



WORKSHOP  
ON THE ROLE TELECOMMUNICATIONS/ICT  
IN DISASTER MITIGATION  
28 MARCH 2007



## ITU FRAMEWORK FOR COOPERATION IN EMERGENCIES

### 1. Overview and Background

In 2005 (10-14 January), the United Nations organized the International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. The meeting adopted the Mauritius Declaration that recognized, "...that the tragic impacts of the Indian Ocean earthquake and tsunami that occurred on 26 December 2004 and the recent hurricane season in the Caribbean and Pacific highlight the need to develop and strengthen effective disaster risk reduction, early warning systems, emergency relief, and rehabilitation and reconstruction capabilities.<sup>1</sup> The declaration then reaffirms a "...commitment to create a world fit for children as called for in the outcome document adopted by the General Assembly at its twenty-seventh special session<sup>2</sup> and, in this regard, undertake to give all assistance to protect children and minimize the impacts of natural disasters and environmental degradation on them."

The United Nations organized the World Conference on Disaster Reduction that was held in Kobe, Hyogo, Japan from 18 to 22 January 2005. The Conference was held to review progress made so far in implementing the Yokohama Strategy and Plan of Action for a Safer World adopted at the World Conference on Disaster Reduction held in Yokohama, Japan, from 23 to 27 May 1994. The Conference also emphasized the critical role of ICT and early warning systems.

The International Telecommunication Union Constitution recognizes the Priority of Telecommunications Concerning Safety of Life, "International telecommunications concerning safety of life at sea, on land, in the air or in outer space, as well as to epidemiological telecommunications of exceptional urgency of the World Health Organization."<sup>3</sup>

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<sup>1</sup> See Mauritius Declaration paragraph 6

<sup>2</sup> General Assembly resolution S-27/2, annex.

<sup>3</sup> See ITU Constitution (Art. 40 (191)). ITU set up telemedicine centers in Pakistan following the 2005 earthquake. ITU is working together with WHO as co-facilitators for the WSIS Action Line C7.



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The World Summit on the Information Society (WSIS) in its Geneva Plan of Action calls for the strengthening and expansion of ICT-based initiatives for providing medical and humanitarian assistance in disasters and emergencies<sup>4</sup> and emphasizes the need to establish monitoring systems, using ICTs, to forecast and monitor the impact of natural

and man-made disasters, particularly in developing countries, LDCs and small economies.<sup>5</sup> In its Declaration of Principles, the World Summit on the Information Society reaffirmed that, "We continue to pay special attention to the particular needs of people of developing countries, countries with economies in transition, Least Developed Countries, Small Island Developing States, Landlocked Developing Countries, Highly Indebted Poor Countries, countries and territories under occupation, countries recovering from conflict and countries and regions with special needs as well as to conditions that pose severe threats to development, such as natural disasters."<sup>6</sup> In its Tunis Agenda for the Information Society, the WSIS noted, the intrinsic relationship between disaster reduction, sustainable development and the eradication of poverty and that disasters seriously undermine investment in a very short time and remain a major impediment to sustainable development and poverty eradication. The important enabling role of ICTs at the national, regional and international levels, was well noted including:

- Promoting technical cooperation and enhancing the capacity of countries, particularly developing countries, in utilizing ICT tools for disaster early-warning, management and emergency communications, including dissemination of understandable warnings to those at risk.
- Promoting regional and international cooperation for easy access to and sharing of information for disaster management, and exploring modalities for the easier participation of developing countries.
- Working expeditiously towards the establishment of standards-based monitoring and worldwide early-warning systems linked to national and regional networks and facilitating emergency disaster response all over the world, particularly in high-risk regions.

The fourth World Telecommunication Development Conference (WTDC-06) that was held in Doha, Qatar from 7 to 15 March 2006 adopted Programme 6 namely,

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<sup>4</sup> Action Line C7 (18f)

<sup>5</sup> Action Line C7 (20c)

<sup>6</sup> Declaration of Principles, Paragraph 16



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Least Developed Countries and Small Island Developing States, and Emergency Telecommunications. It also adopted Resolution 34 (Rev. Doha, 2006) on the Role of telecommunications/information and communication technology in early warning and mitigation of disasters and humanitarian assistance, an ITU-D Study Group Question 22/2 on the Utilization of ICT for disaster management, resources, and active and passive space-based sensing systems as they apply to disaster and emergency relief situations.

The ITU Plenipotentiary Conference that was held in Antalya, Turkey (PP-06) adopted Resolution 36 (Rev. Antalya, 2006) on Telecommunications/information and communication technologies in the service of humanitarian assistance, and Resolution 136 on the use of telecommunications/information and communication technologies for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief.

## 2. Situation Analysis

In 2002 ITU launched a project that focuses on providing satellite based assistance to countries in the aftermath of disasters. The project has been very successful in helping countries in the aftermath of disasters. The first deployment was in January 2005 in response to the 2004 December South-East Asian earthquake and tsunami. Other deployments include the assistance provided to Pakistan in 2005 following the Kashmir earthquake (also known as the South Asia earthquake or Pakistan earthquake). Assistance included basic voice communication, and high-speed data used to establish telemedicine facilities in remote mountainous areas that were linked to urban specialized hospitals. The most recent deployment was in Suriname where floods had destroyed over 180 villages.

There is a big niche for ITU to fill in the area of Emergency Telecommunications based on its overall mandate as:

- Outlined in Article 40 of the ITU Constitution that addresses, "Priority of Telecommunications Concerning Safety of Life".
- A specialized agency of the United Nations and as an executing agency for implementing projects under the United Nations development system or other funding arrangements.



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### 3. Goals of the ITU Framework for Cooperation in Emergencies (IFCE)

- To position the organization as the leader in providing telecommunications/ICT services and applications for disaster mitigation at all phases of disaster management i.e. disaster prevention, disaster preparedness, disaster response/relief, and telecommunications network rehabilitation/reconstruction by 2010.
- To provide telecommunications/ICT to Member States and other entities and stakeholders involved or affected by disasters.
- To tap resources from its Sector Members and non-sector members who own resources that could act as inputs to the IFCE.
- To be at the site of a natural disaster within the first 48 hours.

### 4. Target Beneficiaries

The IFCE seeks to provide assistance to the affected Member States (rescue workers, agencies involved in disaster management), local communities who may wish to contact or may have to be contacted by their authorities or loved ones), UN Agencies, and NGOs.

### 5. Nature of the International Framework for Cooperation in Emergencies

The IFCE as an ITU strategic initiative has three basic clusters/pillars:

- **Technology Cluster:** This consists of Satellite Operators and Land Earth Station Operators, Telecommunications Operators especially Mobile Service Providers, Geographical Information System (GIS) Providers for the assimilation and dissemination of preplanned, historical and real-time information before, during and after disasters. This is a critical element especially for providers of telecommunications/ICT services and applications who may want to determine the vulnerability of telecoms networks (before disasters and create basic 'what-if' scenario analyses), and damage to the network (in the aftermath of disasters). This will include the Internet based GIS that, thanks to the integration of the GIS and the Internet technology can be used to significantly increase the usage and accessibility of the spatial data, which is a key requirement before, during and after any disaster. The approach allows several agencies operating on different technology platforms and using



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different communication channels to use the Internet to collaborate while managing the natural disasters like cyclones, earthquakes etc.

- **Finance Cluster:** This focuses on potential sources of finance who may contribute towards the creation of a stand-by fund that will be used when disasters strike. These include Governments, Development banks, Regional Economic Groups etc.
- **Logistics Cluster:** This constitutes providers of other support services such as the transportation of telecommunications/ICT equipment to and from sites of disasters. This includes Air Transport Operators, and International Couriers.

A diagrammatic representation of the proposed IFCE cluster is annexed to this document.

## 6. Strategies to Promote the IFCE

The proposed strategies are primarily aimed at achieving the goals that are outlined under the sub-heading - *Situation Analysis*.

- a) Promotion of the IFCE at both ITU and non-ITU events especially upcoming events in Indonesia (Study Group Rapporteurs' Meetings on Question 10-2/2, and Question 22/2) and one day event on Emergency Telecommunications), Emergency Telecommunications event for the Arab Region (Alexandria, Egypt, 14-17 April 2007), and the Emergency Telecommunications event for the Central African Region (30 May – 1 June 2007) in order to raise awareness and attract attention.
- b) Launch of the IFCE by ITU at a big event to be held in Geneva soon after Council 2007 i.e. week of 17 September 2007. On the occasion of launching this initiative the clusters will meet to agree on concrete contributions that they will make. The event will be attended by very high level officials of the entities representing the clusters.
- c) Dispatch of Press Releases before and after the launch of IFCE.
- d) Promotion of the IFCE on the website of ITU.
- e) Communication to update ITU Member States and other stakeholders of this initiative. Member States buy-in is already there and there is an ongoing promotion for the ratification and implementation of the Tampere Convention.
- f) Direct and one-to-one discussions between ITU and individual key cluster players.



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- g) Special Cluster events organized by ITU to be held in Geneva.

## 7. Budget Priorities

Contributions will be cluster based. The technology cluster will in most cases provide in-kind contribution consisting of equipment, and space segments/ air-time. The finance cluster will seek to attract funding from other institutions to boost the current US\$ 400'000+ funds in the current Project 7GLO03043 set up for emergency telecommunications (mainly disaster response and relief). The logistics cluster will most likely provide in-kind contribution to the IFCE by providing either free transportation of equipment or subsidized air freighting. Main budget categories associated with IFCE will be:

- **Personnel Costs:** Due to the magnitude of the IFCE, two or three additional professional staff members are required for the Doha Action Plan's Programme 6. A senior consultant would be required in the initial stages of the project. Budget for an expert is already provided for under Project 7GLO03043 but must be increased.
- **Travel Expenses:** This budget line is already budgeted for under Project 7GLO03043 but would have to be increased. The budget covers travels to sites of disasters for the deployment of equipment, travel to countries to provide expertise, and travel to attend training or negotiate with partners and potential partners. Cost items include transport and per diem.
- **Contractual Services:** This includes work that will be performed by each consultant person secured on contract from another agency to work on the project and contract entered with air-time providers such as Land Earth Station Operators (LESO).

## 8. Proposed Budget Narrative

This schedule is a narrative explanation and justification of individual expenditures outlined in the Proposed Budget. When complete, the Budget Narrative will show all cost categories and individual line-items reflected in the Proposed Budget. This section will be part of a detailed project proposal to be distributed to potential partners at or before the IFCE event to be held by ITU.