



**Asia-Pacific  
Economic Cooperation**

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**2018/SOM1/EPWG/002**

Agenda Item: 5

## **Summary Report - 12<sup>th</sup> Emergency Preparedness Working Group Meeting 2017**

Purpose: Consideration  
Submitted by: APEC Secretariat



**13<sup>th</sup> Emergency Preparedness Working  
Group Meeting  
Port Moresby, Papua New Guinea  
24-25 February 2018**

## **Summary of the Meeting**

### **12<sup>th</sup> Emergency Preparedness Working Group Meeting, Ho Chi Minh City, Viet Nam, 21 - 22 August 2017**

1. The 12<sup>th</sup> Emergency Preparedness Working Group was held in Ho Chi Minh City, Viet Nam on 21–22 August 2017. The meeting was co-chaired by Ms. Kyoko Kondo (Japan) and Dr. Tuan Quang Le (Viet Nam).
2. The meeting was attended by 11 out of 21 APEC Economies namely: Australia, China, Japan, New Zealand, Papua New Guinea, Peru, Philippines, Singapore, Chinese Taipei, United States, and Viet Nam. The meeting was also attended by 3 (three) Guest Participants: JICA, Asian Foundation, and World Vegetable Center.

#### **Agenda Item 1: Welcome Remarks by Host Economy**

3. The meeting was opened by Mr. Tran Quang Hoai-Vice Director, Directorate of Water Resources and Permanent member of Central Steering Committee for Natural Disaster Prevention and Control, Vietnam and by Mr. Le Tan Ban, Director General of the Department of Agriculture and Rural Development (DARD) of Khanh Hoa Province.

#### **Agenda Item 2: Opening Remarks by Co-chairs**

4. Both Co-chairs delivered their opening remarks.

#### **Agenda Item 3: Administrative and Logistic Arrangement**

5. Viet Nam announced business arrangement for the 12<sup>th</sup> APEC Emergency Preparedness Working Group Meeting in particular related to logistics.

#### **Agenda Item 4: Adoption of the Annotated Agenda of the 11<sup>th</sup> EPWG Meeting**

6. The meeting adopted the final annotated agenda. (2017/SOM3/EPWG/001)

#### **Agenda Item 5: 11<sup>th</sup> EPWG Meeting Summary Report**

7. The meeting endorsed the 11<sup>th</sup> EPWG Meeting Summary prepared by the Secretariat. (2017/SOM3/EPWG/002)

#### **Agenda Item 6: Major outcomes from the 2016**

8. Peru Representative briefed the meeting on SDMOF10 held in Peru on 8 – 9 October 2017 and its outcome. SDMOF 10 was attended by senior disaster management officials and delegates from 8 APEC economies namely Australia, China, Japan, Peru, Philippines, Chinese Taipei, United States and Viet Nam. The theme was “Emergency Preparedness for Supply Chain and Emergency Food Security”. Some recommendations were agreed by the forum in a format of outcome of the meeting. Full presentation of Peru is in a document 2017/SOM3/EPWG/015.

#### **Agenda Item 7: To present key themes for the 11<sup>th</sup> Senior Disaster Management Officials Forum (SDMOF 11) in Vinh City, Nghe An province.**

9. This agenda item was moderated by Mr. Tran Quang Hoai, Director General-Viet Nam Disaster Management Authority – MARD and Permanent member of Central Steering Committee for Natural Disaster Prevention and Control. Opening the agenda he mentioned that natural disaster in Viet Nam became more and more severe and complicated. Currently

Viet Nam was facing heavy rain and flood in Northern part of Viet Nam. In response to this situation, the Government has set up new authority for natural disaster management with new structure and authorities.

10. Viet Nam (co-chairs) Dr. Le Quang Tuan updated on the preparation for the 11<sup>th</sup> SDMOF including its agenda. Viet Nam has sent out invitation letter to Senior Disaster Management Officials and other Senior Level officials. The theme of the forum is “Enhancing inter-regional cooperation and advance technology innovation and application to effective emergency response facing to new normal in APEC’s economies”. Main purposes of the forum: (i) identify advanced science and technology solutions in natural disaster’s preparedness and response good policy practices of successful application of science and technology to DRR; (ii) Identify ways to enhance cooperation among APEC economies to develop innovative solutions and policy advocacy in science and technology to effectively support inter-regional emergency response to new disaster phenomena in the APEC economies or “New Normal”; (iii) Create a forum for representatives of research institutions, technology service providers and other focal points of technical lead agencies on disaster risk reduction among APEC economies and discuss potential needs, appropriate policy advocacy to develop science and technology orientation in natural disaster reduction in Asia-Pacific. Expected outcome is SDMOF recommendation to APEC’s Ministerial Meeting in 2017, APEC Leaders to promote inter-regional cooperation and advance technology innovation and application to effective emergency response facing to “New normal”. Full presentation is in document **2017/SOM3/EPWG/016**.

#### **The current state and challenges in DRR in Vietnam**

11. Representative from Directorate of Natural Disaster Prevention and Control of Viet Nam introduced the newly established Vietnam Disaster Management Authority. In his presentation, he further elaborated on overview of natural disaster in Viet Nam, organizational structure of Viet Nam Disaster management, priority orientations, and information support system for decision making and national operational center for disaster management. **2017/SOM3/EPWG/017**.
12. Representative from Ministry of Science and Technology of Viet Nam presented on science technology policies and research programmes on prevention of natural disaster in Vietnam. The presentation elaborated on science and technology policies of the Party and Government on disaster prevention and mitigation as well as climate change, research programs on disaster prevention and mitigation, some achievements and outstanding results from research programs, as well as orientations for international cooperation (within APEC) on science and technology on natural disaster prevention, mitigation and response to climate change. He summed up that development and application of technologies would serve as structural solutions for natural disaster prevention, research activities under the science and technology programs are key to unlocking the mechanisms of formation and the pattern of disaster types encountered by Vietnam, and International cooperation (in the APEC region in particular) and the international community in general aim to share data (data) and experiences in forecasting is crucial. **2017/SOM3/EPWG/018**.
13. Representative from Vietnam Academy for Water Resources presented a proposal for research and investment activities in the coast and estuaries (a case study in the North Central Coast of Vietnam). The presentation focused on introduction of natural conditions and erosion, sedimentation in the North Central Coast as well as activities have been undertaken as a prevention, research and measure applied, current status of erosion, technical solution as well as propose cooperation to support research and management of erosion and sedimentation. **2017/SOM3/EPWG/019**.
14. Representative from Vietnam Academy of Science and Technology Institute presented a research on using space technology for disaster prevention and control in Vietnam. The presentation elaborated on overview of Space and Technology Institute (STI), main activities

and achievement, current technology application including Satellite and ground control technology, as well as cooperation activities. **2017/SOM3/EPWG/020.**

**Discussions: Comments of the member economies on the above presentations of Vietnam to finalize the official agenda of SDMOF conference in Vinh City.**

15. Chinese Taipei Representative thanked all presenters for their informative presentations. The recent hazard information in Viet Nam has showed how Viet Nam was very hard try to solve the problem through science and technology. The presentations would be a good reference for EPWG to follow up, especially highlighted how EPWG facilitates exchange information and in what area would the region could enhance the cooperation.
16. Philippines Representative also thanked Viet Nam for the presentations and welcomed science and technology innovation when it comes to disaster risk reduction as the theme for SDMOF. Further he suggested that perhaps at SDMOF could open for integration of disaster risk reduction at the local level using indigenous knowledge and making sure that those were also incorporated when we talked about science and technology innovations. Not to say that one is over the other, but we also must be able to recognize that indigenous knowledge and practices are very important when it comes to understanding and having more holistic approach when it comes to disaster risk reduction.
17. Viet Nam Representative thanked the suggestion as some technology may be better to complement by local knowledge for example when using remote sensing technology, he recognized there was some difficulties and may not be working as fast as expected in some part of Viet Nam as we need to have timely information. Using satellite image may also need sometime for reading and interpretation. Viet Nam recognized and has promoting local level participation.
18. Representative from Asia Foundation raised question related to urban areas in Viet Nam, as most of the discussion focus on natural resources, water shed, and things like in community level. He wanted to know on how Viet Nam Disaster Management Authority interacted with city level authority and in particular Ministry of Construction who oversees the construction of dyke or other coastal construction in urban areas.
19. Viet Nam Representative responded that this was a critical issue as they have a lot of migration to the city areas and a lot of urbanization. With regard to construction and sharing production as well as other activities in the urban area, in order to have good coordination with regard to disaster management, they established Disaster Management Authority, disaster management monitoring as well as standard regulation to serve as a ground for Viet Nam authority to check whether the construction has fulfilled the standard established including the safety or to check whether the construction posed risk to disaster to the area and neighboring areas.
20. Representative from JICA, Advisor for Water Resources Management in MARD, Viet Nam added that the establishment of new authority in Viet Nam should serve for coordination purposes and to strengthen capacity of Viet Nam to deal with disaster risk management and reduction. To his opinion the most important was to really utilize the result of science and technology development and to incorporate those development in the disaster risk management policy. Further he raised question regarding how to really incorporate such result of technological development and to provide direction for technological development as well as to use them in the policies. He was of the view that the new authority has a new opportunity to use science and technology in the policy.
21. Viet Nam Representative responded that for Viet Nam, he was aware that the study in this area were plenty and also recognized that many research and studies on the science and technology development have not been taken into account in the reality of disaster

management and its policy. In that connection, he also requested on behalf of the government of Viet Nam for study center and research body to have a more practical study.

22. Australia Representative further shared Australia's approach in directing science and technology investment in terms of emergency management. He recognized that many economies were struggling with decision making around investing money in science and technology. He informed that Australia is a federation states of which each federal state could invest money as they see fit. However when it comes to national investment, Australia has 3 principles that drive the investment. Firstly, it should be a matter of national importance thus all states should agree on it. Secondly, all should agree that the investment has mutual benefit to all parties. And finally is related to mutual obligation that all parties agree to bear the ongoing cost and ongoing investment. For example investment decision was ongoing right now in respect to fire danger which a system to inform Australia's community on the danger of fire. The system has not been updated for many years and Australia was looking to develop next generation of Australia National fire danger rating system, and that has gone through a very thorough review and agreement by all states to ensure those three principals have been made.
23. In closing the session, the moderator summed up that natural disaster was getting more and more complicated not only in Viet Nam but in other APEC economies, and this effect people's health environmental challenges as well as our economies. For that purpose as has been informed before, Viet Nam has set up new authority and focus on science and technology to tackle with the problem. Viet Nam currently focus its investment in the science and technology with regard to disaster management and hope for support from other economies including through sharing information and experience. Viet Nam was also willing to share data, experience and information with other economies. He further informed that Viet Nam was establishing a website introducing all the government policies, direction, guidance, and response on disaster management and will updating and upgrading the information and data on the website. He hoped that the meeting will come up with good information. He also looked forward to meeting member economies soon at SDMOF in Vinh City. He thanked for all contributions during the discussion in this session.

#### **Agenda Item 8: Discussion on the Project of Enhancing Rural Disaster Resilience through Effective Infrastructure Investment**

24. Co-chair Japan updated on the status of EPWG 01 2016 A on Project of Enhancing Rural Disaster Resilience through Effective Infrastructure Investment focusing on build back better. She informed that a workshop on this project will be held back to back with SDMOF in Vinh City Viet Nam prior to SDMOF. In that connection she invited member economies to submit nomination as there were 11 travel eligible economies will be supported by APEC fund. **2017/SOM3/EPWG/014**. She further elaborated the challenge in the project as expert reported the damages on housing and not necessarily infrastructure. She also reported on the case of major damages on transport infrastructure including those by the Kumamoto Earthquakes in 2016 and other major types. **2017/SOM3/EPWG/021**.
25. Viet Nam added that by the end of 2017, the project is expected to issue a case book on cases in economies related to infrastructure investment and build back better.

#### **Agenda Item 9: Review Intersessional Work, Project implementation and proposal**

26. Chinese Taipei Representative updated on EPCC APEC summit on resilience & capacity building training workshop held in Nagoya, Japan, 10 – 13 April 2017. The workshop that was co-organized by Nagoya Institute of Technology (NiTech), National Research Institute for Earth Science and Disaster resilience (NIED) and APEC Emergency Preparedness Capacity Building Center (EPCC) was attended by 6 (six) economies and research community, and industries of automobile, insurance, finance and electronics to discuss and explore the strategic approach on public-private-partnership-based business continuity

management (BCM). The workshop tried to synergize work on regional BCP/BCM through cross sectorial collaboration and accumulate knowledge, experience and know-how of BCP and BCM. **2017/SOM3/EPWG/022.**

27. Chinese Taipei Representative also presented on Regional and Local Best Practices of Post-Disaster Recovery: Building Sustainability and Resilience through Scientific Approaches which was a self-funded initiative held in Nagoya, Japan on 17 – 21 July 2017. The event was attended by 9 (nine) economies and discussed on efforts contributed by the whole society for “Build back better as well as shared the best practices of community-level post-disaster recovery. **2017/SOM3/EPWG/023.**
28. Both Co-Chairs thanked Chinese Taipei for the presentations.
29. Philippines Representative also thanked the presentation and hoped that there will be more presentation similar to these for the upcoming SDMOF and workshop prior to it. He also emphasised that complementarity between technology and indigenous knowledges and practices was important and the presentation by Chinese Taipei illustrated that comprehensively.
30. Australia Representative echoed Philippines in thanking Chinese Taipei for the presentation and posed a question with regard to the result of the workshop in which recommended to design school so that it has multiple uses such as being a shelter in time of disaster and whether the contractor or builder came into that aim and came with design specification which comply with the criteria, or it is a process over time which government realise that it could be done this way. Chinese Taipei replied that behind the design, there were already some studies done on the site and that presentation was specifically stated an isolated site in case of typhoon.
31. Papua New Guinea Representative highlighted the connection between climate change and it was encouraging that EPWG was looking at means and ways on how economies can deal with the impact of climate change and one of that was to include building infrastructure and its sustainability which part of the overall climate change adaptation measures. By that he thanked and compliments Chinese Taipei for the presentations.

#### **Agenda Item 10: APEC Cross-Fora Report and Outreaching Collaborations**

32. Chinese Taipei Representative updated on The APEC O2O Summit on Enhancing SME Digital Competitiveness & Resilience towards Quality Growth that was held in Chinese Taipei on May 30<sup>th</sup> 2017. The aim of the event was to build up a more competitive and resilient APEC community, which was the next step of Business Continuation Plan promotion to assist SMEs seizing the opportunity and well preparing for the cyber threats in digital era. This initiative was also align with all the priorities and objectives set by the SMEWG Strategic Plan 2017-2020. Chinese Taipei also encouraged economies to continue promoting BCP and to strengthen cross-fora collaboration. **2017/SOM3/EPWG/004.**
33. Japan Representative reported on “APEC High Level Meeting on Quality Infrastructure” as one of the CTI activities, which will be held in Tokyo on 17 – 18 October 2017. The event is a follow up of the ‘APEC Connectivity Blueprint for 2015-2025’ and aims to share good practices and lessons learned in infrastructure projects and enhance understanding on “quality infrastructure investment” from both institutional and technical perspectives among high level officials in charge of infrastructure. **2017/SOM3/EPWG/024**
34. Chinese Taipei Representative suggested that in order to increase cross-fora collaboration that in the future such project could jointly collaborate between CTI and EPWG so that the project could have a concrete result and recommendation for APEC family to better enhance APEC resilience in consider that EPWG has many cases of natural disaster. Japan replied

that this was the first project to start discussing on infrastructure including its resiliency and will take into account comment from Chinese Taipei for the future. Co-chair Japan hoped to continue exploring cross-fora exchanges regarding infrastructure resilience through the EPWG Project of Enhancing Rural Disaster Resilience.

35. The United States Representative updated on the workshop that was conducted by Transportation Working Group and USAID. The title of the workshop was “Best Practices in Policies, Regulations, and Flexibility for Resilience of Global Value Chains”. The project builds on the success of previous projects that address APEC Seven Principles of Supply Chain Resilience and this principles was the basis to develop the workshop. There were two prong approach on this project which is an APEC-wide technical workshop and a workshop for one APEC economy. These workshops will help both developing and developed economies to improve their ability to recover from disasters and remain competitive in the global supply chain despite disasters in the APEC region. She further elaborated the timeline for a series supply chain workshops which aim to promote one principle each year. **2017/SOM3/EPWG/005**
36. Japan and Chinese Taipei stated that they were participating in the workshop and congratulated Unites States for successfully holding the workshop. This was one tangible example of cross-fora collaboration.

#### **Agenda Item 11: EPWG outcome of the year 2017 and works in 2018**

37. Co-chairs invited member economies to react on her proposal to have EPWG paragraph for Leaders’ Declaration. She presented initial zero draft to the group and could work intersessionally to agree on the paragraph. Chair also requested member economies to indicate their priorities for possible inclusion to the paragraph.
38. Philippines Representative mentioned that the importance of investing in science and technology in particular with regard to emergency preparedness and mitigation could be one issue to push forward for the EPWG paragraph. Papua New Guinea added that implementing APEC DRR Framework and its action plan as well as focusing on early warning system such as sea level rise are two of PNG priorities. Australia further commented that mainstreaming the work of this group and the need to take a cross-sectoral approach to do disaster risk reduction, resilience and response could also be emphasised in the declaration. Member economies further discussed on their respective domestic coordination with regard to disaster management and responses. Chinese Taipei stated that direct engagement in emergency response is beyond EPWG mandate, and EPWG is mostly dealt to better prepare the economies for their emergency response and resiliency. In that connection, sharing of information, expertise, data, risk assessment, past experience in disaster and their impact including physical and social should be the EPWG focus.
39. Co-chairs thanked member economies for their contribution and will prepare consolidated paragraph that takes into account inputs from member economies.

#### **Agenda Item 12: DRR policy priorities APEC DRR Framework implementation.**

40. Co-chair Japan reported that there was suggestion to have an independent item on DRR policies , separately from recent disasters . In that connection, she informed that in June 2017, she participated at Cancun in the 2017 Global Platform for Disaster Risk Reduction and invited member economies who had attended the meeting to also share their experience and linked it to the implementation of APEC DRR Framework. Philippines stated that major discussion during the meeting was how to move forward the framework with regard to domestic advocacies and bring it to regional platform such EPWG. New Zealand mentioned that science and technology was discussed broadly at the meeting and participants also expressed their commitment in the implementation of Sendai Framework, as this is an

important framework for emergency management and preparedness works. Philippines further added that apart from science and technology, public-private partnership and the importance of multi stake holders' involvement were also highlighted during the meeting.

41. Chinese Taipei Representative emphasized that 2015 was the highlight for EPWG when the APEC DRR Framework was adopted by Ministers. In that connection, in every Concept Note under the EPWG as well as other fora related to resiliency and emergency preparedness should link to the APEC DRRF. In that regard, he suggested that co-chairs could look at how many projects or concept notes adhere to APEC DRRF and also highlight important contribution mainly by member economies in advancing the implementation of APEC DRRF. Co-chairs welcomed the suggestion and added that APEC DRRF is an APEC wide document thus with this exercise would also useful to map out cross-fora collaboration.
42. Australia Representative shared their experience on the implementation of the Sendai Framework and links with the APEC DRR Framework. She informed that Emergency Management Australia under the Attorney-General Department is the National Disaster Management Office for Australia and the focal point for Sendai Framework implementation, which means the office coordinate for reporting and the implementation for Sendai Framework. She elaborated on many kind of natural disasters and hazards happened in Australia. With the new normal, the cost of natural disaster was very high, with average devastating losses per year >9 billion AUD total economic cost natural disasters in Australia which equivalent to 0.6 % of Australia's GDP. In that connection, to increase resiliency, Australia adopted Australia Strategy for Disaster Resilience in 2011 by all levels of government. She also emphasized on collaboration on all levels of government and public-private partnership. **2017/SOM3/EPWG/011.**
43. Co-Chairs Viet Nam mentioned that there are a lot of things to do in Sendai Framework and it is challenging for developing economies to do all activities recommended by Sendai Framework as it will also consume a lot of financial resources. Perhaps some of them could be implemented and he also notice that not many economies could implement all and in that regard focusing on certain issue for Asia Pacific is crucial to the discussion on Sendai Framework implementation.

#### **Agenda Item 13: Recent major Disasters occurred in 2017 and DRR policy implication**

44. Australia Representative reported on the response and preparation to response to the tropical cyclone Debbie which struck Queensland, Australia on 28 March until 7 April 2017. Australia also informed on some of technologies used to enable a very complicated and large scale operation. This was a category 4 cyclone and was one of the biggest cyclone from the last 5 year. It caused wide spread flooding at peak of flooding at 8,5 meter. It costs estimated 3,4 billion AUD and 14 people were killed mostly due to flooding. He also elaborated on the damage caused by the cyclone. The responses required a massive efforts and truly a whole effort with good communication and willingness from all agencies to coordinate response. Take away from this disaster that in respond to a disaster, technology plays a crucial role and standardize approach was vital. **2017/SOM3/EPWG/012.**
45. China Representative briefed on major disaster happened in China in June which mainly China suffered from flood and landslide as well as other natural disasters such as earthquake, mudslide, and forest fires. These disasters affected 30 million people and other destruction as well as economic losses. She further emphasized that the Chinese Government attached great importance to the disaster relief works with State Council at the Ministry of Civil Affairs convened several special meetings to analyzed the disaster and lead disaster relief work. The work was done in accordance with due procedures and the ministry was 24 hours on duty to monitor the disasters, collect statistic, coordinate with other agencies, evaluate, and report disaster situation. The major focus for this year work was disaster response.

46. Representative from New Zealand mentioned that regarding Cyclone Debbie already presented extensively by Australia. He recalled that in 2015 in the Philippines, member economies recognized “the new normal”, and this has very much happening in New Zealand over the last few years. He added that about ten months ago, New Zealand struck by a powerful 7.8 Richter scale earthquake, which one of the most powerful in New Zealand history. Fortunately the epicentrum was in rural area with minimal casualties, but the damage was very extensive including railway, main road, and economic losses. New Zealand then had Cyclone Debbie, more extensive flood, and significant forest fires. This new normal has effected New Zealand. In that regard, lesson from the disaster was firstly the importance of knowing our hazards which mitigation cannot be done without knowing what the hazards are. Secondly, although the meeting was talking about mitigation and risk reduction, nevertheless, we cannot move away from the importance of effective response. To be able to response effectively always central and fundamentally important. Thirdly, the importance of immediate recovery and private sector plays an important role in the recovery. Fourthly, the importance of insurance as the economic losses was usually hugged which if insurance was available, the cost of the damage could be cover by insurance.
47. Peru Representative presented on situation and infrastructure after El-Nino Coastal Phenomenon and rehabilitation phases. He mentioned that after three months of heavy rains, the National Emergency Operation Center (COEN) has registered important data includes injuries which are irrecoverable, such as the dead of 75 people, wounded and missing (more than 200), but also those who have been affected due to other cases (almost 630,000), until being considered victims (more than 100 thousand cases) and about 140 thousand houses damaged in different magnitude and 1,900 km of destroyed roads. A budget was calculated including the reconstruction phase work, in terms of roads, bridges, housing, irrigation canals, dams and cultivated areas, within total of 17.5 billion soles. To reverse this scenario would require an investment of the order of 7,000 billion dollars. El Niño Coastal Phenomenon has affected the economic projection growth. In February the Gross Domestic Product- GDP would have grown half of what was registered the previous month in a 4% by 2017. He further elaborated on rehabilitation phases and challenges posed.  
**2017/SOM3/EPWG/027**
48. The Representative from the Philippines presented on recent disasters happened in the Philippines and way forward. He mentioned that with the Philippines’ Natural attributes and location make it prone to tropical cyclones, volcanic eruptions, earthquakes and other natural hazard. This is further complicated by the various socio-political and economic issues. He further updated on recent disasters which the Philippines had experienced a number for the past couple of months in particular earthquakes and human-induced disaster in the form of armed conflict. The earthquakes were among other in Mindanao and Ormoc City which caused casualties and damages as well as economic loses. He also informed the meeting on human-induced disaster which occurred in Marawi City on May 2017. On 24 May 2017, the National Disaster Risk Reduction and Management Council Operations Center raised its alert status and National Office issued a Memorandum addressed to the Office of Civil Defence directing to raise their operations center status to red alert in view of the situation. Because of this incidents the National Emergency Operation Center was established and manned by different agencies involved in disaster response, with series of meetings were conducted in order to plan for the response to be undertaken. With that incidents, the National Disaster Response Plan for Consequence Management and Terrorism-related incident was approved to strengthen the cluster approach and coordination of the lead agencies in times of disasters.  
**2017/SOM3/EPWG/025**
49. Chinese Taipei Representative briefed on scientific supports to emergency operation of June 1<sup>st</sup> torrential rain event. In his presentation, he mentioned that the torrential rain event brought urban floods, landslides, flash floods and debris flow as a direct impact and interruptions to transportation, power and water outages as indirect impact. It was reported that 2 people died, 1 missing and 5 injured and there were 5,534 number of evacuation. He further elaborated on NCDR Operations for decision support at the Emergency Operation Center (CEOC).

NCDR also proposed an early warning on risk of torrential rains. The information was designed to remind emergency responders (central and local) and NCDR's collaborative partners of pre-caution and preparedness. As regular mechanism, NCDR routinely offers integrated information to local and central governments while the Ministry of Science and Technology supports a flagship project to find local research institutes to help local governments on disaster information management. The early warning information provided suggestions for actions in advance. **2017/SOM3/EPWG/026**

50. Viet Nam Representative gave presentation on the abnormal behavior of storm and tropical cyclones that hit Vietnam so far in 2017 and responses. He first elaborated the situation in Viet Nam as one of the economies most affected by natural disasters and climate change. Natural disasters, especially storms, floods and droughts. In the last 20 years, about 10,800 people were killed/missing by natural disasters; Average annual loss is about 20,000 billion VND (1-1.5% of GDP). With the increased in intensity and frequency were causing great loss of life and damage to the economy. He then explained about abnormal disaster situation in Viet Nam, disaster response classification, and emergency response activities at all level. Lastly, he raised some issues that Viet Nam hoped to have cooperation and sharing experiences from the international community in response to flash floods and landslides including technologies for landslide; flash flood forecasting and early warning; landslide risk maps; disaster preparedness, response and recovery plan. **2017/SOM3/EPWG/028**

Japan briefly informed on the typhoon happened on 7<sup>th</sup> August in western Japan and 4<sup>th</sup> of July that hit area near Kumamoto. She further mentioned that Japan has been hit by heavy rainfall and this year was the 70 anniversary of one of the largest typhoon hit Japan in 1937. Awareness raising and exhibition activities have been organized for commemoration. She further mentioned that individual economies might be rarely hit by mega-disasters, it is thus important to share lessons of disasters among economies, which may help convince financial authorities, for example, of each economy to encourage investments for DRR, and that is an advantage of EPWG.

#### **Agenda Item 14 Proposed projects for the year 2018**

51. Secretariat Program Director on behalf of Chile informed that Chile Project Proposal on Tsunami Threat Assessment for National Tsunami Warning Centers of APEC Economies was approved for APEC funding for Project Session 1 – 2017. The Project Overseer was preparing for a three-day workshop on 5 – 7 December 2017 in Santiago. She further conveyed Chile sincere thanked to the co-sponsors for the project namely Australia, Mexico, Peru, Japan, United States, and Chinese Taipei. They currently also prepared for speakers, agenda and non-member participation. In the next couple of days, the secretariat will circulate the list of speakers from Non-APEC member for EPWG approval.
52. Representative from Papua New Guinea made presentation on “Workshop on best practices on Disaster Risk Reduction Policy Design to promote local level action”, which they presented for seeking APEC funding. The objectives of the project was to build the capacity of technical officers to design domestic DRR policies and plans that address DRR in all sector, to develop recommendations for economies to ensure appropriate steps are taken to implement the DRR plans, and to build the support and share on experience with each other on designing the National Policies for DRR. It was hoped that the project could address gap in policies and standards in addressing Disaster Risk Reduction for business continuity preparedness and resilience planning to ensure productivity and economic growth as well as share best practices from economies who have developed DRR policies and plans. **2017/SOM3/EPWG/006**
53. Japan updated on identifying economic impacts by Mega Disasters Affecting Asia Pacific Economy, a Concept Note submitted for Project Session 2 – 2017. She first thanked co-sponsoring economies namely Chile, Malaysia, Papua New Guinea, Philippines and Peru as well as welcomed if any other economies who would like to co-sponsor the project. This

project aims at identifying potential economic damages by mega disasters, which could affect more than one APEC economies in the future, directly and indirectly through global supply chain. A workshop in October 2018 in Hyogo will be organized as part of the project to discuss potential economic effects on APEC economies by mega disasters including huge tsunami, mega typhoon and so on. Focus is placed on the indirect effects including those through supply chain as well as direct effects by bringing together diverse cases from member economies and the private sector, and best practices in policies, regulations and flexibility for resilience for GVC. The project will also try to identify key counterparts including those from other fora and the private sector, and intensifying networks to further explore economic impacts of mega disasters over APEC economy and policies to be taken, based on the outcome report of the workshop. The project is expected to facilitate strengthening public-private partnerships in promoting effective business continuity including those for MSMEs, as one of the agreed priorities of EPWG.

54. Chinese Taipei Representative updated that on “Capacity building and Emergency Preparedness for Sustainable Development at agricultural communities through “Plant back better” initiatives” Concept Note, he conveyed Chinese Taipei appreciation for co-sponsors namely Chile; Indonesia; Papua New Guinea; Philippines and Viet Nam. More detail was provided under Agenda Item 18.
55. Vietnam Representative presented domestic research project on “Developing disaster safety criteria at commune level mainstreaming into building new rural development and process of building the model to expand at wide-scale application in Vietnam”. He presented on the importance of the safety commune criteria, base of the proposal, achieved results, ongoing activities and proposal for APEC support. **2017/SOM3/EPWG/029**

#### **Agenda Item 15: EPWG outcome of the year 2017**

56. This was a continuation from previous agenda item regarding outcome of 2017 and a proposed paragraph from EPWG to Leaders Declaration or Ministerial Statement. Co-Chairs explained that there was a need to update the language for Leaders as last year, only small paragraph mentioned on the importance work related to emergency preparedness and disaster risk reduction as it is an important issue for APEC wide. Co-chairs proposed a concise paragraph to be considered by the group.
57. Philippines agreed with the proposal to send key message for the Leaders and suggested additional language with regard to building safer climate change adaptive and disaster resilient APEC Economies. United States emphasized that in Leaders’ Statement should have reference to economic impact of disaster as APEC is an economic and trade cooperation. Australia suggested to put the importance of integrating the principles of disaster risk reduction across sectors and the principles of DRR across APEC. Chinese Taipei highlighted the importance of having a key message with 2 – 3 keyword to make it concise and strategic leaders’ level. EPWG should avoid long paragraph. Singapore agreed to keep it short and suggested to focus on science, technology and innovation. China agreed to keep it short with keywords and the keywords need to be agreed by all economies. Co-chairs suggested to work intersessionally for the paragraph and submitted to Viet Nam for their consideration.

#### **Agenda Item 16: Promotion of Cross-Fora Collaboration and EPWG 2018 meetings**

58. Papua New Guinea Representative presented the Guidelines for the Promotion of Cross Fora Collaboration. He elaborated on the importance of cross-fora collaboration, the scope of the guidelines, outlines of the guidelines including guiding principles. It was hoped that the document can be endorsed by SOM3-2017. **(2017/SOM3/EPWG/030)**
59. Papua New Guinea Representative informed the meeting on EPWG Meetings in 2018 and date for 13<sup>th</sup> EPWG Meeting. He proposed some topics for EPWG in 2018 among others the digital era, role of information science and technology, addressing resilience in supply chain,

effective policy planning, and mainstreaming of Disaster Risk Reduction into multi-sectoral development planning and budgeting. He also mentioned the importance in implementation alignment to Sendai Framework for Disaster Risk Reduction, APEC DRR Framework and its Action Plan. He further highlighted that in 2018, the EPWG should also focus on Preparedness (Pillar 2) and Prevention and Mitigation (Pillar 1). He informed that SDMOF is planning to be held on 13 – 14 September 2018 in Kokopo. **(2017/SOM3/EPWG/007)**

#### **Agenda Item 17: Report of the Secretariat**

60. APEC Secretariat Program Director presented an update on the project management process including Project Session 2 – 2017, project overview, establishment of new sub-funds and their eligibility, and some changes that will take effect starting on Project Session 1 – 2018 including new template for Concept Note and EPWG will no longer be needed to score the Concept Note as the scoring will be done by SCE. **(2017/SOM3/EPWG/009)**
61. APEC Secretariat Program Director also informed the meeting on new SOM direction regarding sunset clause and quorum clause as a result from SOM's instructions on better governance of APEC Fora as agreed in SOM 2 - 2017. She referred to letter from APEC Executive Director to Viet Nam SOM Chair regarding the implementation to SOM instruction for Governance improvements for a more effective APEC **(2017/SOM3/EPWG/013)**. As there was an increased number of working groups and fora, SOM regulated that all fora should have Term of Reference with 4 years mandate and renewal should be subject to SOM approval as well as should meet quorum which constitute of 14 economies. Fail to achieve a quorum at two consecutive meetings will be referred to Senior Officials for a decision on whether it should continue to exist. In that regard, EPWG need to update its ToR to include sunset clause and quorum. She further informed and seek attention from member economies as EPWG did not meet quorum at three previous consecutive meetings and at this 12<sup>th</sup> EPWG meeting there was no quorum as well, raised a concern for the Secretariat.
62. Co-chairs (Japan) agreed that this has been her most concerned nevertheless she understood that it may be difficult for disaster risk management people to attend meeting in particular when disasters were happening in their economies and the limitation of travel budget. She further encouraged EPWG members to send delegate if possible or to establish good contact with respective diplomatic officer assign in the host economy who could represent economies at the meeting. She was then seek the possibility to include remote participation and video presentation to the number of EPWG participants.
63. Secretariat also informed the meeting that the updated EPWG Strategic Plan was endorsed by SCE 2 -2017 and document is available at the webpage. **(2017/SOM3/EPWG/008)**

#### **Agenda Item 18: Policy Dialogue on Science, Technology, Innovation, Food Security, Climate Change and Gender Empowerment by Chinese Taipei and Viet Nam Plant Back Better initiatives**

64. This session was moderated by Chinese Taipei and he presented about building a disaster resilient community on Plant Back Better Initiatives. This initiative also related to Viet Nam focus on Science and Technology in particular because it was emphasizing on smart agriculture and women empowerment. Plant back better focuses on among other to help vulnerable areas to enhance capacity building and emergency preparedness countermeasures through smarter and disaster-resilient vegetable plantation; at phases of disaster risk reduction and emergency preparedness the initiatives help to build up a resilient community with local knowledge and efforts against natural disaster; as well as after disaster strike to effectively and efficiently recover the micro-economic activities vegetable plantation and food supply. The key objectives among other to develop guidelines on natural disaster preparedness for agricultural communities, to facilitate data and information sharing as well as best practices, to engage public-private partnership, to initiative plans for disaster-resilient

planning of vegetables plantation and to cooperate with one APEC economy for a pilot implementation. **(2017/SOM3/EPWG/031)**

65. Stuart Brown, Project Coordinator, Home Garden Scaling in Cambodia, World Vegetable Center, Australia presented on the 'Post Disaster Recovery: The World Vegetable Center Household Garden Model'. He presented on an overview of the World Vegetable Center's specific expertise in household gardens and how they might also be improved in relation to implementation in post disaster recovery efforts, a sound forward strategy in relation to household gardens and food security after a disaster; and an important overriding aspect which is the purposeful use of ICT in relation to identification of critical resource allocations after a disaster. He summed up that Indigenous as well as more commonly available vegetables are both equally important in post disaster contexts, focus on women and keep it simple, make it tailored, strong need to prior preparation and modelling disaster scenarios in most at risk regions, need for evaluation and follow up to ensure "household garden package" is delivered efficiently and effectively and Integrate strong ICT approaches to any and all post disaster recovery efforts. **(2017/SOM3/EPWG/010)**
66. Co-Chairs (Japan) thanked Chinese Taipei for the presentation and shared Japan experience on the rural areas in Hyogo prefecture affected by heavy a rainfall triggering landslides with totally different backgrounds from the demonstrated cases: The affected area in Hyogo prefecture faced with aging and depopulation, and thus chose planting trees for conservation of the areas as an alternative, since restarting agriculture was not realistic for the aged population. The concept of PBB could be further diversified and applied to variety of cases with different socio-economic situations. Chinese Taipei agreed that physical and social condition should be taken into account in the initiative and specific plantation to specific region.
67. Philippines Representative echoed Japan to thank for the initiative as it is an important issue for the Philippines. He informed that in Philippines had similar initiative with Moringa plant in which highly nutritious. He suggested for this initiative to also scale up the production outside of subsistence consumption since to have more economic benefit for that particular area. Chinese Taipei mentioned that the project involves MSME working group as it is related to some suggestion from the Philippines for the product to have economic value.
68. China raised question regarding criteria to evaluate and to select the area or communities to support or to do the initiative for example by using vulnerability of the area or any other tools. Chinese Taipei acknowledged that until now there is no clear criteria for selection and evaluation of area or community. Later during the project implementation, project overseer will have close collaboration with member economies because they have more detail information about specific community as well as work closely with expert to try to understand highlight, risk and how to help certain community although it may not always easy solution. During the process is actually based on consensus decision making as some people in the area probably want more production of special economic product however from expert point of view they are so vulnerable. In this connection Chinese Taipei welcomed all suggestion to criteria for key consideration to select target community for this project to start.
69. At the end of the discussion Chinese Taipei introduced a Joint Statement by Chinese Taipei and Viet Nam on Plant Back Better on Food Security – an innovative approach to maximum comparative advantage of gender empowerment through grass root capacity building against disasters and climate changed for EPWG information. This draft will be submitted to PPFs for their review under their Food Security week. **(2017/SOM3/EPWG/032)**

#### **Documentation Classification List**

70. APEC Secretariat together with member economies reviewed the Document Classification List and endorsed the document. **(2017/SOM3/EPWG/000)**

## **Agenda Item 20: Other Business**

71. Co-Chairs invited member economies to raise any other issues before closing of the meeting and no further issue was raised by member economies.
72. Co-chairs (Japan) informed that her co-chairmen ship ends in 2017, thus she invited member economies to volunteer as co-chairs for 2018-2019 for intersessional discussion. Viet Nam also informed that as a result from changes in the agency, he can no longer able to continue beyond 2 years terms. Both Co-Chairs thanked EPWG for their support and collaboration extended to them for the past two years and invited member economies to select two Co-chairs intersessionally, for the next two years term.

## **Agenda Item 21: Closing Remarks**

73. Director of Emergency Response and Recovery under Viet Nam National Disaster Management Authority, Mr. Nguyen Duc Quan delivered his closing remarks to close the meeting. He congratulated the success convening of EPWG Meeting in Ho Chi Minh City and as host economy, he was pleased to see after two days, the meeting has met expected outcome. He also sent his condolences to the natural disaster and manmade disaster victims throughout the APEC regions as conveyed by representative during this meeting. This depicted the crucial role done EPWG for improving preparedness and readiness in responding to natural disasters. Whether we want it or not, natural disasters have imposing a lot of threats to the life and property. In addition to the discussion, many project proposals also derived from this meeting in order to increase the capacity and resources for preparedness for example rural infrastructure resilience project. He hoped that with the experiences and knowledge sharing, capability could be build up and capacity in coping with natural disasters. He encouraged with the cross-fora collaboration in responding to the natural disasters and wished to have increased collaboration in science and technology innovation and food security in order to better response to natural disasters in the APEC Region. He supported to send key messages to Leaders and invited member economies to attend the 11<sup>th</sup> SDMOF in Vinh City in September. Lastly, he thanked member economies for the participation to the meeting and support extended to Viet Nam hosting year.
74. Both Co-chairs once again thanked EPWG members and participants for their support and cooperation extended to both co-chairs and hoped to see all in the upcoming meeting in SDMOF. Special thank also extended to the presenters and speakers who had actively contribute to the meeting.

**- End of the 12<sup>th</sup> EPWG Meeting-**