Coastal Reconstruction and Resilience Planning for New York State Communities

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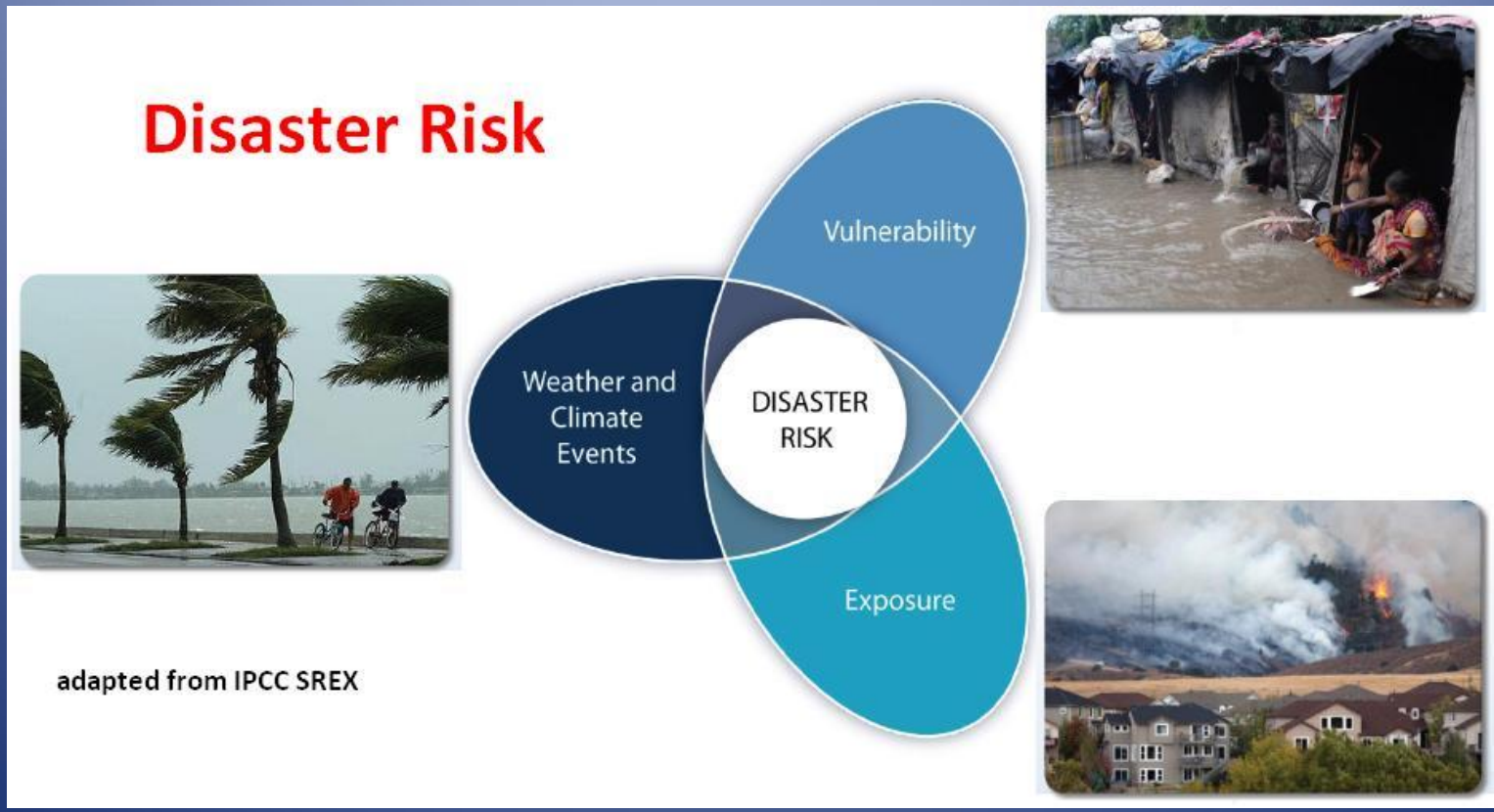
Coastal Reconstruction and Resilience Plans:

- Comprehensive coastal hazard plans
  - All measures including Land Use Management/Zoning
- Quantitative method for risk assessment
- Across sectors: social-cultural, environment, economy
- Tests effectiveness of proposed measures
- Integrated with other plans
- Local Waterfront Revitalization Program option

Risk = Hazard Exposure Vulnerability



Risk Zone Mapping

1. Extreme Risk Area: Areas currently flooded during spring high tides or spring freshets (tributaries)

2. High Risk Area: Areas above 1 plus areas up to 3 feet above MHHW plus remainder of the NFIP-A zone.

3. Moderate Risk Area: Areas above 2 plus areas above the NFIP-A zone plus 3 feet

Future: Add new data as available, add increased stream discharge volumes

Risk Estimating Process *for each Asset*

Risk = Hazard x Exposure x Vulnerability

HAZARD SCORE

The likelihood of an event occurring within a specific planning timeframe

5	Very likely	>90% chance
4	Likely	66-90%
3	Possible	33-66%
2	Unlikely	10-33%
1	Very unlikely	1-10%

EXPOSURE SCORE

Influence of local topographic and geomorphic features on the severity of damages

4	Very high	(scores are weighted)
3	High	
2	Moderate	
1	Low	

VULNERABILITY SCORE

Level of impact to critical resources

5	Major	(permanent loss)
4	Significant	
3	Moderate	(days out of service)
2	Minor	
1	Insignificant	(short term loss)

Hazard Scores

Hazard scores for the 100-year and 10-year storm events.

Based on the *likelihood* of each event during a 100 year planning time frame, adjusted for the *proximity* of each Risk Area to the flood zone.

• Extreme risk area	100-year (Certain)	Hazard score = 5
	10-year (Certain)	Hazard score = 5
• High risk area	100-year (Likely)	Hazard score = 4
	10-year (Possible)	Hazard score = 3
• Moderate risk area	100-year (Possible)	Hazard score = 3
	10-year (Very Unlikely)	Hazard score = 1