QUESTION 5/2

Utilization of telecommunications/ICTs for disaster preparedness, mitigation and response

1 Statement of the situation or problem

1.1 Context:

a) Recent natural and man-made disasters, which remain of critical concern to Member States

b) The longstanding role of ITU in supporting the use of telecommunications/ICTs for the purpose of disaster preparedness, mitigation, response and recovery

c) The value of collaborating and sharing experiences, both regionally and globally, in order to support national and regional preparedness

d) The excellent results of the work of Question 22-1/2 in the past study period, including the compilation of numerous case studies and development of an online toolkit and Handbook on Emergency Telecommunications.

1.2 Background texts:

a) WTDC Resolution 34 (Rev. Dubai, 2014), 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, § 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 (Rev. WRC-12) of the World Radiocommunication Conference (WRC), on the radiocommunication aspects of public protection and disaster relief

d) Resolution 36 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference, on telecommunications/ICTs in the service of humanitarian assistance

e) Resolution 136 (Rev. Guadalajara, 2010) 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) WRC Resolution 644 (Rev. WRC-12), on radiocommunication resources for early warning, disaster mitigation and relief operations

g) WRC Resolution 647 (Rev. WRC-12), on spectrum-management guidelines for emergency and disaster relief radiocommunications

h) WRC Resolution 673 (Rev. WRC-12), on radiocommunications for Earth observation applications, such as for prediction of disasters and monitoring of the effects of climate change.

1.3 Further provisions:

a) Resolution ITU-R 53-1 (Rev. Geneva, 2012) of the Radiocommunication Assembly (RA), which relates to a database of frequencies for use in emergency situations maintained by the Radiocommunication Bureau

b) RA Resolution ITU-R 55-1 (Geneva, 2012), which 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) Recommendation ITU-D 13-2, which 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) Recommendation ITU-R M.1637, which offers guidance to facilitate the global circulation of radiocommunication equipment in emergency and disaster relief situations

e) Report ITU-R M.2033, which contains information on some bands or parts thereof which have been designated for disaster relief operations

f) Recommendations ITU-T E.106 (International Emergency Preference Scheme for Disaster Relief Operations) and ITU-T E.107 (Emergency Telecommunications Service (ETS) and Interconnect Framework for National Implementations of ETS Numbering), which relate to use of public telecommunications by national authorities in emergency and disaster relief operations.

1.4 Aspects to be considered:

a) The complementary work being undertaken by BDT programme(s) and regional offices to provide assistance on disaster communications/emergency telecommunications assistance to ITU Member States

b) The activities of the Intersectoral Emergency Telecommunications Team, an internal ITU secretariat mechanism to ensure coordination across all the secretariat's activities for emergency telecommunications

c) The role of ITU Sector Members and relevant international, regional and non-governmental organizations in providing telecommunication/ICT equipment and services, expertise and capacity-building assistance to support disaster relief and recovery activities throughout the world, particularly through the ITU Framework for International Cooperation in Emergencies (ICE)

d) The ongoing work of the United Nations Working Group on Emergency Telecommunications (WGET), in which ITU participates, to facilitate the use of telecommunications/ICTs in the service of humanitarian assistance

e) The ongoing work of the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO) and ITU related to search and rescue and distress alerting that may be applicable to disaster communications management frameworks

f) Publications, workshops and forums facilitated by ITU's work on emergency communications provide information to enhance the preparedness, mitigation, and relief capacities of ITU Member States

g) Developing countries continue to require support in development of disaster communications management expertise

h) ITU-D Objective 5, in coordination with the regional offices and ITU-D Study Group 2, 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

i) Moreover, ongoing or planned telecommunication/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 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, how to facilitate rapid deployment of systems and services following a disaster, and how to help

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

2 Question or issue for study

2.1 Continue examination of terrestrial, space-based and integrated telecommunications/ICTs to assist affected countries in utilizing relevant applications for disaster prediction, detection, monitoring, response and relief, including consideration of best practices/guidelines for implementation, and in ensuring a favourable regulatory environment to enable rapid deployment and implementation of relevant technologies.

2.2 Continue gathering national experiences and case studies in disaster preparedness, mitigation and response, and in the development of national disaster communications plans, and examine common themes between them.

2.3 Examine the role that administrations and Sector Members and other expert organizations and stakeholders share in collaboratively addressing disaster management and the effective use of telecommunications/ICTs.

2.4 Develop best practices for the elaboration of national and regional disaster-management plans or frameworks for the use of telecommunications/ICTs in natural and man-made disaster and/or emergency situations, working in coordination with the relevant BDT programmes, regional offices and other partners.

2.5 Continue updating the online toolkit with relevant information and materials collected during the study period.

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. Outputs may also include regular updates to the online toolkit, and the development of any additional tools or guidelines to support the implementation of telecommunications/ICTs for disaster management.

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 relevant BDT programme(s), regional offices, regional initiatives and relevant ITU-D Questions, and ensure proper liaison with ITU-R and ITU-T.

4.4 The activities of the rapporteur's group will come to an end within four years.

5 Proposers/sponsors

The new text for this revised Question stems from an Inter-American proposal.

6 Sources of input

Contributions are expected from Member States, Sector Members and Associates, as well as inputs from relevant BDT programme(s) and relevant ITU-R and ITU-T study groups, and any relevant ITU-D Question. 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

a) Target audience

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

Target audience	Developed countries	Developing countries[1]
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes

b) Proposed methods for 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

The Question will be addressed within a study group over a four-year study period (with submission of interim results), and will be managed by a rapporteur and vice-rapporteurs. This will enable Member States and Sector Members to contribute their experiences and lessons learned with respect to emergency communications.

9 Coordination

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

- Relevant ITU-D Question(s)
- Relevant BDT programme(s)
- Regional offices
- 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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[1] These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.