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Title of the Session: Disaster Risk Reduction and Climate Change Adaptation in Asia

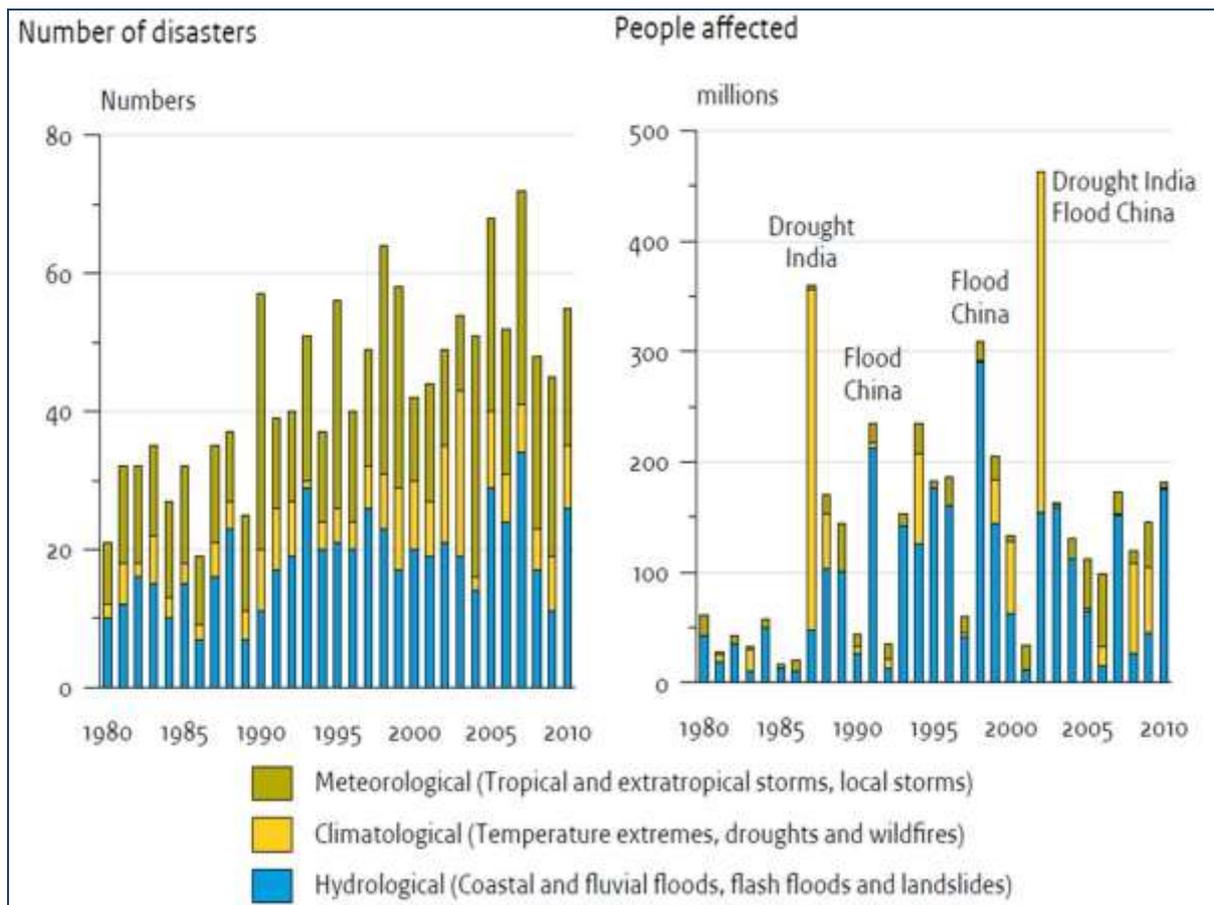
Date: 08/02/2016 to 14/02/2016

Summary

Historically, socio-economic impact of disasters is increasing rapidly due to increase in intensity of extreme events and exponential increase in exposure or *built-environment*. Climate change is a tangible reality and already, showing devastating impact on our societies and economies. Increase in temperature, both in space and time, is showing evidence of human influence on the climate system. Increase in frequency of disasters due to climate change is serious risk to poverty reduction which is eroding wealth built by individuals, societies, and countries. Nearly half of the climate related disasters are happening in Asia. Until and unless climate change adaptation measures are in place, disasters would keep on impacting the gross domestic product (GDP) of Asian countries, especially the poor ones. COP21 agreement is a significant milestone to reduce GHGs emissions to avoid the increase in temperature beyond 2 degree centigrade by the end of this century. Climate change is bound to happen due to the already emitted GHGs, which are going to stay in the atmosphere for a long time. Therefore, there is no choice but to deal with these changes by adaptation. For putting adaptation measures in place, multi-hazard vulnerability and risk assessment needs to be carried for all the areas to identify the hot-spots. The identified hotspots should be studied in detail for improved risk assessment and to develop and implement the contingency plan.

Context

Historically, socio-economic impact of disasters is increasing rapidly due to change in frequency and intensity of extreme events. There is a rapid population growth and consequently exponential increase in exposure (*or built-environment*) due to the increasing need of shelters and rapid industrializations in Asia. Climate change is a tangible reality and already, showing devastating impact on our societies and economies. Increase in temperature, both in space and time, is showing evidence of human influence on the climate system. Increase in intensity of disasters due to climate change is serious risk to poverty reduction and eroding wealth built by individuals, societies, and countries. Nearly half of the climate related disasters are happening in Asia. Disasters frequency and people affected data of past 30 years (1980 to 2010) shown in below figure corroborate this fact.



Until and unless climate change adaptation measures are in place, disasters would keep on happening and impacting the economies/gross domestic product (GDP) of Asian countries, especially the poor ones. Disasters bring back the development of a poor nation to several years or even decades. For example, a study by author shows that Tajikistan GDP would be most impacted (over 20 percent) and derails its economy, if a disaster of same intensity (corresponding to a 250 year return period) happens in Central Asia and Caucasus countries.

Paris climate agreement on Dec. 12, 2015 (COP21, in which 195 nations and European Union took pledge) is a significant milestone to reduce GHGs emissions to avoid the increase in temperature beyond 2 degree centigrade by the end of this century. Climate change is happening and bound to happen in future due to the already emitted GHGs, which are going to stay in the atmosphere for a long time. Therefore, there is no choice but to deal with these changes by suitable adaptation measures.

Adaptation will work best if the policies and strategies are in place to reduce climate-related risks and are incorporated in the developmental plans and their implementation. Thus, sustainable development would be the key for smart climate risk management. For sustainable development, carrying out multi-hazard vulnerability and risk assessment for all

the areas is the first step to identify hot-spots. The identified hotspots should be studied in detail for improved risk assessment and to develop and implement the contingency plans.

As mentioned earlier, climate change could have a significant impact on poverty levels. The World Bank Group is working with 130 countries to help implement climate-smart development and will increase investments in climate finance to as much as \$29 billion a year by 2020 that would be a significant increase over current levels.