

POLICY BRIEF

The Energy and Resources Institute



Towards adaptive governance of flood risks in India: Enabling shared vision

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Study team

Navarun Varma
Ulka Kelkar
Saurabh Bhardwaj
Prasoon Singh
Prof. Arabinda Mishra

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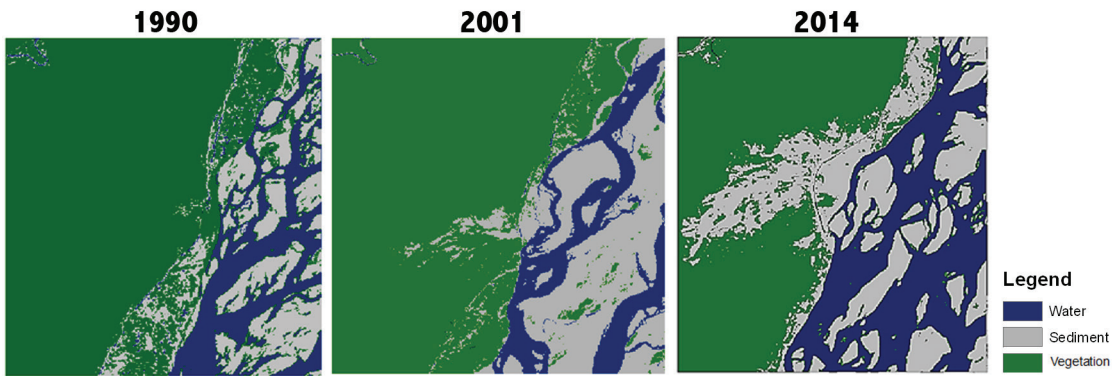
Introduction

Global environmental challenges like climate change question the continuation of donor-recipient model of knowledge generation and dissemination. The complexity of multiple drivers of climate hazards, vulnerabilities and risks along with the lack of preciseness of such risks at the local level create uncertainties on the type and degree of its impacts. There is an undeniable need of guidance of science for appropriate long term adaptation interventions, but equally important are the lessons from the grassroots for their acceptability by the local communities. Further, there are instances of stereotypes being created by particular approaches of intervention which even after producing unanticipated and/or maladaptive outcomes in social-ecological contexts, are still continued, often inciting discontent among citizens. In the midst inter-linkages between society and ecosystems and future uncertainty, there is a need of creating a better mix of science, policy and practice by introducing principles of participatory learning and flexibility in public policy processes.

We look towards Soft Systems Methodology (SSM) as a diagnostic tool for informing policy in place of top down expert-driven processes. In our diagnosis of urban and rural flooding in India, we found lack of transparency, co-ordination, local sensitivity and inclusivity in policy planning and management practices leading to a trust deficit among citizens and government institutions, political struggle for change in power structures and civil society mobilization for access to more information. It emerged that there is willingness for meaningful learning among different stakeholders, given the opportunities for social learning.

Problem context

The ongoing process of climate change adaptation and disaster risk management in India takes cognizance of the increasing frequency and

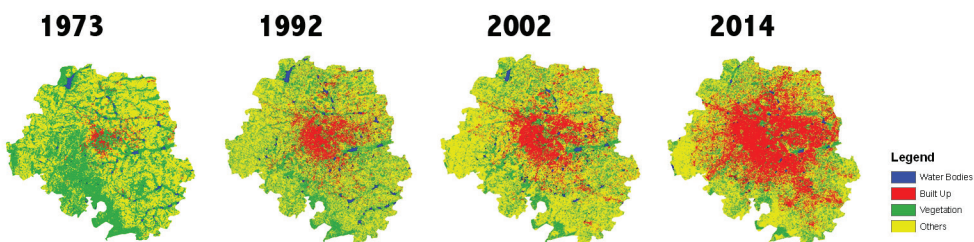


Temporal Land Cover Change in Matmora (Lakhimpur)

intensity of extreme climatic events and creates scope for capacity building through generation and dissemination of scientific information. But this at best, addresses the design part of adaptation planning; uncertainties in implementation and ensuring the desired outcomes remain wide open. Although, processes of formal consultations during policy design or training programs for informed decision making exist, there is little focus on the dimensions of communication among stakeholders, which could add critical value to the process. Current practices of science-policy communication are more expert driven and fail to create space for knowledge sharing among communities, development practitioners and institutions of lower levels of governance and thus miss out on the root causes of vulnerability and elements of adaptive capacity in different contexts. There is a need for comprehension of knowledge from diverse sources to make long term adaptation planning more grounded. Furthermore, when risks are of novel and evolving characteristic, there can always be unknown factors outside realm of human expectations which may create surprising outcomes and make well-intentioned strategies maladaptive in due course. This again creates the need of flexibility in policy planning so that reflections from implementation practices can feed into policy design.

Asia Pacific Network for Global Change Research (APN) funded project on “Building capacity for Adaptive Governance through Participatory Modeling: Rural and Urban Flooding in India”

The focus of the project is on stakeholders of flood management in two varying socio-economic, political and ecological contexts, one in villages of Lakhimpur district of Assam in north-east of India and other in Bangalore city of Karnataka in south of the country. In the rural context of Assam an ecological crisis has occurred in the form of coarse sediment deposition of cultivable land but formal responses appears to be functioning through a legacy of structural interventions for flood and erosion control, ignoring linkages of such interventions with the social dynamics of the agro-ecosystem. While, in the urban planning of Bangalore, there seems to be an ignorance of the linkages across the ecosystem services which is making the city increasingly vulnerable to both floods and scarcity of water. Such ignorance in planning and management is instigating discontent among resource users, while exclusion of social issues is creating distrust towards the government institutions.



Temporal Land Cover Change in Bangalore

We held two workshops on systems thinking and adaptive governance in our research centers in Guwahati in Assam and Bangalore in Karnataka, based on the rural and urban case studies. The stakeholders used group modeling technique to question, contribute and clarify different notions of the causes, implications and responses of flood in each context. This opened diverse perspectives, but provided a common platform to understand the key challenges and opportunities for developing a shared vision.

Ways forward

- I. Inclusion of institutions of local governance i.e. Panchayat Raj institutions, employees of government extension offices and grass-root level civil societies

2. Creation of strong monitoring, evaluation and learning frameworks in ongoing climate change adaptation planning in order to monitor impact of strategies
3. Development of flexible and adaptive climate change adaptation plans so that the goals can be aligned with social-ecological dynamics
4. Capacity building for better communication across hierarchies of different government departments, non-government entities and communities
5. Use of tools of iterative learning pedagogy in ongoing capacity building programs of National Institute of Disaster Management, various State and District level institutions and think tanks.

Methodology for group modeling in Guwahati and Bangalore workshops

Step 1

- Lectures and discussion on issues surrounding flood problem through different discourses
- Sharing of preliminary conceptual systems models to different groups of stakeholders
- Encourage thinking on the problem through the models, modify them in the process and come up with a response option
- Plenary presentation from each group and question and answer session

Step 2

- Lecture and discussion on trends of the problem, future uncertainty and climate change

- Stakeholder groups reflect on the information from question and answer session and discussion on future risks and modify models and response options
- Plenary presentation from each group and opportunity was given for new questions and clarification



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For more information contact:

Mr Navarun Varma

Associate Fellow

Center for Global Environment Research
Earth Science and Climate Change Division
The Energy and Resources Institute (TERI)
New Delhi- 110003

Tel: 24682100 or 41504900

Fax: 24682144 or 24682145

Web: www.teriin.org

E-mail: navarun@teri.res.in



The Energy and Resources Institute

