Enhancing Regional Digital Preparedness on Natural Hazards to Safeguard Communities and Business in the Asia-Pacific

Purpose: Information
Submitted by: Chinese Taipei
Executive Summary

The Asia-Pacific region is a disaster-prone area. Capacity building on the use of big data and open data for better preparedness on natural hazards will not only facilitate trade and human security, but directly benefit SMEs and vulnerable communities in the region.

In order to raise risk awareness, community resilience over disasters and respond to our leaders and ministers’ instruct to encourage members to cooperate in disaster preparedness, risk reduction and post-disaster recovery, “Application of Big Data and Open Data to Emergency Preparedness-Phase 1.” Initiative was approved in 2014, which is also closely related to one of the priorities of the Philippine host year, “Building Sustainable and Resilient Communities”.

The following actions was proposed to implement the Application of Big Data and Open Data to Emergency Preparedness Initiative:

1. To investigate current status of application and demands of data through a region-wide survey;
2. To develop a roadmap for capacity building on assisting member economies to establish big data;
3. To promote open data for creating safer trade environment;
4. To formulate a study of open data sharing mechanism to strengthen emergency preparedness and develop a roadmap to promote the sharing mechanism. The target groups of the initiative includes the public and private sectors of APEC economies, particularly those having experience, expertise and demands in using big data and open data on emergency preparedness.

Required Action/Decision Points

It is recommended that Senior Officials:

1. To note the content of the Application of Big Data and Open Data to Emergency Preparedness Initiative and to begin work on the implementation.
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I. Background:

Applying big data for better digital preparedness on natural hazards will directly benefit SMEs and vulnerable communities by offering transparent and action-based information, which is aimed at improving decision-making in secure business activities in the preparedness and response phases. Solutions bridging information gaps will help SMEs conceptualize countermeasures against sudden and unexpected business interruptions caused by natural disasters. Considering the importance of proactive preparedness, open data and value-added information produced by big data could be used to identify underlying risks and feasible action plans for enhancing disaster resilience and emergency response.

In order to raise risk awareness and community resilience over disaster at government, business and community levels, Chinese Taipei will implement an APEC funded project, i.e. “Application of Big Data and Open Data to Emergency Preparedness Phase 1.”

II. Importance of the Initiative: to enhance the capacity building on sustainability and disaster resilience

Various studies show that there are emerging needs to apply big data and open data for undertaking works related to emergency preparedness, which is a cross-cutting issue requiring the cooperation of APEC’s Emergency Preparedness, Small and Medium Enterprises, Transportation and Counter Terrorism Working Groups. Categories of big data in land use, aerial or satellite imageries, demographic status, and social-economic data, which generate open data such as inputs for business continuity plans and risk assessment on the existing critical infrastructure, public warnings issuance and viable evacuation routes, will be needed. It definitely helps reduce possible casualties and losses in terms of disaster resilience and capacity building.

III. Relevance to APEC: to implement instructions of the 2014 APEC Leaders’ Declaration and Joint Ministerial Statement of the APEC Ministerial Meeting

Our leaders and ministers encourage further cooperation among member economies in disaster preparedness, risk reduction, response and post-disaster recovery, including through robust networking among disaster management authorities to benefit from the innovative science and technologies. Through the application of innovative science and technology, APEC member economies can better utilize and benefit from the big data in sharing value-added information which direct ensure safe trade of SMEs and Global Value Chains in APEC region and echo the APEC initiatives on promoting resilience and capacity building.

IV. Project implementation: secure trade, sustainable development and disaster resilience by regional collaboration

Open data is vital for disaster risk reduction, operation of emergency relief actions, business continuity management and sustainable development of economy and livelihood. Since the Asia-Pacific region is a disaster-prone area, regional capacity building on big data and the use of open data will facilitate trade and human security. Chinese Taipei proposes to synergize collaboration on implementation and future action plans among ABAC, APEC fora and member economies. Meanwhile, our initiative encourages collaboration from international community to empower the network of emergency preparedness. Hereby, Chinese Taipei invites and welcomes all APEC member economies’ support and participations.

V. Expected outcomes: to support APEC’s 2015 priority - “Building Sustainable and Resilient Communities”

In 2015, we expect to pursue the following actions: (1) To investigate current status of application and demands of data through a region-wide survey; (2) To develop a roadmap for capacity building on assisting member economies to establish big data; (3) To promote open data for
creating safer trade environment; (4) To formulate a study of open data sharing mechanism to strengthen emergency preparedness and develop a roadmap to promote the sharing mechanism. The target groups of the initiative includes the public and private sectors of APEC economies, particularly those having experience, expertise and demands in using big data and open data on emergency preparedness.