

# IKI India Thematic Workshop on Adaptation

**Date & Time:** March 6, 2025, 15:45-18:20

**Venue:** Sakya Hall, ITC Maurya Hotel, New Delhi

**Organized by:** Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and The Energy and Resources Institute (TERI) under the International Climate Initiative (IKI) India in collaboration with the Council on Energy, Environment, and Water (CEEW)

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## 1. Executive Summary

The IKI India Thematic Workshop on Adaptation convened government officials from India and Germany, policymakers, international development organizations and funding agencies, research institutions, financial experts, and civil society representatives to engage in a multi-disciplinary dialogue on strengthening the support from the IKI for India's adaptation strategies. The workshop focused on aspects in the National Adaptation Plan (NAP) framework, discussing key aspects such as climate-induced concerns, policy planning, sectoral adaptation approaches, financing mechanisms, and implementation challenges.

India faces increasing climate-induced disasters, including flash floods, extreme heat, and cyclones, highlighting the urgent need for a comprehensive adaptation framework. Given the country's diverse geographical and socio-economic conditions, adaptation measures must be locally relevant while ensuring national coordination for effective climate resilience.

**The workshop discussions were structured around three themes:**

- **National Adaptation Planning and Resilience:** Addressing governance challenges, capacity-building, and the role of state and district administrations in adaptation efforts.
- **Ecosystem-Based and Community-Based Adaptation Approaches:** Exploring the integration of nature-based solutions and community participation in adaptation planning.
- **Climate Finance for Adaptation:** Identifying financial barriers, innovative funding models, and the role of public-private partnerships in mobilizing climate finance.

- Ensure coherent and effective adaptation policy implementation to strengthen governance at the sub-national and local levels.
- Leverage public and private finance, including green bonds and blended finance models, to enhance financial accessibility.
- The insights generated serve for strengthening adaptation policies and climate resilience through collaborative governance, financial innovation, and sustainable development strategies.
- Support risk assessments, financial investments, and evidence-based decision-making for developing robust hyperlocal data systems.
- Integrate traditional knowledge, local adaptation strategies, and ecosystem-based approaches into policymaking to foster community participation.

## 2. Context

The workshop opened with an introductory session from policy makers that set the stage for discussions ahead. The urgent need for robust climate adaptation policies was emphasized, particularly in a country as diverse and vulnerable as India. A key focus of the discussion was the need to strengthen local systems and enhance on-ground implementation to ensure well-formulated policies translate into effective action. While India has developed robust adaptation policies, their success now depends on supporting on-ground execution, building institutional capacity, and ensuring seamless coordination between national, state, and district administrations. While significant funds are allocated for adaptation,



there is a greater need for enhanced coordination, capacity-building, and streamlined implementation at the sub-national and local levels. Strengthening collaborations and facilitating convergence among government departments and ensuring effective percolation of policies at the grassroots level will be key to maximizing the impact of adaptation initiatives. The discussion underscored the importance of integrating scientific data, technological advancements, and traditional knowledge into adaptation planning for better decision-making and impact assessment.

### 3. Special Address

The special address highlighted the adaptation measures of Germany and India, acknowledging India's remarkable efforts despite its large population and diverse geography. It further acknowledged Germany's reaffirmation of its commitment to climate adaptation, citing the Federal Climate Adaptation Framework (July 2024), which has been legally binding and mandates systematic adaptation efforts across institutions. The framework also complements Germany's National Adaptation Strategy (December 2024), which identifies seven key intervention areas, including infrastructure, land use, water management, and economic resilience.

A crucial takeaway from the address was that adaptation planning must be participatory, involving institutions, civil society, and local communities to ensure inclusivity and effectiveness. While India's progress in adaptation policies was recognized and commended, it was noted that international cooperation is fundamental for long-term success. It was reaffirmed that Germany remains committed to supporting India in its adaptation measures and collaborative initiatives like this workshop serve as catalysts for stronger bilateral cooperation.

### 4. Overview of Climate Change Adaptation in India

A comprehensive overview of India's adaptation strategies was presented, with a specific focus on disaster risk management and climate resilience. The frequency and intensity of climate-induced disasters, including flash floods, cyclones, and extreme heat events, have increased, thereby necessitating systemic interventions at both policy and implementation levels.

The National Disaster Management Plan (2019) was highlighted as a key framework, integrating climate risk management across multiple hazards. The fact that climate change is referenced 219 times in the document underscores the high priority given to climate considerations within India's disaster risk reduction (DRR) strategy.

The discussion emphasized the role of the National Disaster Management Authority (NDMA) in adaptation planning. NDMA has played a central role in shaping the ongoing development of India's National Adaptation Plan (NAP), which is expected to be finalized by September 2025, and has actively engaged stakeholders beyond government agencies, including civil society organizations, the private sector, and scientific institutions. Efforts have also been made to integrate climate considerations into state and district-level disaster management plans, recognizing that adaptation must be locally implemented to be effective.

Beyond structural planning, behavioural change was highlighted as a crucial aspect of climate adaptation. A pressing need for awareness campaigns, training programmes, and community engagement initiatives was felt to foster a culture of climate resilience at the grassroots level.

### 5. Panel Discussions

#### 5.1 National Adaptation Planning and Resilience

The first panel discussion focused on India's ongoing National Adaptation Planning process and resilience efforts, examining its sectoral approach, governance challenges, and barriers to implementation.

However, the increasing frequency and intensity of climate disasters have stretched existing resources and capacities to the limit, complicating intervention strategies. One of the primary debates centred around whether NAP should be sectoral or



hazard-specific. The Government of India ultimately opted for a sectoral approach, as it facilitates targeted budgeting and intra-sectoral collaboration.

Extreme climate events such as floods, droughts and heat were identified as a growing challenge. For instance, a recent meeting with the Government of Delhi focused on heatwave mitigation strategies, particularly for vulnerable populations such as street vendors, hawkers, and farmers. This discussion highlighted the need for creating awareness among citizens on the importance of resilience building mechanisms.

The role of decentralized governance in disaster management was also discussed. A pending amendment in Parliament seeks to designate urban local bodies (ULBs) as separate entities in disaster planning. However, panchayats\* were identified as crucial institutions to ensure last-mile adaptation, particularly for early warning dissemination and community-led interventions.

Another critical issue was accessing climate finance for cities. While funds are available, local governments often lack the capacity to tap into them. The panel emphasized the need for stronger linkages between urban centres and climate finance agencies to bridge the financial accessibility gap.

- To enable effective adaptation implementation, strengthen state-level capacity.
- Practical, targeted adaptation interventions should be prioritized over generic planning frameworks.
- To strengthen local adaptation efforts, enhance financial accessibility and resource utilization.
- Immediate implementation should take precedence over waiting for a 'perfect' policy framework.

## 5.2 Ecosystem-based and Community-based Adaptation Approaches

The second panel discussion explored the role of nature-based solutions (NbS) and community participation in adaptation planning. It was emphasized that ecosystem-based adaptation (EBA) and community-based adaptation (CBA) are not separate but rather complementary approaches.

An example illustrating this interconnection was the Agni-Rakshaks initiative in Uttarakhand, where community-led efforts in forest fire prevention have significantly strengthened local resilience. Strong community involvement, traditional knowledge, and localized governance structures have made such interventions more effective and sustainable.

Another key area of discussion was wetland conservation as a climate adaptation strategy. Wetlands provide multiple ecosystem services, including flood regulation, groundwater recharge, and biodiversity conservation. However, their role in climate adaptation remains underutilized in national and state policies. Efforts are currently underway to develop hotspot maps that assess district-level climate vulnerability and identify high-concentration wetland areas to ensure that adaptation measures are more data-driven and targeted.

Despite the success of EBA and CBA initiatives, several barriers hinder their mainstreaming. A major challenge is the fragmentation of policies across different sectors such as water management, agriculture, and disaster risk reduction. This lack of convergence leads to inefficiencies. This calls for departments to work with an integrated adaptation approach.

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\* A Panchayat is a local self-government institution in rural India, typically a village council, composed of elected representatives responsible for governing and making decisions for a village or a group of villages.



- Community involvement is critical for the success of nature-based adaptation strategies.
- The vulnerabilities of ecosystems themselves must be considered in adaptation planning to prevent maladaptation.
- Policy convergence across sectors (disaster risk management, water conservation, ecosystem restoration, and agriculture) can improve adaptation outcomes.

### 5.3 Climate Finance for Adaptation

The third panel discussion addressed the financial mechanisms for adaptation, emphasizing the roles of both the public and private sectors. While public finance remains the primary source of adaptation funding, it was acknowledged that a significant portion of the allocated funds remains underutilized due to limited institutional capacity, governance challenges, and administrative delays.

One of the primary concerns raised was the lack of clear business models for adaptation projects. Unlike mitigation, where emission reductions are easily quantifiable, adaptation lacks standardized metrics or indicators to measure impact and returns. This has hindered private sector engagement in adaptation finance even further. Financial institutions require robust data systems to assess climate risks, which is currently a major barrier to securing investments.

The panel explored innovative financing models that could potentially bridge the adaptation finance gap. Hybrid Annuity Models (HAMs), which have been successfully used in road infrastructure financing, were discussed as a potential model for funding adaptation projects. This approach involves public-private partnerships (PPPs) where initial government investment helps de-risk the project, making it more attractive to private investors.

Another key discussion point was the importance of blended finance models that combine public, private, and philanthropic funding to enable large-scale adaptation investments. However, it was noted that blended finance remains underutilized due to complicated project structuring and alignment issues among multiple investors.

The discussion also touched upon creditworthiness concerns in adaptation finance. Many state and local governments struggle to secure funds due to weak financial standing and lack of structured adaptation plans. It was emphasized that enhancing institutional capacity at the sub-national level is crucial for improving financial accessibility.

- Adaptation finance requires tailored business models that align with private sector incentives.
- Government institutions must facilitate financial accessibility through regulatory reforms and policy support.
- Blended finance models (public-private partnerships, green bonds, and philanthropic funding) should be leveraged to scale up adaptation projects.
- Strengthening data systems and improving financial creditworthiness of adaptation projects can help attract private investment.



## 6. Reflections and Way Forward

The workshop concluded with reflection on key takeaways and future steps. A recurring theme throughout the discussions was the need for strengthening governance frameworks especially at the local-level for adaptation planning. While India has made significant progress in climate adaptation policies, there is an urgent need to bridge the gap between policy and implementation.

A major concern was financial accessibility, particularly for state and local governments. Despite the availability of adaptation funds, many cities and districts lack the technical capacity to tap into these resources effectively. There was a strong emphasis on the need for structured capacity-building programmes that enable government institutions, financial bodies, and private sector players to work collaboratively.

Another key area of focus was scaling up community-led adaptation initiatives. It was highlighted that local communities possess valuable traditional knowledge and adaptive practices, which should be recognized and integrated into national adaptation frameworks. Civil society organizations were identified as crucial intermediaries in facilitating bottom-up adaptation strategies.

The importance of policy coherence was reiterated, ensuring that adaptation strategies are integrated across sectors rather than being fragmented into isolated initiatives. This will require enhancing inter-departmental coordination at both national and sub-national levels.

Additionally, the need for robust hyperlocal data systems and transparent monitoring frameworks was emphasized. Improved climate risk assessment tools, vulnerability mapping, and data-driven policy decisions can help create a more responsive and effective adaptation ecosystem.

### Key Focus Areas Moving Forward:

- Strengthening state and local governance frameworks for adaptation planning and implementation.
- Enhancing financial accessibility and institutional capacity to utilize available adaptation funds effectively.
- Promoting community-led adaptation initiatives and integrating traditional knowledge into policy frameworks.
- Ensuring cross-sectoral policy coherence to prevent fragmented adaptation efforts.
- Developing hyperlocal data-driven adaptation strategies to improve decision-making and financial risk assessment.



## Annexure- List of Participants

S.No.	Name	Organization
1	Ilka Hirt	BMUKN
2	Sophia Engel	BMUKN
3	Taina Dykhoff	German Embassy in India
4	Vanessa Moosmann	AA
5	Mrinalini Srivastava	NDMA
6	Alexander Fisher	GIZ
7	Jasprit Kaur	GIZ
8	Souvik Bhattacharjya	TERI
9	Philipp Hermann	GIZ
10	Shraddha Roy	NEWS
11	Mayur Bawri	NEWS
12	Vishwas Chitale	CEEW
13	Kavita Vij	CEEW
14	Suparana Katyaini	CEEW
15	Vaibhav Rathi	GIZ
16	Dhruba Purkayastha	CEEW
17	Abhinav Wallia	NDMA
18	Nitin Bassi	CEEW
19	Malika Paul	GIZ
20	Arvind Gopal	GIZ
21	Manish Anand	TERI
22	Rashmita Sharma	TERI
23	Ravindra Singh	GIZ
24	Avantika Bhushan	GIZ

S.No.	Name	Organization
25	Antara Bose	SHAKTI
26	Ramanshu Ganguly	SHAKTI
27	Kirtiman Awathi	GIZ
28	Alejandro Von Bertrab	GIZ
29	Kundan Burnwal	GIZ
30	Murhekar Akruti	NIUA
31	Deepshikha Sinha	NIUA
32	Ashmita Biswas	IEA
33	Sebastian Markart	GIZ
34	Liju Mathew	GIZ
35	Vani Pandey	TERI
36	Shiv Verma	IWMI
37	Archana Chatterjee	IUCN
38	Doth Patriaka	GIZ
39	Ajith	World Bank
40	Dilip Singh	UNDP
41	Shuva Raha	CEEW
42	Aparna Sajeev	TERI
43	Arya Jash	TERI
44	Liji Joy	TERI
45	Zorica Grisolli	GIZ
46	Ashly Abraham	GIZ
47	Ravi Kasera	TERI

AA – Federal Foreign Office

BMUKN – Federal Ministry for the Environment, Climate Action, Nature Conservation, and Nuclear Safety

CEEW – Council on Energy, Environment and Water

GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit

IEA – International Energy Agency

IUCN – International Union for Conservation of Nature

IWMI – International Water Management Institute

NDMA – National Disaster Management Authority

NEWS – Nature Environment and Wildlife Society

NIUA – National Institute of Urban Affairs

SHAKTI – Shakti Sustainable Energy Foundation

TERI – The Energy and Resources Institute

UNDP – United Nations Development Programme



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Internationale Zusammenarbeit GmbH (GIZ)  
A-2/18, 3rd floor, Safdarjung Enclave,  
New Delhi - 110029, India.  
[alexander.fisher@giz.de](mailto:alexander.fisher@giz.de)  
[www.giz.de](http://www.giz.de)

**Responsible:** Dr Alexander Fisher, Project Director Climate Action Program/International  
Climate Initiative (IKI) Interface at GIZ India

**Edited by:** Dr Alexander Fisher (GIZ), Ms Vani Pandey (TERI), and Mr Souvik Bhattacharjya (TERI)

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