



**Asia-Pacific
Economic Cooperation**

**APEC Workshop on
Facing Abnormal Flood Disaster:
New Vision for APEC Member Economies
(*Da Nang, Viet Nam, July 28-29, 2011*)
*Summary Report***

APEC Emergency Preparedness Working Group

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INTRODUCTION

On July 28-29, 2011, the ***APEC Workshop on Facing Abnormal Flood Disaster: New vision for APEC member economies***, co-sponsored by Australia, Canada, Chinese Taipei and Viet Nam was held in Da Nang, Viet Nam. Participants to the Workshop were representatives from APEC member economies, representatives of International organizations and relevant agencies, including the United Nations Development Programme (UNDP), the Asian Disaster Reduction Center (ADRC), the Asian Disaster Preparedness Center (ADPC), CARE International in Viet Nam, the Pacific Disaster Center (PDC), the APEC Climate Center, the Institute of Geosciences and Mineral Resources of Viet Nam and the Institute for Water Resources Planning of Viet Nam. H.E. Ambassador Muhamad Noor Yacob, Executive Director of the APEC Secretariat was also attended at the Workshop and delivered a keynote speech.

The Workshop was opened by H.E. Dr. Dao Xuan Hoc, Vice Minister, Ministry of Agriculture and Rural Development of Viet Nam.

The objectives of the Workshop were to share information on the current situation of the natural disasters and abnormal floods in the Asia-Pacific region, promote further exchange of good practices and lessons learned in the area of abnormal floods preparedness and response, identify the needs and the existing gaps in members' flood management capability, establish a network of flood management experts in the region, and provide recommendations to the Emergency Preparedness Working Group on how to further strengthen the APEC collaboration in addressing natural disasters, particularly the floods.

BACKGROUND

APEC is among the most affected regions by flood disaster with over 48 million people in the Asia Pacific being affected by flooding every year. In recent years, there has also been an increase in abnormal floods with higher magnitude and lower predictability that causes more devastating damage to economies in the region.

Given the severity of natural disasters facing the region, for many years, APEC Leaders and Ministers have placed high priority to emergency preparedness and response. This is one of the core stones of the APEC's work on enhancing human security. In 2005, APEC decided to establish for the first time the Task Force for Emergency Preparedness which was mandated to coordinate and facilitate emergency and disaster preparedness cooperation within APEC. In 2006 Leaders' meeting in Ha Noi, APEC Leaders committed to further intensify cooperation to maximize the use of regional available resources in order to better prepare the region for disasters. The *APEC-wide Strategy for Disaster Risk Reduction and Emergency Preparedness and Response in the Asia Pacific Region in 2009 - 2015* has provided framework and guidelines for APEC's work in this area. The APEC Emergency Preparedness Working Group established in 2010 has become a permanent entity in APEC dealing with this issue. Since 2007, APEC has funded 21 capacity building projects with the amount of more than 2.1 million US dollars for member economies in emergency preparedness.

In 2011, APEC member economies continue to give high priority to emergency preparedness and response towards a secured, stable and prosperous region.

KEY ISSUES DISCUSSED

The two-day workshop was divided into three sessions and included a working visit to

Da Nang and Hoi An.

Session I on Abnormal flood disasters in Asia – Pacific region and experience of APEC economies was chaired by Mr. Steve Opper of Australia. Participants had a productive discussion on such issues as climate change and its impact on abnormal floods, rising sea levels, high tides and the possible impact of the increasing abnormal flood to economies in the region. Participants shared the views that, the region was entering into a more insecure era with more frequent, more devastating and unpredictable natural catastrophes and indentified the following needs and gaps for flood risk management (FRM) among member economies:

- The understanding of flood hazard assessment;
- Improving existing early warning systems and the monitoring of floods;
- The understanding of the influence of climate change on flood hazard and other risks;
- Enhancing emergency preparedness and undertaking simulation exercises;
- Capacity building of government officials in flood risk management, flood risk education within schools and awareness raising of the general public;
- Improving evacuation management and having comprehensive evacuation plans;
- Utilizing a combination of structural and non-structural measures to prevent, mitigate, prepare for and reduce the risks from floods;
- Ensuring that historical lessons learnt from past flood experiences are recorded and acted upon.

Session II on Best practices on emergency preparedness and response to abnormal flood disasters was chaired by Dr. Kenichiro Kobayashi of Japan. Member economies shared useful and effective experiences and best practices on flood management. Representatives of the international organizations pointed out that fully comprehensive FRM, not just focusing on mitigation or response was necessary; non-government sectors had an important role in FRM and disaster risk management (DRM) generally, particularly in capacity building of sub-economy government staff in raising awareness about flood, promoting the integration of FRM into local development planning, supporting transboundary co-operation in FRM. Member economies noted the more frequent abnormal flood in the Mekong River delta, especially in the lower Mekong basin countries, and stressed the need for further cooperation in flood management and mitigation. Participants also exchanged information and experiences on flood hazard mapping, flood early warning system (FEWS), sophisticated flood monitoring and FEWS and software (VinA WARE) as well as new technologies, including scientific prediction, real-time monitoring (e.g. use of Doppler Radar) and regularly updating FRM plans/mapping/modeling. Economy risk assessments and the identification of local “hot spots” considering a range of social factors and overlaying with hazard maps were useful means to assess priority areas. Flood hazard and risk assessment (combining assessment of both hazard and vulnerabilities) were important in urban areas and should include historical data analysis as well as community involvement.

Participants shared some of the good practices in FRM as follows:

1. Flood risk assessment

- Flood hazard risk assessment mapping undertaken by local government and non-government agencies in APEC economies should ensure high level of engagement of local people.
- Evacuation route assessment needs to be determined for different flood water levels including historical peaks.

- The importance of examining the impact of floods on critical flood on irrigation dykes, etc. and drainage systems within the urban context.

2. Risk mitigation

Both structural and non-structural measures should be undertaken in combination until recently within many APEC economies. There has been strong reliance on structural measures, dykes and seawalls, etc. compared with “soft measures” (awareness raising, education, cooperation, etc.)

3. Flood preparedness and response planning (FPRP)

- FPRP should be taken on annual basis and lessons learnt recent flood experiences incorporated into the revised plans.

- Land-use planning is of critical importance and areas historically affected by flooding should not be built upon particularly for critical infrastructure.

- Early warning and flood warning system need to ensure an “end to end” approach, remote sensing information need to reach people most likely to be affected by floods and other hazards in a timely manner and in an understandable form.

- It is important to include development of Standard Operating Procedures for early warning systems and to train disaster managers in the use of the procedures as well as the use of tools; disaster management exercises that help to develop specific skills in the application of EWS are very important as well.

- Comprehensive evacuation management systems was necessary for urban and rural areas to minimize loss of life and needed to be updated regularly.

- Enhance linkages between economy flood forecasting centers and local levels for early warning dissemination, thereby particularly focusing on the strengthening of capacities at local levels.

- Local level stock piling of essential food and non food items is important part of flood preparedness.

- Primary and high school education on FRM and DRM is of great importance.

4. Recovery and rehabilitation

Improved assessment, monitoring and modeling technologies, methods and tools utilized in the recovery should be scaled up and sustained.

Session III on New vision for APEC members in abnormal flood management was chaired by Dr. Nguyen Huu Phuc of Viet Nam. Representatives of international organizations briefly presented the new vision and strategies of the UN agencies and NGOs to respond to floods and other hazards and to climate change. Participants agreed that non-government organizations – INGOs, the Red Cross/Crescent Societies and UN agencies had a vital role to play in community based FRM and DRM; UN agencies also play an important role in institutional development and capacity building at economy and sub-economy levels of governmental DRM structures, the formulation of legislation, policy dialogue and co-ordination and convening among DRM stakeholders.

Recognizing the importance of cooperation in emergency preparedness, member economies reached agreement that APEC should to continue to give high priority to natural disasters. More cooperative actions needed to be taken to provide capacity building for member economies and to ensure that the region was better prepared for disasters. Participants also identified several main challenges existed amongst APEC

economies which included the diversity of development level, issues of consensus, limited funding, existing organizations and mechanism.

CONCLUSION AND RECOMMENDATIONS

Recommendations for individual APEC member economies

1. It is important for member economies to have an enabling legislative framework for flood and other hazard management. A comprehensive institutional structure at all levels, with clear roles and responsibilities, is essential for effective and efficient flood risk management
2. A regular revision of early warning and flood monitoring system, flood risk assessment, evacuation management and consideration of worst scenarios are required particularly before and after flood events.
3. It is essential to engage local people in decision making about flood risk management and to build community resilience and adaptive capacity to cope floods and other hazards in addition to protective infrastructures.
4. Education of primary and high school children and their teachers in disaster risk management is essential.
5. Global climate change scenarios need to be “downscaled” to economy and provincial/state level in order to be useful for local level flood risk management. Local authorities need to be able to access, understandable information related to climate change scenarios to guide their planning processes. Flood risk management and climate change impacts need to be integrated into economy and sub-economy social economic development plans to ensure disasters/climate proofing of critical infrastructures (government, offices, schools, hospitals and clinics).
6. Greater attention should be paid upon respective roles of women and men in flood risk and more generally, in disaster risk management.

Recommendations for APEC collective actions

1. Identifying medium and long term goals of the APEC cooperation in natural disaster response. The APEC Working Group on Emergency Preparedness should play a leading role in this endeavor.
2. Improving the coordination and enhancing intra- APEC cooperation. There should be more coordination among the EPWG and other APEC Working Groups and fora, such as the Telecommunication Working Group, the Tourism Working Group, the Small and Medium Enterprises Working Group, the Transportation Working Group and Health Working Group.
3. Developing APEC Best Practices on Emergency Preparedness.
4. Setting up an APEC Network for Flood Risk Management.
5. Formalizing the Public-Private Partnership in APEC on emergency preparedness, response and recovery.
6. A support fund for emergency preparedness would be considered by member economies and the APEC Secretariat.
7. Better and closer coordination between APEC and other regional and international institutions.

The Workshop was closed by Dr. Nguyen Huu Phuc, Director, Disaster Management Center, Ministry of Agriculture and Rural Development of Viet Nam.