

Report Out Slides

Flood and Rain

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Interdependencies Breakout Question #1

- Given your hazard, what are the primary concerns with respect to interdependencies?
 - Types of flood events:
 - Urban flooding-torrential rain or pluvial flood
 - Storm surge
 - Ground water
 - Riverine flooding
 - Dam and levee failure
 - Tsunami
 - Bridges and transportation – Foundation failing due to flood or objects crashing into the superstructure
 - Waste water systems – Vulnerable due to their low elevation
 - Resilience issues in low income communities – At higher risk because housing is built in flood zones
 - Challenging economic situation for low-income communities – Economic impact of expanded flood zones.

- Given your hazard, what are the primary concerns with respect to interdependencies? (cont.)
 - Wind or flood mitigation – How this effects the construction methods of housing and its marketing
 - How can mitigation plans and strategies have an economic payback?
 - How do communities justify the economic investment for retrofitting or insuring their houses?
 - Different sectors use different tools for mitigation strategies.
 - There should be at least two different resiliency strategies for each event.

Interdependencies Breakout Question #2

- How does your sector account for interdependencies with other sectors in the planning phase (not recovery)?
- If your sector does not coordinate with others regularly, what plans can you make to change this lack of communication in the planning phase?
 - Depending on how cities zone their housing and subsidized housing, cities are becoming more aware of the location of housing and resiliency plans. The problem comes when housing is built first and then flood zones are assigned after.
 - In some cities the building codes have changed to improve storm water and mitigation strategies.
 - Infrastructure is insufficient and dated. There needs to be an overall update and collaborative effort between the public and private sectors.

- How does your sector account for interdependencies with other sectors in the planning phase (not recovery)? (cont.)
- If your sector does not coordinate with others regularly, what plans can you make to change this lack of communication in the planning phase? (cont.)
 - Are there any mitigation strategies for waste water? Elevate them? Relocate them?
 - Look outside the boundaries (private/public) of where the disaster occurred. Legal complexities

Interdependencies Breakout Question #3

- How can the standing committees work together to address the interdependencies challenges that arise because of this hazard event?
 - (1-7) Before a disaster – Create a group of people with different expertise
 - National Incident Management System (NIMS) – Representatives from across the communities and sectors. The framework of the process could be leveraged. It is already a great resource tool. It could be helpful to include all the budgets and planning strategies from the different groups (public, private, volunteers, etc.)
 - (2) Communication and collaboration among different sectors to enforce the resiliency plans

- How can we plan now for less trauma during an event?
 - Modify and adjust the plans for the different communities
 - Address the challenge during the planning process of combining budgets or adjusting budgets between sectors
 - Identify the flood impacts for each sector
 - Define performance standards, building codes and zones

Interdependencies Breakout Question #3 (cont.)

- Design a standardized ‘flood language’ – Data and metrics that can be shared across sectors
- Share strategies of success and best practices
- Legal framework – Guidelines, public assistance, Flood Ordinance, National Flood Insurance Program. Investments, accounting for future increase and other events
- Requirements of hazard mitigation plans related to funding and resources
- Encourage mitigation activities and programs through incentives-address things that haven’t happened
- Resource sharing
- Retrofit not only for one situation, but take into account other possibilities

Recommendations for standing committees

1. ***Buildings and Facilities:*** Consider the building in its context (physical, social, political, economical)
2. ***Communication:*** Communication and collaboration among different sectors to enforce the resiliency plans – NIMS model
3. ***Data, Metrics and Tools:*** Design a standardized ‘flood language’ – Data and metrics that can be shared across sectors
4. ***Energy:*** Identify underground systems that are vulnerable to flooding and make this information available to the community. Micro-grid.
5. ***Social and Economic:*** Address the challenge of relocation and migration patterns. Address the challenge of flood regulation for low-income communities.

6. **Transportation:** Think across modes and functions-mixed-used bridges, multimodal.
7. **Water and Wastewater:** At lower elevations, focus on retrofitting wastewater systems *during* floods. Consider the building in its context and its accessibility.

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