World Disaster Trends

Attaining the Build Back Better Dividend: IRP Forum Jan 2019

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Overview of Natural Hazards: 2008-2017

- **3,751**
  - Natural hazards recorded by EM-DAT over the last 10 years
  - 84% are weather related hazards
    - Floods 40.5%, storms 26.7%, other weather related 16.9%

- **2bn**
  - Estimated number of people affected by natural hazards over the last 10 years
  - 95% of people are affected by weather related hazards
    - Floods 36.7%, storms 17%, other weather related 41.8%

- **US$1,658bn**
  - Estimated cost of damages in 141 countries over the last 10 years
  - 73% of costs are due to weather related hazards
    - Storms 41.7%, floods 21.9%, other weather related 9%
Fig. 7.3  Trends in natural hazards, 2008–2017

- Sichuan earthquake, China
- Cyclone Nargis, Myanmar
- Tohoku earthquake/tsunami, Japan
- Typhoon Haiyan, Philippines
- Flood/landslides, India
- Ecuador earthquake
- Hurricane Matthew, Haiti, US
- Cyclone Ali, Bangladesh
- Earthquakes, Haiti, Chile
- Extreme temperatures, Russia
- Typhoon Bopha, Philippines
- Hurricane Sandy, Cuba, Haiti, US
- Cyclone Hudhud, India, Nepal
- Drought, Brazil, China
- Gorkha earthquake, Nepal
- Hurricanes Harvey, Irma, and Maria, Caribbean, US

**Number of disasters**

- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017

Legend:
- Number of disasters
- Floods
- Storms
- Extreme temperatures, droughts, landslides, wildfires
- Earthquakes, volcanoes, mass movements
- Epidemics
Regions affected by disasters

Source: EM-DAT The Emergency Events Database
2017 is the second most costly year, reflected in the impact of three hurricanes - Harvey (US$95 billion), Irma (US$66 billion) and Maria (US$69 billion), affecting the United States and the Caribbean.

CRED Centre for Research on the Epidemiology of Disasters, October 2017: Cred Crunch 49

The record year was 2011 with losses of US$ 350bn, due mainly to the Tohoku earthquake and floods in Thailand.
Increased Risks

- Increased Vulnerability
- Increased Exposure
- Increased disasters
Current global warming already 1°C warmer than pre industrial level and is likely to reach 1.5°C between 2030-2052 at the current rate of increase.

Continued sea level rise, will reach 1.0 meter by 2100.

To meet the 1.5°C, GHG emissions will need to fall by 45% from 2010 levels by 2030 and must reach net zero emissions by 2050.
Impacts of Climate change

• Increase in hot weather extremes in most regions, heavy precipitation in several regions, drought and deficit of rains in some regions.
• Increase in ocean acidity, decrease in oxygen levels with high risks to and marine biodiversity, fisheries and ecosystems.
• Between 140-216 million will be affected whose land will be below sea level or will live with regular floods levels. 30 countries at risk. Vietnam 26% of population.
• Critical negative impacts on health, livelihoods, food security, water supply, human security, and economic growth.
Challenge: Leaving people behind

- Projected gap of 27% in humanitarian assistance in 2018
- Only half the people with humanitarian needs were reached with assistance in 2017.
- Lack of funds not the only reason why people are left behind.
• Keeping warming below 1.5°C is possible but requires unprecedented transformations in scale and pace across all societies.
• This includes deep emission cuts in all sectors (increase both zero/low-emission energy sources and energy efficiency to reduce demand).
• It requires usage of a range of technologies, shift in behavioral change, and significant increase in investment in low-carbon options.
• Preparedness and adaptation key to managing disasters
• Prioritizing people who are most in need and hard to reach and incentivize assistance.
Hope for the future

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