UNITED NATIONS ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Meeting on the Asia-Pacific Gateway for Disaster Risk Reduction and Development for SDGs

15 December 2015 United Nations Conference Centre, Bangkok

Summary Meeting Report

Prepared by the Secretariat

^{*} This document has been issued without formal editing

I. CONCLUSIONS AND RECOMMENDATIONS

- 1. The participants acknowledged the significant role Information and Communications Technology (ICT) plays in disaster risk reduction and management and the importance of inter-agency collaboration in this area to create partnerships and synergies for enhanced effectiveness of technical support each agency provides.
- 2. The participants noted the high incidence of natural disasters and the growing economic losses as a result in the Asia-Pacific region. ICTs should be fully utilized for all stages of the disaster risk management process, including from risk prevention, risk reduction to response and recovery. In this regard, participants highlighted the need to adopt measures to enhance the resilience of ICT infrastructure to withstand the impact of disasters.
- 3. Furthermore, risk-sensitive decisions should be made when planning for ICT infrastructure, taking into account information and data available such as hazard maps to identify high-risk terrains and to plan for such risks. In particular, the need for bandwidth at a time of natural disaster to transmit satellite images should be addressed as part of e-resilience efforts. It is important to improve our understanding of the risks and vulnerabilities, and promote the necessary public-private investments for resilient infrastructure. Participants agreed that new and emerging technologies should also be considered in the face of disasters that would ensure the continued availability of communication channels for response and recovery efforts.
- 4. During the meeting, the following areas were proposed for collaboration among the participating agencies:
 - 1) case studies on the best practice in the use of ICT for disaster management in different types of disasters,
 - 2) capacity development in disaster management strategies and action plans by countries,
 - 3) fostering cooperation between governments in disaster management,
 - 4) cost effective and sustainable use of ICT for disaster management,
 - 5) formulation of National Emergency Telecommunications Plan (NETP) as part of national disaster management plan,
 - 6) development of knowledge-based repositories for disaster risk reduction, including case studies, policy toolkits and
 - 7) provision of emergency telecommunications facilities and services.
- 5. The participants noted the importance of providing information to the right people at the right time for disaster risk management. An appropriate and effective platform is needed to share the vast amount of data that could be made available to assist countries in their disaster response efforts. It would be important for such information to be placed in one secure place for easy access and retrieval.

6. As member countries are offered various tools, resources and platforms in disaster risk management and disaster response, the participants agreed that there was scope for collaboration and cooperation among the entities to produce greater synergies in the different initiatives for the promotion of the effective use of ICT in disaster risk reduction and management. In particular, participants agreed that the Gateway could be enhanced in ensuring data availability and analysis capabilities and sharing case studies.

II. PROCEEDINGS

A. Organization of the meeting

The meeting on the Asia-Pacific Gateway for Disaster Risk Reduction and Development for SDGs was held at the United Nations Conference Centre, Bangkok, Thailand, on 15 December 2015. The agenda of the meeting is attached as Annex 1.

B. Attendance

The meeting was attended by thirteen representatives from five United Nations entities, and regional institution working in ICT. The complete list of participants is attached as Annex 2 of this report.

C. Opening of the meeting

The meeting was opened with a statement from Ms. Atsuko Okuda, Chief, ICT and Development Section, Information and Communications Technology and Disaster Risk Reduction Division, ESCAP.

D. Objectives of the meeting

The meeting was convened by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in accordance with the recommendations from the fourth session of the Committee on Disaster Risk Reduction (CDRR) held in October 2015¹. The Committee meeting recommended that the use of ICT for disaster risk reduction be further scaled up and regional cooperation among UN agencies enhanced for greater synergies. As a follow up to the Committee recommendation, this meeting was organized to provide a forum to exchange ideas on a collective and collaborative way forward to promote the effective use of ICT for disaster risk reduction and management and to discuss the harmonization of approaches, synergies and joint activities among UN agencies. The participants would also share past and planned activities of each organization and their available online tools and resources.

E. Updates by agencies and coordination of areas of common interest

Presentations were made by representatives of ESCAP, the Asia-Pacific Telecommunity (APT) and the International Telecommunications Union (ITU), on areas of common interest and possible collaboration to enhance the resilience of ICT infrastructure and effective use of ICT for disaster risk reduction and the implementation of the 2030 Agenda for Sustainable Development. The presentations are attached Annexes.

¹ http://www.unescap.org/events/committee-disaster-risk-reduction-fourth-session

F. Summary of presentations and discussions

Mr. Sanjay Srivastava, Chief of the Disaster Risk Reduction Section/IDD, made a presentation on the Asia-Pacific Disaster Report 2015². He highlighted that the losses and damage due to the impact of natural disasters are phenomenal and rising in Asia and the Pacific and in this regard building resilience is not a choice but a collective imperative and a key component of sustainable development. The report also acknowledged pivotal roles played by ICT not only in disaster risk reduction but also in disaster response and recovery efforts. The Report recommended a roadmap for achieving effective and resilient information management, including by ensuring ICT management systems that offer understanding, assessment and access of risk information. While countries need to plan and follow a consistent and coherent approach to address disasters, international assistance and regional cooperation would be critical to addressing effective disaster risk reduction and management in Asia and the Pacific.

Mr. Syed Ahmed, Associate Economic Affairs Officer of the Space Applications Section/IDD, made a presentation on the Geoportal for disaster risk management. He highlighted that there is a need to provide a learning environment that could provide training materials and sample data as well as a file-sharing environment where Member States and relevant stakeholders would be able to gain access to the information and data available, including high-resolution satellite imagery. In that regard, he presented some existing solutions employed by ESCAP, including a DRM e-learning platform (http://drmlearning.unescap.org) and the Asia-Pacific Gateway for Disaster Risk Management (www.drrgateway.net) for its file-sharing capacity, but the challenges remain in the area of bandwidth availability required for transmitting satellite images at a time of disaster.

Mr. Puji Pujiono, Regional Advisor/IDD, made a presentation on the ICT contributions in disaster risk reduction. He suggested that discussion on the substantive content of Asia-Pacific Gateway for Disaster Risk Reduction and Development for SDGs could be oriented around the role of ICT in addressing the shared vulnerability in the context of SDG in Asia and the Pacific. ICT has tools that could be employed for disaster risk reduction, including mobile technologies, radio, television, Internet, satellite communications, GIS and remote sensing and cell broadcasting. In this regard, it was important to review the roles of ICT through all phases of disaster risk management, from risk prevention, risk reduction, preparedness and response, to recovery and building back better. To this end, he proposed two levels of analysis, i.e. a) how ICT should build and strengthen its own resilience in the face of disaster risks; and only then ICT could b) optimize its roles and contributions in building the resilience of society-at-large. He urged a better alignment of the Asia-Pacific Gateway for Disaster Risk Reduction with priority actions of Sendai Framework for Disaster Risk Reduction 2015 – 2030 namely improved understanding of risks, strengthened risk governance, investing in disaster risk reduction for resilience and enhanced disaster risk management.

Mr. Sameer Sharma, Senior Advisor of the Regional Office for Asia and the Pacific/ International Telecommunication Union (ITU), made a presentation on the ITU's Smart Sustainable Development Model (SSDM) and disaster impacts. Highlighting the heavy impact and financial losses caused by disasters, he briefed the meeting on the ITU Framework for Cooperation in Emergencies (IFCE). The IFCE was launched to effectively plan and deliver assistance to countries and consists of three pillars

² http://www.unescap.org/resources/asia-pacific-disaster-report-2015

of technology, financial and logistics clusters. In each of the pillars, ITU has grown partnerships through the conclusion of Cooperation Agreements, such as the agreement on the use of satellite for emergency communication among 11 Pacific island countries. This framework has facilitated ITU's global reach and operations. ITU's Smart Sustainable Development Model aims to harness the potential of ICTs in changing lives through development and saving lives at times of emergencies. It also aims to create actions necessary to deploy the crucial telecommunications infrastructure that contributes to giving rapid assistance in case of natural disasters, and could also be used as a working tool to foster economic and social development, providing community telecommunication services where people can have access to education, health or best practices in any particular field. One of the examples cited was the ITU assistance to provide satellite terminals to Nepal after the earthquake in April 2015.

Against this background, ITU's proposal for collaboration among the UN agencies included the following areas: 1) formulation of National Emergency Telecommunications Plan (NETP) as part of national disaster management plan, 2) human capacity building through training workshops and seminars, 3) development of knowledge-based repositories for disaster risk reduction, including case studies, policy toolkits and 4) provision of emergency telecommunications facilities and services..

Dr. Stephen Sheehan, Programme Officer of the Asia-Pacific Telecommunity (APT), made a presentation on the activities of the APT in disaster management and communications. He highlighted that the General Assembly of the APT had met last year in Yangon (25-26 November 2014) and approved the APT Strategic Plan for 2015- 2017. The Strategic Plan is divided into 8 main work items, including disaster management. In that regard, APT will share expertise on the use of communication technologies for public protection and disaster relief (PPDR) to assist the mobilization of equipment and other resources to help people during disasters; encourage the production of a legislative and standard strategy model for effective ICT use and broadband deployment to mitigate the damage from natural disasters; encourage and promote the collaboration with relevant parties including international organizations and the private sector to facilitate the implementation of necessary activities in disaster management such as establishment of the PPDR disaster management/ICT expert teams. He also briefed the meeting on the APT Workshop on Disaster Management/Communications (WDMC-6) held in Nadi, Fiji from 7-9 July 2015, and that the next meeting is planned for the second quarter of 2016. In view of the above activities, APT proposed the following areas for potential collaboration with the UN agencies: 1) case studies on the best practice in the use of ICT for disaster management in different types of disasters, 2) capacity development in disaster management strategies and action plans by countries, 3) fostering cooperation between governments in disaster management, and 4) cost effective and sustainable use of ICT for disaster management.

The UNICEF representative noted the critical role satellite communication plays in emergency responses and dependency of ICT transmission systems on electricity supply and inquired about the potential use of TV white space. The Internet Society (ISOC) representative updated the meeting participants that the organization had received requests for assistance from governments to conduct disaster preparedness assessments and that it has been considering to undertake a year-after assessment on the responses and recovery from the earthquake in Nepal. Furthermore, ISOC was of the opinion that we need to promote low energy, off-network solutions for disaster response efforts.

In view of the above presentations and discussions, the participants explored various areas of collaboration among the agencies. These included planning for resilience of ICT infrastructures, including fiber optic cables that are exposed to such disaster risks in the same manner as other types of infrastructures such as railways. In this regard, ITU shared with the participants the joint initiative with ESCAP to map out the existing fiber optic cable networks within the framework of the Asia-Pacific Information Superhighway. APT commented that there would be complimentary with the work of APT in the area of ensuring resilience in submarine cable networks and APT would be able to share expertise on the topic.

In addition, the use of new and emerging technologies was discussed in order to enhance diversity, resilience and redundancy for continued functioning of communication channels when disasters strike down existing ICT infrastructures, as was in the case of Vanuatu. Low-orbit satellites, cloud computing, crowd-sourcing for information and use of TV white spectrum are some of the available technologies that could be harnessed and used more effectively for disaster response.

At the same time, it was found beneficial to exchange lessons learned and good practices among the agencies: for example, despite the initial enthusiasm, cell broadcasting had been found more complex to implement than expected, due to need for segmentation and interoperability issues. In the case of recent disasters in the Pacific, regional cooperation through sub-regional organizations, such as SOPAC, was reported effective when telecommunications facilities were affected by disasters and emergency data and information could not be transmitted directly to the affected countries. The APT representative expressed interests in collaborating with ITU on the use of communication satellites among the Pacific island countries as well as on the development of the aforementioned emergency telecommunications plan, while there were interests by the participants on the APT exercise to simulate disaster responses for the first 24 hours.

The participants also shared their views that

- There are a number of players and initiatives in the area of ICT for DRR in the region.
- Case studies on innovative use of technologies could be shared more widely.
- Use of data could be enhanced for evidence-based decision making.
- In this context, open data would continue to be an important factor.
- E-resilience in critical ICT infrastructure would be an area of further collaboration among UN agencies.

The participants noted the importance of providing information to the right people at the right time for disaster risk management. An appropriate and effective platform is needed to share the vast amount of data that could be made available to assist countries in their disaster response efforts. It would be important for such information to be placed in one secure place for easy access and retrieval.

As member countries are offered a number of tools, resources and platforms in disaster risk management and disaster response, the participants agreed that there was scope for collaboration and cooperation among the entities to produce greater synergies in the different initiatives for the promotion of the effective use of ICT in disaster risk reduction and management. In particular,

participants agreed that the Gateway could be enhanced in ensuring data availability and analysis capabilities and sharing case studies.

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