Review on Up-to-Date 2018 Natural Disasters in the Asia-Pacific Region

Purpose: Information
Submitted by: EPWG Co-Chair
Review on up-to-date 2018 natural disasters in the Asia-Pacific Region

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14th APEC Emergency Preparedness Working Group Meeting, 10-11 August, Port Moresby
The APEC region is experiencing an “New normal” situation than ever

• **Types of natural disaster happening simultaneously**
  – **Geological**: earthquakes, landslides, mudslides, volcanic eruptions
  – **Hydro-meteorological**: typhoons, floods (in rural and urban areas)
  – **Climatic**: droughts, heat waves
  – **Others**: wild fires, and .......

• **Direct impacts**
  – Losses of lives and properties
  – Senior citizens
  – Operations of business, governments and cross-boundary connectivity
  – Tourist safety and .......

• **Secondary impacts**
  – Social-economic losses
  – Seeds to trigger hazard (rain to cause mudslides after wild fires)
Global trend – “New Normal” as EPWG discussed APEC DRRF in 2015

- How science, technology and research address “new normal”?
- How policy and capacity building are designed for disaster risk reduction?
- How can science, technology and research be applied to facilitate DRR collaboration between and among economies, the private sector, and regional organizations?
Current situation in the APEC region - two typhoons (No. 13 and No. 14)
Typhoon tracks in 2018 till now 14 typhoons (avg. 23-26 in a year)

Direct impacts to
- China
- Hongkong, China
- Japan
- Korea
- the Philippines
- Chinese Taipei
- Viet Nam
788 earthquakes hit the APEC region in 2018 - with magnitudes > 5.0
In 2018, all severe earthquakes happened in APEC member economies (death tall >10)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Death toll</th>
<th>Magnitude</th>
<th>Member economies</th>
<th>MMI</th>
<th>Depth (km)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>381</td>
<td>6.9</td>
<td>Indonesia</td>
<td>VIII (Severe)</td>
<td>31.0</td>
<td>August 5</td>
</tr>
<tr>
<td>2</td>
<td>160</td>
<td>7.5</td>
<td>Papua New Guinea</td>
<td>IX (Violent)</td>
<td>25.4</td>
<td>February 25</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>6.7</td>
<td>Papua New Guinea</td>
<td>VII (Very strong)</td>
<td>10.0</td>
<td>March 6</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>6.4</td>
<td>Indonesia</td>
<td>VIII (Severe)</td>
<td>6.4</td>
<td>July 28</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
<td>6.4</td>
<td>Chinese Taipei</td>
<td>VIII (Severe)</td>
<td>17.0</td>
<td>February 6</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td>7.2</td>
<td>Mexico</td>
<td>VII (Very strong)</td>
<td>22.0</td>
<td>February 16</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
<td>6.0</td>
<td>Papua New Guinea</td>
<td>VII (Very strong)</td>
<td>10.0</td>
<td>March 4</td>
</tr>
</tbody>
</table>

MMI: Modified Mercalli Intensity Scale (I ~ XII)
Landslide or Mudslide in the US and Japan

January  California, The United State
Source: abc News

Source: CNN

April  Kyushu, Japan
Source: Ottawacitizen

Source: Japan Platform
Floods in Malaysia and Singapore

January Pahang & Johor, Malaysia

Source: The Straits times

January Singapore

Source: China Press

Source: China Press
Floods in New Zealand and Australia

February
Canterbury, New Zealand
Source: Stuff

March
Queensland, Australia
Source: Stuff
Floors in the US and China

May  Ellicott City, The United State

Source: The Baltimore Sun

July  The Southwestern , China

Source: RFA

Source: South China Morning Post
Floods in Japan and China

July
The western Japan

July
Beijing, China

Source: The Japantimes
Source: thebeijinger

Source: thebeijinger
Floods in the Philippines and Viet Nam

July  
Manila, The Philippines

Source: arabnews

Source: Rapple

July  
The Northern, Viet Nam

Source: TDN.com

Source: Voanews
Earthquakes in Peru and Mexico

January
South Coast, Peru
Source: Deutsche Welle

Source: Reuters

January, February
Oaxaca, Mexico
Source: THE NEWS

Source: Earth Chronicles
Earthquakes in Chinese Taipei and Papua New Guinea

February Hualien, Chinese Taipei

February Papua New Guinea

Source: ABC

Source: ABC

Source: NPR

Source: ABC NEWS

Source: CNN
Earthquakes in Chile, the US and Japan

**April**
- Ovalle, Chile
  - M 6.2 - 54km SW of Ovalle, Chile
  - Source: Forbes

**May**
- California, The United States
  - Source: Forbes

**April**
- Shimane, Japan
  - Source: Pakistan

**Source:** THE JAPAN TIMES
Earthquakes in Japan and Indonesia

June  Osaka, Japan

July  Lombok, Indonesia

Source: CNN
Volcanic eruptions in Indonesia, Papua New Guinea, the Philippines, the US and Japan
Wild fires in California, the US

CARR Fire
69,628 ha Burned
47%

Ranch Fire
98,672 ha Burned
20%

River Fire
19,797 ha Burned
78%

Ferguson Fire
37,029 ha Burned
38%

Cranston Fire
5,317 ha Burned
96%

(資料更新至 2018/8/7)

表示野火仍在進行
表示野火已受到控制
Wild fires in California, the US

June

California, The United State
APEC Disaster Risk Reduction Framework
Oct. 2015

Adaptive and Disaster-Resilient Asia-Pacific Economies
Supporting Inclusive and Sustainable Development

- Prevention and Mitigation
  - Community Participation
    - Critical Infrastructure Resiliency
- Preparedness
  - Disaster Risk Governance
    - Ecological Integrity
- Response
  - Disaster Risk Financing
- Rehabilitation and Build Back Better
  - Science and Technology
    - Inclusiveness of Women and Vulnerable Sectors in DRR
- Thank You -