

# **Integrated Research on Disaster Risk**

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**Approaches to Disaster Reduction and  
the Needs for Long-Range Research**

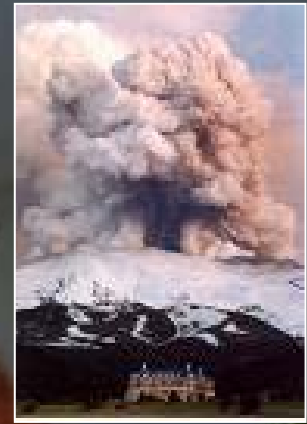
**William H. Hooke**  
**American Meteorological Society**

# Approaches to Disaster Reduction: Practice

- Pre-event mitigation
- Preparedness
- Emergency response
- Recovery



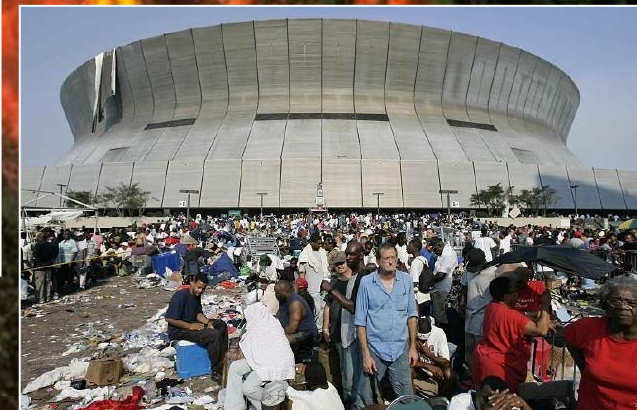
# Approaches to Disaster Reduction: Research



- **Natural sciences**



- **Social sciences**





**Why, despite the fact that we know so much more about the natural and social causes of disasters, do losses continue to mount?**

# White, Kates, and Burton 2001\*

- we haven't learned as much as we think
- knowledge is available but unused
- knowledge is used ineffectively, and/or
- growth in costs may reflect a time lag between the acquisition of new understanding and when it can be put into practice.

\*White, GF, et al. (2001), 'Knowing better and losing even more: the use of knowledge in hazards management,' *Environmental Hazards*, (3). 81-92.

# To reduce actual losses will require

- **Integration of natural and social science (incl. integration across scales)**
- **Integration of research and actual practice**
- **(tie-in to the private sector)**
- **progress on policy**



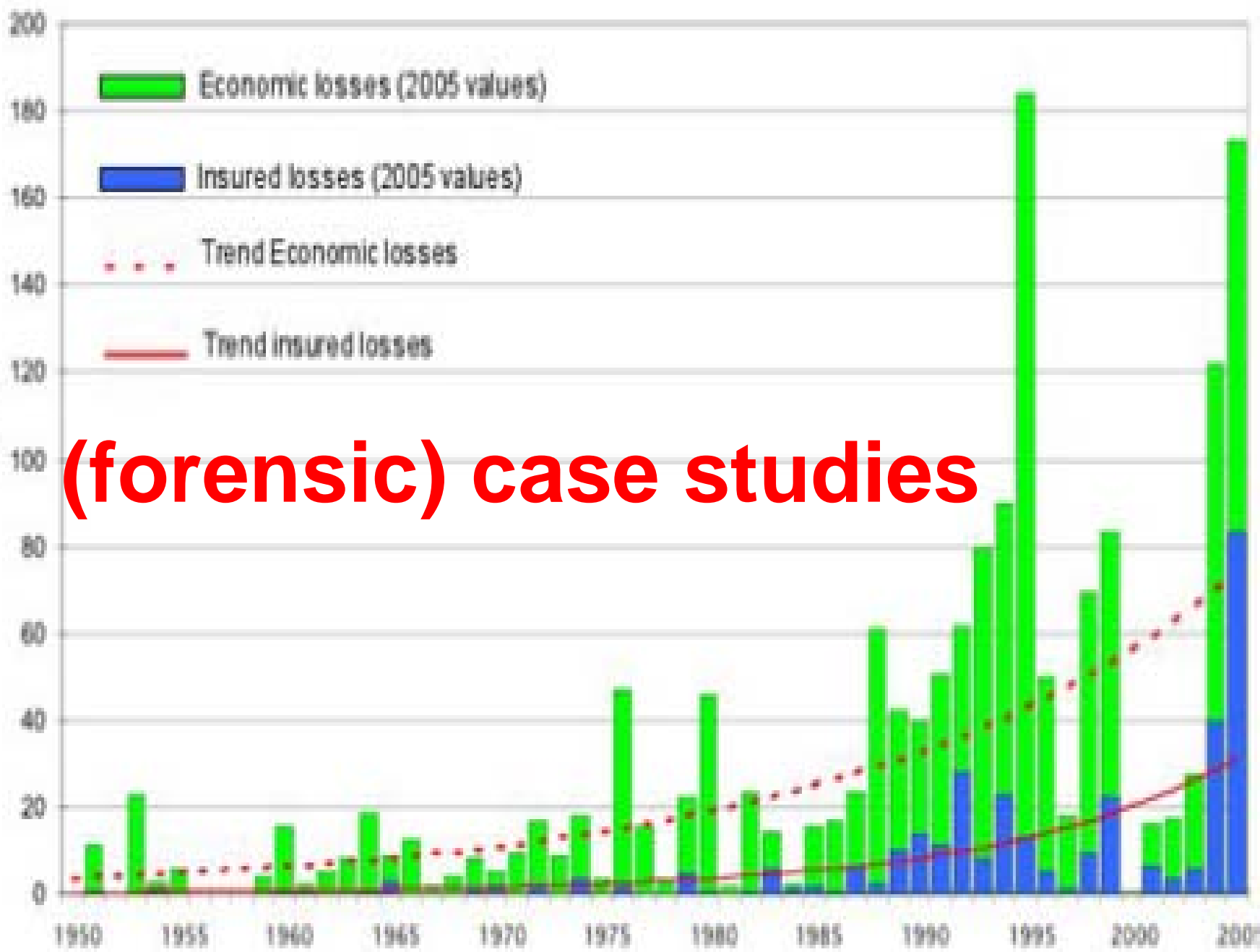
# Integrated Research on Disaster Reduction (IRDR)

- International Council for Science
- International Social Sciences Council
- Collaboration of IDRC

# **Other speakers (especially Gordon McBean) in this session will describe the IRDR in its broader aspects**

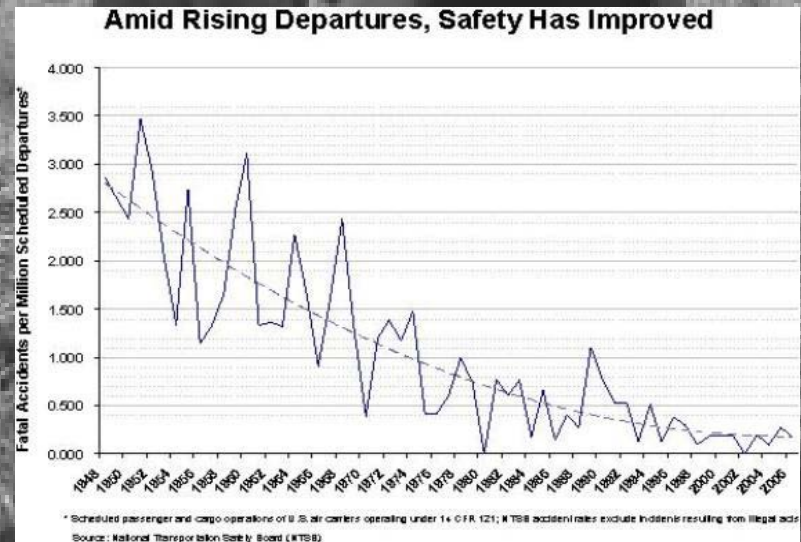
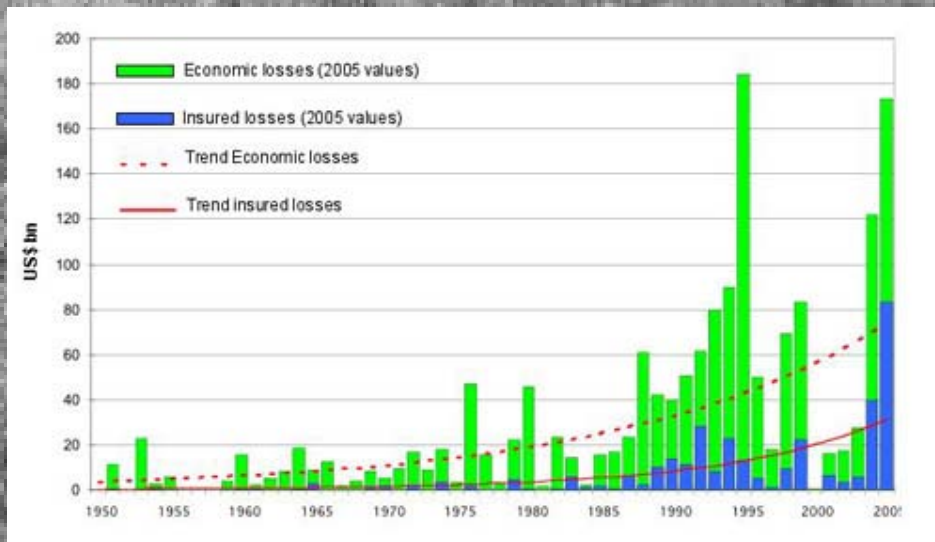
- **Here the focus is on...**
- **(two) cross-cutting themes**
  - **(forensic) case studies**
  - **demonstration projects (long-range research network)**

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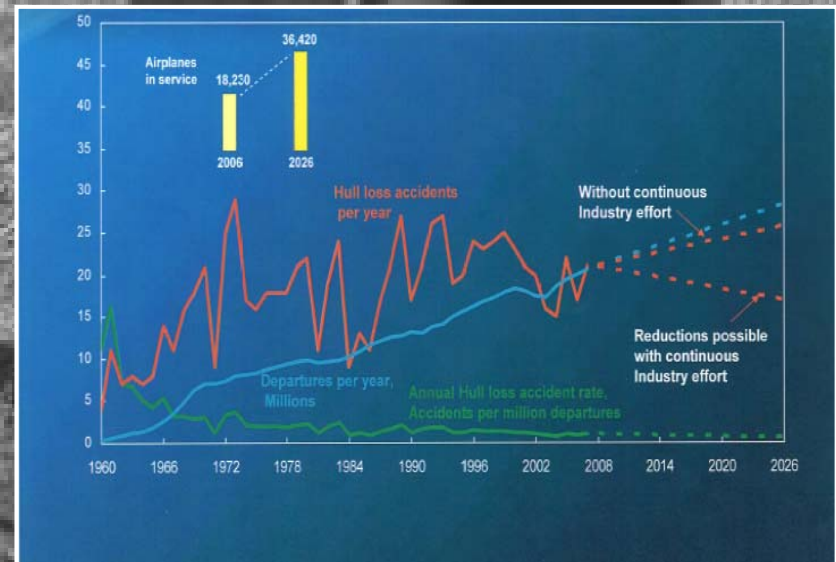
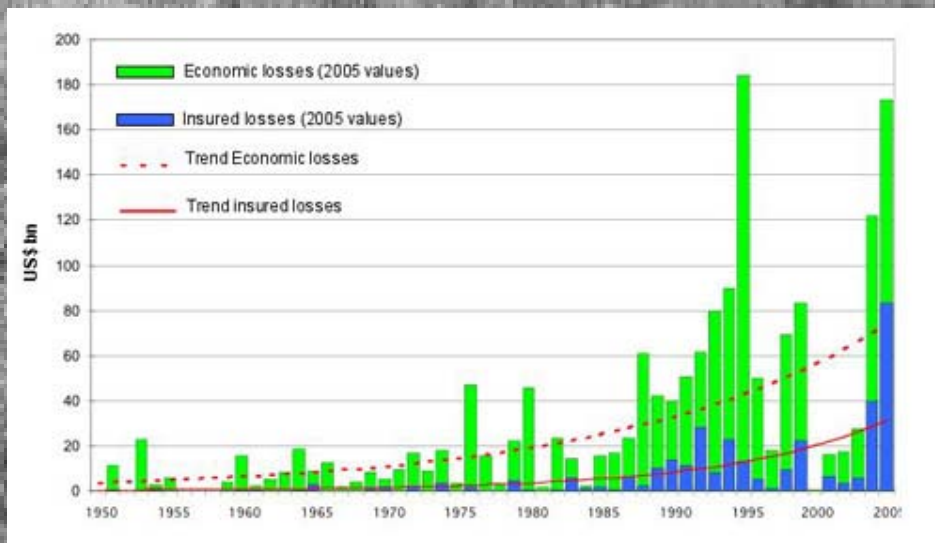


**(forensic) case studies**

# Case studies...learning from experience



# Case studies...learning from experience... continued



# Learn from experience

- **template**
- **independent investigation**
- **trained staff**
- **broad scope**
- **full stakeholder participation**
- **recommendations, not regulations**
- **public findings, broadly disseminated**

# Demonstration projects

- **ILTER/NEON analogy**
- **Worldwide array of long-term hazard research sites**
  - **Enduring, place-based, longitudinal studies**
  - **Link research and practice – progressive building of resiliency**
  - **Include vulnerable communities in the science agenda**
  - **Comparative analysis**
  - **Multi-disciplinary**
- **Foster engagement of ICSU unions, *et al.***
- **Assessment, data management, and monitoring**

# **(notional) selection criteria**

- **Preference for urban environments**
- **Strong partner organizations**
- **Commitment to understanding of long-term recovery issues**
- **Standardized data collection and sharing**
- **Study (*inter alia*) barriers to research uptake by practitioners**
- **uniqueness**

# To quote from the report...

- ***“The establishment of such a network has the potential to change culture with respect to hazards, replacing a mind-set focused on emergency-response, followed by rebuild-as-before, with a societal approach based on building resilience in advance, learning from experience, and not repeating mistakes. It may well be that this embryonic cultural shift, emerging initially at the long-term research sites, and then spreading, would be the great legacy of the IRDR.”***