# Economics, Policy & Decision Support Systems Strand

#### Market-based solutions

#### Areas of analysis:

- Alternative to the current centralized regulation based on industry coalitions to share information and risks
- Creating institutional and legal framework to better encourage firms to internalize costs of community impacts through insurance or other mechanisms in the event of a firm or operational failure

Collaboration would be required among law, economics, risk management, insurance

#### **Economic Impact/ Valuation Studies**

- Areas of analysis:
- Rapid, predictive economic impact modeling (baseline model) using modeling, simulation and analysis capabilities
  - Post-event (real-time) data-driven models
  - Regional models/Standardized models across the region models; data collection; processes
  - Improved ecosystem valuation methodology and approaches
    - Rooted in economics, informed by ecology and other disciplines
  - Monitoring impacts:
    - Market-based and non-market-based
    - Review meta-analysis
    - Impact of insurance on recovery regional to national level; all hazards

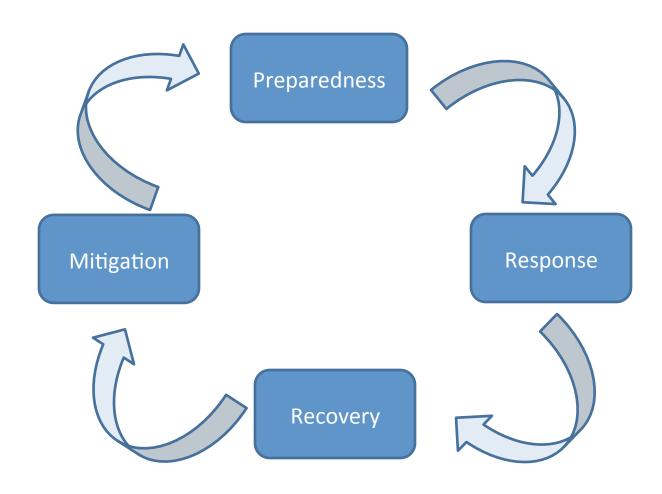
## **Economic Impact/ Valuation Studies (ctd)**

- Identify appropriate indicators
  - Economic assessments: not just dollars
    - Jobs, GDP, income, etc.
    - Health, workforce, crime, education, displacement
    - Military influence in region
  - Long-term quality of life changes
    - Include cultural elements
    - Multiyear
    - Changes in medication use; human health; mental health
    - Social indicators

## **Economic Impact/ Valuation Studies (ctd)**

- Measure and assess resiliency
  - Household level
  - Community/sector level
  - Urban vs. rural
  - Diversification as means of resiliency to economic stressor
  - Examine natural resource dependence
  - Implications on non-profits

## Disaster Management Planning



### Disaster management planning (ctd)

- Collaboration
  - When mechanisms support sharing infrastructure and operating costs?
    - Land use planning
    - Community/cultural differences
      - E.g., Rural vs. urban
- Interfaces
  - What turnover/change rate in personnel and technology improve/degrade system performance?
    - Need measures of system performance
    - Need measures of change
      - Communication technologies; social media
- How to regulatory policies impede/support response and recovery?
  - Stafford , Jones, NFIP