



Sphere India  
National Coalition of Humanitarian Agencies in India

# MONSOON

PREPAREDNESS THROUGH  
REGIONAL RESILIENCE

# 2025

SUMMARY REPORT





## Background & Context

India's monsoon season has increasingly become a period of heightened risk due to the growing frequency, intensity, and unpredictability of extreme weather events. In 2024, several states—including Gujarat, Kerala, Tripura, Maharashtra, Assam, Himachal Pradesh, and Uttarakhand—experienced devastating floods, landslides, and associated humanitarian impacts. The country recorded over 11,700 instances of heavy rainfall and a total of 934.8 mm of precipitation, significantly exceeding the Long Period Average (LPA). These events underscored the urgent need for dynamic, coordinated, and inclusive preparedness mechanisms across all levels.

As part of its institutionalized annual preparedness processes, Sphere India facilitates a series of hazard-specific consultations every year—focusing on risks such as heatwaves, lightning, cyclones, and monsoons. These workshops serve as pre-season platforms to assess emerging risk patterns, reflect on lessons from past responses, and promote localized and coordinated preparedness planning. They bring together diverse stakeholders from state governments, disaster management authorities, Inter Agency Groups (IAGs), UN agencies, civil society organizations, sectoral experts, and community networks to shape anticipatory and inclusive response strategies. These periodic consultations are further complemented by a national-level learning and planning workshop at the end of the year, which reflects on key developments, captures cross-sectoral learning, and informs collective priorities for the next cycle.

For 2025, the India Meteorological Department (IMD) has projected an above-normal monsoon, with rainfall expected to be 5% higher than the historical average. The monsoon made landfall in Kerala on May 24th—three days earlier than expected—and progressed rapidly across southern and northeastern regions. This early onset, driven by strong onset conditions and favorable atmospheric dynamics, has already tested the readiness of multiple state systems. Such climatic shifts reaffirm the need for timely, region-specific, and community-centered preparedness strategies.



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In this context, Sphere India convened a series of Monsoon Preparedness Consultations in 2025, including two regional workshops and one national-level online session focused on Anticipatory Action:

- On 11th April 2025, Sphere India Academy, in collaboration with ADRA India, hosted a virtual panel discussion on “Anticipatory Action for Monsoon Preparedness”, exploring trigger-based planning, forecast-based financing, and inclusive early warning systems.
- The South and North-East Regional Workshop, held on 27th May 2025, focused on preparedness strategies from states such as Tripura, Assam, Tamil Nadu, and Nagaland.
- The North and West Regional Workshop, organized on 11th June 2025 in partnership with AIDMI, included discussions on preparedness approaches from Gujarat, Bihar, Maharashtra, Delhi, and Jammu & Kashmir.

These workshops aimed to capture regional specificities while contributing to a unified national preparedness narrative. They brought together SDMAs, IMD officials, IAGs, NGOs, UN agencies, academic institutions, and community representatives to share insights, identify gaps, and co-develop actionable plans. By emphasizing early warning systems, localized risk reduction, inter-agency coordination, and the inclusion of vulnerable groups, the consultations serve as a critical component of India’s collective readiness for the 2025 monsoon season.

## Objectives

- To review the impacts, challenges, and lessons learned from the 2024 monsoon season across affected states.
- To facilitate multi-stakeholder discussions on monsoon preparedness, ensuring an inclusive approach.
- To develop actionable preparedness plans for the 2025 monsoon season.
- To promote collaboration and coordination among Government agencies, NGOs, community leaders, and other stakeholders.

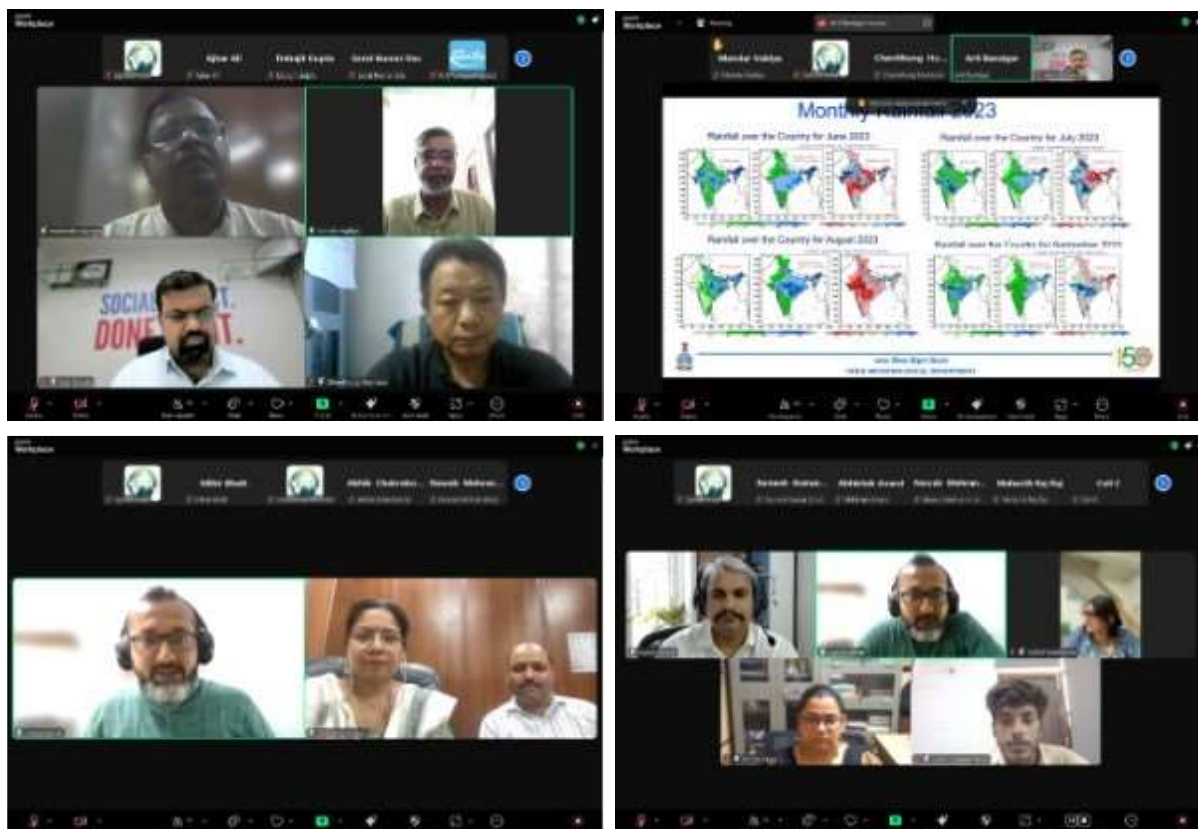
## Expected Outcomes

- ✓ Enhanced understanding of regional monsoon challenges and best practices for preparedness.
- ✓ Strengthened coordination among stakeholders, leading to improved response mechanisms.
- ✓ A draft preparedness plan for the 2025 monsoon season, developed through collaborative inputs
- ✓ Identification of sector-specific priorities and roles for stakeholders, ensuring efficient and inclusive response mechanisms



## Summary

Sphere India's 2025 monsoon preparedness initiative comprised two regional workshops (South & North-East, North & West) and a national-level webinar on Anticipatory Action (AA), collectively engaging over 100 stakeholders from government agencies, civil society, technical institutions, and frontline responders. These sessions served as a robust platform to enhance operational readiness, advance inclusive planning, and mainstream anticipatory strategies into monsoon preparedness.



The regional workshops provided deep-dive discussions on real-time risks, with inputs from the India Meteorological Department (IMD) on rainfall variability, digital early warning systems, and climate-induced shifts in disaster patterns. Participants exchanged practices on state-level innovations—like Tripura's preparedness checklist, Assam's community-based early warning, Maharashtra's tech-enabled alerts, and Nagaland's mock drills, while also acknowledging systemic gaps in last-mile communication, urban resilience, and livestock management.

Complementing these regional perspectives, the anticipatory action webinar emphasized proactive, trigger-based planning that precedes disasters. Drawing on global best practices and scientific forecasting, panelists highlighted the need to embed AA in policy frameworks, define localized triggers, and activate pre-agreed financing and plans. Notably, the session focused on inclusive preparedness—advocating for gender-responsive lead times, disability-accessible alert systems, and social protection linkages like Direct Benefit Transfers (DBTs) as tools for pre-impact support.

Across all three sessions, common themes emerged: the urgent need for decentralization, localized planning, and community engagement. Models that mobilize Panchayats, SHGs, youth volunteers, and vulnerable groups to lead preparedness efforts were widely appreciated. Participants stressed integrating essential services such as health, WASH, education, nutrition, into preparedness plans, and ensuring accessible infrastructure and services for persons with disabilities.

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The sessions also surfaced persistent coordination challenges, particularly the limited pre-season role of NGOs and the under-leveraged potential of private sector and CSR partnerships. Participants called for formalized GO-NGO frameworks, use of local languages and visual tools in forecasts, and inclusive data systems to identify and reach at-risk populations effectively.

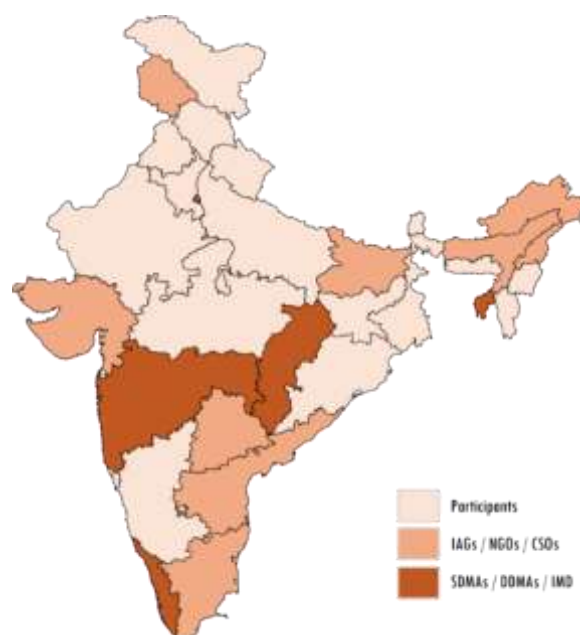
In essence, this multi-session engagement transformed monsoon preparedness from an administrative routine into a collaborative movement for risk-informed, anticipatory, and inclusive climate resilience.

## Outreach and Engagement

In 2025, Sphere India facilitated a series of regional Monsoon Preparedness Consultations along with a national-level online session on Anticipatory Action. These platforms brought together a diverse range of stakeholders to promote collaborative preparedness planning and inclusive dialogue. Five State Government representatives participated, sharing official perspectives on risk management, policy gaps, and inter-departmental coordination. Additionally, eleven State Inter Agency Group (IAG) representatives joined as speakers, offering ground-level insights, innovative practices, and community-based strategies from across regions.

To ensure a holistic and multi-sectoral approach, the consultations also engaged sectoral experts from Indian Meteorological Department (IMD), Health, Livestock, Organisations for Physically Disabled (OPDs), Animal Welfare, Agriculture, and Emergency Logistics. National-level NGOs, CSR partners, UN agencies, and humanitarian agencies contributed actively, bringing in cross-cutting perspectives and technical expertise.

Overall, the sessions witnessed participation from 200+ stakeholders across the country, including SDMA officials, district-level responders, academia, and community-based organizations, reflecting strong nationwide engagement and collective ownership of preparedness efforts for the 2025 monsoon season.



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## Reflections from States: Common Lessons and Regional Highlights

Monsoon Preparedness Workshops drew participation from over 20 states and union territories, offering a rich mosaic of insights across India's diverse disaster risk landscapes. The participating states included: Kerala, Karnataka, Telangana, Tamil Nadu, Maharashtra, Chhattisgarh, Odisha, West Bengal, Bihar, Assam, Arunachal Pradesh, Meghalaya, Mizoram, Tripura, Manipur, Nagaland, Uttar Pradesh, Haryana, Delhi, Jammu & Kashmir, and Gujarat.

These multi-state engagements offered a comparative lens to understand how different geographies approach monsoon preparedness. Despite regional variations, several common lessons and priorities emerged:

### Common Lessons

- **Early Preparedness Pays Off:** States with pre-monsoon coordination meetings (e.g., Maharashtra, Kerala, Tripura) reported smoother transitions into response mode.
- **Community Structures Are Critical:** From CFRCs in Assam to SHG-led alert systems in Tamil Nadu, grassroots institutions consistently proved to be effective channels for last-mile action.
- **Forecasting Must Be Localized:** Many states noted that while scientific forecasts are increasingly accurate, they must be translated into local languages and interpreted with community context to be actionable.
- **Infrastructure Gaps Are Widespread:** Both rural and urban participants flagged persistent gaps in drainage, shelter capacity, and animal care facilities.
- **Inclusive Planning is Lacking:** While some states showcased inclusive shelter strategies (e.g., Nagaland, Tripura), many highlighted the need to mainstream disability, gender, and child-specific concerns.
- **NGO Engagement Needs Institutionalization:** Several states emphasized the importance of bringing NGOs into planning stages, not just during emergency response.

## Key Discussion Points

### 1. Climate Trends and Forecasting Complexities

- The workshops opened with a detailed scientific overview of monsoon climatology and forecast projections, highlighting increasing rainfall trends in central and peninsular India, and a contrasting decline in parts of the Northeast.
- IMD representatives emphasized that while forecasting capabilities have improved with radar and satellite integration, the erratic nature of climate systems—driven by the interplay of ENSO, Indian Ocean Dipole (IOD), and the Southern Oscillation—continues to challenge long-term predictability.
- The early onset of the 2025 monsoon and the neutral ENSO-IOD conditions were cited as clear evidence of this unpredictability, underlining the importance of impact-based forecasting and real-time alert dissemination at localized levels.



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## 2. Early Warning Systems and Communication Networks

- The discussions highlighted concerns regarding the accessibility and usability of early warning systems. It was noted that IMD has made considerable progress in rolling out mobile applications, real-time rainfall alerts, and four-stage warning protocols. However, stakeholders stressed that these tools remain underutilized at the community level due to technical complexity and lack of localized interpretation.
- In response, examples from Assam, Nagaland, and Bihar showcased the use of community **WhatsApp groups, megaphone alerts, and local loudspeakers** as effective last-mile communication tools. The need to simplify scientific data into pictorial and regional language formats was reiterated to make early warnings accessible and actionable for vulnerable populations.



## 3. Community-Based Preparedness and Local Governance

- Community engagement emerged as a cornerstone of monsoon preparedness. Several states shared models of grassroots preparedness, such as the formation of **Community Frontline Response Cells (CFRCs)** in Assam, and the activation of disaster task forces in floodplain areas.
- These locally embedded structures have been effective in conducting mock drills, disseminating alerts, and managing immediate post-disaster response.
- Similarly, initiatives like **Tripura's 50-point checklist for district collectors** were appreciated for institutionalizing preparedness through local governance systems. Participants stressed that empowering Panchayats, Self-Help Groups (SHGs), and youth volunteers was key to building long-term resilience, especially in remote and tribal regions.



## 4. Health, WASH, and Public Infrastructure Readiness

- The discussions drew attention to the surge in waterborne and vector-borne diseases during the monsoon. States such as Bihar, Kerala, and Tripura highlighted the need to pre-stock essential medicines at Primary and Community Health Centres (PHCs/CHCs) and ensure mobile health units are ready for deployment.
- Experts from Doctors for You and UNICEF India shared strategies for public health preparedness, including MHPSS (mental health and psychosocial support) for affected children, art-based counselling, and school health initiatives.
- There was also concern over the lack of sanitation facilities in temporary shelters and the need for integrating WASH components into pre-disaster planning, particularly in schools which often double up as emergency shelters.



## 5. Urban Resilience and Flood Management

- Urban flooding has become a recurring hazard due to poor drainage infrastructure, unplanned urbanization, and the loss of natural buffers. Case studies from Mumbai and Thane demonstrated innovative approaches to tackle these challenges, such as the **TUFAN IoT-based flood alert network**, citizen-led waterlogging reporting apps, and vendor-preparedness lists.
- These practices have improved the accuracy of flood zone mapping and strengthened coordination between municipal bodies and NGOs. However, experts highlighted that many



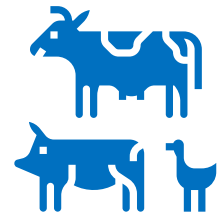


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cities in India still lack similar systems and that urban resilience must be treated as a multi-sectoral responsibility involving transport, housing, health, and public works departments.

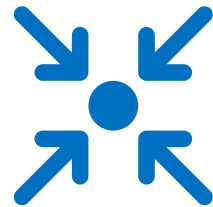
## 6. Livestock and Animal Welfare During Floods

- A critical yet often overlooked issue raised during the workshops was the vulnerability of livestock and companion animals during disasters.
- Experts highlighted the absence of standard operating procedures for animal evacuation and the lack of dedicated shelters or fodder storage facilities.
- Recommendations were made to include veterinary kits, first aid training for animal care, and the designation of safe animal enclosures in disaster plans. Sphere India, along with local networks and community-based organisations were encouraged to develop pictorial guides and conduct localized trainings on basic livestock management during emergencies.



## 7. Inter-Agency Coordination and Role of NGOs

- The workshops emphasized the importance of strengthening coordination between SDMA, NGOs, and civil society.
- Models from Maharashtra and Kerala demonstrated that pre-monsoon coordination meetings between Municipal Corporations and other government departments and NGOs greatly improved role clarity, reduced duplication, and enhanced resource distribution.
- However, states like some states and regions were flagged for requiring stronger IAG networks and capacity building for local organizations.
- Participants also acknowledged that while many NGOs actively engage during relief, fewer contribute to pre-disaster preparedness. Efforts must be made to expand the scope of civil society involvement to include planning, training, and policy advocacy.



## 8. Financing and Resource Utilization

- The underutilization of mitigation funding—particularly under the **15th Finance Commission**—was a recurring theme highlighted during the workshop. Departments often lack the technical knowledge to develop fundable proposals or navigate the approval process.
- It was recommended that State Planning Boards and technical institutions provide support in drafting Detailed Project Reports (DPRs), accessing risk reduction grants, and integrating DRR into broader development frameworks.
- Transparent allocation of SDRF resources, training on financial guidelines, and documentation of best practices were identified as key to unlocking these vital funds.



## 9. Private Sector Engagement and Logistics Preparedness

- The workshops emphasized that resilience must be a shared responsibility, and the private sector has both the resources and networks to play a larger role.
- While the private sector has contributed to emergency relief, it remains largely absent from the planning and preparedness phase. Stakeholders agreed that CSR actors and logistics partners should be mapped and engaged in pre-disaster coordination efforts and prepositioning in vulnerable areas.



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- Formal MoUs between SDMAs/DDMAs and private players could help pre-position relief supplies, enhance supply chain management, and support recovery planning.

## 10. Gender-Responsive and Inclusive Approaches

- Gender equity was identified as a critical area for monsoon preparedness. The digital divide continues to prevent many women from receiving early warnings, while response efforts often deprioritize women's economic assets.
- Participants emphasized the need for tailored planning that addresses these disparities. SEWA's gender-inclusive innovations, such as heat insurance and localized cooling solutions, were cited as replicable models.
- Moreover, leveraging social protection systems like registries and Direct Benefit Transfers (DBT) can support anticipatory action.
- Women's collectives and SHGs can also play a pivotal role in verifying and updating beneficiary lists and ensuring inclusive communication.



## 11. Disability Inclusion and Accessible Preparedness

- Ensuring the inclusion of persons with disabilities in disaster planning emerged as a priority. Participants noted the importance of designing alert systems that are accessible through visual, audio, tactile, and sign-language formats.
- Experts highlighted that inaccessible shelters, toilets and transportation systems compromise the dignity and safety of persons with disabilities during disasters.
- The absence or loss of assistive devices such as wheelchairs and hearing aids during evacuations causes additional distress.
- Capacity-building activities, including mock drills, must actively involve persons with disabilities and Organizations of persons with disabilities (OPDs).
- District- and sub-district-level focal points on disability inclusion were recommended, along with greater engagement of organizations of persons with disabilities (OPDs) in planning and awareness campaigns.
- International examples from Nepal, Japan, Sri Lanka, Thailand, and the Maldives illustrated the value of assistive technologies, inclusive evacuation strategies, and adapted relief materials.



## Key Action Points and Way Forward

### Government and Policy Makers

- IMD was urged to deepen collaboration with SDMAs and district administrations to translate scientific forecasts into actionable, community-level warnings. Joint efforts with the Central Water Commission (CWC) must be strengthened to ensure accurate hydrometeorological alerts.
- Forecasts and alerts must be translated into accessible formats, local languages and simplified formats, including pictograms, audio clips, and IEC materials suitable for non-literate populations and persons with disabilities.
- Develop and implement gender-responsive lead times that consider women's caregiving responsibilities and mobility constraints during crises.
- Ensure Direct Benefit Transfers (DBTs) are activated in anticipation of hazards to enable timely financial relief for vulnerable populations, especially women.
- Assign disability focal points at the district and sub-district levels to institutionalize inclusive preparedness and response planning.
- Conduct inclusive mock drills involving women, persons with disabilities, and vulnerable communities.
- State Disaster Management Authorities (SDMAs) were advised to map CSR actors and formalize partnerships for pre-positioning of supplies, warehousing, logistics, and post-disaster recovery. These actors should be seen as long-term partners, not just donors.



Figure 1 | Disaster Preparedness and Response Strategy

### NGOs / CSOs

- All State and District IAGs were recommended to institutionalize pre-monsoon coordination meetings with NGOs, SDMAs/DDMAs and line departments. These sessions should define clear roles and be documented as part of official preparedness plans.
- Local NGOs, SHGs, and Panchayats should be trained and engaged in creating community-specific evacuation checklists, livestock management plans, and shelter protocols. Sphere India and IAGs were tasked with facilitating this process through localized SOPs, pictorial guides, and capacity-building initiatives.

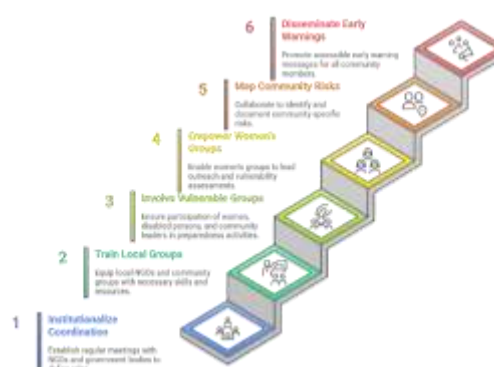


Figure 2 | Recommendations for NGOs/CSOs

- State/District IAGs and NGOs should actively involve women, persons with disabilities, representatives of OPDs and community leaders in mock drills, awareness campaigns, and risk mapping activities.
- Empower women's groups and self-help networks to lead outreach, beneficiary verification, and vulnerability assessments at the local level.
- Collaborate with government to map community risks inclusively, ensuring participation from all vulnerable groups and maintaining updated, location-based data.
- Promote the use and dissemination of accessible early warning messages, including sign language, tactile formats, and audio tools.

## Private Sector / CSRs

- CSR entities should move beyond post-disaster aid and proactively engage in disaster preparedness, supporting resilient infrastructure, local capacity building, and innovation.
- Private sector partners can invest in inclusive technologies, such as assistive devices, IoT-based flood alerts, and early warning communication tools tailored for marginalized groups.
- Support gender-sensitive insurance products (e.g., heat/flood insurance), livelihood recovery programs, and microenterprise development for women and vulnerable populations.



Figure 3 | Enhancing Resilience through Private Sector/CSR

## Community Based Actors

- Women's groups and SHGs should be involved in technical training on early warning systems and anticipatory planning to ensure localized ownership and leadership.
- Form Shelter Management Committees that reflect community diversity—including women, PwDs, elderly persons, and marginalized caste groups—to manage relief camps with dignity and equity.
- Use a blend of low-tech (megaphones, loudspeakers) and high-tech (mobile apps, drones, WhatsApp groups) tools to strengthen last-mile communication.
- Youth volunteers, school groups, and Panchayat leaders should be mobilized for regular, inclusive drills, awareness creation, and response support services.



Figure 4 | Enhancing Community Resilience

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## Conclusion

The Monsoon Preparedness Consultations for 2025 have reinforced the urgent need for decentralized, inclusive, and climate-resilient disaster preparedness. As India continues to experience more frequent and intense weather-related events, it is essential to move beyond reactive approaches and adopt proactive, coordinated systems that prioritize community resilience, multi-sectoral collaboration, and localized innovation.


The three sessions—two regional workshops and a national webinar on Anticipatory Action—highlighted that effective models already exist. Tripura’s comprehensive preparedness checklists, Assam’s community task forces, Maharashtra’s urban alert systems, and Nagaland’s coordinated mock drills are just a few examples of scalable good practices. However, the key challenge lies in systematically scaling these initiatives, enhancing inter-state knowledge exchange, and institutionalizing inclusive and participatory planning mechanisms that ensure no one is left behind.

With early indicators of an active monsoon already emerging, the urgency to act has never been greater. It is time not only to respond to disasters but to invest in preparedness, build adaptive capacities, and transform the way India anticipates and manages its most recurrent natural hazard.



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Sphere India is a National Coalition of Humanitarian, Development and Resilience Actors in India. The strategic outreach of 155 full members includes key nodal organizations from UN, INGOs, National NGOs, CSR, Academic Institutions, Sector Networks, Expert Individuals, and State IAGs/Networks. The local outreach is evolving with 805 associate members as Sphere India Locally Empowered Organisations Network (LEON) and 1,80,000 community volunteers (CDRF -Community Disaster Response Force) mapped for varied capacities all over India. Sphere India facilitates multi stakeholder coordination, knowledge & capacity sharing and collaborative advocacy for enhancing accountability to affected and at-risk population.

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