICTs for disaster preparedness, response and recovery, including consideration of how existing systems and infrastructures can be integrated into disaster management frameworks, and how to help ensure

redundancies and resiliency of networks and infrastructures from the effects of natural disasters.

## **2 Question for study**

2.1 Continue examination of terrestrial, space-based and integrated telecommunications/ICTs to assist affected countries with utilizing relevant applications for disaster prediction, detection, monitoring response and relief, including consideration of Best Practices/Guidelines in implementation, and consideration of the role of the ITU-D assisting Administrations in ensuring a favourable regulatory environment to enable implementation of relevant technologies.

2.2 Examination of the role that Administrations and Sector Members and non-governmental organizations have in addressing disaster management and the effective use of telecommunications/ICTs.

2.3 Examination of how telecommunications/ICTs can be integrated into disaster management plans or frameworks for use in natural and man-made disaster and/or emergency situations, including considerations of telecommunications outside plant taking into account the work of BDT Programmes 1 and 5.

## **3 Expected output**

The expected output will be a Report or Reports on the results of the work conducted for each step above, together with one or more Recommendations, as appropriate.

## **4 Timing**

4.1 Annual progress reports should be submitted to ITU-D Study Group 2.

4.2 Draft final Reports and any proposed draft Recommendations/guidelines should be submitted to ITU-D Study Group 2 within four years.

4.3 The Rapporteur's Group will work in close collaboration with BDT relevant Programme(s), ITU-D relevant Questions and proper liaising with ITU-R and ITU-T.

4.4 The activities of the Rapporteur's Group will come to an end within 4 years.

## **5 Proposers**

The new text of this revised Question was proposed by Administrations participating at the last meeting of ITU-D Study Group 2.

## **6 Sources of input**

Contributions are expected from Member States, Sector Members and Associates, as well as inputs from BDT relevant Programme(s) and relevant ITU-R and ITU-T Study Groups and any relevant Question in ITU-D. International and regional organizations responsible for disaster and emergency telecommunications are encouraged to provide contributions related to experiences and best practices. The intensive use of correspondence and online exchange of information is encouraged for additional sources of inputs.

## 7 Target audience

Target audience	Developed countries	Developing countries <sup>1</sup>
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes

### a) Target audience

Depending on the nature of the output, upper- to middle-level managers in operators and regulators in developed and developing countries will be the predominant users of the outputs.

### b) Proposed methods for the implementation of the results

The results of the Question are to be distributed through ITU-D reports, or as agreed during the study period in order to address the question for study.

## 8 Proposed methods of handling the Question

Within ITU-D Study Group 2.

## 9 Coordination

The ITU-D study group dealing with this Question will need to coordinate with:

- Relevant ITU-D Question(s)
  - Relevant focal points in BDT
  - Relevant ITU-R and ITU-T Study Groups
  - Working Group on Emergency Telecommunications (WGET)
- Relevant international, regional and scientific organizations with mandates relevant to this Question.

## 10 Other relevant information

As may become apparent within the life of this Question.

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<sup>1</sup> The term "developing countries" includes also least developed countries (LDCs), small island developing states (SIDS), landlocked developing countries (LLDCs) and countries with economies in transition.