INTERNATIONAL TELECOMMUNICATION UNION
Telecommunication Development Bureau

REPORT ON THE REGIONAL JOINT CONFERENCE ON
“DISASTER: RELIEF AND MANAGEMENT –
INTERNATIONAL COOPERATION & ROLE OF ICT”

The Regional Joint Conference on “Disaster: Relief and Management - International Cooperation & Role of ICT” organized by the International Telecommunication Union (ITU), the League of Arab States (LAS), WHO, UNEP, Center for Environment and Development for the Arab Region and Europe (CEDARE), and hosted by the Governance of Alexandria, Government of Egypt, was held from 14 to 17 April 2007, in Alexandria, Egypt.

The objectives of the meeting were to:

- Provide an update on on-going activities related to disaster communications in Arab countries;
- Enable potential donors to present their activities and projects to potential recipients;
- Identify suitable technologies, features and technical options for disaster communications;
- Enhance institutional and human capacity on utilizing telecommunications for disaster management using case studies, lessons learned and experiences drawn from other countries;
- Develop a common framework for the development of National Emergency Telecommunication Plans;
- Raise awareness on the importance of the Tampere Convention, its ratification and implementation;
- Explore possible regional cooperation mechanisms for sharing information and practices required for international response to disasters.

The meeting which was attended by 384 participants from governmental, non-governmental, international organizations and the private sector was opened by:

- Dr. Prof. Mohamed Farghally, Executive Deputy for the President of the Arab Academy of Science and Technology (AAST)
- Mr. Sami Al-Basheer, Director BDT, ITU
- H.E. Dr. Nadia Makram Ebeid, Executive Director of CEDARE
- Dr. Gamal Gaballah, Department of Sustainable Development & Environment, LAS
- General Ahmed Al Anwar, Assistant Minister of Environment for Legal Affairs, Egypt
- H.E. Sir David Veness, Under Secretary General for Safety and Security, UN
- H.E. Mr. Adel Labib, Governor of Alexandria
- H.E. Dr. Ali Al-Moselhi, Minister of Social Solidarity, Egypt
Participants expressed their appreciation to ITU and all the co-organizers for organizing the meeting. Their appreciation was also extended to the sponsors namely, the Governance of Alexandria, MTC Touch, Thuraya, Telecom Egypt, Rohde & Schwarz GmbH & Co. KG, Ericsson, Mobinil, Arab Academy, EgyptSat, National Telecommunications Regulatory Authority of Egypt, Sidir Krir and Selex, Italy and Petrochemicals, and Tele-Tech, Egypt.

The meeting was divided into fifteen symposium-discussion sessions, plus one parallel session and one wrap-up and closing session. The summary of each session is below.

1 Overview of disaster management today

The first session focused on the overview of disaster management by highlighting the critical role of telecommunications/ICT at every phase of disasters and ITU’s work in this area which included an introduction to ITU’s upcoming global initiative known as the ITU Framework for Cooperation in Emergencies that seeks to provide timely deployment of telecommunications resources to disaster affected areas. ITU also shared its activities in the Asia and Pacific region. An overview of a case study on the role of ICT in Community-based Disaster Risk Reduction in Bangladesh was presented as well as two academic papers that focused on the role of technology in crisis and disaster management in the 21st century: E-benchmarking model, and on the global maritime distress and safety systems.

2 International cooperation in disaster warning, management and relief

The second session highlighted coordination and cooperation particularly from international organizations and non-government organizations in disaster and emergency situations. The presentations included subjects on humanitarian coordination and response in disasters and emergencies, role of amateur radio as first aid and tool for emergency communications, cooperation in disaster management & relief in the Arab region as well as an exchange of experiences in disaster management.

3 Safety and security in disaster management and relief operations

The third session drew experiences from UN agencies i.e. WFP, UN office of safety and security, OCHA, and from the private sector in the effective use of HF/UHF/VHF radio communications in disaster relief, role of emergency telecommunications cluster in disaster relief and management, security lessons learned from Pakistan earthquake which have been incorporated into Egypt’s approach to disaster management, as well as safety and relief management for non-relief organizations.

4 Tampere Convention

This session focused on the Tampere Convention and its importance and challenges to its ratification and implementation, as well as its role in emergency telecommunications in humanitarian relief operations which were presented by ITU and OCHA.

5 Risk reduction in environmental disasters

The fifth session included three presentations which focused on disaster risk reduction and disaster management using innovative decision support systems based on artificial intelligence and spatial planning, and tsunami simulations, and two case studies on environmental management system of a telecom company, and management of emergencies and disasters caused by chemicals. The establishment, implementation, and maintaining of an environmental management system (EMS) complying with ISO 14001 requirements was discussed.
6. E-health and telemedicine in disaster relief and management

Presentations in this session emphasized the need for e-health and telemedicine in an emergency or disaster situation. The session gave experience of Pakistan in telemedicine deployment in the Pakistan earthquake supported by assistance from ITU, overview of the Atlas of Disaster Risk for Eastern Mediterranean region by WHO/Eastern Mediterranean Region Office (EMRO), and the EMRO’s Strategic Health Operation Centre (SHOC).

7. Environmental disasters: early warning, relief and management

The seventh session presented use of remote sensing techniques for natural disaster monitoring and management, developing geographic information systems for the Red Sea and Gulf of Aden, early warning case study for the Al-Qurain landfill area fires in Kuwait through using geographic information system technology, early warning system for Alexandria against tsunamis and sea level rise, earthquakes and natural disasters, and a project of Arab protection center, and Arab center for protection against earthquake risks and other natural disasters.

8. Governmental and NGOs ICT networks for emergency and humanitarian assistance

The session highlighted the importance of the Tampere Convention as a valuable tool for disaster relief and response, and stressed the vital role of amateur radio communications in disaster relief. Also, experience from Sri Lanka in last mile hazard warning systems was presented in the session, as well as an overview of an initiative from a petroleum company in Egypt on crisis management for land and marine operations.

9. Emergency response in health disasters

In this session, three case studies on emergency response from Somalia, Sudan, and Iran were presented. The session also included two presentations on WHO’s regional perspectives on emergency preparedness and response, and use of SUMA software in the management of logistics in emergency and disaster situations.

10. Role of industry and private telecommunications sector

Experiences and overview of initiatives from private sector were presented in this session with subjects including the Ericsson Response as a player in international relief operations, communication recovery in disaster areas via mobile networks, and mission critical user needs via Public Mobile Radio (PMR) systems.

10bis Special parallel session on Avian and Pandemic Influenza

This session was held in parallel with the session on the role of industry and private telecommunications sector. The session focused on a current situation of Avian Influenza and future predictions, as well as the role of ICT in emergency preparedness and contingency planning for Avian Flu.

11. Public fixed and mobile communications and broadcasting networks in disaster relief

Presentations and discussions in this session were emphasized on the Social Role and the Socio-relationship of MTC Touch in the Lebanon Crises in 2006, Ericsson Response Mobile GSM Solution in Support of Emergency Operations, use of Mobile Infrastructure in Disaster Recovery using priority and national roaming, integrated communications for disaster relief and management.
12 Satellite communications for emergency support in the Arab region

The session included presentations on ARABSAT activity, role of public and satellite sector collaboration and how it can be strengthened for disaster relief, advantages of LEO (low earth orbit) satellite communication systems during disasters.

13 Policy and regulatory issues in disaster communications planning and management

Policy and regulations are an important aspect in disaster communications planning and management. This session highlighted some policy and regulatory issues which impede the planning and development of disaster communications. Experiences and recommendations were drawn from speakers representing regulatory authorities and ITU. One of the key issues discussed focused on the use of Common Alerting Protocol (CAP) as a Content Standard.

14 Role of the media in disaster management & sustainable development

The session identified the need for capacity building for media operators in the field of disaster management focusing on the role of national and international media in emergencies, role of development communication in disaster relief, and the role of mass media in respect to desertification, drought, famine and floods. The meeting noted that the media was well placed to disseminate information before and after disasters strike. Efforts should be made to increase media coverage for disaster mitigation.

15 Country initiatives on ICT for disaster communications and management

This last session focused on country initiatives that looked at initiatives on the use of telecommunications in disaster and emergency situations, the national plans for environmental disaster management in Egypt, Saudi Arabia, Palestine Authority, and Lebanon.

16 Summary

1. The meeting recognized that ICT played a very important role in all phases of disaster management. In addition, technological innovations and advanced techniques/methods such as statistical calculation, data mining, scenario analysis, simulation, etc. can be used for predicting some disasters thus, reducing the impact of disasters and reducing deaths and injuries. The need for easily transportable communication systems that can be deployed which the shortest time was highlighted and ITU could facilitate this through the forging of partnerships with its Member States and Sector Members. The presented ITU Framework on Cooperation in Emergencies was a good step in this direction.

2. Participants noted that global humanitarian challenges were increasing in scope and complexity. This underscored the need for a solid coordination mechanism. Hence, coordination and cooperation among government authorities, international organizations, and NGOs are central to effective disaster management.

3. The meeting recognized the importance of the Tampere Convention as a tool to facilitate and simplify the provision of telecommunication resources for disaster mitigation and relief operations. Participants also noted that the ratification and implementation of the Convention were strongly encouraged and were important to countries. No threat was posed by the Convention since it protected both the providers of telecommunication assistance and safeguards the interests of the host countries.

4. The meeting further recognized that the Amateur Radio Service is a valuable asset in Emergency and Disaster Response and that radio amateurs could play an important role in
disaster response and relief operations.

5. Emphasis was put on the need to raise public awareness and education on the behavior and impact of disasters while highlighting the role of emergency telecommunications.

6. The importance of ICT applications such as e-environment and e-health were raised and recognized as integral parts of effective disaster management.

7. The contribution and role of the media in past disasters was recognized and discussed.

17 Recommendations

1. Countries are encouraged to establish early warning systems/networks that should handle multi-hazards (natural and man-made hazards) early warning and end-to-end warning system approaches. The countries should establish national emergency telecommunications plans.

2. An increased role of ICT was recognized as it was seen as a key component that could facilitate disaster management and the establishment of a disaster early warning network that could help in reducing risks. Member States should set aside telecommunications resources to enhance national capacity in emergency preparedness and disaster reduction/mitigation and response. These resources include trained personnel, financial and technological systems.

The use of remote sensing technique is encouraged especially for earthquakes, fires and tsunamis.

3. A cooperation and coordination mechanism in disaster management should be established at international, regional and national levels to involve government authorities, United Nations Agencies, and non-governmental organizations. The private sector should play a more active role in this cooperation and coordination in terms of making resources available for humanitarian actors. The ITU Framework for Cooperation in Emergencies seeking to coordinate satellite operators and other telecommunications providers, and sources of finance aimed at creating a strong standby fund that can be used for the benefit of countries affected by disasters should be implemented globally to benefit any Member State requiring such assistance.

4. Disasters are increasing in both frequency and magnitude. It is important that nations should seriously take into account the impact of global warming and climate change when planning a multi-hazard early warning system/network and development of policy on disaster management.

5. Countries are encouraged to make every effort possible to ratify the Tampere Convention and ITU should provide all the assistance required by the Member States as outlined in Resolution 36 of the ITU Plenipotentiary Conference (Antalya, 2006), Resolution 34 of the World Telecommunication Development Conference (Doha, 2006), and Programme 6 of the Doha Action Plan. Regional harmonization of laws related to disaster management and use of telecommunications is strongly encouraged.

6. To ensure more organized and rapid response to emergencies, countries should make use of drills and simulations that could sharpen the skills of those involved in disaster management and enhance public participation and preparedness.
7. Telemedicine was seen as critical in saving lives when disasters strike. Health entities to include WHO and telecommunications specialists such as ITU should make every effort to make such services available in the aftermath of disasters.

8. The use of a hybrid of technological solutions was encouraged to include such systems as satellite, TETRA, GSM, WI-MAX, etc.

9. The use of a Common Alert Protocol which will become an ITU Standard by mid-2007 was encouraged as an effective way of ensuring that all media can effectively deliver alerts.

10. In taking measures to mitigate disasters, the link between environment and environmental related management in one hand and telecommunications/ICT in the other hand was highlighted. Efforts were to be made by countries to establish this link. At the UN level, coordination was to be enhanced between WMO, UNEP, WHO, and the ITU as these were identified by the World Summit on the Information Society, C7 Action Line.

11. In response to the invitation by the Governor of Alexandria, it was recommended to hold either annual or bi-annual meetings for the Arab States of this nature as this provided an appropriate platform for exchange of ideas and mapping of strategies by stakeholders.

12. Compile base maps of high risk areas and integrate with population distribution infrastructure and building stock databases and preparing new Tectonic maps in these areas.

This document was adopted by participants on 17 April 2007 in Alexandria, Egypt.