Bam, Iran Earthquake

Northridge Earthquake

Indian Ocean Tsunami

# Disasters and Social Vulnerability: Insights From Theory and Research

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#### **Presentation Themes**

- Theoretical Framework for the Analysis of Social Vulnerability
- Ways of Conceptualizing Vulnerability
- Contributors to Vulnerability

## What is a Disaster? Disasters as Distinguished From....

- Hazards
- Chronic or Long-Term Environmental Hazards
- Slow-Onset Events
- Epidemics

- "Dissensus" Crises Affecting Communities, Societies: Riots, Communal Violence
- War
- Mass Migrations, Humanitarian Crises

#### **Contrasting Paradigms**

Classical or Systems Perspective

Vulnerability Perspective

## Systems-Oriented Perspective: Defining Disaster

Charles Fritz (1961):

"An event, concentrated in time and space, in which a society, or a relatively self-sufficient subdivision of a society, undergoes severe danger and incurs such losses to its members and physical appurtanances that the social structure is disrupted and the fulfillment of all or some of the essential functions of the society is prevented."

#### **Assumptions of the Systems Approach**

- Societies and Communities are Systems, Organized Around Essential Social Functions
- Disasters Constitute Crises for Social Systems, Forcing Social Units (Households, Organizations, etc.) to Adapt
- Disasters Originate in the Environment and Impinge Upon Social Systems

#### **Shortcomings of the Systems Perspective**

- Event-Focused, Rather Than Process-Focused: Characterizes Disasters as Beginning at Time of Impact
- Neglect of Diversity of Subunits Within Societies, Communities, Possibility of Differential Impacts, Differing Perspectives
- Rooted in Functionalist Assumptions that Characterized U. S. Sociology in 1950s, 60s

#### **Vulnerability Paradigm**

- Sees Causes of Disasters as Internal to the Social Order, Not External
- Sees Disasters as Experienced Differently by Different Social Units, Groups Within Communities and Societies
- Sees Society Not as an Integrated "System," but Rather as Characterized by Inequality and the Potential for Conflict

#### Vulnerability Paradigm: Key Assumptions

- Disasters and Disaster Impacts are Socially Produced
- Vulnerability Linked to Larger-Scale Societal Factors and Processes and Their Interaction With Disasters
- Groups Within Society are Differentially Vulnerable to Disasters

#### The Progression of Vulnerability

**UNSAFE DYNAMIC ROOT CAUSES DISASTER HAZARDS CONDITIONS PRESSURES** Fragile physical environment Lack of Dangerous Earthquake Local institutions locations Training Unprotected Appropriate skills High winds buildings and Limited Local investments (cyclone/ infrastructure access to hurricane/ Local markets typhoon) Power Press freedom Fragile local RISK = Ethical standards economy Structures Flooding in public life Livelihoods at risk Hazard + Resources Low income levels. **Vulnerability** Volcanic Macro-forces Ideologies eruption Rapid population **Vulnerable society**  Political systems arowth Special groups R = H + VLandslide Rapid urbanisation at risk Economic systems Arms expenditure Lack of local Debt repayment Drought institutions schedules Virus and Deforestation **Public actions**  Decline in soil pests Lack of disaster productivity preparedness Prevalence of

endemic disease

#### **Contributors to Vulnerability**

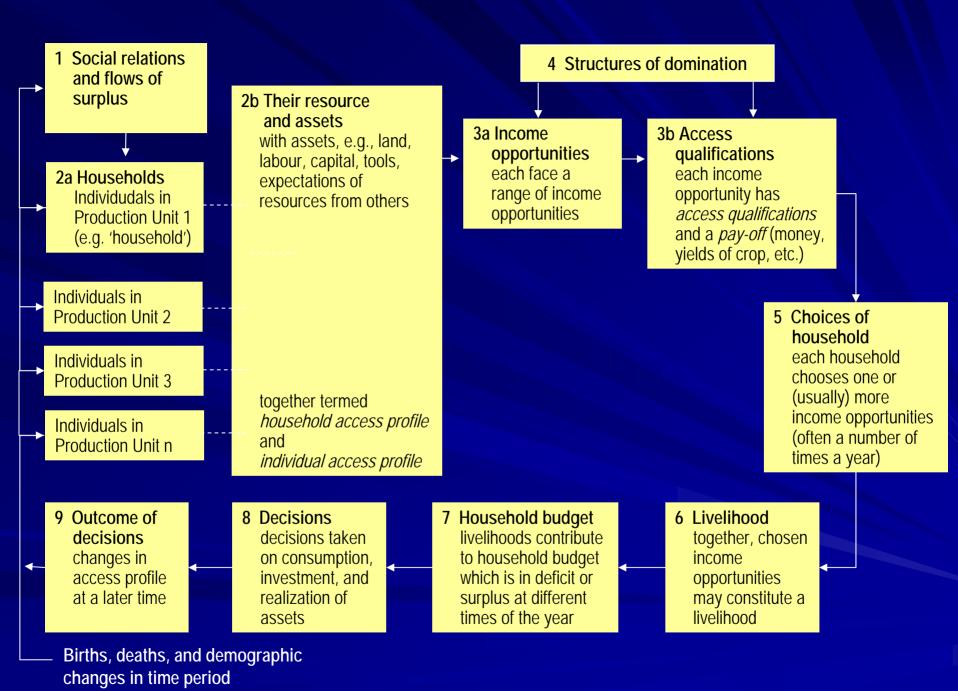
"Hazardousness of Place"

■ Vulnerable Built Environment, Ecosystems

■ Socially Structured "Event" and "Consequence" Vulnerability

# The Built Environment: Bam Earthquake: Vulnerability of Traditional Adobe Construction





Source: At Risk: Natural Hazards, People's Vulnerability, and Disasters by P. Blaikie, T. Cannon, I. Davis, and B. Wisner

### Joseph Henry Press "Second Assessment" Series

American Hazardscapes. Susan L. Cutter, ed. (2001)

Paying the Price. Howard Kunreuther and Richard J. Roth, Sr., eds. (1998)

Disasters by Design. Dennis Mileti. (1999)

Facing the Unexpected. Kathleen J. Tierney, Michael K. Lindell, and Ronald W. Perry. (2001)

Cooperating with Nature. Raymond J. Burby, ed. (1998)

## **Event and Consequence Vulnerability**

**■ Who Prepares?** 

■ Who Suffers
Disproportionate
Losses?

■ Who is More Resilient, Able to Recover?

#### **VULNERABILITY RELATED TO...**

- Income and Educational Levels
- Minority Group Status, Gender, Language Barriers, Citizenship Status
- "Social Capital" and Access to Resources

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