

# **Regional Training Workshop in Asia and the Pacific: Sustainable Development and Disaster Risk Management Using E-Government**

## **AIDE-MEMOIRE**

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Songdo, Republic of Korea

## **I. SPONSORSHIP AND PURPOSE**

The Regional Training Workshop in Asia and the Pacific on “Sustainable Development and Disaster Risk Management Using E-government” will take place in Songdo, Republic of Korea from 25 to 27 March 2015. It is jointly organized by the United Nations Project Office on Governance (UNPOG) and the United Nations Office for Sustainable Development (UNOSD) in collaboration with the United Nations Office for Disaster Risk Reduction (UNISDR). UNPOG is a project office of the Division for Public Administration and Development Management (DPADM) of the United Nations Department of Economic and Social Affairs (UNDESA), which was established in June 2006. Its mission is to assist developing countries and least developed countries to improve their governance capacity through innovation, e-governance and ICT for sustainable development. UNOSD was established in 2011 and its mission is to support United Nations Member States in planning and implementing sustainable development strategies, notably through knowledge sharing, research, training and partnerships. UNISDR Songdo office was established in 2010 and its mandate is to serve as the focal point in the United Nations system for the coordination of disaster reduction and to ensure synergies among the disaster reduction activities of the United Nations system and regional organizations and activities in socio-economic and humanitarian fields.

The three-day workshop will feature an opening session, four respective sessions with different themes, and a study tour. Participants will include senior government officials and experts from the private sector, academia, civil society and international organizations.

## **II. BACKGROUND**

The United Nations General Assembly in its Resolution entitled “The Future We Want” has reaffirmed the strong need to achieve sustainable development by promoting sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting the integrated and sustainable management of natural resources and ecosystems. It stressed that all levels of government and legislative bodies play an important role in promoting sustainable development. Overall, “the goal of sustainable development is to ensure the promotion of an economically, socially and environmentally sustainable future for the planet and for present and future generations. (E/2013/69, para. 6).

In particular, Member States called for active efforts to reduce disaster risks and build resilience to disasters “with a renewed sense of urgency in the context of sustainable

development and poverty eradication, and, as appropriate, to be integrated into policies, plans, programmes and budgets at all levels and considered within relevant future frameworks” (A/Res/66/288, para.186). In addition, the resolution underscored the importance of early warning systems as part of effective disaster risk reduction at all levels in order to contain damages, including the loss of human life, and in turn to encourage the United Nations Member States to integrate such systems into their national disaster risk reduction strategies and plans.

The Final Proposal of the Open Working Group on Sustainable Development Goals (SDGs)<sup>1</sup>, which was established in response to Rio +20 and laid the foundations for the framework of the Post-2015 Development Agenda by defining 17 Sustainable Development Goals, also stressed in its goal number 11 the need to prevent and reduce the impact of disasters and to implement the Hyogo framework for action.

Asia and the Pacific is the most disaster prone region in the world. According to the data from the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)<sup>2</sup>, a person living in this region is almost twice as likely to be affected by a disaster as a person living in Africa, almost six times as likely compared with Latin America and the Caribbean, and 30 times more likely than a person living in North America or Europe. In 2013 alone, natural disasters in Asia and the Pacific affected more than 57 million people and caused US \$128 billion in damages. As disasters disrupt all sectors of the economy and destroy hard-earned development gains, it is crucial that effective disaster risk reduction measures are integrated into development plans and poverty reduction strategies in this region

### III. CONTEXT

A number of examples from around the world have proved that e-government can effectively help to respond to disasters and to manage emergency efficiently. Therefore, it is very timely that UNPOG and UNOSD jointly organise a training workshop to explore effective ways of dealing with disaster risk reduction through e-government. According to UNISDR, disaster is defined as “a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources”. In other words, when the impact of disruption goes beyond the control of human beings, that particular situation can be defined as disaster. Disaster impacts may include loss of life, injury, disease and other negative

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<sup>1</sup> See <http://sustainabledevelopment.un.org/sdgsproposal.html> for details.

<sup>2</sup> See <http://www.unescap.org/our-work/ict-disaster-risk-reduction> for details

effects on human physical, mental and social well-being, together with damage to property, destruction of assets, loss of services, social and economic disruption, and environmental degradation. Disaster is composed of three categories in terms of its origin, such as natural disaster (storm, earthquake, drought and so on), technological disaster (nuclear release, toxic waste and dam failure and so on), and environmental degradation (human-induced processes such as land degradation, deforestation and wild fires etc). In this workshop, natural disaster will be covered.

Experiences from around the world have shown that e-government can play a significant role in disaster prevention and preparedness, and make it far more effective and less costly than ever before. The opportunities offered by the digital development of recent years, whether through online services, big data, social media, mobile apps, and cloud computing, are expanding the way we look at e-government. E-government is “the use of ICT and its application by the government for the provision of information and public services, and as a means to engage people in decision-making processes”<sup>3</sup>.

In terms of disaster prevention and preparedness, governments are revealing disaster information through websites for citizens to access related information on a 24/7 basis and be prepared accordingly. The websites exhibit varying degrees of information, ranging from current status of disaster to its forecast and to guidelines to act. The government of Japan, which is prone to disaster, such as earthquakes and tsunamis, has innovated and set up an integrated information sharing system, so that related disaster data are electronically transmitted to local authorities once detected and shared with citizens swiftly through website and mobile, local broadcast and so on.

Emergency notifications via short message service (SMS) of mobile phone are widespread around the world. Denmark’s Mobile Alert Systems provides instruction to citizens via their mobile services in case of natural disasters, accidents and other emergencies. The government of Malaysia utilizes SMS for notifying citizens of limited drinking water supplies. In England and the United States, SMS is provided in order to alert the population about flood dangers. China also uses SMS for typhoon dangers.<sup>4</sup>

In terms of using social media for disaster management, hurricane Sandy, which occurred in the United States in 2012, is a good example of its use. During the hurricane and its aftermath, the Federal Emergency Management Agency (FEMA) of the US government analyzed social media for improving the response. The agency looked over twitter keywords and hashtags to know what was happening. They also monitored areas that

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<sup>3</sup> 2014 UN E-Government Survey

<sup>4</sup>See Chapter2, M-Government (Mobile technologies for Responsive Governments and Connected Society), publication of OECD and ITU

were not active on the social media channels, indicating that communications were most likely down. Instagram photos also gave them a real time look at the damages that Sandy caused. Once the agency got a general idea of what areas needed the most aid, they were able to properly allocate resources swiftly<sup>5</sup>.

Moreover, the Philippines government showed how big data could be utilized effectively to respond to disaster. The Philippines government started a flagship project called Nationwide Operational Assessment of Hazards (NOAH) in June 2012. Project NOAH involves the development of hydromet sensors (e.g., automatic rain gauges, water-level sensors, stream gauges) and high-resolution geohazard maps. Project NOAH also uses topographic maps generated by light detection and ranging (LiDAR) for flood modeling. These maps and other weather information are shared publicly through the Project NOAH website. These high-velocity and high-volume data, namely big data, have helped national and local governments to become more prepared for disasters. For example, in Cagayan de Oro City, there is evidence of how better access to information has saved lives. In 2011, Typhoon Sendong led to 676 deaths in Cagayan de Oro City. A year later, a typhoon with a similar strength (Pablo) only had one associated death reported. The huge deaths caused by Super Typhoon Yolanda (Haiyan), whose direction was accurately predicted by Project NOAH, suggest the importance of having local chief executives understand disaster risk data. Otherwise, information has no use to minimize the costs of disasters<sup>6</sup>.

#### **IV. OBJECTIVES OF THE WORKSHOP**

The objectives of the training workshop are: (i) to discuss advancements and good practices in the field of e-government for disaster risk management; (ii) to enhance peer-to-peer learning; (iii) to build up a strong network among experts and set up the mechanism/platform for sharing experiences and knowledge transfer with focus on innovative e-practices for disaster risk management; and (iv) to explore effective and innovative ways to enhance capacity building for developing countries in the field of disaster risk management.

#### **V. THEMES TO BE COVERED**

- *Knowledge sharing and dissemination of lessons from players in the field of disaster risk management*

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<sup>5</sup> See <http://www.emergencyvisions.com/big-data-and-social-media-disaster-management/> for details

<sup>6</sup> See <http://www.rappler.com/business/features/56231-big-data-measuring-progress-and-development> for details

- *2014 UN E-Government Survey - new and emerging issues and main challenges of e-government development*
- *E-government for disaster risk management in terms of online services, mobile application, geospatial data and big data*
- *Introduction of innovative e-government best practices for disaster risk management by selected countries*
- *Strengthening the CIO network in Asia and the Pacific with regard to disaster risk management*

## **VI. PROPOSED AGENDA**

- *Day 1*
  - *Session I: The Sustainable Development Agenda and ICT*
  - *Session II-part I: Knowledge Platforms and Knowledge-sharing for Sustainable Development*
  - *Session II-part II: Issues and Obstacles in Inter-organisational Information and Knowledge-sharing*
- *Day 2*
  - *Session III: Collaborative Governance for Disaster Risk Management*
  - *Session IV-part I: Country Experiences*
  - *Session IV-part II: Establishing a System of ICT-enabled Disaster Risk Management*

## **VII. EXPECTED OUTCOME**

After the training, it is expected that the participating countries' capacities and competences will be strengthened in terms of designing e-government strategies for disaster risk management. It is also anticipated that the expert network in the field of disaster risk management will be further strengthened for facilitating knowledge sharing and exchange of ideas of innovative e-practices, including through South-South cooperation between developing countries. UNPOG and OSD would also better understand the demands for capacity building from developing countries in the region. With the participation of leading and advanced countries and other international organizations, UNPOG and OSD would expect more technical and funding support to implement capacity building activities in the region.

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