

The Social Dimensions of Disasters

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“Recent Developments in geo-hazard disaster management;
focusing on earthquake vulnerability reduction in mountain
regions.”

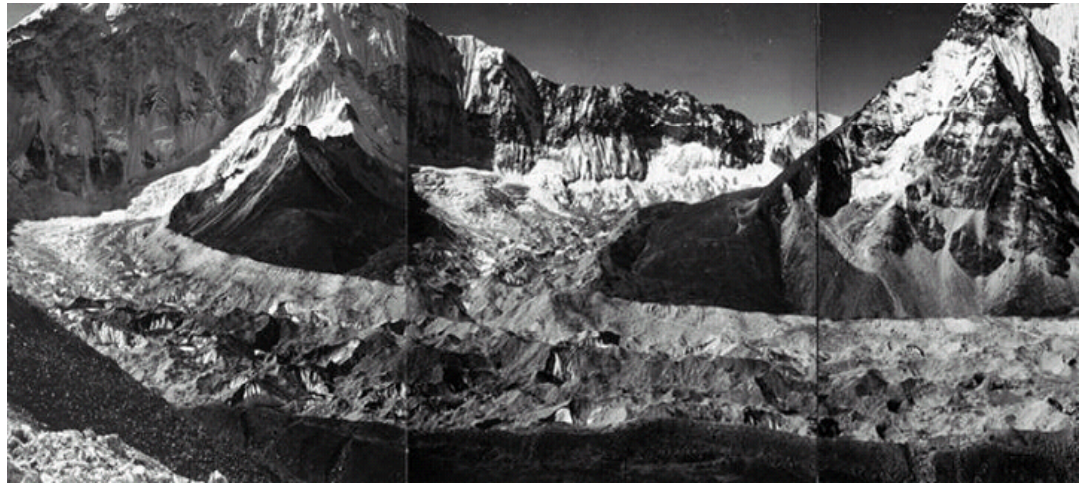
Peshawar University Summer Campus, 21st August 2008

Disasters are too often conceived as being purely technical, physical issues, whereas they are fundamentally associated with social and governance issues.

KEY CONCEPTS

Hazard

- A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.
- Potential threat to human and their welfare



Vulnerability

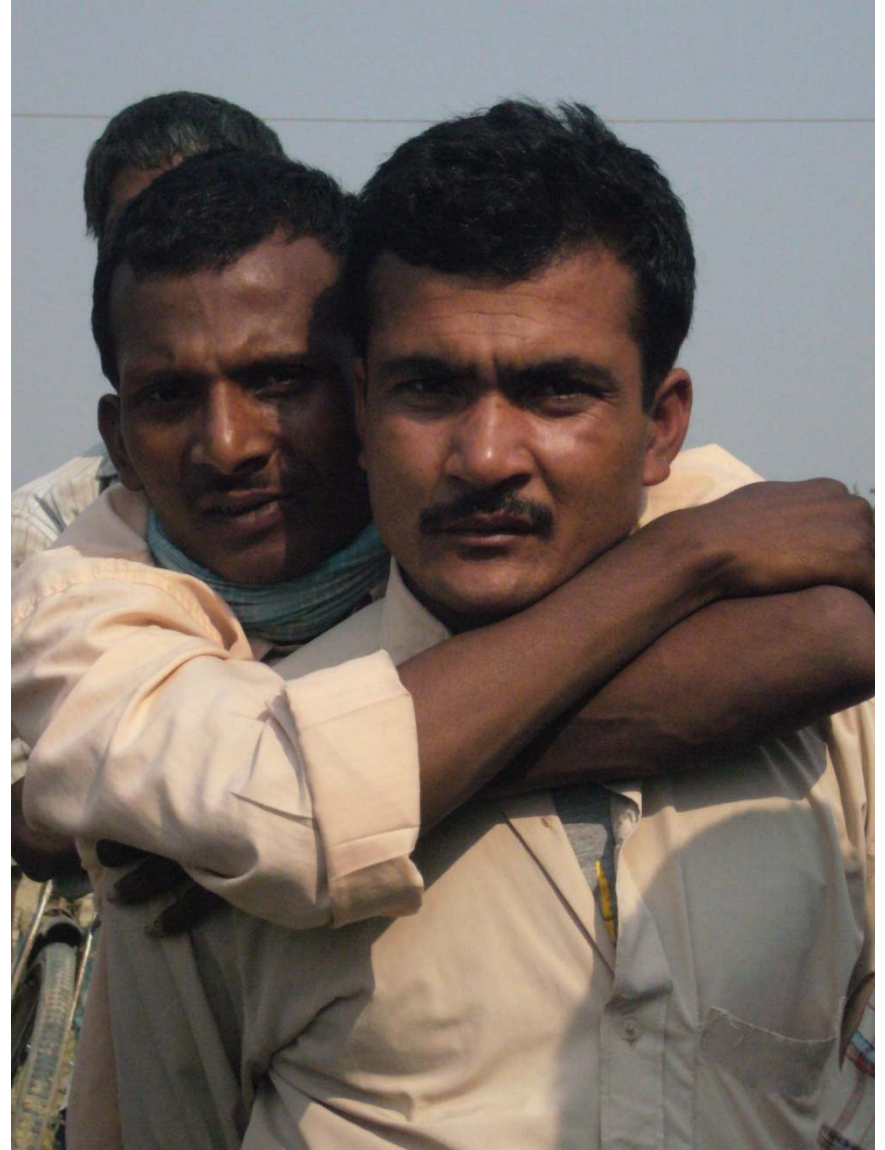
- The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.



$$V = f(\text{Exposure} + \text{Sensitivity})$$

Capacities

- A combination of all the strengths and resources available within a community, society or organization that can reduce the level of risk, or the effects of a disaster.
- E.g., physical, institutional, social or economic , skilled personal or collective attributes such as leadership and management.



Risk

$$\text{Risk} = \frac{\text{Hazards} \times \text{Vulnerability}}{\text{capacities}}$$



Disasters

- A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources.
- The realization of the risk
- The failure of development: result of socio-economic and political structures and processes.
- Reducing disaster means mitigating the hazard AND/OR dealing with vulnerability/capacity



KEY QUESTIONS

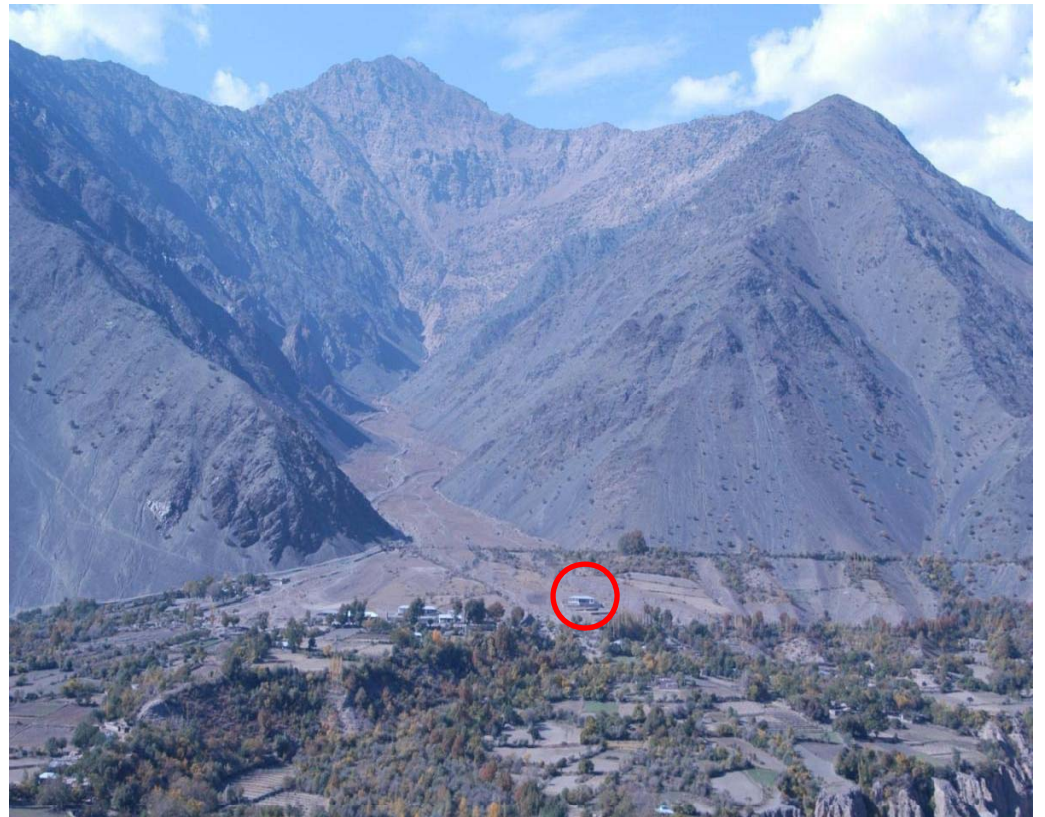
Why people are living at risks?

- Lack of knowledge or lack of options?
- Risk trade-offs: People are often facing multiple stresses. For example, they often have to make difficult choices between long-term protection against natural hazard risks and immediate livelihood gains such as income and food security.
- Need to consider the multiple stresses people face (from 'extraordinary' to 'everyday' risks) rather than focussing solely on the natural hazard



What are the key factors that influence people's vulnerability to disasters?

- Various factors acting at different scale (time and space) simultaneously or not
 - physical , socio-cultural, institutional, historical, economic, and political factors



Example: social variables

- Social variables such as class, caste, ethnicity, gender, disability, health status, age and immigration status contribute to influence:
 - Access to resources (including information, knowledge, and technology)
 - Access to political power and representation
 - Social capital, including social networks and connections
 - Beliefs and customs
 - Attitudes towards change
 - ...



Each new flood weakens the economic status of this dalit women (Eastern Terai, Nepal)

Who are the most vulnerable to disasters?

Those who are socially excluded and economically insecure, those who are less empowered and have fewer assets will bear the highest costs of disasters.

Women
Children
Elders
Disabled
Ethnic minorities
Poor

DRR must focus on the needs of the most vulnerable.

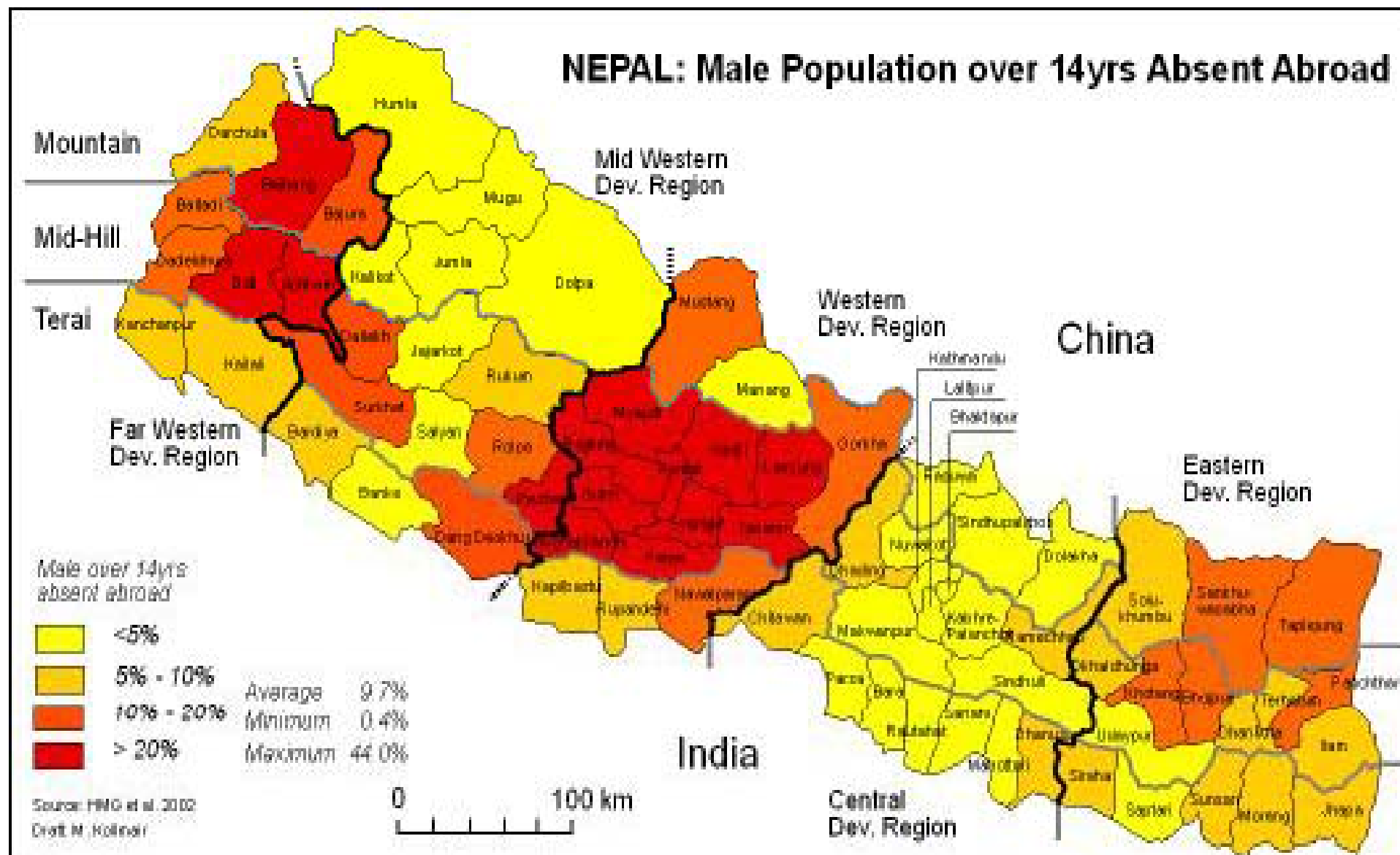


Why vulnerability to natural hazards is rising?

- Vulnerability is dynamic. It is constructed simultaneously on more than one scale.
- Changing risk factors
- Need to consider the micro-macro links:
E.g., global markets, national policies, regional environmental processes, community gender relations, household decision making



Feminization of rural areas: what are the impacts for DRR, health sector, ...?

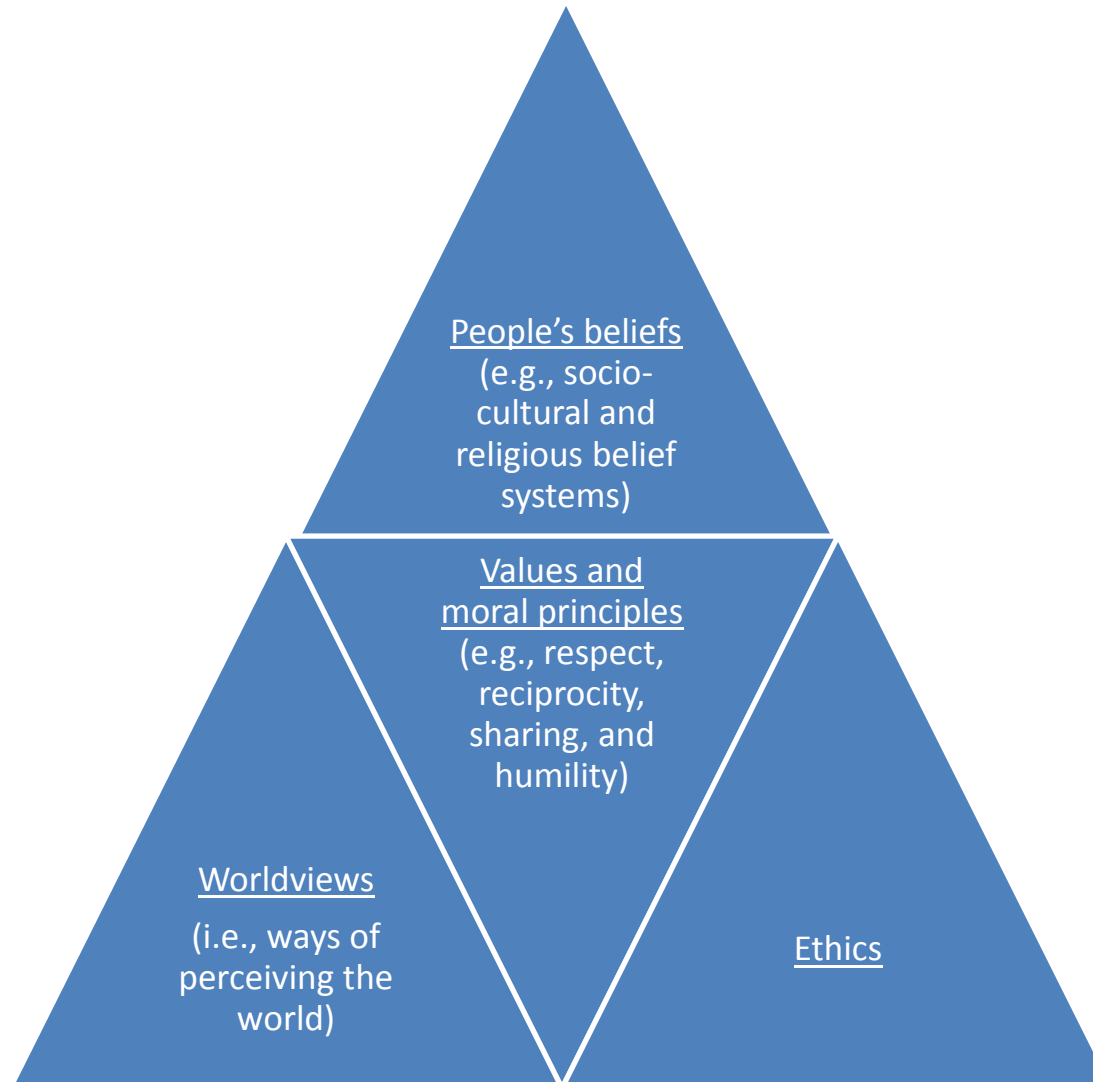


How vulnerability and poverty are linked?

- Vulnerability is not synonymous of poverty but they are closely linked
 - Poverty = processes generating failure to meet basic needs - material needs, health and education, rights, social and cultural security
 - Vulnerability = factors influencing exposure to natural hazards



Why local belief systems do matter?



Why local belief systems do matter?

- Explain why people do things the way they do?
 - People have bounded rationalities: their rationality is limited to their own information, beliefs and (economic) tradeoffs.
- Influence perceptions, exposure and response to risks/hazards
- Play important psychological purpose:
 - help to create shared cultural attitudes and community spirit
 - Reduces sense of people's helplessness; give meaning to things that they cannot control and/or understand



A Sherpa painting of mountain hazards in Khumbu Himal (*Norbu cited in Bjornness, 1986*)

Beliefs are the attenuators and amplifiers of natural hazards

- Case 1: the flood and the veil - protection factor or risk (Dekens 2007)
- Case 2: The purdah system and women's access to information related to cyclone forecasts (Howell 2003)
- Case 3: Religion and water management: the Subak system in Bali (Indonesia), ponds management in the Kathmandu valley (Nepal)
- Case 4: Praying as one community response to drought (Pratt 2002)

Upcoming E-conference: September 22- October 3rd, 2008
(ICIMOD, Mountain Forum)

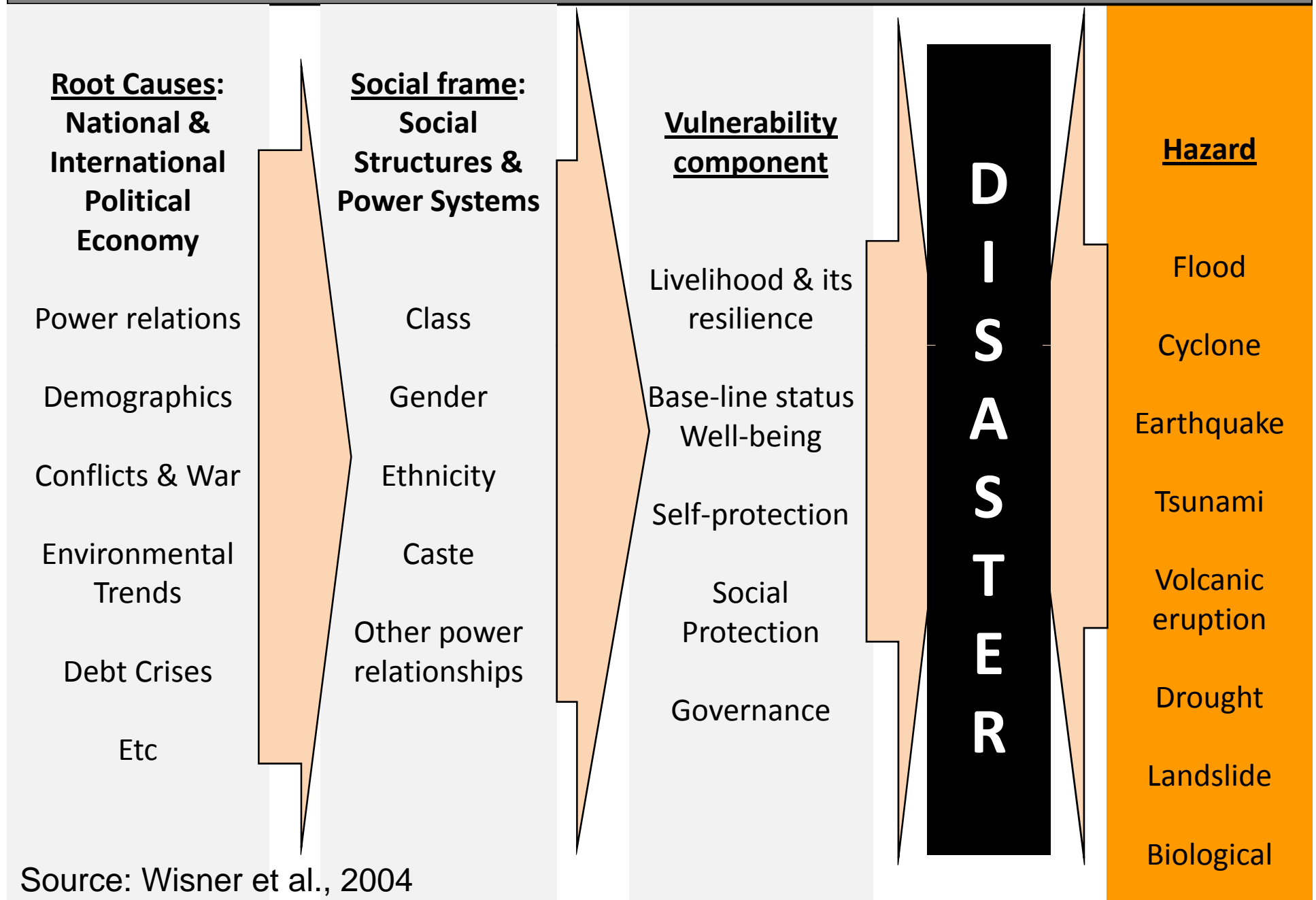
What is the acceptable level of risk to us?

- The level of loss a society or community considers acceptable given existing social, economic, political, cultural, technical and environmental conditions
- Important because we cannot reduce all risks
- Level of preparedness needs to match acceptable risks
- Transparency of decision-making



EXAMPLE OF CONCEPTUAL FRAMEWORK

"Crunch" Pressure and Release (PAR) model



KEY LINKAGES

Disaster and Livelihoods

- Making a living (versus having a job) – determined by the combination of assets, activities and access to these (mediated by institutions and social relations) (Ellis 2000)
- Reducing disaster vulnerability requires FIRST strengthening livelihoods particularly among marginalized and vulnerable groups



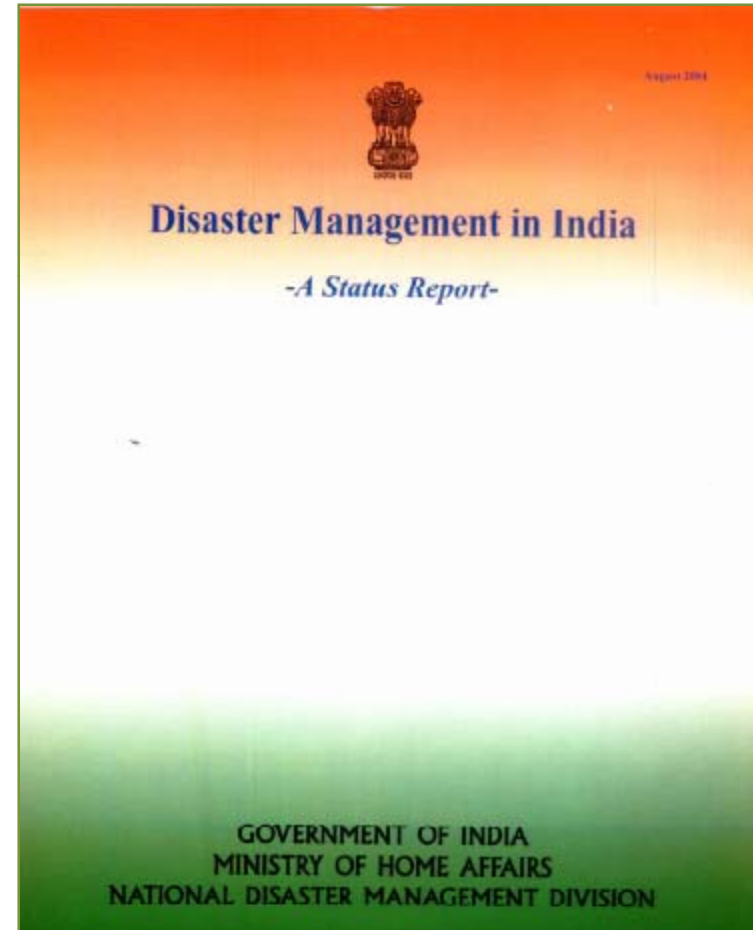
Disaster and Power relations

- The exercise of control over resources, decision-making processes, knowledge creation, transmission, interpretation, and validation.
- DRR = a political process
 - International, state, elite concerns/interests or regional power struggles, prevail at the expense of the local, gender, age, ethic, etc. issues
 - DRR threatens to change power relations between different groups, ideologies, cultures, and so on.
 - The support of a particular type of mitigation measure can favor one social group or areas over another



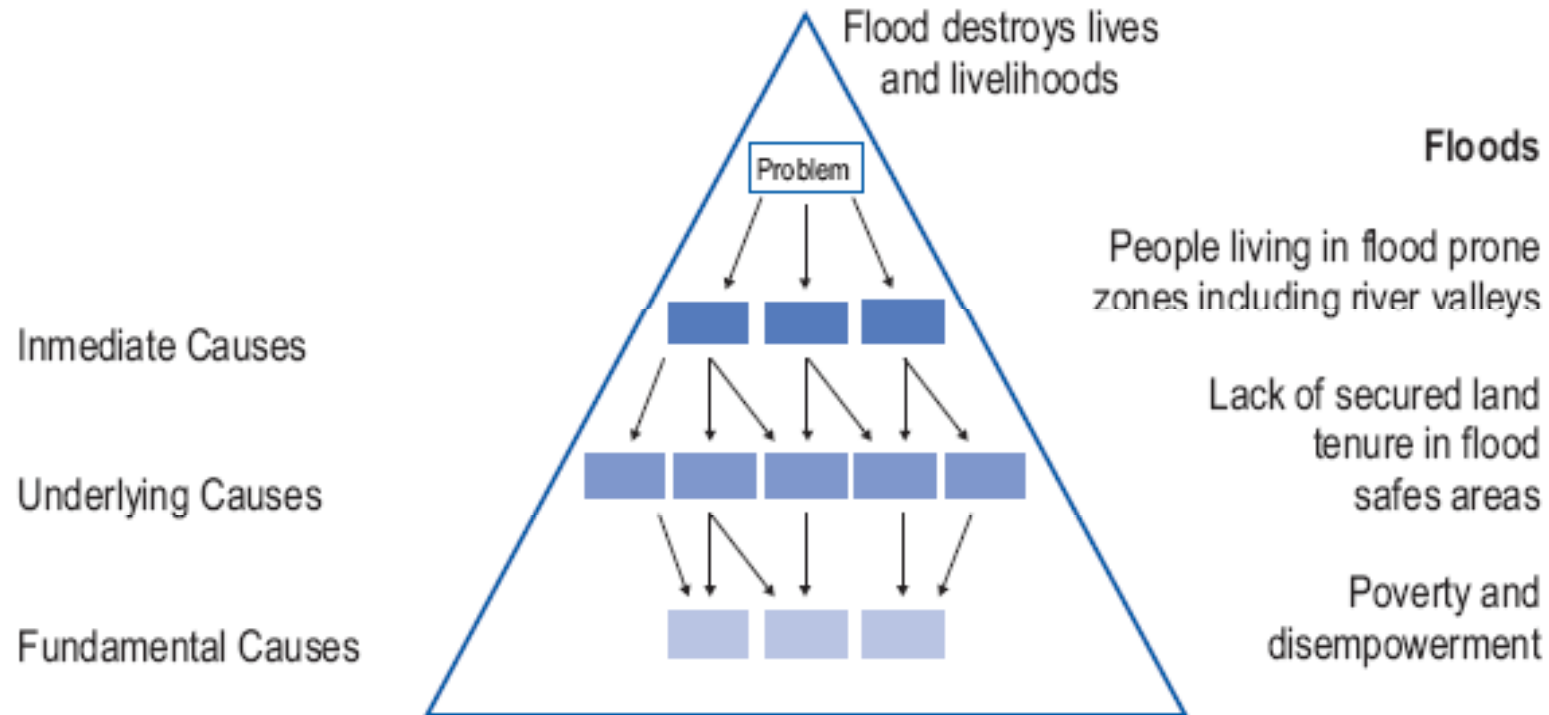
Disaster and Governance

- Change requires policy and policy requires change -- but changing behavior and power relations is difficult.
- Institutional change is hampered by hierarchical structures, institutional inertia, and path dependency
- Policy enforcement is often hampered by lack of adequate resources



Disaster and Development

Example Problem Tree Analysis: Disaster-Development linkages



(Source: UNISDR 2008, Words into action)

Disaster and the Media

- Emphasis on 'saleable news' and sensationalism

YET

- Small and medium scale disasters also often have huge impacts on the livelihoods of the poor and vulnerable groups.
 - `The number of small and medium scale disasters is growing much faster than large-scale disasters.

LESSONS

“Disasters work like the magnifying glass of a society. They magnify what is good and what needs sincere help. Disasters do not affect everyone equally. Who you are and what you do determine your fate. The strong and the weak stand out. This is true for gender issues as much as for other issues.”

Civil servant, Rajasthan, India (Schwoebel and Menon 2004)

Social & Political Contexts of Disasters

- Disasters are never solely ‘natural’ events
- Impacts are shaped by pre-disaster conditions & policies that create social & structural vulnerabilities
- Social composition of affected population & cultural norms explain differential risk of certain groups over others
- Underserved communities & populations before the disaster will be underserved later

Vulnerability is
socially
differentiated.

Hazards have
differentiated
impacts.

- Need to identify how general impacts, risks, or hazards understood at a macro level may affect specific groups or regions in different ways
- Measures must focus on the needs of the most vulnerable (those who have fewer assets and are less empowered)
- Data must be disaggregated by gender, age, etc.

Why is it important?

- Often overlooked: the belief in “technical fix”, “command-and-control” solutions is still dominant
- Contribute to develop strategies that are in tune with local needs and contexts (incl. the needs of the most vulnerable)
- Provide clues for the prioritization of activities