



**NATIONAL WORKSHOP**

**ON**

**COMMUNITY BASED DISASTER RISK  
MANAGEMENT**

**VENUE: LUCKNOW, UTTAR PRADESH**

**FEBRUARY 20, 2023**



**वसुधैव कुटुम्बकम्**

**ONE EARTH • ONE FAMILY • ONE FUTURE**

## Background

Around the world, as the rate of climate-induced disasters is doubling every decade, there has been an exponential rise in the number of people affected and in need of assistance.

Since the 1980s, the rate of annual temperature rise has doubled as compared to the preceding 100 years. Accumulated emissions in the atmosphere are causing accelerating risks for climate hazards around the world. One clear impact is on the frequency of climate-induced disaster events. The number of such events is doubling every decade since the 1980s. India is among the 10 most climate-affected countries in the world (Germanwatch, 2020).

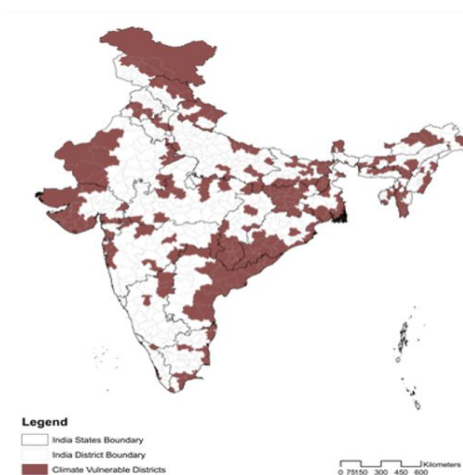


**6,681 climate-related disasters (2000-2019) compared to 3,656 (1980-1999)**

FIGURE 1 : SOURCE UNDRR

In India, various studies indicate the long-term impact of climate change and how this would adversely affect livelihoods and community well-being.

A study conducted by SEEDS estimates that at least 300 million Indians in 200+ districts will be at direct risk of climate impacts by 2030 (Figure 2). These areas will experience never-before-scale and



frequency of climate-induced disasters. We are faced with the challenge of building resilience to climate change urgently and at scale.

Current institutional structures view Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) as two different domains. The overlap in approaches for DRR and CCA are well established, yet there are only a few scattered case studies that illustrate the co-benefits of integrating DRR and CCA strategies. DRR can deal with current climate variability and be the first line of defense against climate change, being therefore an essential part of adaptation. Conversely, for DRR to be successful, it needs to take account of the shifting risks associated with climate change and ensure that measures do not increase vulnerability to climate change in the medium to long term. Moreover, while there has been progressing at the policy level with national plans being put in place, the benefits of such initiatives are yet to percolate to the community level. The proposed pre-events seek to address the challenge as stated:

[How can national plans and policies and funding mechanisms be leveraged to enable greater action and vulnerability reduction at the grassroots and facilitate the adoption of climate change adaptation approaches?](#)

This note presents, in brief, possible pathways for a community-based approach to building resilience by integrating CCA and DRR strategies. The primary objective, in this case, would be to reduce physical, economic, and social vulnerabilities to lessen the negative outcomes of climate change.

## Action Areas

Three primary pathways are proposed to address the given challenge. Each pathway will require an enabling policy framework, practice standards, and tools, as well as extensive context-based consultations with local communities.

### [Pathway 1: Climate Change Mitigation and Adaptation through Nature-Based Solutions \(NBS\)](#)

Nature Based Solutions have proven to be the most effective buffer against both slow-onset climate change phenomena, as well as rapid onset events. In coastal areas, solutions such as bio-shields (e.g. mangrove plantations) that act as natural buffers to high-velocity winds and tidal surges have protected settlements from storms, tsunamis, and erosion, and offer an interim

solution against rising sea levels. In the mountains, green slope stabilization has offered cost-effective and sustainable protection against landslides and soil erosion. On the plains, nature-based solutions have historically proven to improve water security, enhance livelihood resilience, and arrest loss of biodiversity, ultimately saving communities from flooding and drought events. Currently, in India, there is a favorable policy environment in place to promote nature-based solutions. In

addition to climate mitigation approaches, there is a need to scale up climate adaptation measures including strengthening crop and livestock linkages to improve soil health, scaling up climate resilient approaches (e.g. direct seeding of rice, system of rice intensification), promoting water use efficiency, transitioning to renewable sources of energy (e.g. solar-powered irrigation systems) and scaling up the cultivation of more climate resilient crops such as pulses and millets. These would also contribute immensely to enhancing nutrition security.

Community-based measures are needed to promote awareness of NBS; address challenges in its implementation (e.g., land title issues, local institutional structures, community ownership); deliberate on modes of community-led processes to accelerate implementation and finally draw greater investments in this area.

#### Pathway 2: Improving adaptive capacity with resilient infrastructure and livelihoods

Improving adaptive capacity in this manner implies building the ability and agency of communities and institutions to enhance their abilities to (i) allow minimal disruptions, and (ii) accommodate possible alternatives to switch to. Enabling farmers to grow additional shorter gestation vegetable and more climate resilient crops seeks to improve their adaptive capacity. Ensuring supply chains do not suffer disruptions due to climate impacts will aid small businesses in remote areas. Assisting in safe migration from climate hotspots is now an acceptable adaptation practice for reducing exposure to risks. Further, low carbon pathways may be pursued to achieve co-benefits of climate change mitigation as well as adaptation and risk reduction. E.g., climate resilient habitat development following disasters that use local sustainable material in housing reconstruction while offering protection against future hazardous events.

Currently in India, limited work is done in this area with limited standards, norms, or established practices. Most efforts are piecemeal and limited to sectors where they are

practiced. Awareness and knowledge exchange would be critical to promote practice at scale. Communities in both urban and rural areas should be supported to assess their habitat and develop plans to strengthen the resilience of their habitats, leveraging other programmes (e.g. MGNREGA, NRLM etc.). Communities should also be supported to track key habitat indicators to better understand climate change induced impacts and take timely corrective measures.

### **Pathway 3: Preparedness planning with timely action and appropriate warning signals at the onset of climate-induced disaster events.**

With climate change, communities are now exposed to new risks, as well as changing patterns of historical hazards making them more intensive and unpredictable. Timely and need-based assistance during emergencies, or in extreme weather conditions, helping communities recover rapidly builds resilience. Equally important would be the role of early warning systems with robust first-mile connectivity. With the new risks in place e.g. heat waves, early warning systems need to be more extensive yet comprehensible to communities at risk. Building flood and earthquake-resilient multi-purpose shelters in communities for rapid evacuation of communities is being introduced as a localized community-managed service in several States. Finally, building strong safety protection mechanisms for vulnerable groups in climate hotspots would be an area of critical intervention.

India has made substantive progress in this field, yet the institutional structure at the local level has not kept pace with the changing nature of risks and the challenges that accompany such risks. Revisiting mandates of existing institutions to be more inclusive as well as practice outreach at scale would be critical to meet the growing challenge in this area.

Building an understanding of the One Health approach and the close linkages between environmental health, and animal and human health would also be an effective lens to strengthen climate adaptation approaches.

### **What we seek to achieve**

**In terms of overall outcomes, we seek to achieve climate resilience, reducing suffering due to potential losses from climate impacts**

In practical terms, this would require us to ensure that communities not just survive, but also adapt and thrive in spite of an adversely changing climate. The three pathways defined in earlier sections can significantly contribute to building such resilience. The concept of ‘Climate Resilient Villages/Towns’ may be considered. A climate-resilient village is one that can deal with natural hazards and account for the unknown climatic changes in the years to come. With a focus not just on anticipating, coping with, responding to, and recovering from existing climate hazards but on the adaptive capacity to deal with the variability brought about by climate change

**The proposed pre-event can deliberate on possible community-based interventions and their implementation mechanisms. The intervention challenges must tackle challenges of scale, diversity, and inclusivity.**

### **Potential Interventions to be implemented at the local sub-district level:**

With an aim to generate immediate momentum and to gain traction with priority states and districts, interventions may include:

1. Early warning and weather watching – integrated communication networks, disaster and climate information volunteers, local mapping for local use
2. Conservation of natural drainage systems – anticipation, restoration, and protection
3. Local innovations around traditional wisdom and information systems (including biodiversity loss reporting)
4. Local management and regeneration/ protection of water bodies – water dashboard, adapted by-laws, and zonal regulations
5. Climate action planning and budgeting – review and refinement in local governance budgets based on climate sensitivity and climate relevance. Identification and focus on most vulnerable sectors and people.

## **Enabling strategies:**

To enable the defined pathways, facilitative work would be needed in the following areas:



1. Building a robust local database on damage and losses from climate impacts (including biodiversity loss).
2. Awareness, capacity building, and skill-based training of local community-based institutions.
3. Addressing institutional barriers that prevent integrated approaches, especially at district and sub-district levels.
4. Building multi-stakeholder partnerships across government departments, civil society, and markets, leveraging existing structures that are focused mostly on mitigation targets.
5. Technology-enabled infrastructure that can address challenges of scale and complexity.
6. Promoting knowledge exchange and peer-to-peer learning among practitioners.
7. Inviting innovation and new investments in the area through public competitions/hackathons.

### **Suggested Topics for Discussion at Pre-event**

1. Understanding the new risk landscape, and developing future scenarios
2. Building knowledge resources: standards, tools, and methods
3. Available financing mechanisms
4. Enabling capacity at the community level, particularly for the development of village/town-specific climate-resilient plans
5. Harmonization of approaches, partnerships and inter-department coordination

## Proposed Agenda for Pre-Event:

Duration: 1 day; Venue: Lucknow, hosted by UPSDMA

<i>Time</i>	<i>Agenda</i>	<i>Resource Person</i>
1030-1130	Inauguration	
	Welcome Address	Shri Shekher Chaturvedi, Asstt. Prof. NIDM
	Address	Secretary (DM), Govt. of UP (tbc)
	Address	Shri Krishna Vatsa, Member NDMA (tbc)
	Inaugural Address	Hon'ble Vice Chairperson, UPSDMA
	Keynote: Understanding new risk landscape: Challenges and opportunities	Shri Manu Gupta, SEEDS India
	Tea break	
1200-1300	Design of Programmes for Community Based Disaster Risk Reduction	Experts
	Round Table interventions.	
	Lunch	
1400-1600	Workshop on way forward: Preparation of a national action plan, key inputs, expected outputs, Required Support	Experts
1600-1630	Valediction	
	Summing Up	Ms. Tinni Sawhney, Aga Khan Foundation
	Valedictory Address	Hon'ble Vice Chairperson, UPSDMA