

Vulnerability and Urbanisation

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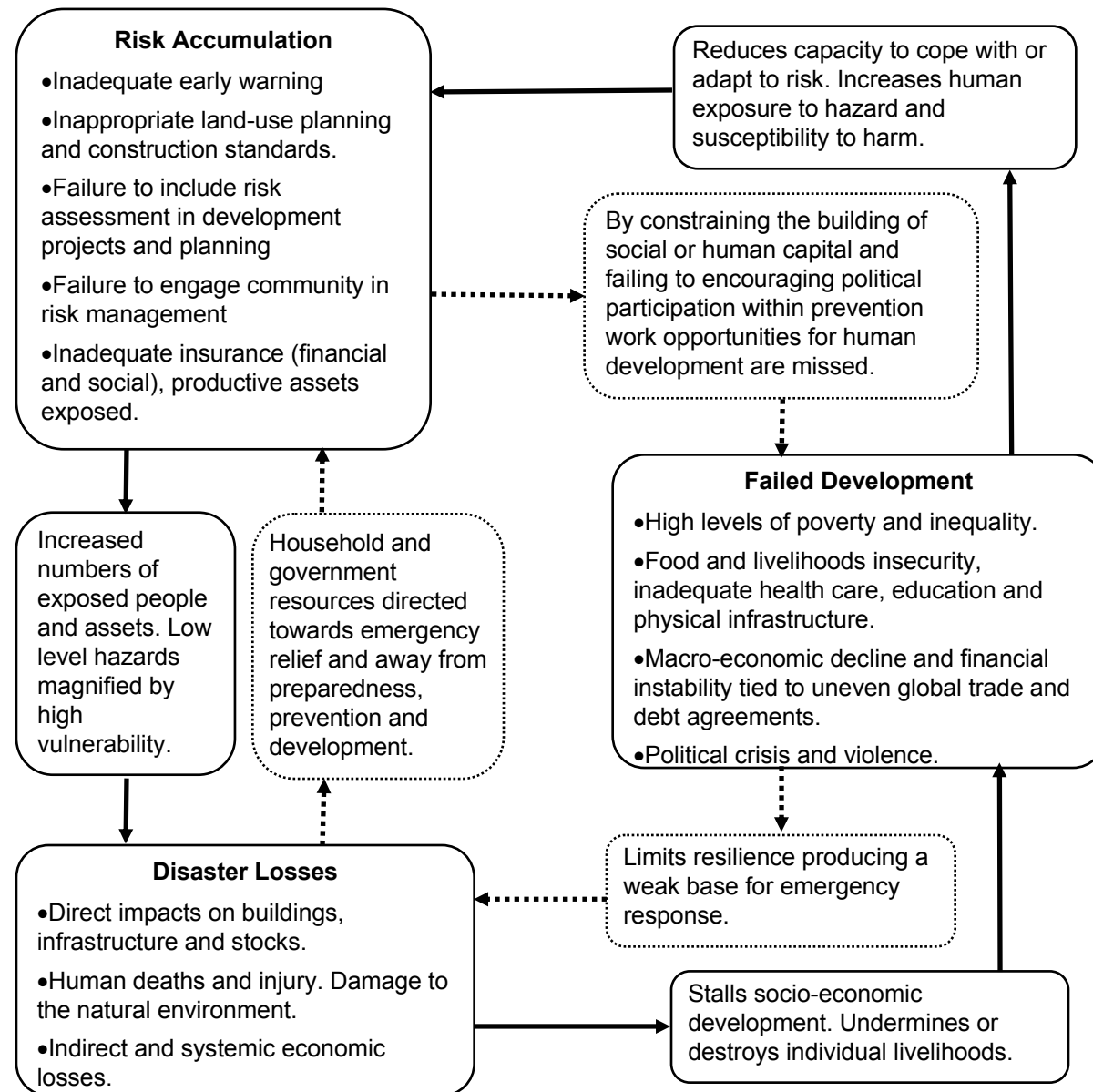
- Global Science and Policy Context
 - Language
 - Challenges to mainstreaming
 - UN World Conference on Disaster Reduction
- Urban Vulnerability
 - What is different about cities? Manizales
 - Adaptive potential and social capital, Los Manguitos
- Measuring Vulnerability
 - Group work
 - Challenges to measuring vulnerability

Global Science and Policy Context

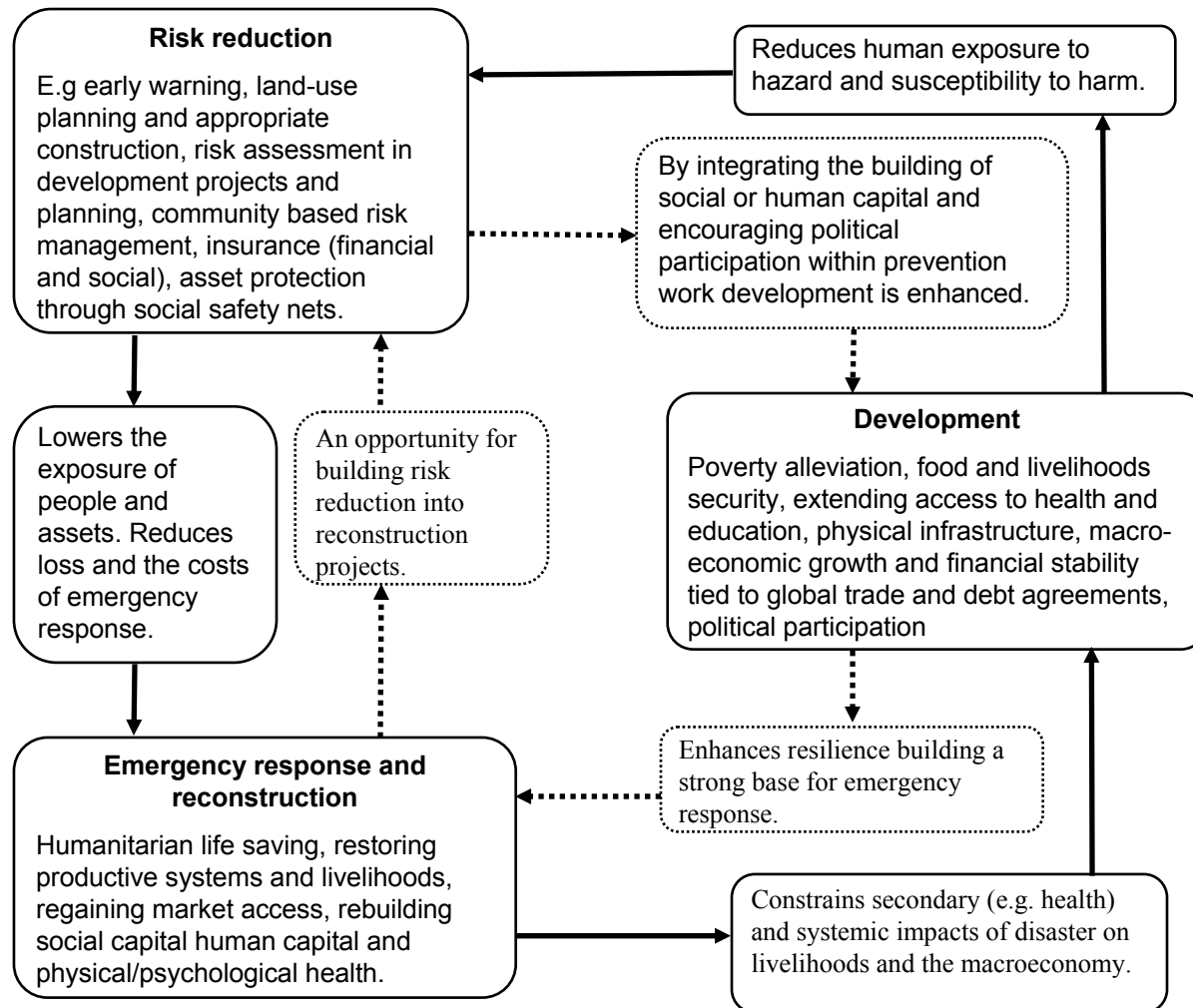
- Language is an unresolved barrier
 - risk
 - hazard
 - vulnerability
 - mitigating hazard
 - coping or adapting?
 - root causes, dynamic pressures and local endangerment

 - Disaster Risk Management

Negative linkages between failed risk reduction, disaster response and development



Virtuous linkages between risk reduction, disaster response and development



Challenges to mainstreaming disaster risk reduction into development

- Incentive, institutional and funding structures
 - Low visibility and lack of national political commitment
 - Government-donor relations and moral hazard
 - Donors and the media
 - Institutional separation of humanitarian and development wings
 - Funding support for disaster risk reduction
 - Pressures of work
 - The primacy of the MDGs
 - NGOs

- Assumptions about the risk-reducing capacity of development
- Lack of exposure to disaster issues
 - Communication failures, weak evidence
 - Disaster rarity and fatalism

UN World Conference on Disaster Reduction

- UN IDNDR 1990-1999
- Yokohama Declaration 1994
- Hyogo Framework for Action 2005-2015
 - UN negotiating rules
 - The tsunami and lobbying
 - Civil society presence
 - Outcomes:
 - Climate change and urbanisation
 - Targets and time-frames for action

Urban Vulnerability

- Why are urban risks underestimated?
 - Professional and academic bias
 - Population and poverty data
 - A problem of demography or governance?
 - Munich Re Vulnerability of Megacities
 - New York, Seoul and Mexico City

Urban Functions, Metaphors and Vulnerable Components

J.K.Mitchell (2004)

Function	Metaphors	Vulnerability
Material support	Machine	Performance failure
Metabolism	Organism	Life-support systems
Site of Creativity	Muse, Carnival	Repressive conformance, sanctions against experimentation
Learning	Information network	Barriers to information exchange
Regulation	Command and control	Failures of trust and authority

Adaptive Potential and Social Capital

- Vulnerability:
 - Hazard specific (known threat):
social organisation
 - Intrinsic (future, unknown threat)
social capital
- Social Capital: asymmetric and latent properties
- Burden shifting
- Individuals, networks or regimes (communities of place or practice)?

Adaptive Potential

Mobilise social capital
for private or public
benefit

Manipulate social capital
for private or public benefit

Purposeful adaptation

Raising a house or
public building

Join a CBO focussed
on risk reduction

Coping
mechanism

Institutional
modification

Community
policing

Carnival, elections

Incidental adaptation

Social Capital and Social Organisation, Los Manguitos

Indicator <input type="checkbox"/>	Response
<p>Informal Social Support</p> <p>Spoke with a neighbour today? 91%</p> <p>Closest friend lives in Los Manguitos 44%</p> <p>Have you ever cleaned the street with neighbours? 66%</p> <p>Have you ever celebrated carnival or Christmas with neighbours? 60%</p> <p>Have you ever shopped for a neighbour? 44%</p> <p>Have you ever played sport with a neighbour? 39%</p> <p>Have you ever joined in a neighbourhood tree planting programme? 10 %</p>	
<p>Local Community Group Membership</p> <p>Member of any local group 77%</p> <p>Member of a local church 46%</p> <p>Member of a Junta de Vecinos 19%</p> <p>Member of a cultural or youth group 15%</p> <p>Member of a sports group 2%</p> <p>Member of a <i>san</i> (a saving circle) 28%</p> <p>Member of a political party 39%</p>	
<p>Participation in Elections</p> <p>Voted in last national election (1996) 70%</p> <p>Voted in last municipal election (1998) 63%</p> <p>Plan to vote in the next national elections (2000) 75%</p>	
<p>Responses to Hurricane Georges</p> <p>House was damaged by Hurricane Georges 64%</p> <p>If your home was damaged where did you refuge with a...</p> <p>Neighbour 50%</p> <p>Family 30%</p> <p>Church 11%</p> <p>Government refuge 7%</p> <p>Shop 2%</p> <p>CBO building 1%</p>	

Comparative Advantage of Scaled Social Organisation, Los Manguitos

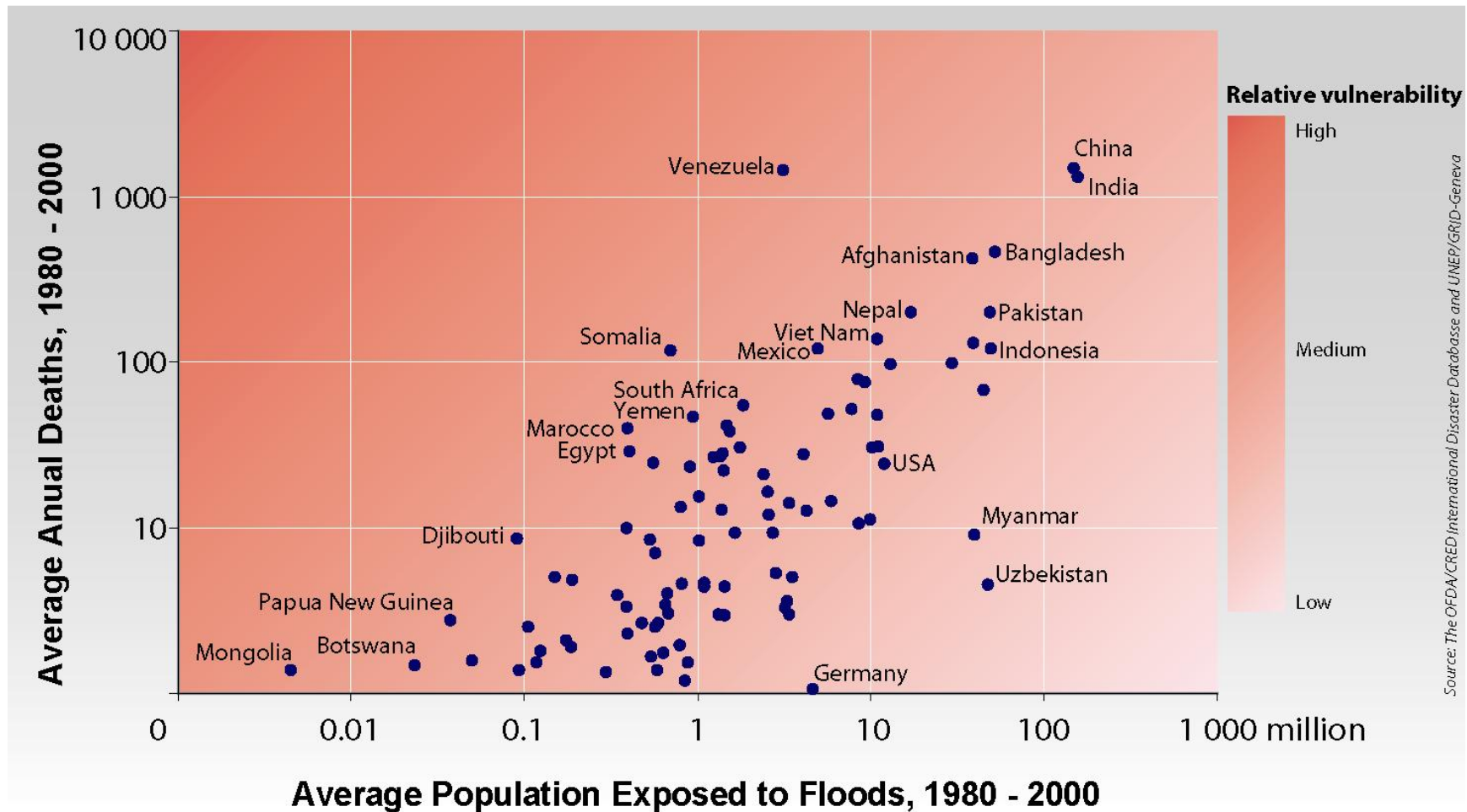
Organisational Level	Actions	Advantages	Constraints
Informal social organisation	Local environmental improvements. Neighbourliness and reciprocity. Disaster refuge.	Risk Averse strategy. High degree of flexibility. Little social capital or economic resources required. Self-contained strategy.	Ad hoc. Actions limited by the individual or family's resources.
Community Based Organisation	Local environmental improvements. Disaster evacuation, repair and rehabilitation. Build social networks through sports and cultural activity.	Can bring local knowledge and values into planned strategy. Can give a voice to minority groups or socially isolated individuals. Can respond rapidly to changing local demands.	Politicisation of leadership. Youth ambivalence. Unrepresentative leadership. Lack of co-operation between CBOs.
External, Non-Governmental Organisation	Strategically address local poverty and environmental hazard. Build young leaders. Strengthen ties between CBOs. Increase local human capital through skills training. Access external funds for projects.	Can access external resources. Can mediate local tensions. Can facilitate exchange of ideas and information horizontally between CBOs or vertically from other external actors. Can facilitate or enter into public-private partnerships.	Short/medium-term commitment, any longer risks dependency. Rivalry with CBOs for community support. Agenda limited by funding priorities of donors.

Challenges to Measuring Vulnerability

- Bottom-up and Top-down views
- Vulnerability and Capacity Assessments
 - Descriptive or discursive
- Deductive approach: UNDP, Disaster Risk Index
 - Relative vulnerability
 - Socio-economic indicators of vulnerability
 - Historical
 - 20 year data span (volcanoes and earthquakes)
 - Defining drought and mapping flood
 - Mortality
 - How to measure performance?

Relative Vulnerability (UNDP, 2004)

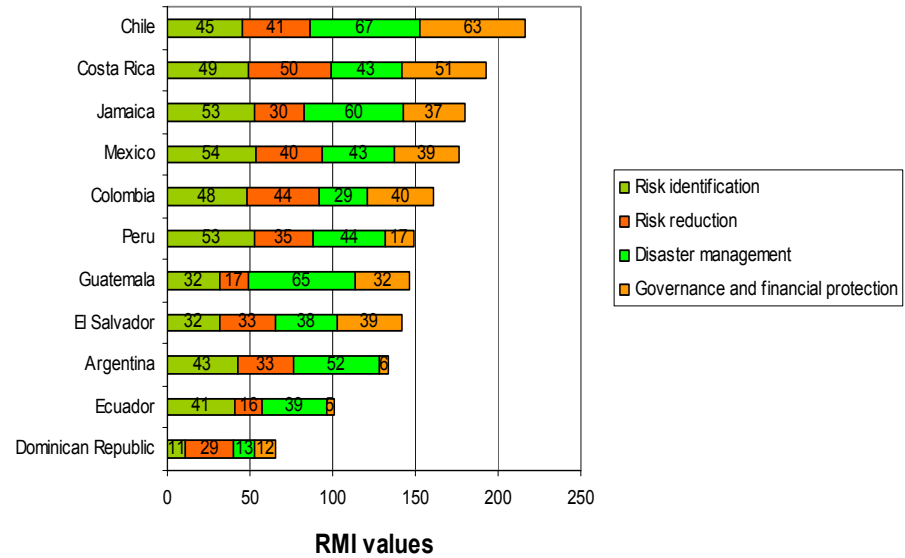
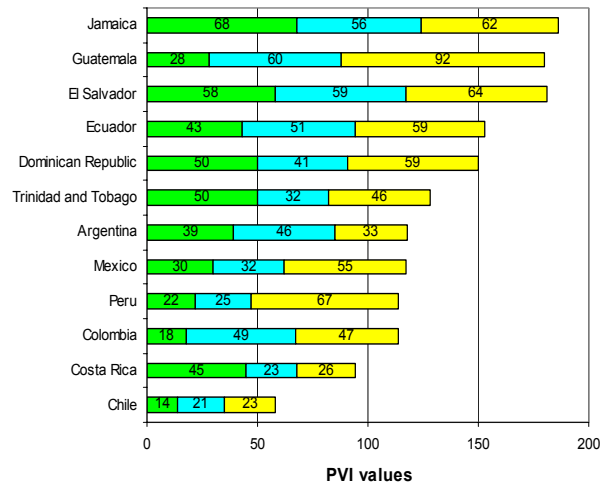
Relative Vulnerability for Floods



Source: The OFDA/CRED International Disaster Database and UNEP/GRID-Geneva

- An Inductive approach: The Americas Indicators Programme
 - Disaster Deficit Index, Local Disaster Index, Vulnerability Prevalence Index, Disaster Management Index
 - Theoretical constructions
 - Intrinsic vulnerability
 - Language
 - Comparative power is limited
 - Subjectivity in selection of input variables and weighting

Americas Programme: comparing vulnerability with disaster risk management performance



Lecture Summary

- DRM has a complicated vocabulary
- Mainstreaming (after 30 years!)
- Urban contexts... a greater challenge
- Measuring vulnerability in the city
- Measuring vulnerability at different scales