Disaster and Development: implications and applications

Part of a Short Course on Reducing Risks and Managing Disasters: the Integrated Approach

23rd - 30th May, 2010
GRF Davos Risk Academy, Switzerland

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Overview of Session

• Disaster and Development in the risk cycle
• Implications and applications of disaster risk assessment in development, and sustainable development in disaster risk reduction
• Recovery planning and decision making: getting development out of disaster
• Questions and Discussion
Why Integrate Disaster and Development?

‘to understand disasters in development and development in disasters’

... which includes implications and applications in fields such as for example:

- community based disaster reduction
- health centred disaster risk reduction
- social resilience, adaptation and wellbeing
- disaster response and sustainable development
  ... amongst others.

Disaster Management Cycle and Development

Influences on a risk governance cycle

Measurement
Knowledge/understanding
Perception

Risk Assessment

Decision Making

Disaster Threat

Risk Management

Uncertainty
Stakeholder politics
Knowledge integration
Communication

Risk reduction
Risk transfer
Risk ownership/responsibility

Institutional learning
Investment in research
Investment in legislation

Underlying influences on (successful) disaster reduction initiatives

Individual Behaviour

Education

Political Will

Knowledge and Technology

Education

Education

The relationship between disaster impact, uncertainty and risk reduction

Potential Impact

Uncertainty

Uncertainty reduced, commitment to change neglected

Uncertainty accepted, vulnerability reduced

Certainty accompanied by moral and political change

More stable threat

Resilience established, uncertainty managed

Interdisciplinary Knowledge Base

- Hard Science
- Soft Science
- Non-Science
- Art - Faith – Culture
- Politics
D & D Approaches and Methods include those based on the following disaster reduction perspectives:

- Hazards
- Vulnerability
- Multileveled
- Ecological
- Spatial and temporal
- Risk
- Perception
- From the bottom and from the top, from within and without
- ...

Disasters Risk Governance is Cost Effective if it is:

- Timely
- Transferable
- Adaptable
- A Sustainable Investment
Disaster Risk Governance Essentials are therefore that:

- People are Empowered to Act (capable, equipped, and sanctioned)
- Responses to risk are relative to Age, Gender, Culture
- Risk avoidance is a Right
- It is localised and participatory
- It motivates enhanced personal responsibility

Further Features of ‘Good Disaster Risk Governance’

- Informed - by ongoing real or perceived threats of the governed
- Practitioner orientated – guided by a perpetual interpretation and review process
- Proactively engaged – including with hazards, vulnerability, and coping to facilitate resilience
- Lessons learnt - through evaluation before, during and after risk reduction activities
- Related to localised knowledge - made relevant through grounded research
- People centred - driven and motivated disaster assessment that is multidisciplinary, integrated and perpetually reassessed
- Invested – where there is the political will, institutional and personal commitment to disaster reduction and sustainable development!
The simplified view of how to put risk reduction into development and development into disaster risk reduction

- Risk = Probability of an Event x Magnitude of the event
- Risk = Hazard (probability) x Loss (expected) Preparedness (loss mitigation)
- Risk = Hazard x Vulnerability Capacity
- Disaster risk = Unsustainable Development Sustainable Development
- Development risk = Disaster Risk Sustainable Development

i.e. Disaster Risk Reduction = Sustainable Development

Recovery is about turning negative processes positive

Critical Findings for Application in D & D
For Example: A Human Environmental Link

Poverty

Environmental Degradation

Figure: Generalised hypothesis on the link between poverty and environmental degradation

An integrated poverty and environment view of humanitarian disasters

Wealth and Wellbeing
- income
- basic and extended needs
- capabilities

Inclusion and Reduced Vulnerability
Respecting of:
- Gender, Age, (Dis)ability, Location, Rights and representation

Disaster Reduction
- risk management
- emergency preparedness
- resilience, capacity and coping

Conflict Mitigation

Environmental Change
- economic stability
- environmental sustainability
- social cohesion and security

Idealised reversal of poverty, environment and disasters processes

Paradigmatic Shift:
From integrated vulnerability to integrated wellbeing

Health:
- nutrition
- water, sanitation and clean air, pathogen avoidance and control
- shelter and energy
- health care and longevity

Wellbeing

Biological Susceptibility:
- malnourishment
- exposure to hazardous environments and pathogens
- lack of medicine and health care

Vulnerability

Mental Impairment:
- lack of education
- loss of skills, ideas and options
- entrapment and dependency
- cultural isolation

Insecurity:
- displacement
- abuse
- denied access to resources
- lack of a voice or representation

Resilience:
- coping
- capacity
- adaptability and creativity
- social, economic cultural capital

Human Security:
- rights
- access to resources
- representation
- empowerment

Integrated Wellbeing for Our Communities
Example - Health Security and Risk Reduction

- Health, a complete state of physical, mental and social wellbeing = ‘resilience’
- Improved health reduces disaster
- Self care as part of local health security
- From disease risk reduction to integrated health risk management

Example: Health Ecology Approach to Infectious Disease Risk Reduction, for Health Security at Global, Community and Individual Levels

Some concluding points for the discussion: identifiable from decades of disasters research

- There are many ways of interpreting events that may be defined as disasters.
- No disaster is ‘natural’ in terms of the association between disasters and development.
- Disasters, disaster reporting, and disaster and development institutions have increased in recent decades.
- Disaster prevention and response alters the impact of disasters on development, and appropriate development can reduce disasters.

Examples of Underlying Ongoing Questions

- In what way is it not inevitable that there are major disasters?
- What might be the possibility of achieving development targets, such as Millennium Development Goals (MDG), through disaster reduction?
- What are the best routes for the delivery of development and relief?
- In relation to an extreme disaster or development issue, what are the differences in applying needs, vulnerability, capacity, coping or resilience assessments?
- What new evaluation criteria might disaster risk reduction need to address?
- To what extent is learning from development informative of learning from disaster?
**Examples of underlying ongoing questions**

- How can resilience be best enhanced at the community level?
- Is there evidence of the need for new forms of local risk and resilience governance, or similar, or are we really looking at small adjustments to existing societies using existing community routines?
- What is an appropriate balance of individually driven motivation to risk manage versus structurally motivated interventions.

**Further Examples of Ongoing Questions**

- To what extent can disaster reduction be improved by people changing their behaviour or by a reformulation of institutional structures (closely linked to the previous question)?
- What applications are there for disaster and development approaches as part of climate change adaptation?
- What do you consider to be the meaning of disaster in terms of human development and security?
- How might good risk governance become a universal right?
- What gives you a sense of wellbeing, and how might you engage this in the interests of disaster reduction and sustainable development?
Examples of Overall Disaster and Development Research
Conclusions – ‘Getting Development out of Disaster’

• People are resilient to disasters by interacting with and adapting to hazards, managing risks, demanding rights and securing livelihood niches.

• The application of supporting governance contexts can harness people’s capacity to manage risks and threats, regenerate societies and enhance community resilience.

• Offset disaster risk with investment in local wellbeing.

• Knowledge alone puffs up, but charity or love edifies or builds up.