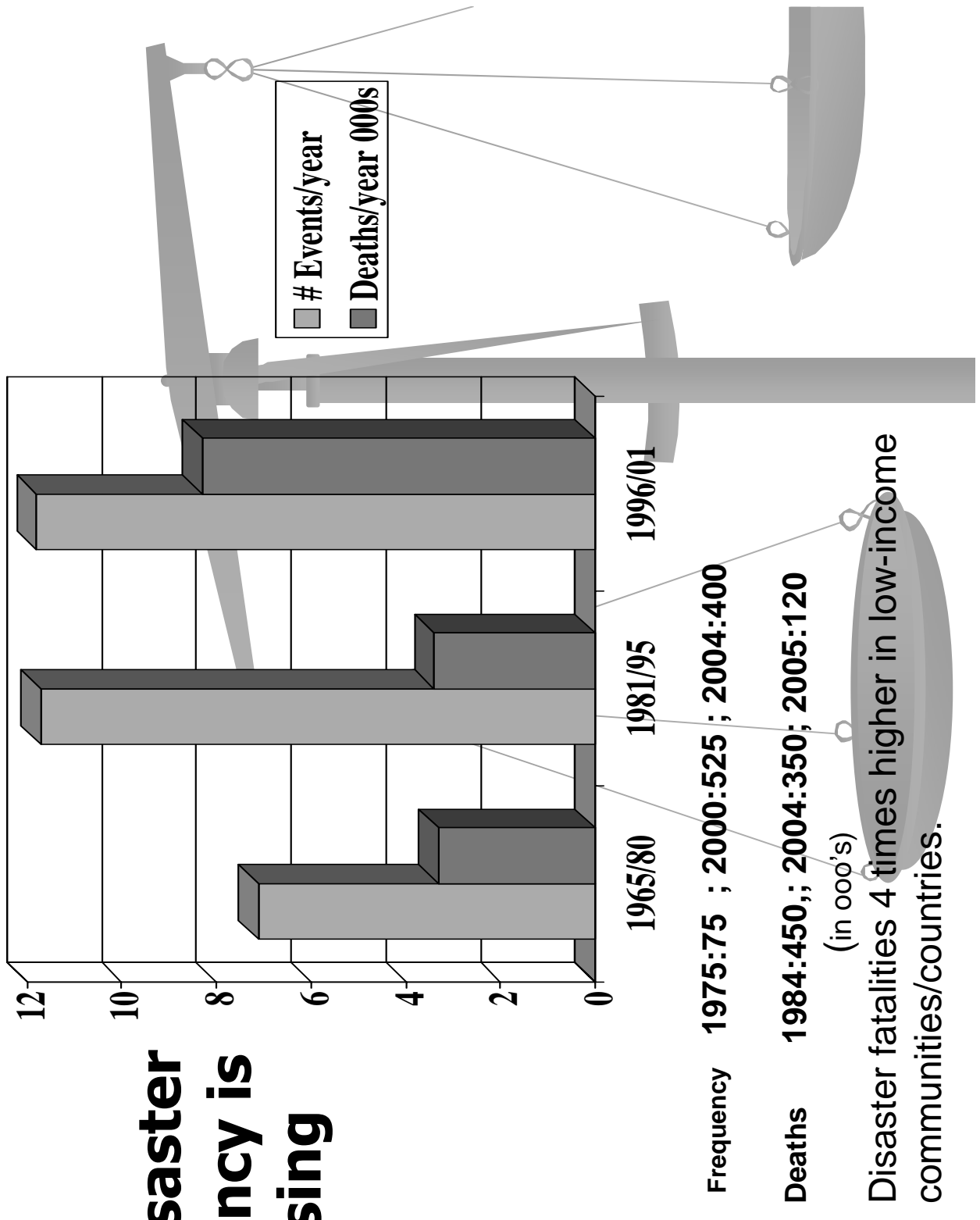


Financial Management of Catastrophes

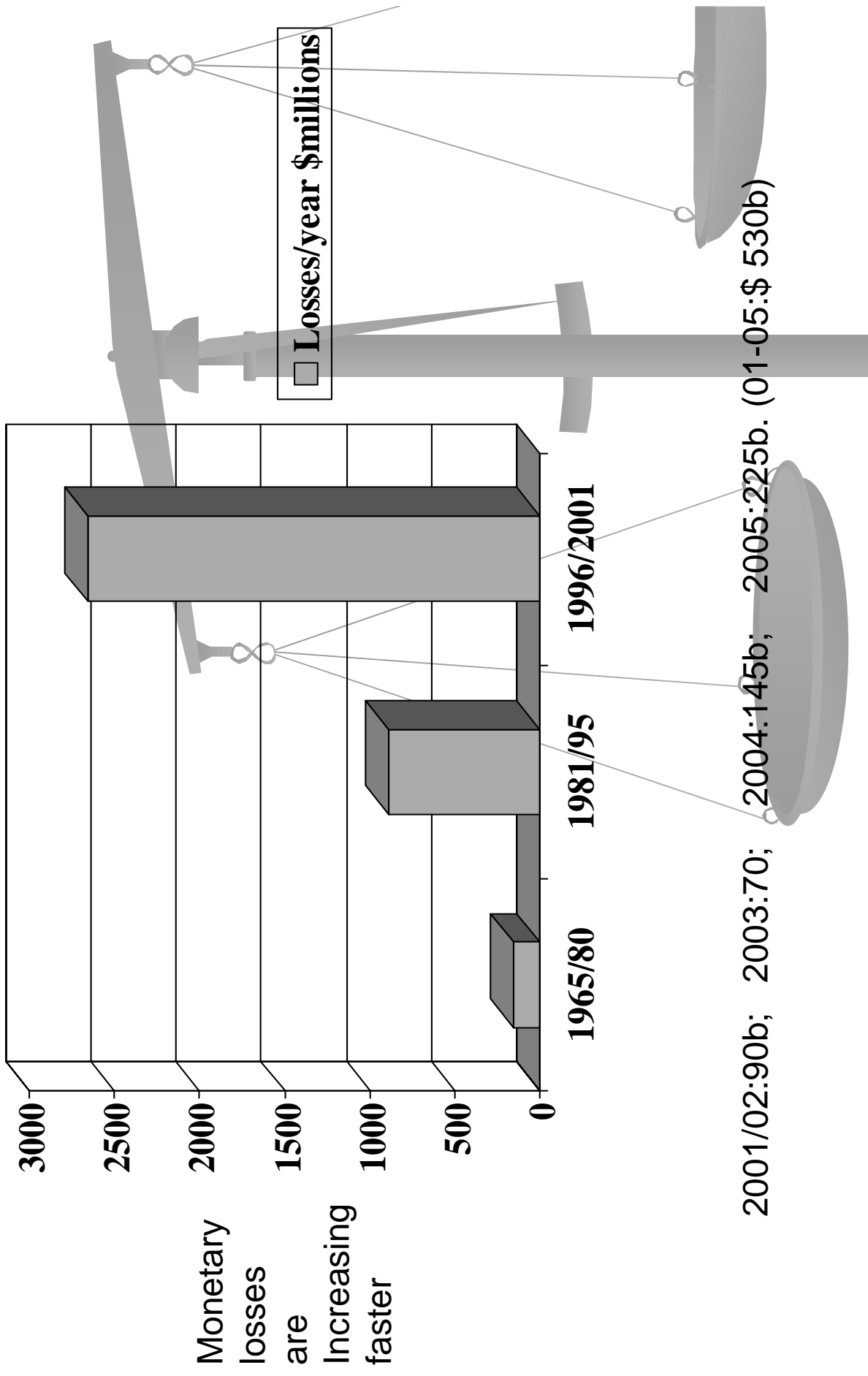
- Regulatory Perspective

The Global Scenario

Basic Disaster Frequency is Increasing



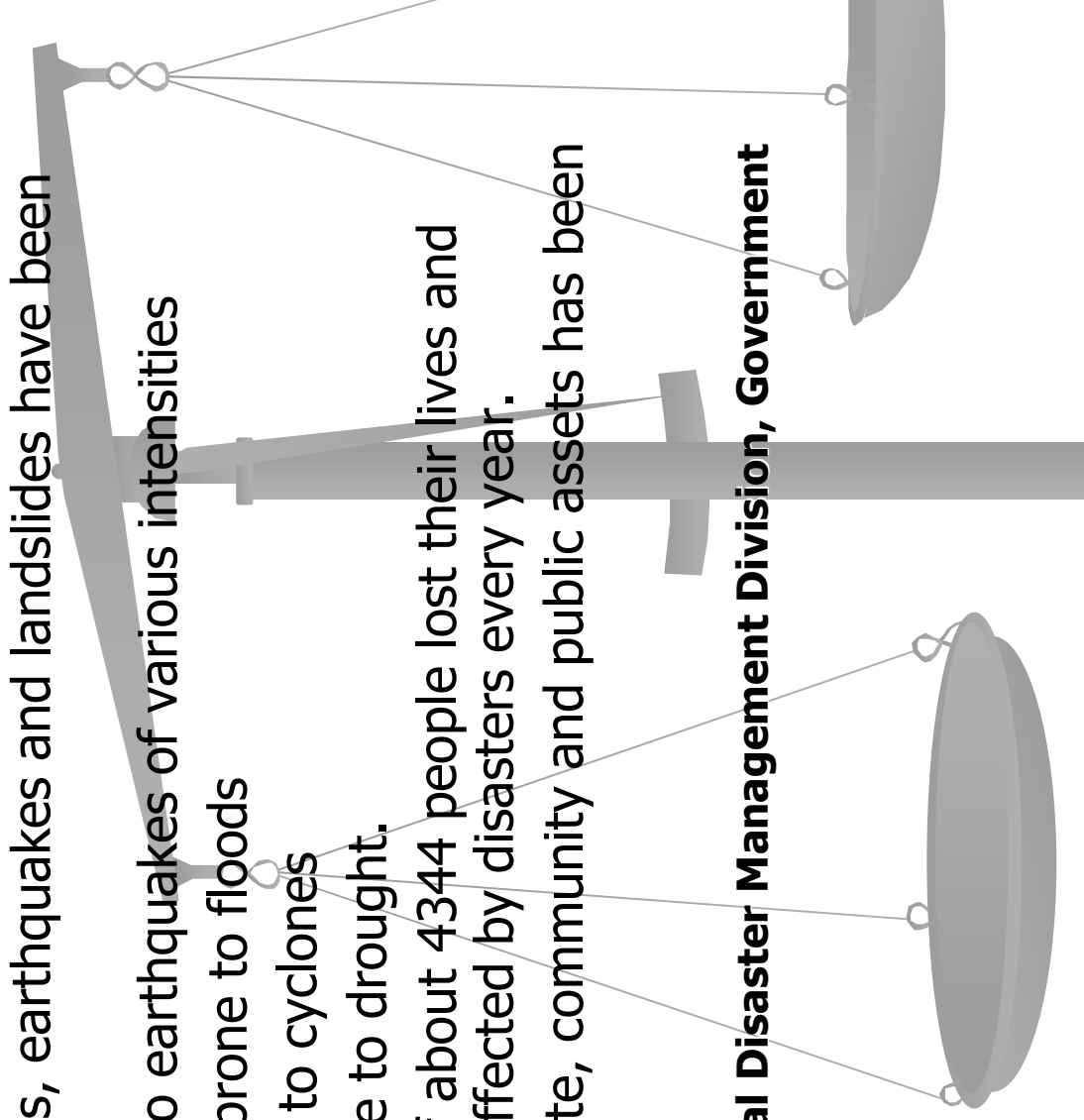
Economic Impact



The Indian Scenario

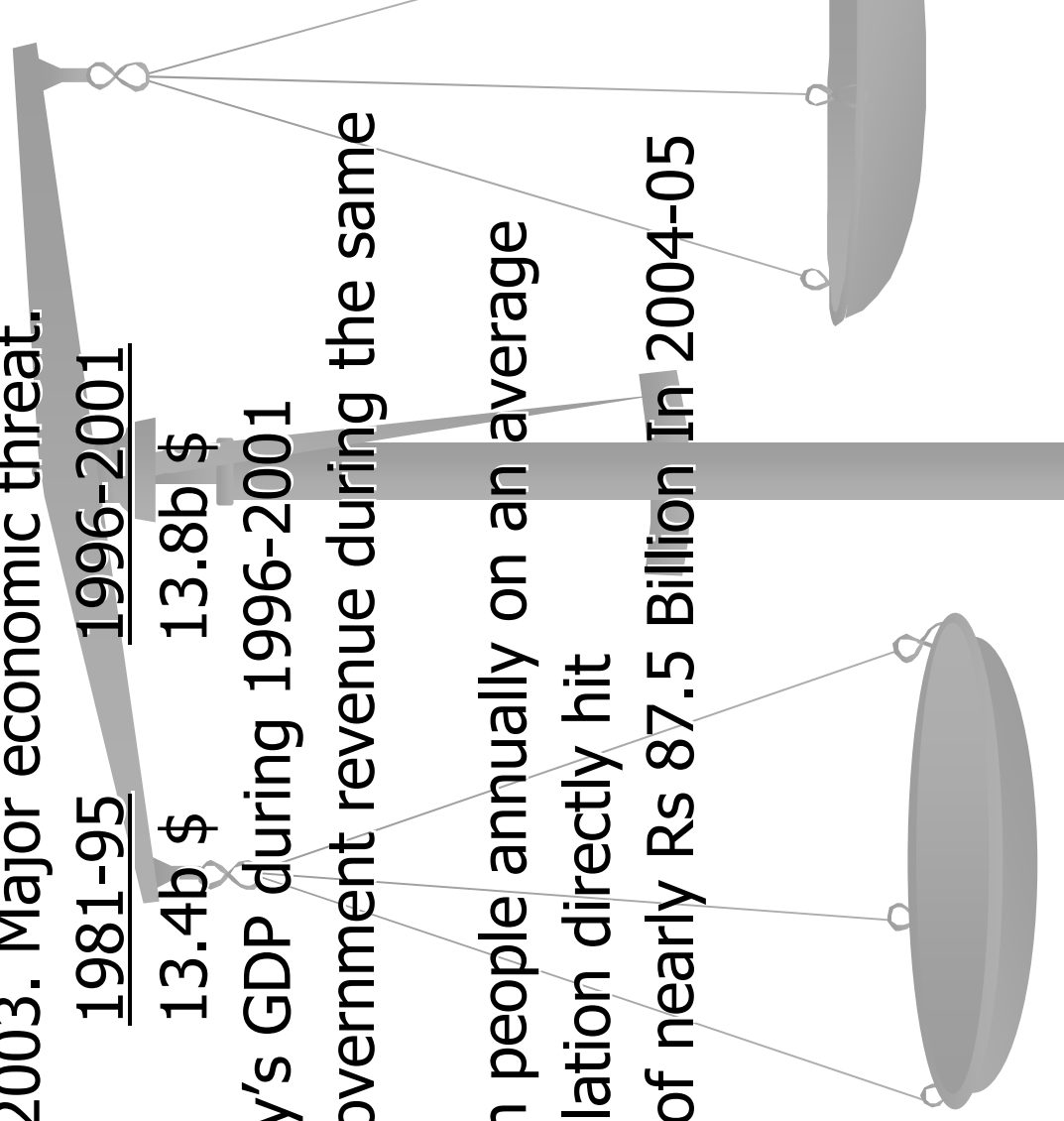
- ❖ India traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions.
- ❖ Floods, droughts, cyclones, earthquakes and landslides have been recurrent phenomena.
- ❖ 60% of landmass prone to earthquakes of various intensities
- ❖ Over 40 million hectares prone to floods
- ❖ 8% of total area is prone to cyclones
- ❖ 68% of area is susceptible to drought.
- ❖ In 1990-2000, average of about 4344 people lost their lives and about 30 million people affected by disasters every year.
- ❖ The loss in terms of private, community and public assets has been astronomical.

(Source: Status Report, National Disaster Management Division, Government of India , 2004)



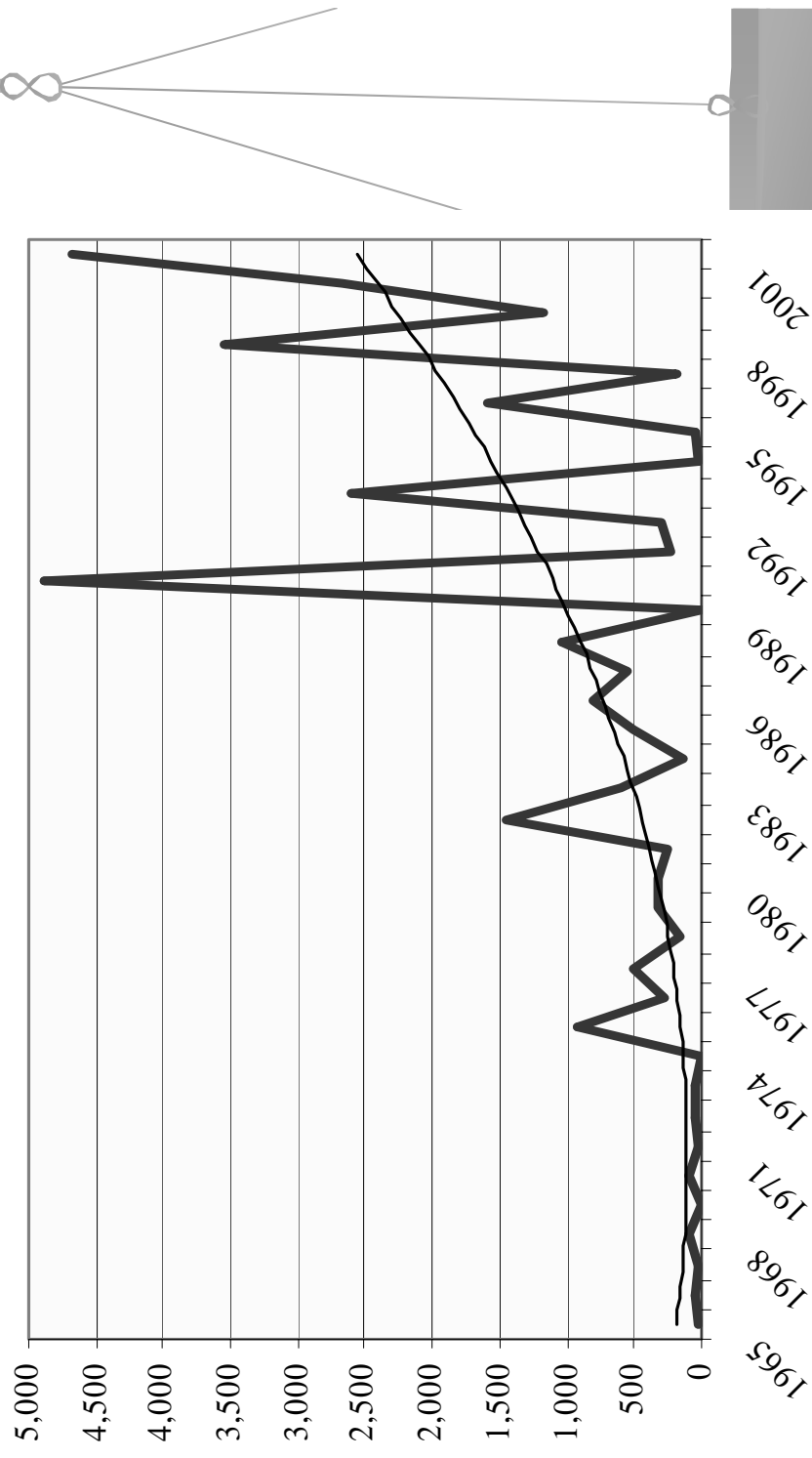
Indian Scenario

- World Bank study in 2003. Major economic threat.
- Losses: 1965-80 2.9b \$ 1981-95 13.4b \$ 1996-2001 13.8b \$
- Eroded 2% of country's GDP during 1996-2001
- Consumed 12% of Government revenue during the same period
- Affected 70-80 million people annually on an average
- Over 6% of the population directly hit
- India suffered a loss of nearly Rs 87.5 Billion In 2004-05



Indian Scenario

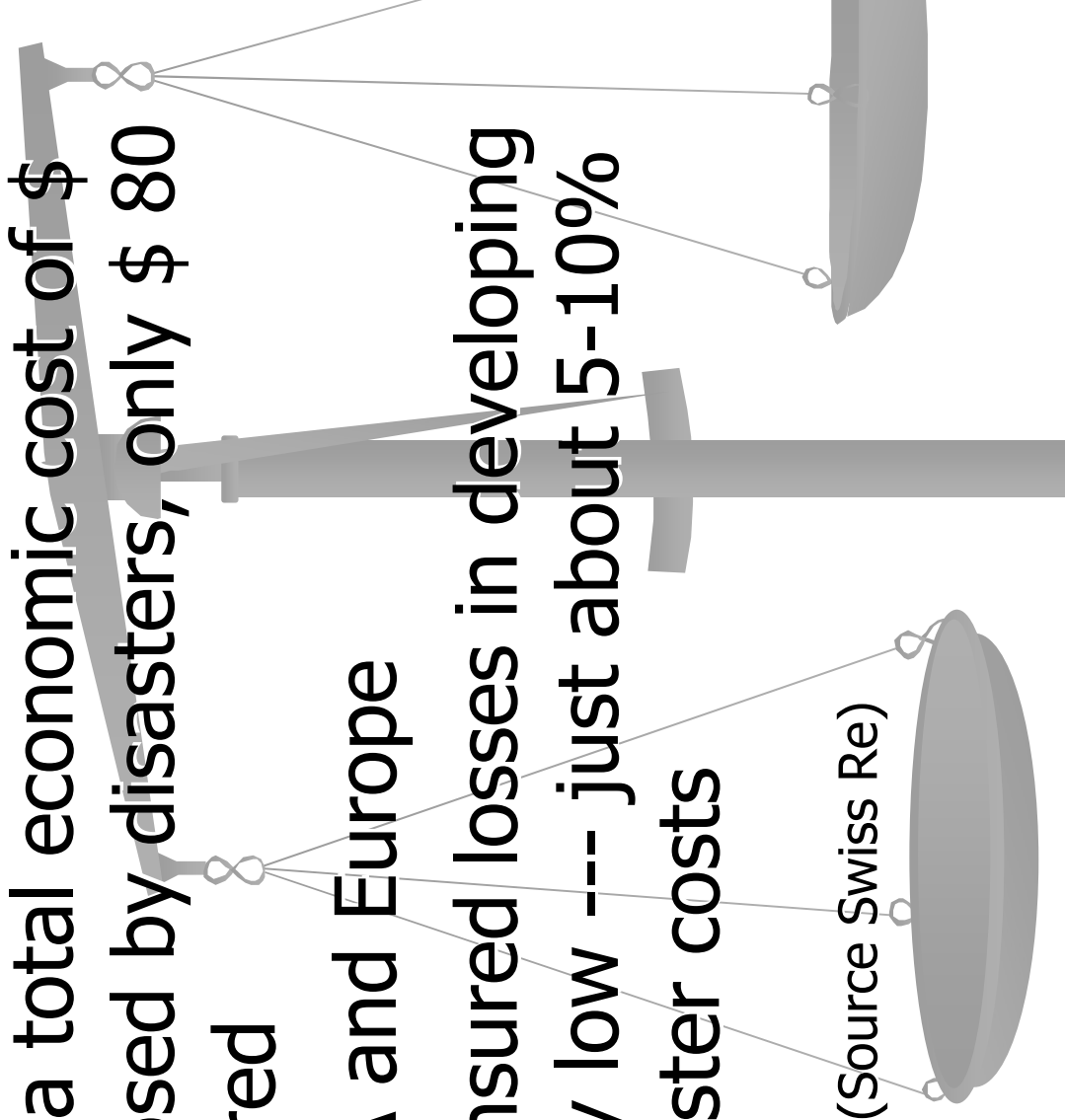
Reported Catastrophe Losses in India, 1965-2001 \$ Millions



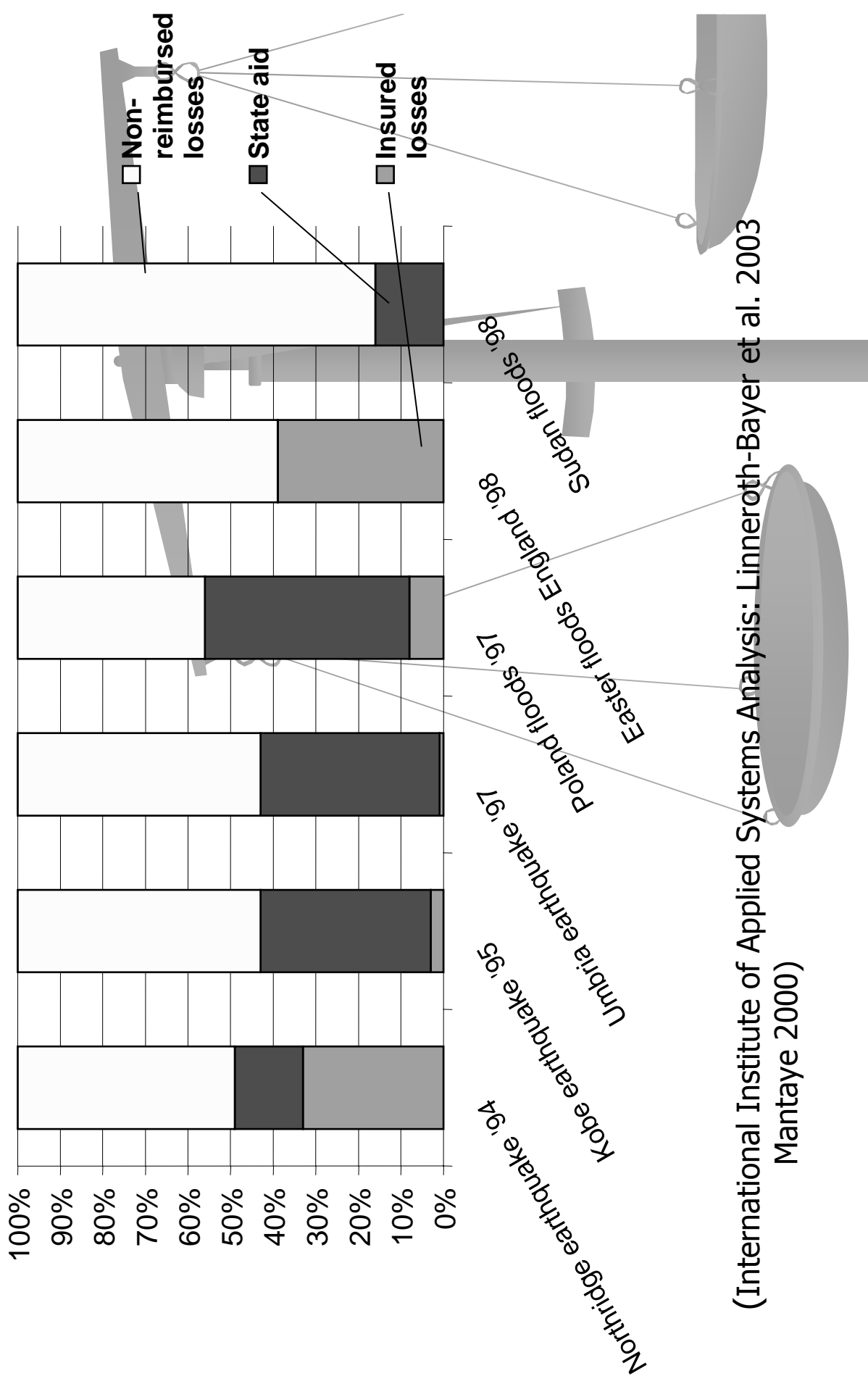
Insurance Perspective

- In 2005, out of a total economic cost of \$ 225 billion imposed by disasters, only \$ 80 billion was insured
- Primarily in USA and Europe
- Percentage of insured losses in developing countries is very low --- just about 5-10% of the total disaster costs

(Source Swiss Re)



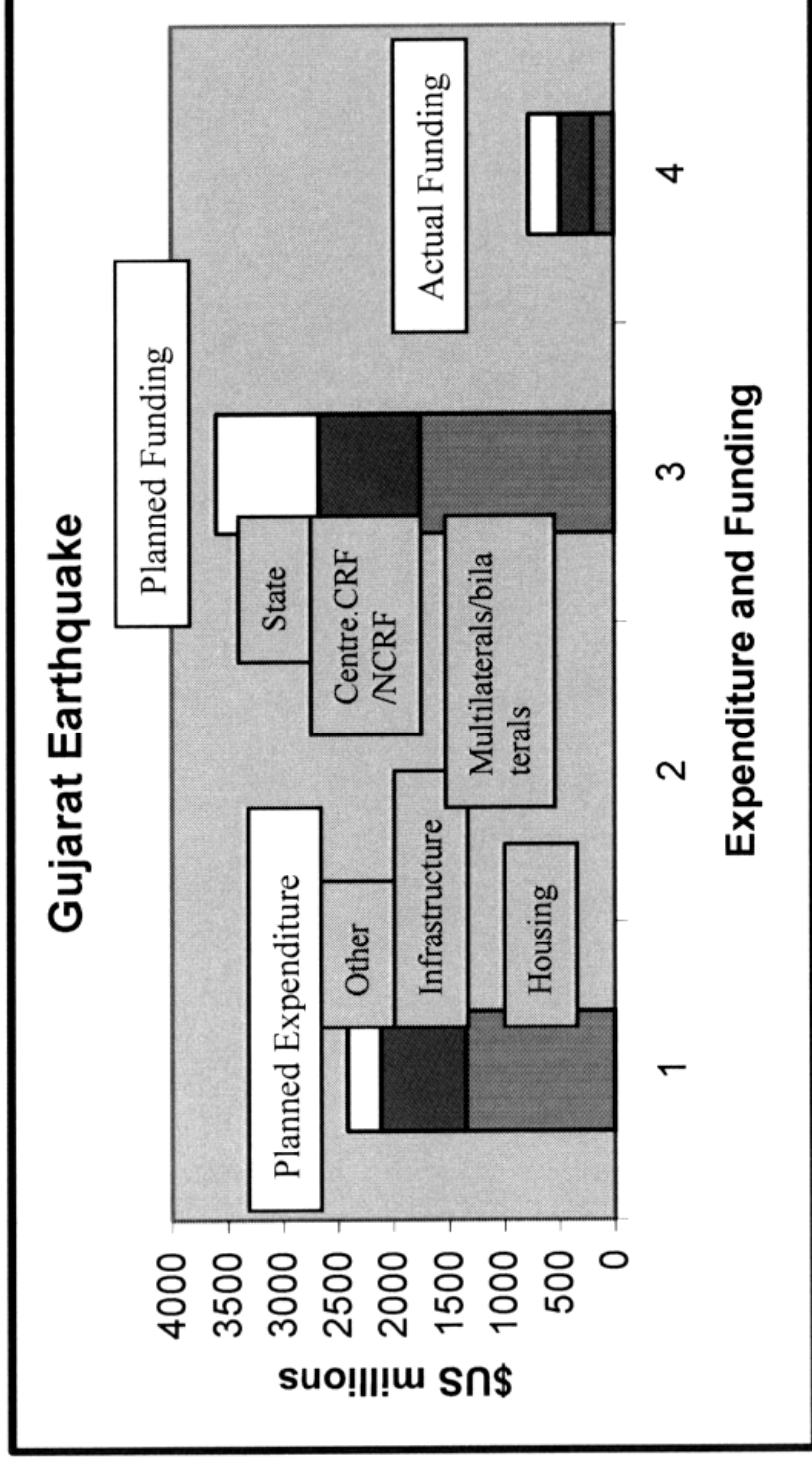
Losses reimbursed from insurance and government assistance as a percentage of direct losses



(International Institute of Applied Systems Analysis: Linneroth-Bayer et al. 2003
Mantaye 2000)

Gujarat Earthquake 2001

Financing Gap at the end of 2002

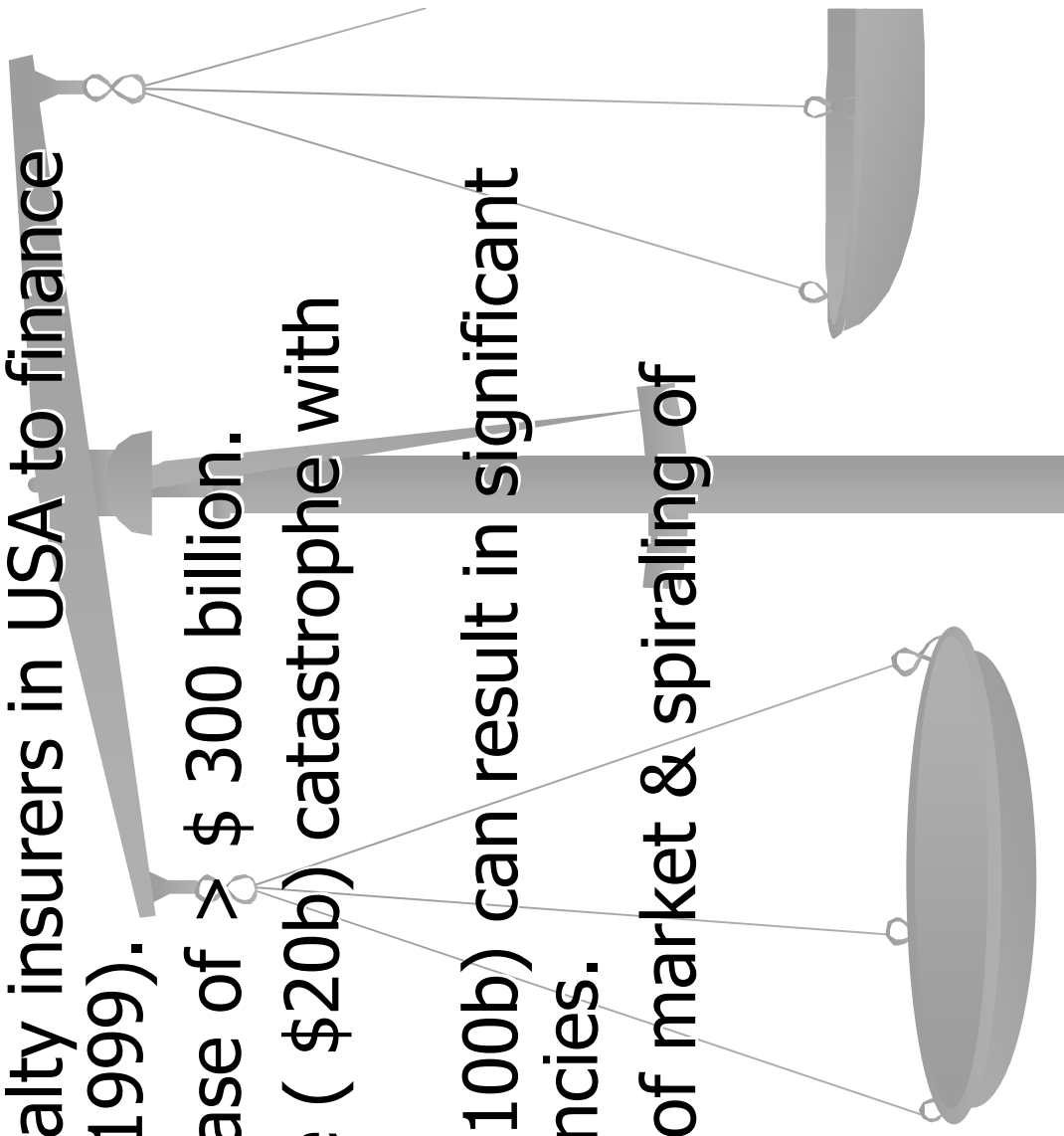


Gujarat earthquake – Insurable (economic) losses greater than US\$2 billion. Insurance losses US\$16 million.

Source: MOF/World Bank

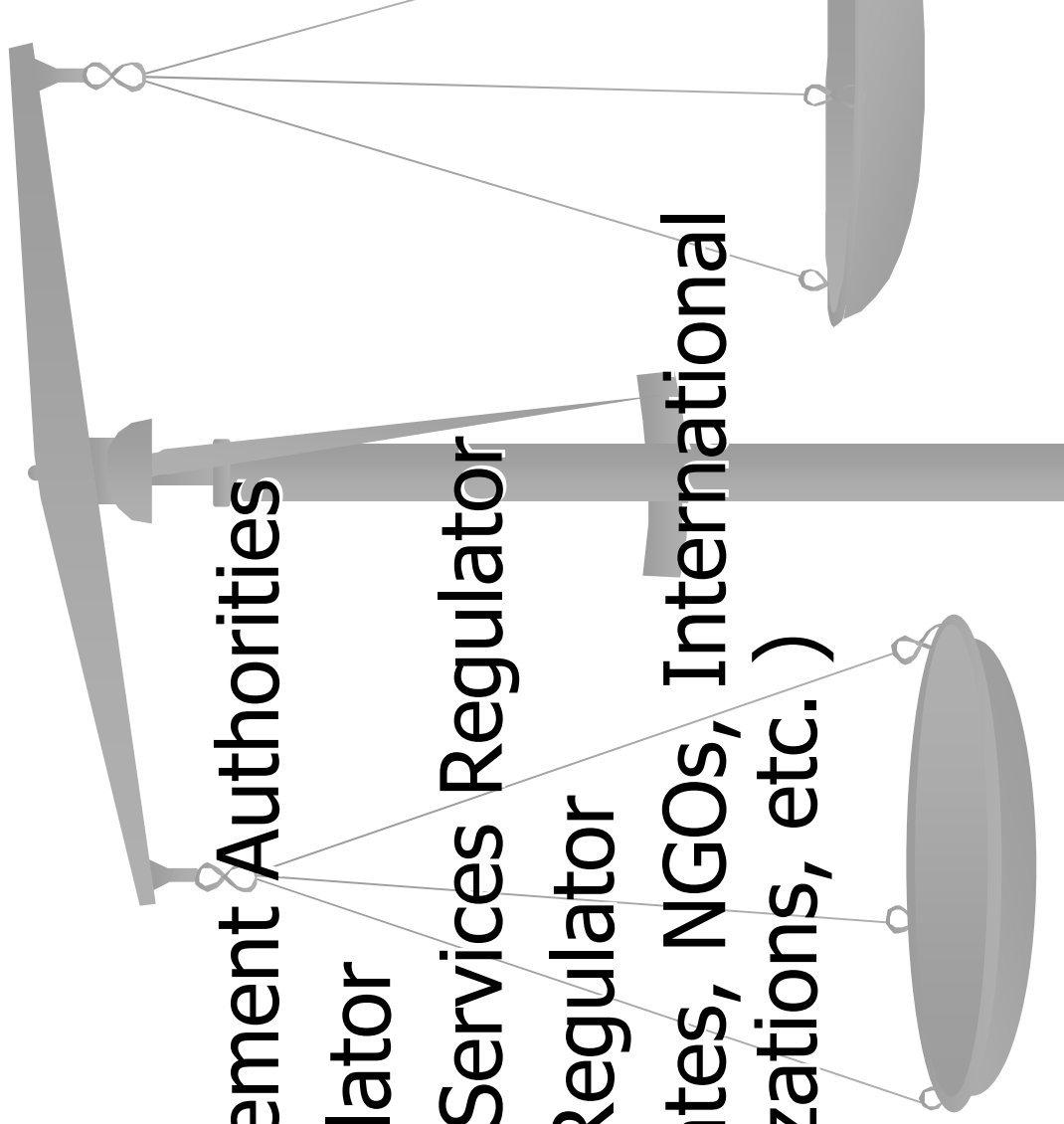
Can Insurers Cope With Catastrophes?

- A theoretical & empirical analysis of capacity of property and casualty insurers in USA to finance major cat losses (1999).
- Capital & equity base of > \$ 300 billion.
- Can pay moderate (\$20b) catastrophe with comfort
- But a large one (\$100b) can result in significant number of insolvencies.
- Severe disruption of market & spiraling of premiums.



Multi-Regulatory Nature of Catastrophe Financial Management.

- Government
- Disaster Management Authorities
- Insurance Regulator
- Other Financial Services Regulator
- Capital Market Regulator
- Others (Corporates, NGOs, International Funding Organizations, etc.)



Facilitating Role of Insurance Regulator

- Some Key Areas

- Capital & Solvency.
- Claims Management.
- Product & Coverage.
- Development & Penetration.
- Capacity Creation.
- Risk pooling.
- Coordination & Cooperation with Regulatory and other organizations
- (These are not stand-alone areas and inter-related)

