

CCA-DRR integration Mainstreaming into Developmental Plans: Sub-national Initiatives

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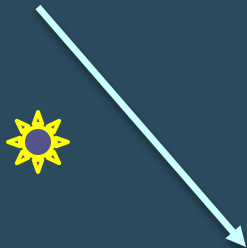
(Govt. of India), New Delhi

2nd Paradigm Shift in Disaster Management

- Response Centric
- Relief Centric



- Mitigation centric
- Preparedness centric
- Disaster Centric



- Hazard Centric
- Vulnerability Centric
- Environment Centric

Adaptation



RECENT EXPERIENCES

- Sector based Climate resilient DM planning (CDKN) – Gorakhpur Model
- Climate resilient DM planning – Village plans
- Environmental basis of socio-economic vulnerability/ Mitigation Analysis (Bundelkhand drought)
- Role of environmental law and policies in DRR / DM
- ecoDRR training package (under UN-PEDRR)

FLOOD DRR



- Case Study of Gorakhpur district—what are the **exposure** and **fragilities** of **Key Systems** (water supply, drainage etc.) fragility—current and projected **Climate Change contexts** by analyzing:
 - Secondary data on flood impacts
 - Programmes of various depts
 - DRR responses of DDMA (Gorakhpur) during past flood events
 - Codes, legal and regulatory frameworks of various depts

Project Objectives & Key outcomes

CDKN Supported Project

Objectives

- Systemic factors that contributes to resilience or vulnerability.
- Policy innovations for bridging vertical and horizontal gaps
- Capacity building
- Document and disseminate generated knowledge

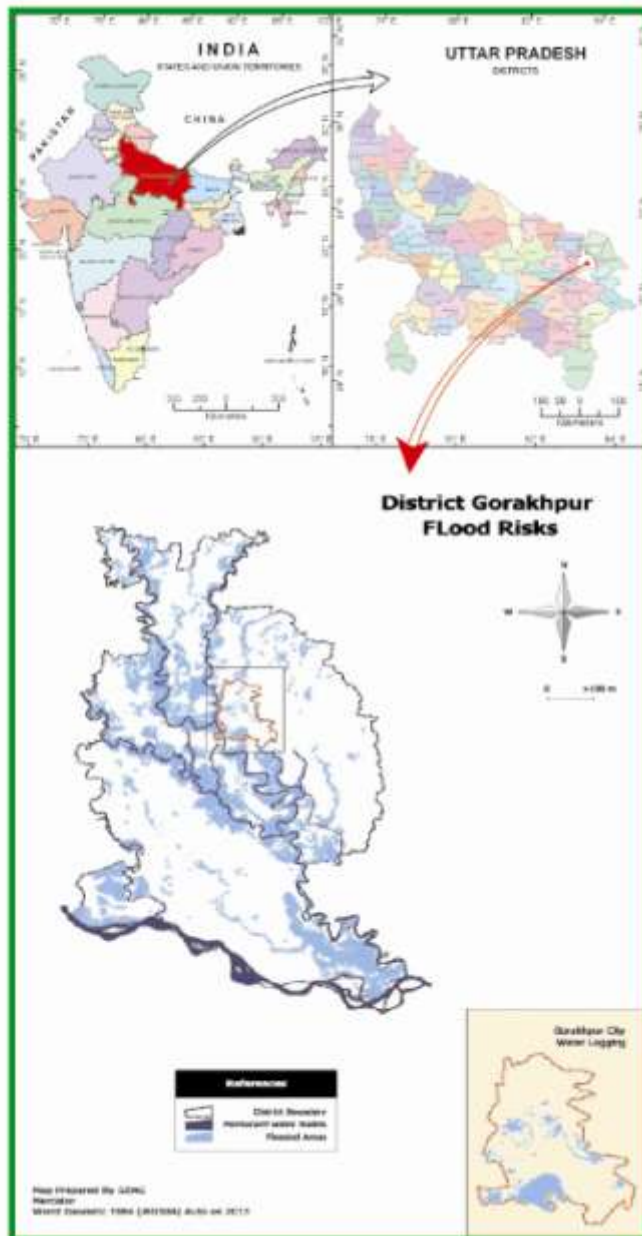
Implementation:

Gorakhpur Environmental Action Group (GEAG), Institute of Social & Environment Transition (ISET, USA), District Disaster Management Authority Gorakhpur (DDMA), National Institute of Disaster Management (NIDM)

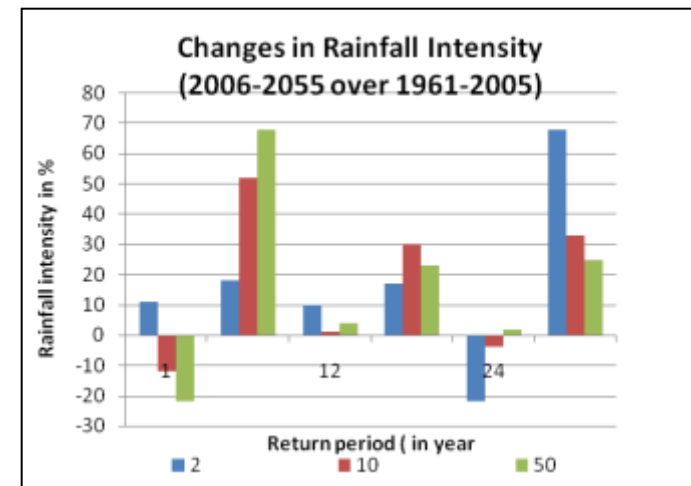
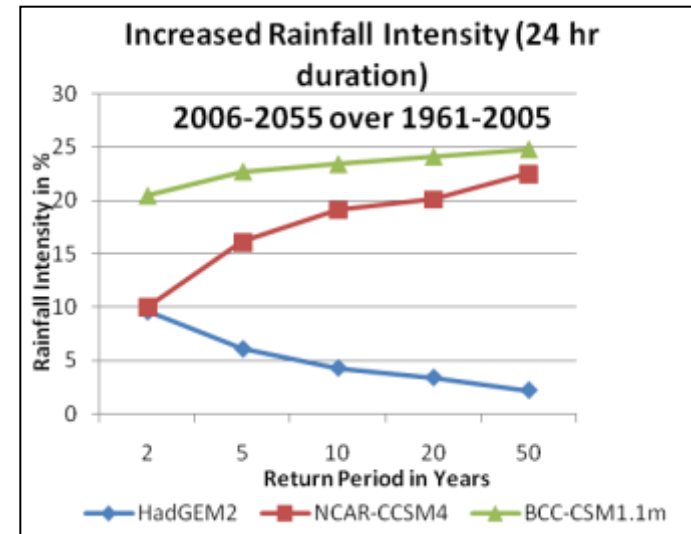
Key Outcomes:

- Developing CCA integrated **DDMP**, operationalized
- **Participatory Planning** : Identifying gaps and solutions
- Departmental planning and linking with policy provisions (**inter-sectoral coordination**)
- **Capacity**: Researchers and Departments (DDMA)
- **Directives and Orders** for adopting the process
- **Sharing of learning** at State and national level
- **Training** Module
- **Delhi Declaration on Resilient Housing 2014**

Intervention Area : Gorakhpur District



Total Area : 3483.8 sq km
Total Population : 4436275
Total Flood Affected Area : 19075 ha
Total Waterlogged Area : 35000ha



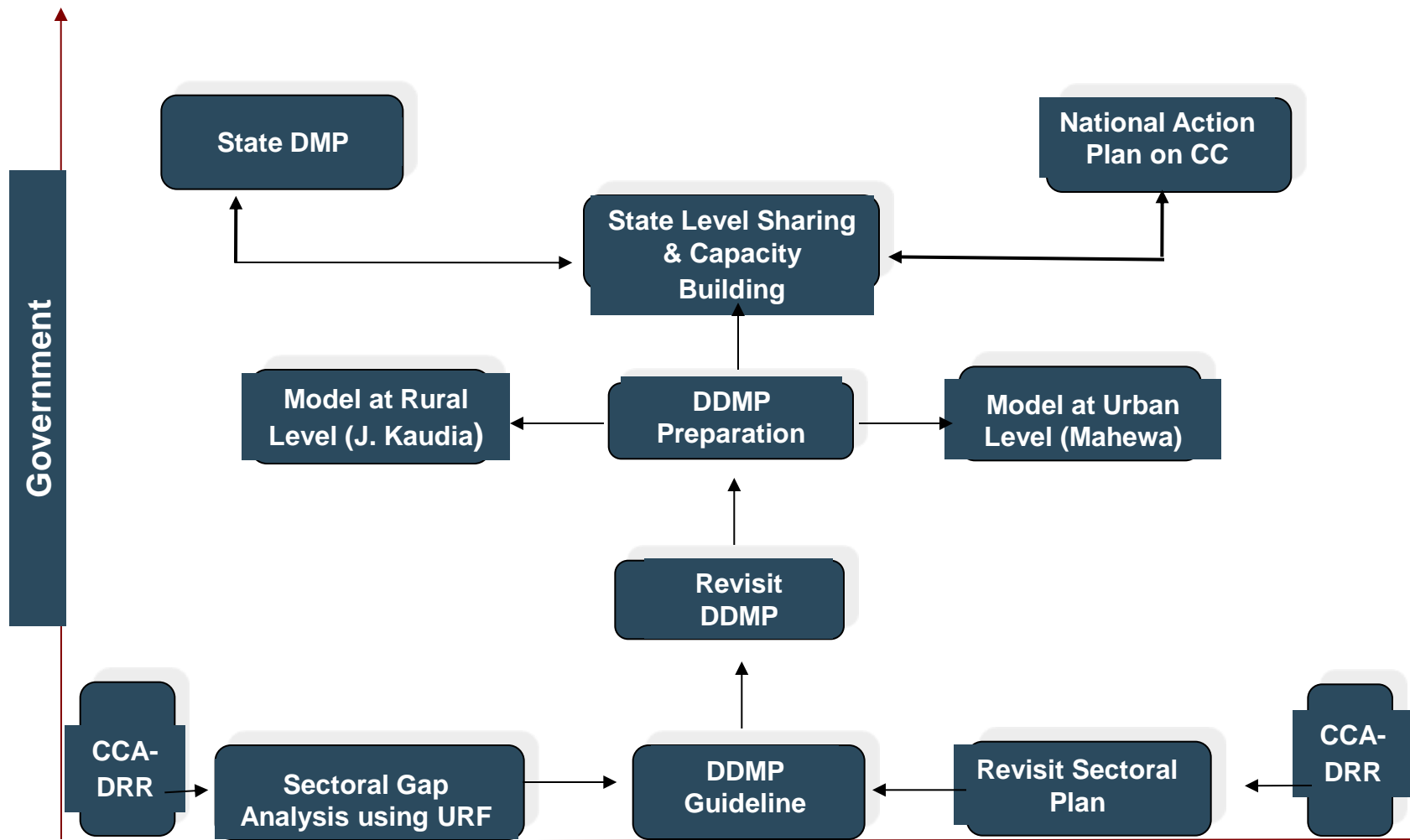
Flood Risk





- CRS [http://geagindia.org/PDF/Towards%20a%20Resilient%20\(English\).pdf](http://geagindia.org/PDF/Towards%20a%20Resilient%20(English).pdf)
- Policy Brief CDKN+ GEAG
<http://geagindia.org/PDF/EXTREME%20RAINFALL,%20CLIMATE%20CHANGE,%20AND%20FLOODING%20Policy%20Brief%20Gorakhpur%20India.pdf>
- Teri Policy Breif <http://www.teriin.org/policybrief/>
- Process document http://www.start.org/download/2014/geag_mainstreaming-cca-drr_processdocument.pdf
- Training Module <http://nidm.gov.in/PDF/modules/climate.pdf>
- CRF-ISET <http://i-s-e-t.org/projects/crf.html>

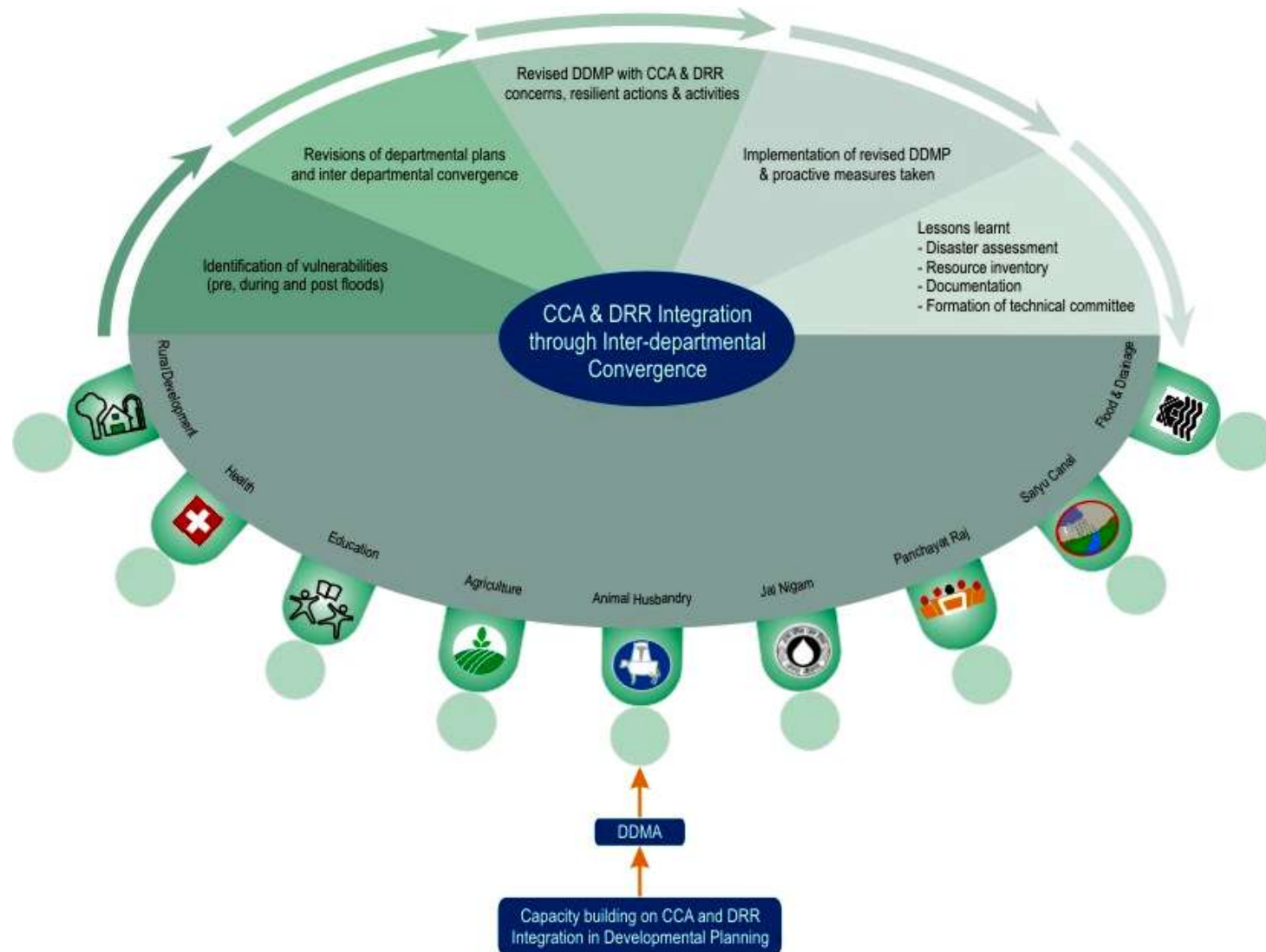
Our Approach



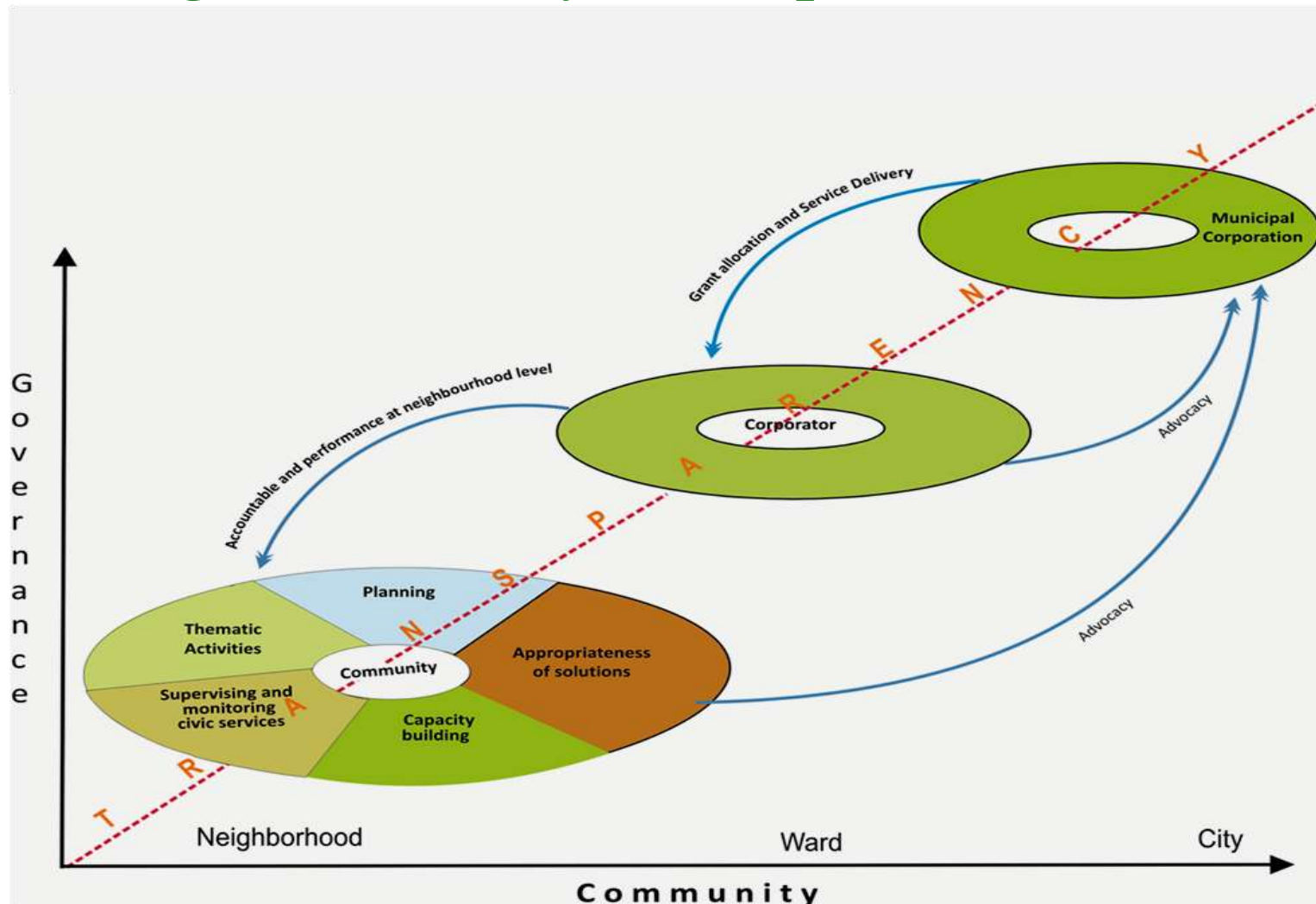
Involved Departments

Health, Agriculture, Revenue, Irrigation, Flood, Education, Energy, Animal Husbandry, Forest & NGOs

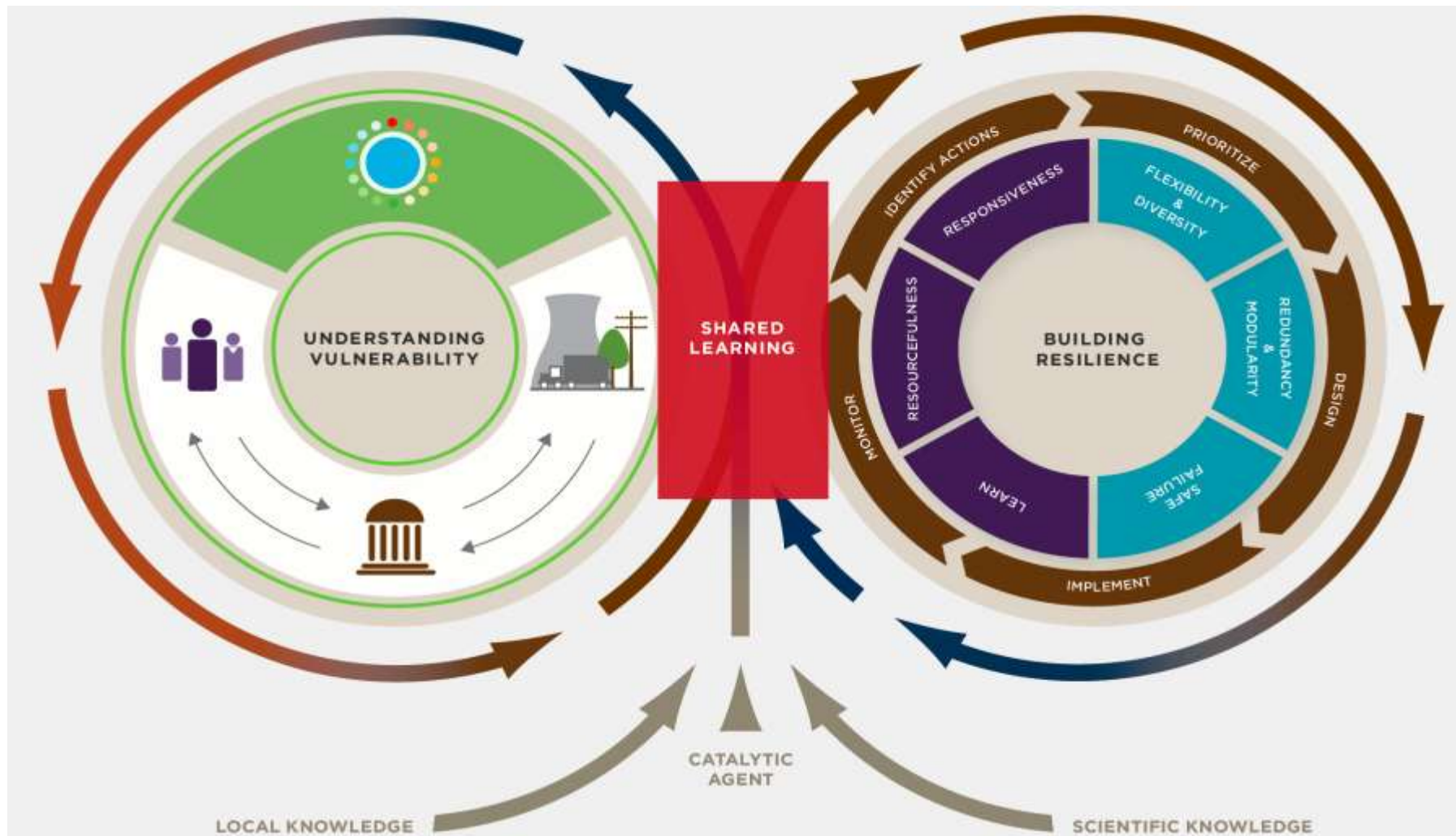
CCA & DRR Integration through Inter-departmental Convergence



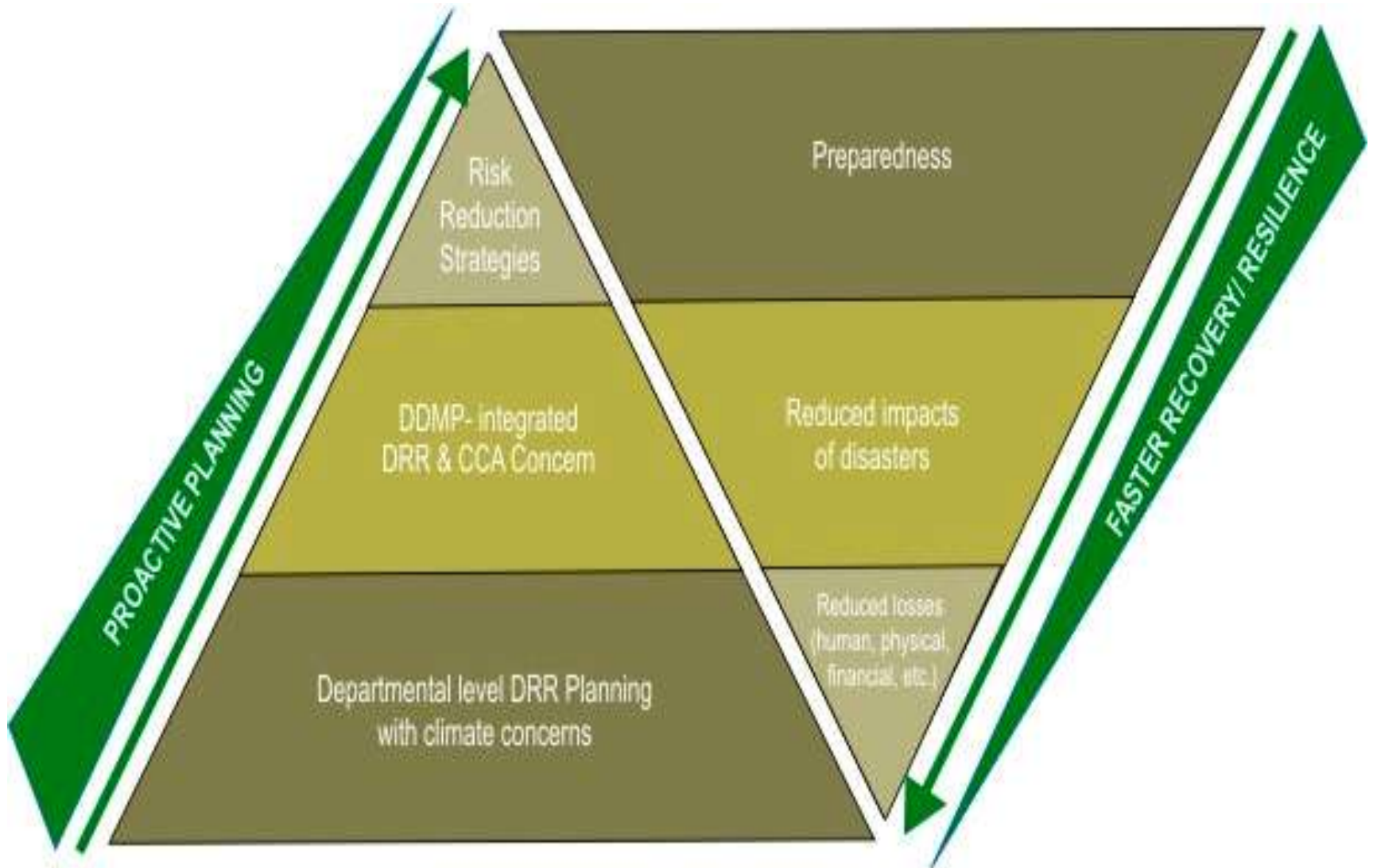
Addressing Systems, Agents and Institutions through Community Participation



The Climate Resilience Framework (CRF)



The Approach



Coastal DRR



Integrating Climate Resilient Plan into Disaster Management in Coastal Areas of Tamil Nadu and Andhra Pradesh

Andhra Pradesh:

Vishakapatnam,
Prakasham, Nellore

Tamil Nadu:

Cuddalore, Nagapatinam,
Thiruvallur

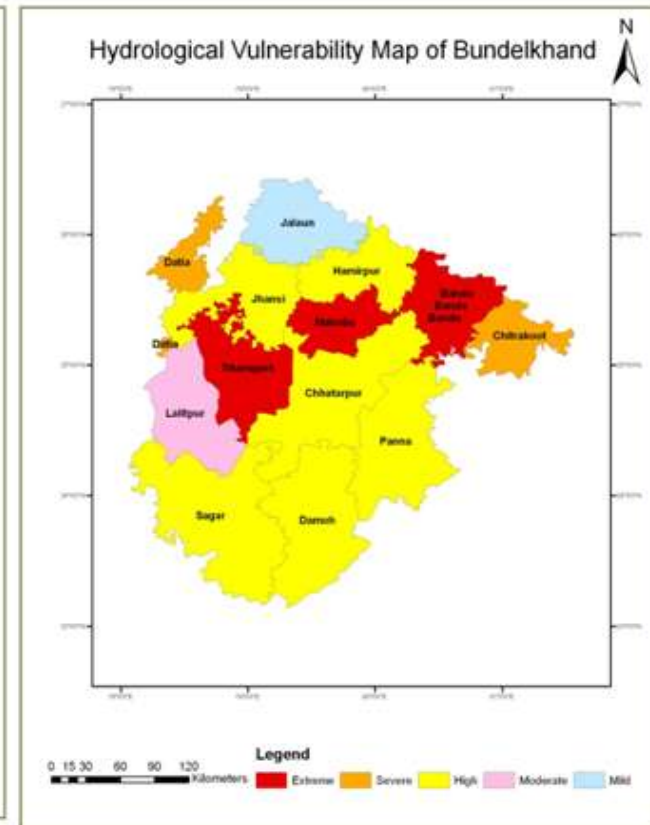
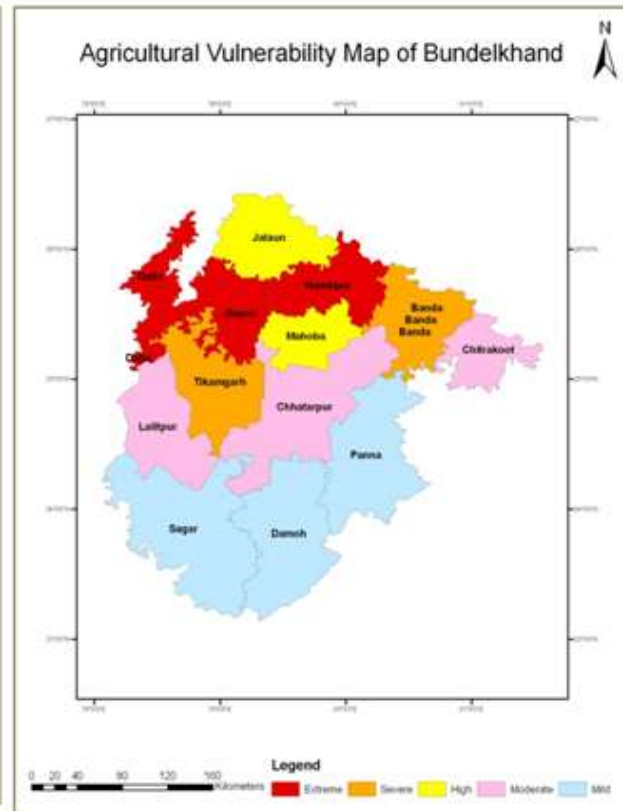
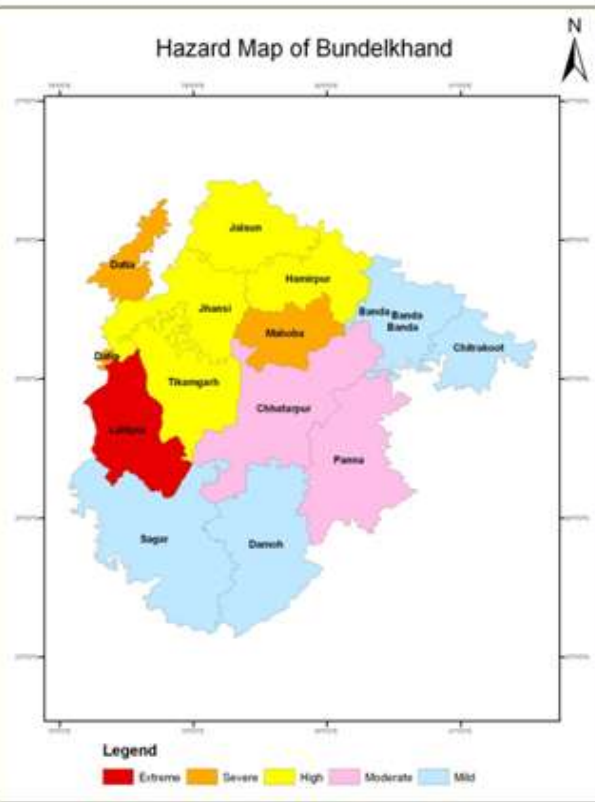
*6 cities and 18 villages
forming 6 clusters*

*GLZ Germany - European
Union - NIDM
Under Indo-German
Environment
Programme*

Bundelkhand Drought

(ICSSR Research Project)

- Patterns of meteorological, hydrological and agricultural drought
- Spatial extent of environmental and socio-economic vulnerability
- Mitigation analysis (a new tool/approach) – spatial extent, effectiveness



Asia-Pacific Input Document for the Post-2015 Framework for Disaster Risk Reduction (HFA2)

*Risk sensitive development as the cornerstone of
resilience and sustainability*

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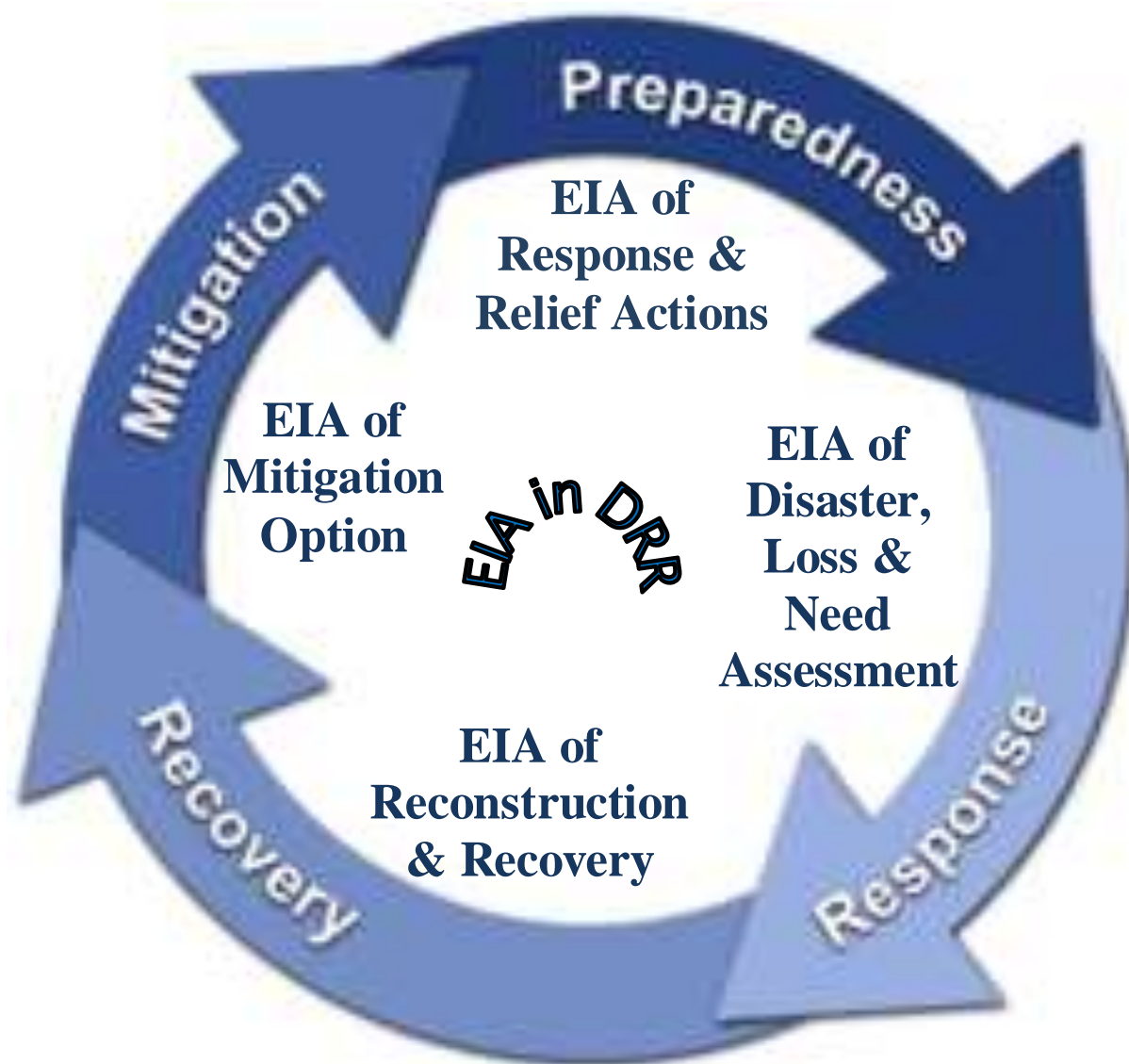
Bangkok Declaration on Disaster Risk Reduction in Asia and the Pacific 2014

We, the Ministers, and Heads of Delegation of the countries of Asia and the Pacific, attending the Sixth Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) in Bangkok, hosted by the Royal Thai Government, 22-26 June 2014;



understandable manner. Encourage the development of and the enforcement of laws and regulation to reduce exposure to risk. Recognizing the role of ecosystem based DRR and integrating livelihood resilience and natural resource management as a holistic approach to disaster resilient communities especially in coastal and mountain areas.

On Improving Public Investments for Disaster and Climate Risk Management to Protect and Sustain Development Gains: Encourage risk-sensitive investments with accountability measures in development plans across sectors; strengthen the capacity of institutions to develop, analyze and use risk information in development planning and implementation; and consider the benefits of financial protection strategies in order to promote resilient public investments, especially in high risk areas.



National Conference: Risk to Resilience 2014

Mainstreaming Climate Change and Disaster Risk Reduction Measures into Developmental Planning

The National Conference “Risk to Resilience” held at NIDM on 28th of January 2014 with focus on “mainstreaming climate change and disaster risk reduction in developmental planning”, organized by NIDM jointly with Institute of Social & Environmental Transition (ISET, Colorado, USA) and Gorakhpur Environmental Action Group (GEAG, Gorakhpur, UP).

The inaugural function was Presided by Shri T. Nand Kumar, Hon’ble Member of NDMA, whereas Dr. B N Satapathy, Senior Advisory of Planning Commission and Prof. Kush Verma, Director General of National Academy of Administrative Research (LBSNAA Mussorie) were Guest



ge adaptation and disaster risk reduction into livelihood and food security. Dr. Satapathy

Partnership for Disaster Risk Reduction (PEDRR)



ECO DRR

- ❖ UN-PEDRR (Partnership for Environment and DRR) has been collaborating with NIDM since 2010 (through UNEP Geneva)
- ❖ NIDM participated in the PEDRR-organized International Workshop on Ecosystems, Livelihoods and Disaster Risk Reduction in Bonn, Germany in September 2010,
- ❖ collaborated in delivering the first pilot PEDRR Training Course in Sri Lanka in May 2011.
- ❖ Following these initiatives, NIDM and PEDRR organized national / regional training in India.
- ❖ Joint Policy Dialogue on Sustainability Issues in DRR (4th AMCDRR)
- ❖ 3rd WCDRR Sendai, Japan

ekDRM (Indo-German Cooperation)

- Environmental knowledge for Disaster Risk Management
- NIDM-GIZ Cooperation 2010-2013 (MHA-MoEF, MEA)
 - Environmental statistics and decision support system for disaster risk management
 - Role of Environmental legislation in disaster risk management
 - Spatial planning for chemical disaster management
 - Post-disaster environmental services and EIA application in disaster management
 - Natural Resource Management linkage with Disaster Risk Management

UNDP-DRR India and Environment

Guidelines and Tools for Mainstreaming Disaster Risk Management in

- Environment Sector
 - Focus on NRM, ecosystem services, community based issues, sustainable development
- Housing sector
- Health Sector
- Agriculture sector
- *Guidelines for Reconstruction & Recovery Framework*

Legislative back up for mainstreaming**

The Disaster Management Act, 2005

- development of National, State and District Disaster Management Plans
- The National Plan shall inter alia include integration of mitigation measures in development plans [Section 11(3)]
- The **State Plan** inter alia provides for the **manner in which mitigation measures shall be integrated with development plans and projects** [Section 23(3)]

- **State Government to take measures for prevention and mitigation of disasters integrating DM into development plans and projects and [Section 38]**
- Under section 39, every department of state is responsible, to take measures necessary for prevention of disasters, mitigation, preparedness and capacity building and integrate these measures into its development plans and projects and allocate funds to discharge above-mentioned responsibilities;
- Review its enactments, policies, rules and regulations to incorporate therein provisions necessary for disaster prevention, mitigation and preparedness.

NDMA Guidelines for SDMPs-Themes in Guiding Principles

- Part 7 of Guidelines lays down, as part of Guiding Principles, following themes under-pinning the Plans
 - ✓ Vulnerability of different parts of state to different kinds of disasters
 - ✓ Measures to be adopted for prevention & mitigation
 - ✓ **Manner in which mitigation measures shall be integrated into development plans and projects; capacity development and preparedness measures to be taken**

National Policy on Disaster Management

- The Policy stresses the need for DM to be built in Development Plans
- It states “*NDMA will ensure mainstreaming of DRR in the developmental agenda of all new & existing development programs & projects which shall incorporate disaster resilient specifications in design & construction”*
- Further “*The Planning Commission will give due weightage to these factors while allocating resources*”

Ministry of Finance Instructions

- Ministry of Finance, at the instance of NDMA, have issued instructions revising formats for EFC/ DPRs to address disaster management concerns.
- Instructions dated 19.06.09, 12.04.10 and 26.05.10 may be accessed at www.ndma.gov.in (circulars at right hand bottom of website)
- The State needs to put in place a similar **mechanism for disaster audit and certification of all new projects and programmes**. These could be institutionalized by State Finance Department
- This would function as a self audit, a system of self-certification, to ensure DM concerns have been mainstreamed in state development plans and projects

Inclusion of DRR into Development Schemes and Projects (example list)

- Jawaharlal Nehru National Urban Renewal Mission (JnNURM)
- Rajiv Awas Yojana (RAY: Housing Scheme)
- National Rural Health Mission (NRHM)
- Sarva Shiksha Abhiyan (Scheme on Education for All)
- Pradhan Mantri Gram Sadak Yojana (Rural Road Network Scheme)
- National Employment Guarantee Scheme
-

Urban floods in Bangalore and Chennai: risk management challenges and lessons for sustainable urban ecology

Anil K. Gupta* and Sreeja S. Nair

A number of major cities and towns in India reported a series of devastating urban cent decade. Mumbai flood 2005 followed by other major cities of South Asia like bad, Rawalpindi also suffered with urban flooding. Census 2001 figured 285 mill metro cities of India, and is estimated to cross 600 million with 100 metro cities in ecological challenges coupled with climatic variability are noted to aggravate flo pact on affected communities. Urban flooding was primarily a concern of municip mental governance, has now attained the status of 'disaster', which has drawn environmental scientists and disaster managers. Challenges of urban flooding in te and flood mitigation including structural and non-structural measures and key issu logy in two major metropolitan cities of India – Bangalore and Chennai, have be management challenges in the context of land-use, city and population growth, we tion, waste disposal have been discussed.

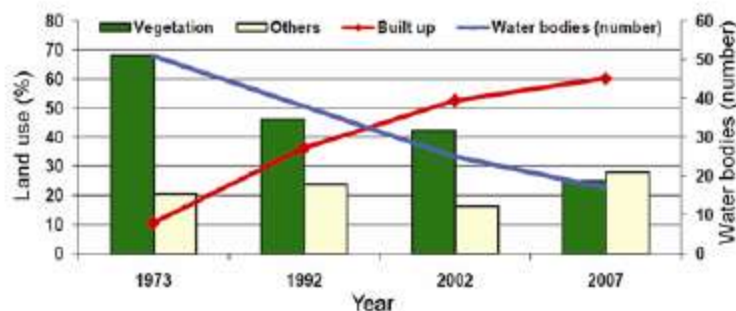
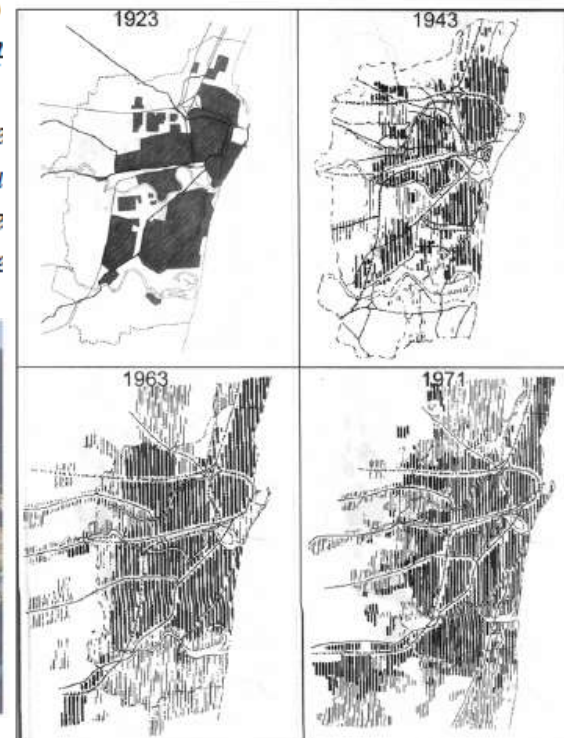
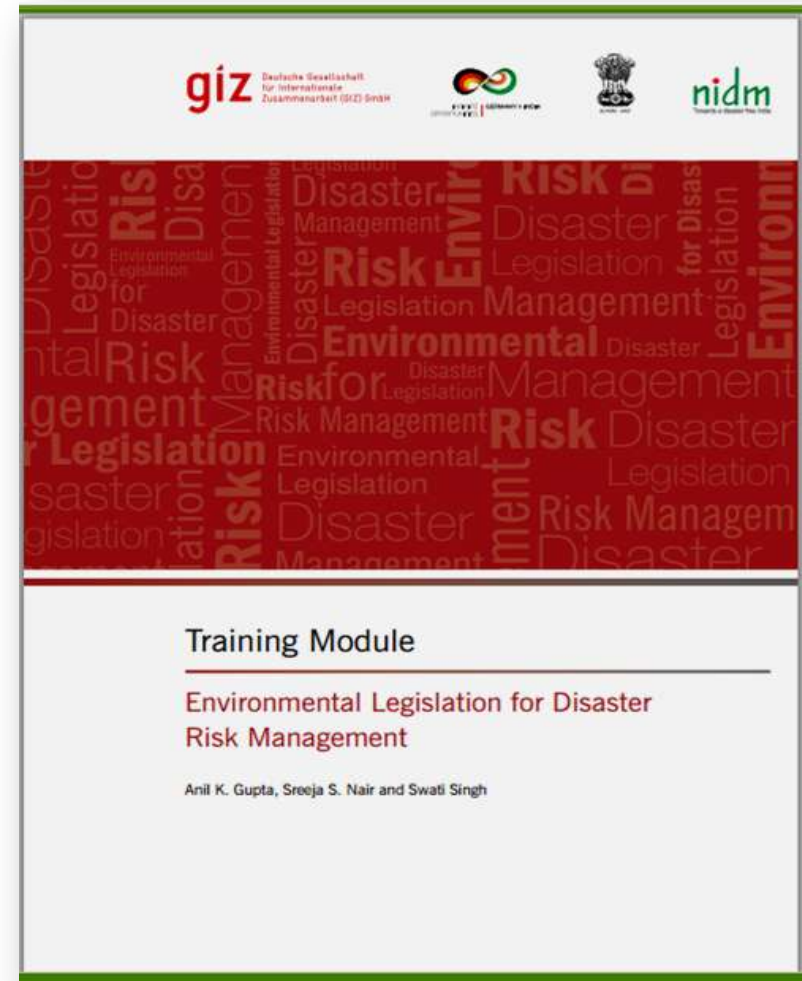


Figure 3. Land-use changes, 1973–2007.



Environmental Legislation for DRR in India

- Regulatory provisions related to environment and its constituents, **natural resources - water, land, agriculture, forests, wildlife, habitats, ecosystems; procedures and planning - Environmental clearance, EIA, audit, risk analysis, land-use** and zoning, emergency preparedness; and environmental services - **drinking water, sanitation, waste management, preventive-health, including climate mitigation and adaptation** etc. although primarily aiming at environmental quality and resource management, the provisions play significance role in addressing hazards, reducing underlying causes of vulnerability and enhancing capacity, and thereby, relate to Disaster Risk Reduction.



Disaster Management and Risk Reduction

Role of Environmental Knowledge



Editors

Anil K. Gupta

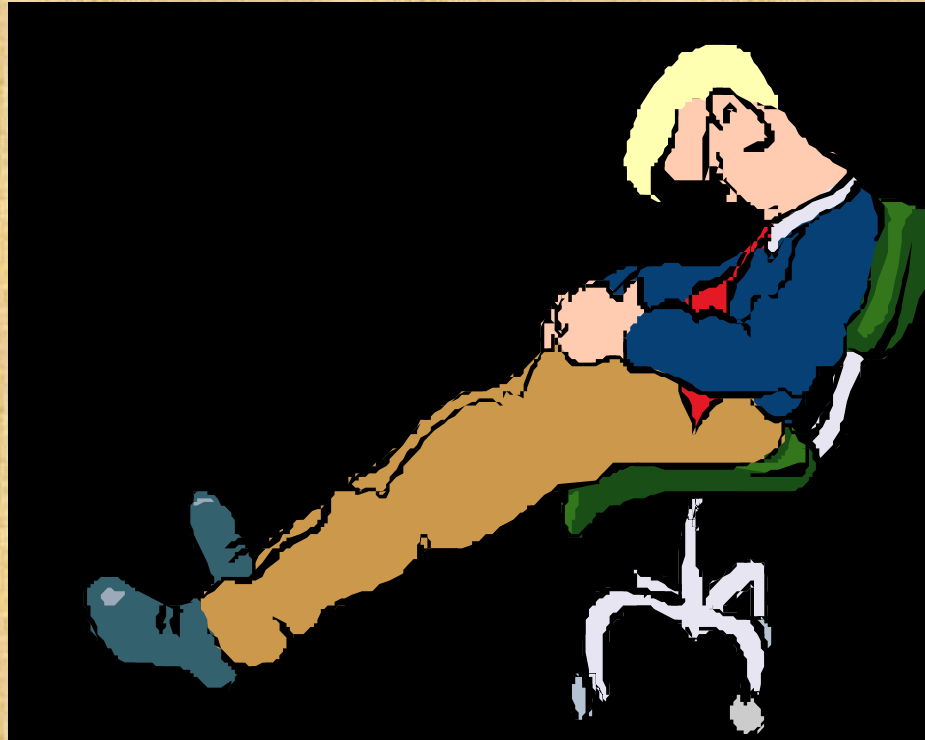
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Narosa



THANKS

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