

Peripheral Heartland: Floods in Eastern Uttar Pradesh

Location: Uttar Pradesh, India

Date: May 2007

Sector focus: Climate change adaptation, poverty reduction, and disaster risk reduction (DRR)

Spatial focus: Indo-Gangetic plain of India

Organization

The Institute for Environmental and Social Transition (ISET) is a non-profit organization with members from the North and South committed to environmental sustainability and poverty alleviation. The institute's mission is to improve understanding and to elevate dialogue as civil society responds to natural resource and environmental challenges. At the core of the organization is a belief in strategic thinking, partnership, participation, communication, capacity development, and commitment.

Bibliographical details

Chopde *et al.* (2007) *Peripheral Heartland: Floods in Eastern Uttar Pradesh* in Moench, M. and Dixit, A. (2007) 'Working with the Winds of Change: Towards strategies for responding to the risks associated with climate change and other hazards' ProVention Consortium, Institute for Social and Environmental Transition-International and Institute for Social and Environmental Transition-Nepal. Kathmandu, Nepal, second edition, chapter 7, pp. 159-192. Case study can be downloaded from: http://www.proventionconsortium.org/themes/default/pdfs/winds_of_change.pdf

Language availability

This publication is available in English.

Abstract

The challenge of climate variability and change are increasingly recognized as serious impediments to poverty alleviation. Floods, for example, reverse the development process to a great extent and worsen the situation of disadvantaged and vulnerable groups. The post-disaster context offers a window of opportunity for political support and for development processes. There is a need to make

best use of this opportunity to bring in a change, to design and implement systems in a way that mitigates disaster risk for future risks. The strategy followed is to work outward from the conditions of a household or community and those factors enabling or constraining responses to disasters to identify points of leverage for change. Shared learning dialogues (SLDs) are central to this process because they allow us and the community to build a shared understanding of opportunities and constraints without being held in by predefined notions of what risk reduction consists of.

Eastern Uttar Pradesh is a flood prone region of the Indo-Gangetic plain of India. The methodology for the project involves vulnerability and capacity analysis and SLDs. Information from previous studies is being used. The research is finding that a significant number of households are more vulnerable due to factors related to the during-flood and post-flood periods than to physical damage caused by floods. Key factors causing vulnerability in a community are the lack of diversified agriculture systems and income avenues that are less susceptible to the impacts of floods. The most vulnerable group, however, are the landless who are significantly dependant on agriculture labor for their income.

The SLDs were helpful in identifying strategies that included sets of direct risk reduction interventions and interventions for changing underlying systems for adaptation.

Capacity and vulnerability analyses (CVAs) in conjunction with SLDs at different levels can help identify solutions envisaged in DRR. The ongoing research is showing that both CVAs and SLDs generate multi-pronged benefits in terms of data collection, validation and triangulation of the data, stakeholder engagement and policy advocacy. Most importantly, they also help identify potential solutions and mechanisms for development interventions.

Intended users

This publication is intended for **risk researchers**

Background and context of country, location and project

- Uttar Pradesh is India's most populated state, neighbors Nepal and is located in the fertile region of the Gangetic plain.
- The repeated occurrence of disasters such as floods and droughts and their impacts has added a new layer to the endemic poverty of a large section of the Indian population. The publication estimates that seventy per cent of South Asia's disasters are climate related. As global climatic change increases, the frequency and intensity of floods and drought events, the poor and the disadvantaged will become even more vulnerable.
- Eastern Uttar Pradesh is frequently subjected to flooding, due to its topography and heavy rainfall. There is readiness to work together particularly in terms of moral and physical support. An Irrigation Office exists in addition to the physical presence of an embankment during flooding and knowledge of how to build temporary bridges and roads during floods.

Technical description

Hazard/risk type: Floods - recurrent and frequent disruption of human and livelihood systems.

Type of assessment: Research to understand the factors that constrain and enable local communities to reduce risk and adapt to climatic and other sources of vulnerability

CRA process

The case study field sites in the flood-affected region of the Rohini Basin in India's Eastern Uttar Pradesh were selected because the issues that are most important at the field level – access to communication systems and the location of homes in vulnerable areas such as flood plains – relate well to the national policy regarding, knowledge management in the areas of environmental management, vulnerability and communication. The researchers used dialogue and semi-structured qualitative and quantitative surveys with local communities, government representatives, NGOs and other actors in the area, to develop both a shared vision of key issues and a semi-quantitative baseline of information. Tools also included secondary data review, social (community) map, scoring, ranking,

The methodology involved the implementation of vulnerability and capacity analyses through shared learning dialogues (SLDs), while information from previous studies conducted in these villages was used to profile the characteristics of the area. Livelihoods were discussed looking at the economic diversity of community inhabitants. Social and institutional capacity was collected examining the access to key services in order to understand the social structure within which communities function.

Notes on Methods and Tools

Key Insights Generated for Vulnerability Reduction & Capacity Enhancement:

- Direct support to DRR & Adaptation: Agriculture interventions relating to inundation resistant and early sowing/ harvesting crops, irrigation technologies enhancing access to irrigation, financial risk spreading through crop insurance, innovative models of sanitation and handpumps, housing technology resistant to floods, and early warning systems.
- System Level support: Adaptation incubation systems that support self-management of people's institutions for continual innovations in agriculture and communication, and improvement in education, health and transport systems.

Lessons learned

The following lessons were learned about the benefits of the shared learning dialogues (SLDs) process:

- ◆ At the field level, when conducted with disaster affected communities, they serve as a platform for sharing experience and help identify useful solutions for problems identified by the community.
- ◆ They are useful in building the capacity of community members as well as the project team.
- ◆ They are a two-way knowledge transfer process. For example, we communicate technical details on global warming to local communities. The communities, in return, explain to us the impacts to them, at the field level (both existing and expected), in terms of occupational mobility, migration patterns, livelihood systems, etc.
- ◆ This two-way flow of information and knowledge of the impacts of climate change, both tangible and indirect, set the stage for making decisions on key action points.
- ◆ Solutions emerging from SLDs need to be documented and shared with stakeholders during further SLDs and/or in meetings with policy makers.
- ◆ They need to be more participatory (especially from women and other marginalized groups).
- ◆ They can act as a triangulation and validation tool.
- ◆ Capacity and vulnerability analyses act as an initial pointer to the solutions envisaged in DRR and is complemented by SLDs at different levels. This study establishes that both these tools/techniques work and that they generate multi-pronged benefits in terms of data, validation and triangulation of data collected for stakeholder engagement and policy

advocacy. Most importantly they also help identify potential solutions and mechanisms for development interventions.

- ◆ System and process delivery needs, including those related to policies, should be identified at all levels. The overall SLD process can be viewed as a pyramidal setup primarily for (1) more dialogue at lower levels, and (2) an increasing number of solutions to be identified and promoted through dialogue at lower levels.

Key words

Floods, shared learning dialogues, capacity vulnerability analysis, climate change, adaptation, disaster risk reduction, Uttar Pradesh.

Resource people

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The ProVention Consortium contracted Dr. Ben Wisner and Stephanie Bouris to author this guidance note.

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