

## Breakout 2

### Preparedness & Mitigation: Existing Infrastructure

- **What new questions raised by these events require basic research?**
- More complete measure of effects (including physical effects, economic loss, social disruption, political implications) of catastrophes. Understanding how effects increase nonlinearly with event magnitude. Related to understanding how to manage catastrophes
- Risk communication/perception both in influencing mitigation and in immediate response. Understanding relationship between knowledge of social behavior and technical assessment of risk. Bridging that gap.
- Make use of voluminous new data to improve/update vulnerability models (including nuclear facilities, buildings)
- Understand role of insurance both in recovery and in encouraging mitigation of existing infrastructure through comparison of two events.

- What new data are available as a result of these events?
- Data to improve the loss/damage estimation models
- Data on repeated/accumulated damage
- Information for performance of retrofit.
- Data on soil-structural interaction.
- Database on debris, quantification of debris effects on infrastructures, types of materials.
- The data of catastrophic disaster, not from high-frequency natural hazards.
- Damage on telecommunication infrastructures, miscommunication failure of communication.
- Remotely sensed data
- Nation wide tsunami data (tsunami heights, extent of inundation, dense points)
- The data to encourage the efforts towards public education, increasing awareness.
- Data of fatalities (where, how people died).

