Half-Day Writeshop on Climate Action in Bengaluru

Chaired by Smt. Uma Mahadevan, IAS
Additional Chief Secretary and Development Commissioner, Government of Karnataka

14Th May 2025

Address by Smt Uma Mahadevan, Additional Chief Secretary, Development Commissioner, GOK

Our collective goal is to achieve significant greenhouse gas (GHG) reduction by 2027, in line with Bengaluru's climate commitments. At the same time, we must respond to the growing threat of hyperlocal climate events that severely impact daily life. This writeshop brings together a diverse group of stakeholders—government, civil society, researchers, and citizens—to reflect on progress, identify existing gaps, and develop practical solutions. We must use this platform to collectively shape a clear roadmap for action that is both ambitious and grounded in local realities. The purpose of this workshop is not only to share knowledge but also to foster ownership and define the next steps toward effective climate action on the ground.

Address by Shri Tushar Girinath, IAS, Additional Chief Secretary, UDD, GOK

BCAP, established in 2023, emerged in response to the long-standing deterioration of our climate—a crisis for which human activities have been a major contributor. Recognizing the profound effects of climate change, we understood that addressing this challenge requires specialized expertise, far beyond the straightforward tasks like road construction. To amplify our impact, we have partnered with C40, acknowledging that climate is a global phenomenon demanding collective action. BCAP serves as a vital middle ground, aligning diverse objectives and stakeholders to drive progress. We believe that even small contributions, when combined, play a crucial role in realizing national climate policies and, ultimately, in securing a sustainable future for all.

Address by Smt Preeti Gehlot, IAS, Special Commissioner (FECCM)

Following the launch of the Bengaluru Climate Action Plan (BCAP), the Bengaluru Climate Action Cell (BCAC) was set up to advance climate initiatives. Governed by a steering committee led by the Additional Chief Secretary (Development) and a technical committee of parastatal heads, BCAC brings together knowledge partners, Friends of Climate Change (FOC), fellows, and interns. It operates through a three-pronged consultative process with government, the public, and academic experts, and undertakes activities like climate budgeting, mapathons, and the WARD CAP initiative. Using the MER framework, departments collaborate on climate actions across 28 wards, each overseen by a designated lead, fostering partnerships between officials and citizens. Today, we gather to discuss institutionalizing and empowering the CAC, localizing the CAP, and strengthening climate governance in Bengaluru.

Government Officials

- Smt Uma Mahadevan, IAS, Additional Chief Secretary, Development Commissioner, GOK
- Shri Tushar Girinath, IAS, Additional Chief Secretary, Urban Development Department, GOK
- Shri Prabhash Chandra Ray, IFS, Principal Secretary, State Forest Department, GOK
- Shri Dr. N. Shivashankara, IAS, Managing Director, BESCOM
- Shri Avinash Menon, IAS, Special Commissioner, Projects, BBMP
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- Mr. Sivasubramanian Jayaraman, Deputy Director, ITDP
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- Mr. Kiran Kumar, C.E., BMTC
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- Mr. Vikram Rai, President, BAF
- Ms. Anantha Lakshmi.P, Head of Mobility, C40 Cities
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- Ms. Pravalika S, Advance Associate, Jana Urban Space
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- Ms. Siji Chacko, Jansahas
- Ms. Bhargavi, Socratus
- Ms. Kathyayini, CIVIC – Bangalore
- Ms. Meena K, Oorvani Foundation

- Ms. Zibi Lamal, Volunteer, Whitefield Housing
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Climate Action Cell Fellows

- Bhuvana C, Local Climate Action and Civic Engagement Fellow
- Jeevitha S, Data Innovation Fellow
- Meghana B, Partner Engagement and cell coordination Fellow
- Sanjay KS, Local Climate Action and Civic Engagement Fellow
- Suraj SK, Local Climate Action and Civic Engagement Fellow

Introduction and Overview

Bengaluru stands at a critical juncture in its climate journey. With the launch of the Bengaluru Climate Action and Resilience Plan (BCAP) in November 2023, the city marked a significant milestone in formalizing its commitment to a low-carbon and climate-resilient future. This was further strengthened with the establishment of the Climate Action Cell (CAC) under the Bruhat Bengaluru Mahanagara Palike (BBMP) in February 2024, which has since taken the lead in driving climate awareness, institutional engagement, and early implementation measures across departments and sectors.

To build on this momentum and to provide a roadmap for translating the BCAP into tangible, on-ground actions, BBMP Climate Action Cell—under the guidance and leadership of the Additional Chief Secretary & Development Commissioner, Government of Karnataka, Smt. Uma Mahadevan—convened a Writeshop on Climate Action in Bengaluru on 14th May 2025. Held at the IAS Officers Association, this half-day collaborative session brought together a diverse set of stakeholders, including government officials, civil society representatives, private sector actors, academic institutions, and community-based organizations.

The Writeshop adopted an inclusive and action-oriented format aimed at facilitating candid dialogue, knowledge exchange, and cross-sectoral collaboration.

Writeshop Objective and Intention

The Bengaluru Climate Action and Resilience Plan (BCAP) marks the city's first comprehensive attempt to align with global climate goals while responding to local environmental, infrastructural, and social vulnerabilities. With **266 actionable strategies** across **7 key sectors**, BCAP provides a robust framework for action. However, successful implementation requires breaking silos and fostering collaborative, cross-sectoral ownership of this agenda.

The primary objective of this Writeshop is to catalyse the transition from plan to implementation by facilitating practical, solution-oriented discussions among a wide spectrum of stakeholders. It aims to identify pathways that translate the vision of BCAP into actionable, inclusive, and measurable initiatives on the ground.

In this spirit, the Writeshop has been designed as a participatory platform to:

- Foster a shared understanding of BCAP's objectives, sectoral strategies, and governance needs.
- Recognize that no single department or actor can deliver the Climate Action Plan alone, and explore mechanisms for interdepartmental and multi-stakeholder coordination.
- Tap into the expertise, networks, and ground-level insights of practitioners, civil society, private actors, and community organizations.
- Identify short-term priorities and long-term structural shifts needed to localize climate action and address systemic challenges.

- Co-develop actionable recommendations, aligned with the capabilities and mandates of participating institutions.

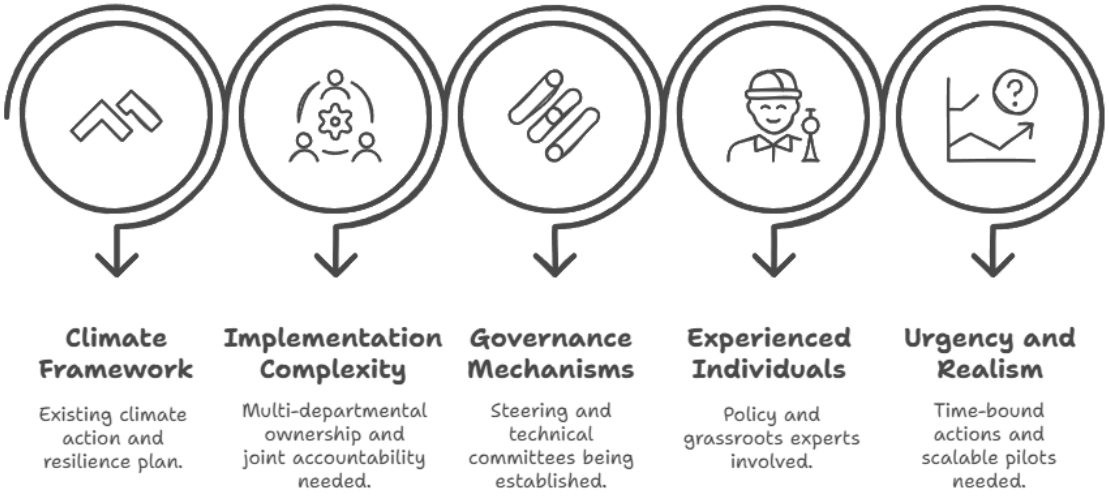
Purpose of the Writeshop

The Writeshop was designed to be a structured yet interactive space that enables participants to engage deeply with the following core topics:

- How can BCAP be transformed from a document into concrete, visible action on the ground?
- What institutional structures or process changes are necessary to drive cross-departmental and cross-sectoral implementation?
- How can climate resilience planning centre the needs of vulnerable and marginalized communities?
- What actions are feasible and critical in the short term? What requires long-term planning and coordination?

This approach intended to move beyond conventional presentation formats and instead create a working space for identifying gaps, surfacing practical strategies, and laying the groundwork for future partnerships.

Objective of the Writeshop



Structure of the Writeshop

The Bengaluru Climate Action Writeshop was carefully designed to foster collaborative problem-solving, grounded in the realities of implementation and the collective expertise of diverse stakeholders. The session followed a structured participatory format that allowed for deep reflection, open dialogue, and targeted recommendations across critical thematic areas of the Bengaluru Climate Action and Resilience Plan (BCAP).

Framing the Problem Statement

The central problem statement posed to participants was:

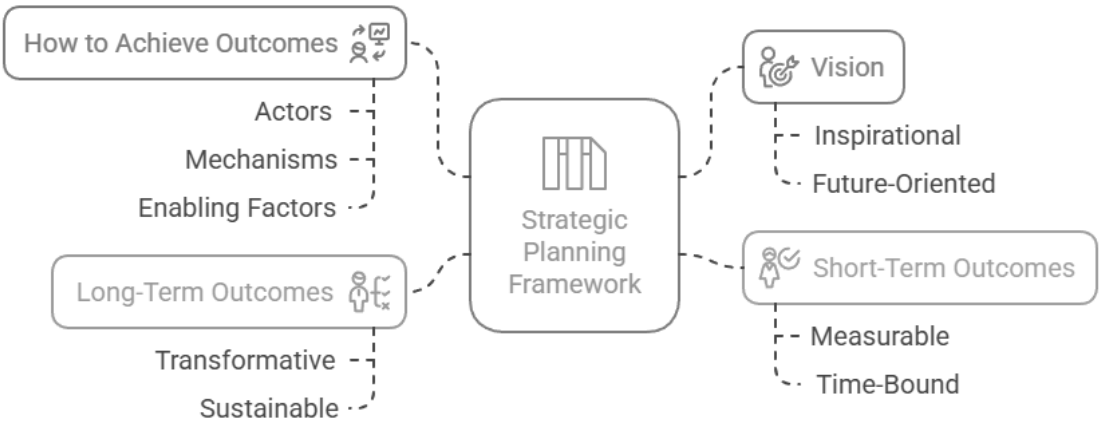
"How can we leverage the Bengaluru Climate Action and Resilience Plan (BCAP) to improve Bengaluru's productivity, livability, and global competitiveness?"

Group-Based Thematic Deliberations

Participants were divided into thematic working groups, with each group assigned one of the following key questions for discussion:

Institutional Architecture	**Ward-Level Localization**	**Vulnerability and Inclusion**
What do we want to see happening or shifting in the institutional architecture of climate action in the city?	How can we leverage ward-level localization? What should happen there?	How do we keep vulnerability and inclusion at the centre of climate action in Bengaluru?
This group focused on how to reconfigure or strengthen institutional arrangements to support cross-sectoral implementation and ensure accountability, coordination, and resource optimization.	The aim here was to explore how decentralized planning and action at the ward level can bring climate strategies closer to the citizenry, fostering ownership, relevance, and rapid responsiveness.	This discussion centered around how to ensure that the most climate-vulnerable populations urban poor, informal workers, women, and youth are not just protected but meaningfully included in planning and decision-making processes.

Each group was instructed to approach the topic by:



In addition to thematic discussions, the writeshop also included a focused group dialogue on the critical question:

"How can we unlock **financial resources**, **institutional strength** and **social capital** to ensure long-term success of climate action?"

Participants reflected on barriers and enablers under three enabling conditions:

- Financial Resources – mechanisms for sustainable funding and co-financing.
- Institutional Capacity – reforms, staffing, and inter-agency protocols.
- Social Capital – community leadership, civic trust, and citizen mobilization.

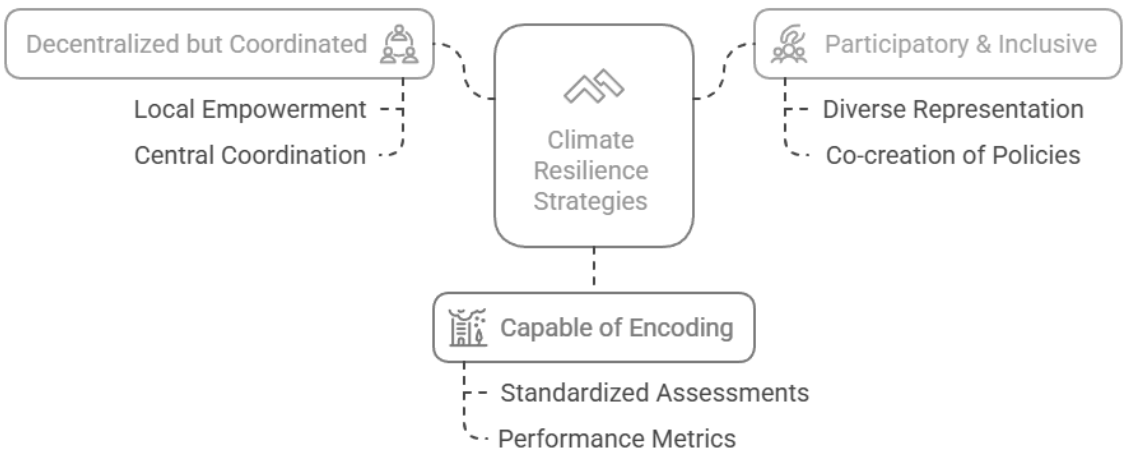
Group 1 – Institutional Architecture

What do we want to see happening or shifting in the institutional architecture of climate action in the city?

Vision

The vision calls for **a robust institutional architecture** that embeds climate action across all **policies, budgets, and service delivery mechanisms** through empowered, **cross-departmental climate action cell**. It emphasizes a shift from **expert-driven to equity-driven** approaches by actively involving vulnerable communities in ward-level planning and decision-making. Localized climate solutions should be interlinked, scalable, and supported through multi-year planning, budgeting, and monitoring cycles. Ward committees must be equipped with the autonomy and tools to design inclusive interventions, mobilize resources, and coordinate with central climate cell. **CSR and donor engagement** should focus on innovation and strategic implementation. To enable systemic change, climate mandates must extend to all ward-level institutions, supported by convergence-oriented governance structures and localized disaster management cell. Evidence-based planning, rooted in data such as land use patterns, will be key to driving informed decisions and resilient development at the ward level.

The three key principles/Climate Resilience Strategies:



To effectively embed climate action into urban governance, it's critical to strengthen the institutional architecture surrounding initiatives like the Bangalore Climate Action Plan (BCAP). Given BCAP's non-statutory nature, climate priorities must be integrated into binding frameworks such as municipal budgets, master plans, and building bye-laws. This ensures that climate considerations are not sidelined but become central to planning and implementation. Moreover, departmental roles need to be re-rationalized to align with BCAP objectives, as climate action is often seen as peripheral to core departmental responsibilities. Regular review mechanisms should involve senior-level representatives from all relevant departments to monitor progress and ensure accountability.

Decentralizing Climate initiatives in Bengaluru

Political engagement is another essential component. Climate change must become a political issue—one that shapes electoral debates and campaign promises. Embedding climate concerns into the political narrative ensures sustained attention and commitment. Furthermore, infrastructure planning and governance must be citizen-centric, using cross-sectional information to address real community needs and encouraging participatory decision-making.

Knowledge sharing and capacity building are key to expanding climate action across Karnataka. The experience and lessons from BCAP implementation in Bangalore should be actively shared with tier 2 and 3 cities to foster replication and scaling. Local capacity must be developed through training, data-driven platforms, and cross-sectoral learning networks. Enhancing technical skills at the municipal level will significantly improve project execution and policy implementation.

How to achieve outcomes

Strengthening Financial and Sectoral Pathways for Climate Action

- Transition from project-based to sustainable institutional funding by leveraging central/state funds, CSR, and innovative mechanisms like climate-health apportionment models.
- Allocate a dedicated budget for the Climate Action Cell (CAC) to prevent implementation delays.
- Implement SAP systems for streamlined planning, financial oversight, and accountability.

Sector-Specific Climate Interventions

- Promote waste-to-energy solutions to reduce GHG emissions from urban waste.
- Improve energy efficiency in Karnataka BESCOM's by adopting best practices from APEPDCL, Visakhapatnam.
- Mandate energy audits and upgrades in older pharmaceutical industries around Bengaluru.
- Encourage large-scale replacement of sodium vapor streetlights with LEDs and adoption of BLDC fans in households.

Driving Institutional Transformation

- Foster a culture of collaboration, reduce departmental overlaps, and clarify roles in mitigation and adaptation.
- Embed resilience thinking in infrastructure planning and inter-governmental coordination.
- Build local capacity, invest in research and data systems, and strengthen financial and institutional ecosystems to support long-term climate action.

Understanding the Institutional, Financial and Social Capital aspects.

Institutional Capital

- Establish legally empowered ward-level climate cell for decentralized action.
- Designate departmental climate focal points to ensure accountability.
- Develop centralized platforms for schemes, data, and inter-departmental coordination.
- Collaborate with academic institutions (e.g., IISc, IIM) for problem-solving and innovation.
- Promote a culture of data-driven, cross-sectoral decision-making.

Social Capital

- Ensure representation of RWAs, informal workers, women, youth, and slum communities in planning processes.
- Set up Climate Action centres at the ward level as hubs for awareness, innovation, and participation.

- Encourage citizen science networks, fellowships, and builder/community associations to engage actively.
- Build public trust through inclusive, community-based climate initiatives.

Financial Capital

- Allocate dedicated climate budgets at departmental and local levels.
- Utilize market-based tools—such as incentives and penalties—to fund local projects.
- Leverage CSR and disaster relief funds for climate resilience.
- Attract private and international funding through well-structured, bankable projects.

Key takeaways from the group -1 Discussion on Institutional Architecture of climate action in city.

Integrate Climate into Statutory Instruments

- Embed BCAP objectives into binding frameworks like municipal budgets, master plans, and bye-laws to ensure enforceability.

Empower Ward-Level Implementation

- Localize climate action through elected representatives and empower ward committees to design and execute context-specific solutions.

Create a Dedicated Urban Department within CAC

- Establish a specialized unit under the Climate Action Cell to coordinate efforts across emerging municipal corporations in Bengaluru.

Institutionalize Climate Focal Points

- Appoint climate leads within departments and set up institutionalized ward-level climate cell with legal backing.

Strengthen Financial Autonomy for CAC

- Allocate a dedicated budget to the CAC and adopt SOP systems for better financial planning, monitoring, and accountability.

Promote Sectoral Action

- Implement waste-to-energy conversion, LED streetlight retrofits, BLDC fans, and energy audits for aging pharmaceutical industries.

Leverage CSR and Innovative Finance

- Mobilize CSR, state and central funds, and explore climate-health models for scalable climate financing.

Enable Participatory Governance

- Ensure representation of RWAs, women's groups, slum dwellers, and informal workers in ward committees and city consultations.

Build Climate Action centres

- Establish community hubs at the ward level for awareness, innovation, and citizen engagement on climate action.

Address Systemic and Behavioural Change

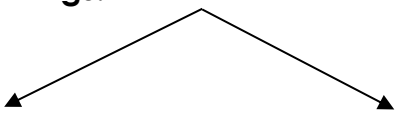
- Foster inter-departmental collaboration, reduce overlaps, and align infrastructure planning with long-term climate resilience.

Group 2 – Ward Level Localization

How can we leverage ward-level localization? What should happen there?

Climate action at the ward level means translating the city-wide Climate Action Plan into localized, community-driven strategies. The Ward Climate Action Plan is not separate but a grassroots extension of the Bangalore Climate Action Plan, aligning with its **8 priority sectors**—including **gender and vulnerable population** inclusion—**33 action tracks**, and **266 tasks** aimed at long-term climate goals.

"Localization" means two things.



Process of translating these city levels Commitments into the Ward

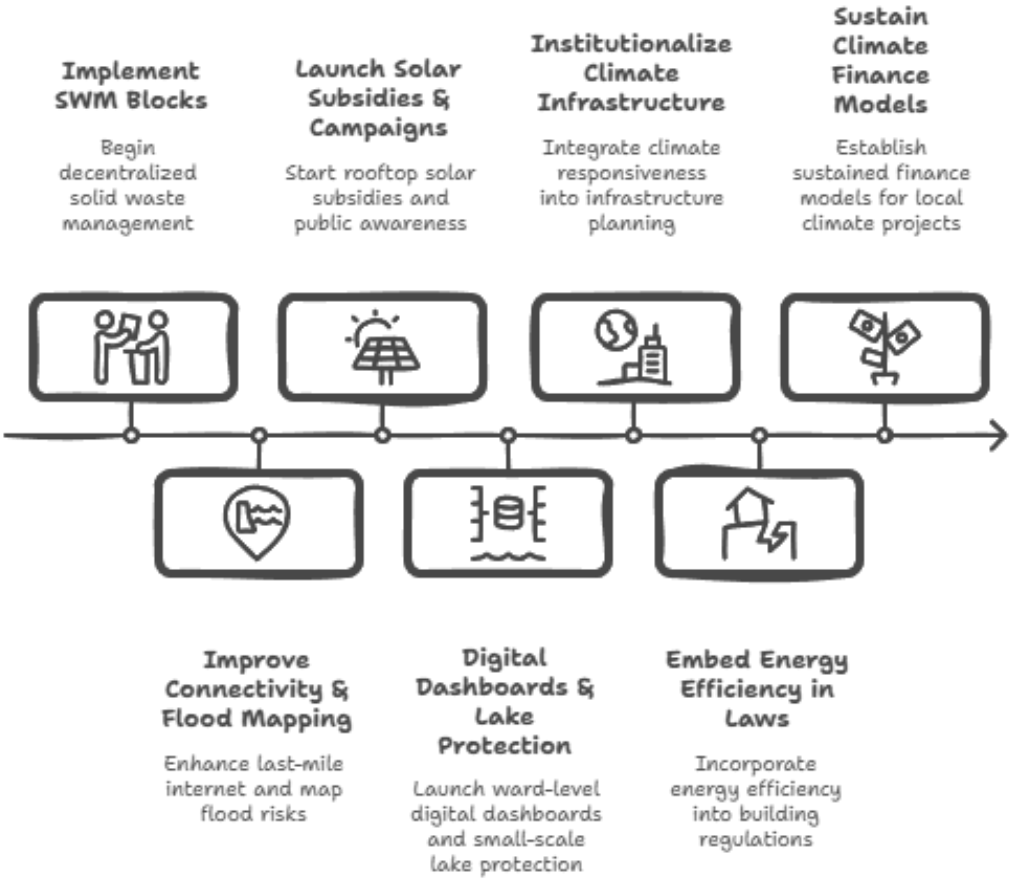
Ensure ward specific priorities, engage local actors and enable actionable measurable progress.

Three key principles drawn from BCAP.

Geographical Anchoring	**Ecology Demography intercultural/Social**	**Complete ward Profiling both quantitative & qualitative.**
Community led Decision Making.	Forum Platforms partnership Formal & informal.	Agreement at ward level on roles collective & individual Key Actors Identification
Capacity Building & Ownership	Hands on training, Data literary Break down of policies. Schemes Feedback	Project Ownership

Planning at the ward level ensures that actions begin from the bottom up, enabling stronger community engagement, clearer communication of climate risks, and easier coordination across sectors. It allows for customized solutions, better public participation, and more effective implementation, ensuring that climate action is inclusive, context-specific, and impactful.

Short Term and Long-Term Goals



Phase	Key Focus Areas
Short Term (0–2 years)	- Launch citizen platform & dashboards- Set up ward committees & volunteers- Footpath, waste, water audits
Medium Term (2–5 years)	- Green credits program- Ward-level infrastructure retrofits- CSR alignment on 5-year roadmap
Long Term (5+ years)	- Institutionalize ward disaster plans- Embed CAP in CDP & budgets- Scale citizen ownership & innovation

Output	Tools & Mechanisms	Short-Term Outcomes	Long-Term Outcomes
Complete Ward Profile	- Conduct detailed **street audits** to assess infrastructure and vulnerabilities. - Develop a comprehensive **ward profile template** covering demographics, land use, environmental risks, services, and governance. - Organize **focus group discussions** with residents to gather qualitative insights.	Establish a basic **ward-level climate and service delivery profile** to inform immediate planning.	Create a **dynamic, regularly updated ward dashboard** that serves as a data-driven basis for long-term decision-making and monitoring.
Community Engagement & Participation	- Build a **central repository of community (Samaj) data** including local organizations, informal networks, and citizen groups. - Develop a **digital platform** to connect citizens with government services, consultations, and grievance redressal. - Use **IVRS systems and missed call services** to make participation accessible to low-connectivity users.	Launch a structured **community events and activity calendar** to increase citizen awareness and engagement. Implement interim **community feedback policies**.	Institutionalize **two-way communication** between citizens and the government for co-creation and monitoring of ward-level programs.
Capacity Building	- Identify and train **'Champion Citizens'** to serve as local resource persons. - Facilitate participatory processes to **identify key ward-level climate and service delivery problems**. - Establish a **Samaj Forum** or civic platform for collaborative problem-solving and knowledge sharing.	- Develop **climate and civic leadership** among local residents to lead community-level climate initiatives.	- Institutionalize **ward committees** that are equipped, representative, and capable of guiding long-term local governance and climate action.

How to achieve outcomes

1. Solid Waste Management (SWM)

- SWM Blocks: Implement block-level strategies (as done in Whitefield) to involve residents, health inspectors, and local officials in waste management and troubleshooting via platforms like WhatsApp.
- Garbage Black Spots: Tackle timing issues in garbage collection; introduce multiple collection slots and larger bins where needed.
- Decentralized Waste Management: Expand DWCCCs, promote ward-level wet waste processing, composting, and biogas plans; incentivize home composting.
- Textile Waste: Introduce hyper-local collection systems and bin incentives.
- Cultural & Legal Alignment: Link waste management with community participation and decentralized infrastructure.

2. Energy and Buildings

- Solar Power: Reintroduce subsidies, streamline installation through BESCOM, and promote through platforms like BAF.
- Green Building: Promote energy-efficient buildings via ECBC compliance; train contractors and architects.
- Incentives: Use black/green credit mechanisms to reward clean energy adoption; explore recycling of solar panels.

3. Transportation & Mobility

- Public Transport: Improve bus stop infrastructure; ensure contractor accountability.
- Connectivity: Enhance last-mile connectivity to metro stations; revive pending inter-area bus service plans.
- Traffic & Pollution: Address congestion and promote low-emission zones at the ward level.

4. Water, Wastewater & Urban Flooding

- Storm water Drains (Raja Kaluve): Publicly accessible maps; monitor blockages and encroachments.
- Flood Management: Urban flood mapping with both climatic and non-climatic inputs; promote integrated wastewater management.
- Rainwater Harvesting: Expand adoption and evidence-based implementation at the ward level.
- ETP/STP Maintenance: Ensure local lakes are protected from sewage.

5. Urban Greening & Biodiversity

- Tree Planting & Protection: Regular drives and maintenance mechanisms.
- Urban Sustainability Spaces: Promote terrace gardens, beekeeping, and biodiversity protection.

6. Institutional Strengthening

- Digital Dashboard: Create a ward-level data portal with real-time tracking and satellite inputs.
- Disaster Management: Set up decentralized disaster response cell with community participation.
- Community Engagement: Use platforms like BCAC and "Know Your Ward" campaigns to empower citizens.

7. Finance & Capital

- Budget Efficiency: Use existing BBMP funds effectively before seeking external funding.
- CSR Engagement: Align CSR efforts to ward-specific vulnerabilities.
- Funding Access: Tap into AMRUT, Smart City, DBT, CSIR, and entrepreneur funds for pilot projects.

8. Social and Cultural Mobilization

- Citizen Involvement: Ward committees to lead awareness campaigns, participatory budgeting, and local solution design.
- Youth & NGOs: Engage youth and local groups in outreach, documentation, and implementation.
- Census & Profiling: Identify vulnerable groups through localized census activities and include them in planning.

Understanding the Institutional, Financial and Social Capital aspects.

Social Capital

Limited access to civic and climate-related data restricts meaningful citizen engagement at the ward level. The absence of tools such as dashboards and escalation systems hinders transparency and accountability. A centralized platform is essential to share data, best practices, and challenges, enabling RWAs, NGOs, youth, and local groups to collaborate effectively. Such openness can amplify impact by leveraging Bengaluru's civic engagement.

Institutional Capital

Educational institutions should integrate climate education to build long-term awareness and responsibility among students. Simultaneously, cross-sectoral coordination among governmental, civic, and private institutions must be institutionalized to align climate action efforts. Unified platforms for collaboration will enhance collective resilience and enable a coordinated response to climate challenges.

Financial Capital

Climate action requires shared responsibility and inclusive participation. Policies should foster ownership among citizens to ground solutions in local realities. Financial capital can be mobilized through pooled CSR contributions, and targeted state and central budgets. Prioritizing vulnerable communities will ensure equitable and sustainable implementation of climate initiatives.

Key takeaways from the group -1 Discussion on Ward Level Localization.

Local Action, City Vision

- Ward Climate Action Plans bring the Bangalore Climate Action Plan (BCAP) to the neighbourhood level, ensuring community-driven solutions.

What Localization Means

- It involves understanding the local context and enabling community leadership to take climate action that fits local needs.

Guiding Principles

- Focus on local profiling, community participation, and building local skills and ownership for sustained impact.

Phased Approach

- Start with platforms and audits, move to infrastructure upgrades, and build long-term systems for resilience and innovation.

Ward Profiling

- Collect both data and community insights to understand each ward's challenges and guide action.

Engaging Citizens

- Use events, digital tools, and feedback systems to keep citizens informed and involved in decision-making.

Building Capacity

- Train local leaders and set up forums for collaboration and knowledge sharing within communities.

Sector-Specific Plans

- Focus areas include waste, energy, transport, water, green spaces, and community disaster preparedness.

Stronger Institutions

- Promote collaboration between citizens, government, schools, and private groups through shared platforms.

Funding & Inclusion

- Mobilize CSR and public funds, and ensure vulnerable communities are central to planning and implementation.

Group 3 – Vulnerability and Inclusion

How do we keep vulnerability and inclusion at the centre of climate action in Bengaluru?

Vision

The vision is to build an inclusive, equitable, and climate-resilient city by centring the needs and voices of vulnerable communities in all planning and decision-making. In the short term, this involves ensuring these communities are represented in climate discussions. Long term, they should have decision-making power, especially at the local level.

Planning must move away from generic solutions and instead address the unique vulnerabilities of different groups. The dignity and challenges of all workers, including those in informal settlements, must be acknowledged in mainstream planning.

Institutions like the BOCW Board should create targeted schemes for climate vulnerability, and the costs of interventions should be distributed fairly. Ultimately, inclusivity must be central to achieving climate resilience.

Vulnerability

Vulnerability is the heightened risk faced by individuals or communities due to exposure to hazards like climate change. It can arise from living in areas prone to events such as heat waves or floods, or from occupational and income insecurity, especially among urban poor migrants and informal workers. Social groups like the elderly, women, and differently abled are also more vulnerable due to systemic inequalities. Often, vulnerability is discussed from a top-down perspective, which overlooks the real experiences and needs of those most at risk.

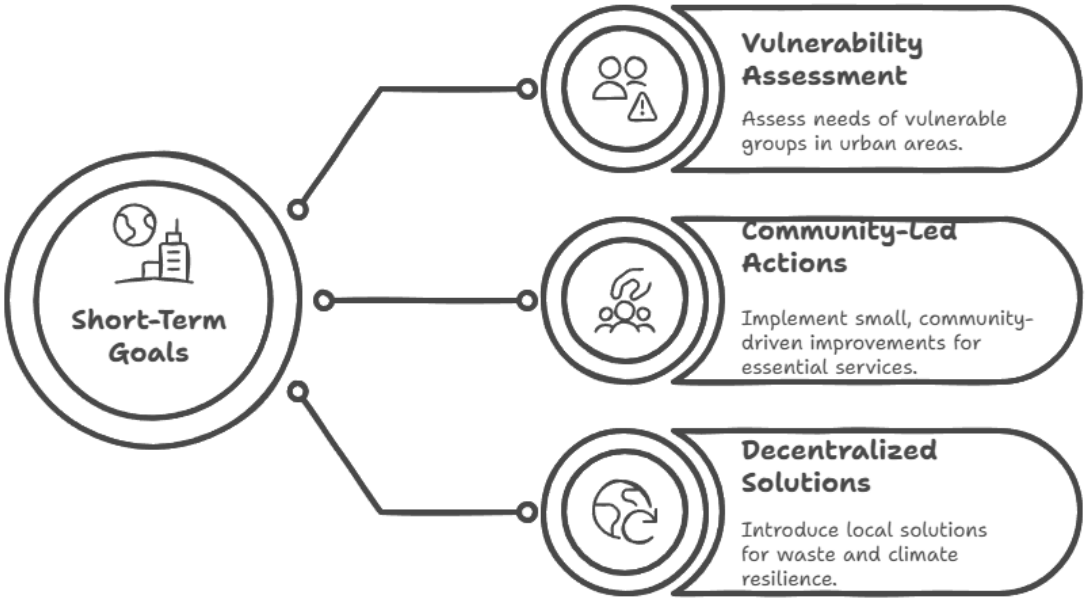
Vulnerable Groups

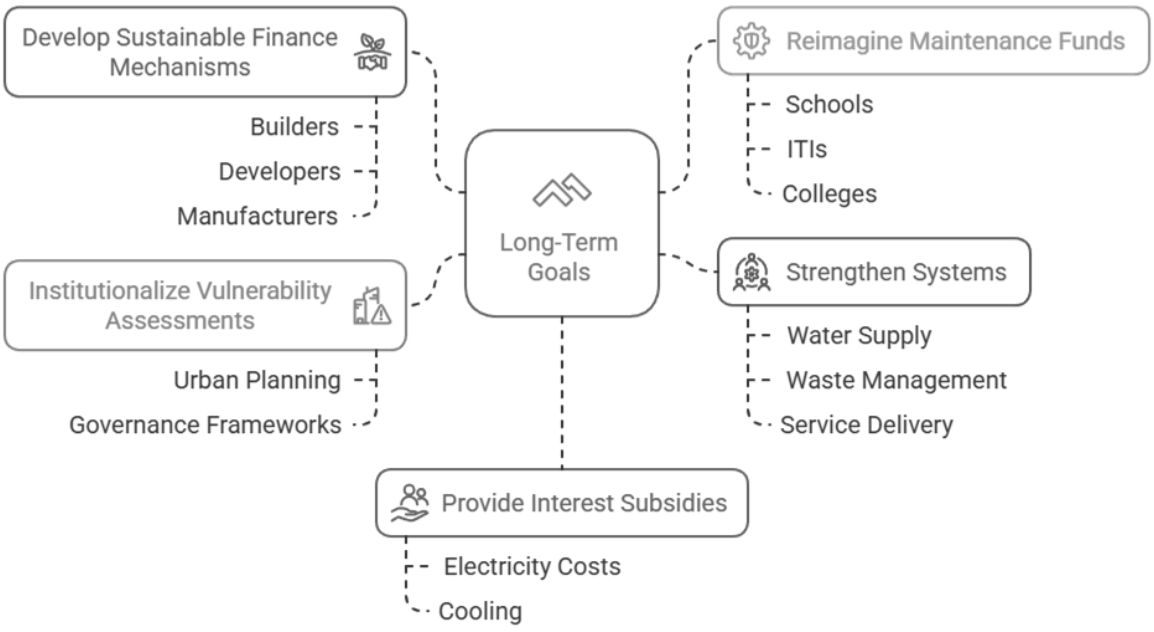
Key groups vulnerable to climate-related challenges include migrant workers (especially women in slums), construction and manufacturing workers, informal workers, and young people in education. Their risks are heightened by poor living and working conditions, lack of basic services, and exclusion from planning processes.

Extreme weather, like heat and flooding, particularly affects those in informal settlements and industrial areas, while rising temperatures have reduced school attendance and worsened infrastructure conditions. Street and informal workers face prolonged exposure without protection.

The ongoing lack of inclusive planning and infrastructure increases the vulnerability of these marginalized groups.

Short Term and Long-Term Goals





How to achieve outcomes

Data-Driven Vulnerability Assessment

- Map Vulnerable Populations: Identify and categorize groups by age, gender, and occupation.
- Spatial Climate Mapping: Pinpoint high-risk areas (e.g., flood zones, heat islands) at city/ward levels.
- Analyse Historical Data: Assess climate risk patterns and prioritize high-impact zones using past data.

- Ward-Level Dashboards: Develop real-time tracking tools for monitoring vulnerability and intervention progress.

Inclusive Governance and Community Engagement

- Create ward-level action groups to inform, engage, and empower vulnerable communities.
- Integrate vulnerable communities in planning processes (e.g., housing, mobility, climate plans).
- Encourage differential inclusion in policies, plans, and infrastructure projects.

Housing and Infrastructure Resilience

- Mandate cool roofs and green building envelopes using affordable, eco-friendly materials.
- Enforce Energy Conservation Building Code (ECBC) in commercial and residential sectors.
- Introduce incentives and government support for green buildings and sustainable practices.
- Adopt better public housing designs via Slum Boards (e.g., water harvesting, solar roofs).

Urban Services and Climate-Responsive Infrastructure

- Improve mobility, healthcare, waste management, and access to drinking water.
- Promote urban gardening on unused private lands and government property.
- Provide free public water points and toilets, especially in vulnerable neighbourhoods.
- Encourage rainwater harvesting and recharge wells near open drain.

Education, Employment & Informal Sector Support

- Address congestion and overheating in buildings like schools, MSMEs, and hotels.
- Create rental housing schemes for migrant workers through public housing.
- Enable easy membership in trade associations for informal workers.

Institutional & Policy Integration

- Decentralize Climate Action Plans and integrate climate goals into all departments.
- Embed climate considerations in environmental clearance (e.g., SEIAA) and follow-up mechanisms.
- All urban development plans must include environmental impact assessments.
- Acknowledge thermal comfort as a right, and unify fragmented efforts under frameworks like BCAP.

Climate Finance & Funding Mechanisms

- Create revolving climate funds to support startups, public-private partnerships, and community-led initiatives.

- Enable action groups to apply for climate funds.
- Explore blended finance models and CSR investments targeting vulnerable localities.
- Implement social credit systems rewarding citizens/groups for local climate resilience actions.

Capacity Building and Knowledge Sharing

- Build a community of ECBC professionals, architects, and contractors.
- Train college graduates and technical professionals in green building practices.

Understanding the Institutional, Financial and Social Capital aspects.

Institutional Capital:

1. **Establish a Converging Body:**
    - Create a central coordinating entity to ensure alignment across government departments on climate goals.
2. **Engage the Slum Board:**
    - Mobilize stakeholders focused on sustainable housing, community development, and water-energy integration.
    - Rapidly form a collaborative network using existing, willing partners.
3. **Digitized Dashboard:**
    - Develop a ward-level platform to track climate indicators (e.g., vulnerability, resource access) for data-driven decision-making.
4. **Inter-Departmental Coordination:**
    - Foster regular communication between departments to align actions, share progress, and ensure accountability.

Social Capital:

1. **Leverage BCAC (Bengaluru Climate Action Cell):**
    - Serve as a collaborative platform for CEOs, NGOs, think tanks, and stakeholders to share data, insights, and coordinate actions.
    - Act as a central hub for procuring and integrating data from government departments.
2. **Ward-Level Climate Champions:**
    - Appoint local leaders to engage stakeholders, drive implementation, and provide mentorship.

- Ensure systematic documentation and reporting of climate actions to build community-driven resilience.

Financial Capital:

1. **Engage Ward-Specific Stakeholders:**
    - Collaborate with CSR initiatives, philanthropic groups, and local businesses to fund projects addressing climate vulnerabilities in informal settlements (e.g., water, sanitation, cooling access).
2. **Start Small, Scale Strategically:**
    - Prioritize localized initiatives (cool roofs, shaded rest zones, clean water access) to demonstrate quick wins and build community trust.
3. **Sustainable Funding Models:**
    - Develop revolving climate funds, public-private partnerships, or transparent co-financing mechanisms for long-term impact.
4. **Track and Ensure Accountability:**
    - Use digital dashboards to monitor fund allocation, project outcomes, and community benefits, fostering transparency.
5. **Align with Local Needs:**
    - Direct resources toward context-specific solutions to ensure inclusivity and effectiveness in climate action.

Key Takeaways from Vulnerability and Inclusion: -

1. **Inclusive Vision:**
    - Centres the needs and voices of vulnerable communities in all climate planning and decision-making
2. **Targeted Vulnerability Assessment:**
    - Conduct city-wide, data-driven vulnerability assessments to identify and address the specific risks faced by different groups.
3. **Tailored Solutions:**
    - Move away from generic approaches and develop strategies that address the unique vulnerabilities of various groups
4. **Community Engagement:**
    - Create ward-level action groups and involve NGOs to inform, engage, and empower vulnerable communities through participatory planning.
5. **Resilient Infrastructure:**

- Mandate climate-responsive infrastructure like cool roofs, green building envelopes, and improved public housing, especially in high-risk and informal settlements.

6. **Strengthen Urban Services:**
    - Improve access to essential services—water, sanitation, healthcare, waste management, and mobility.

7. **Institutional Coordination:**
    - Establish a central coordinating body and digitized dashboards to align government departments, and track progress.

8. **Sustainable Finance:**
    - Engage local stakeholders (CSR, philanthropy, business) and develop sustainable funding models (revolving funds, public-private partnerships) for climate resilience projects.

9. **Social Capital and Leadership:**
    - Leverage platforms like BCAC for collaboration and appoint ward-level climate champions to drive implementation and build community resilience.

10. **Policy Integration and Capacity Building:**
    - Integrate climate goals into all urban policies, decentralize action plans, and build local capacity through training and knowledge sharing among professionals and communities.

Conclusion and the way forward

Discussion: **Should Climate Action Cell (CACs) be Centralized or Sectoral?**

The group debated whether a single, centralized CAC would suffice or whether each department should house its own CAC. The concern was that centralized efforts often fail to translate into sector-specific action, while a distributed model risks fragmentation.

Response & Conclusion:

- The consensus was that every department and institution should have its own CAC, each led by a designated climate officer or focal point. These cell would:
- Integrate a climate lens into departmental decision-making (e.g., approvals, procurement, planning).
- Report into a central coordinating body or task force (possibly at the CM level) to ensure coherence.
- Ensure inter-departmental coordination, allowing departments like transport, housing, solid waste, and water to align their projects with broader BCAP goals.

- Maintain climate data dashboards and feed into a central knowledge portal.
- It was emphasized that such CACs must be mandate-driven, not advisory in nature, and empowered to influence budgeting, planning, and review processes.

Discussion: **How Can Ward-Level Ownership of CAPs be Ensured?**

One major challenge in climate action has been the top-down nature of plans, which fail to reflect ground realities or gain traction at the community level.

Response & Conclusion:

- To ensure localization and ownership:
- Ward Committees (empowered under the GRAA Act) should be the primary interface for CAP implementation and review.
- Plans should be developed through participatory processes, including citizen groups, resident welfare associations, youth groups, and frontline workers.
- The idea of Ward-Level Resilience Dialogues was proposed to bring people together to co-create ideas.
- A standard ward CAP template can be developed with flexibility for local context.
- Local projects should be visibly mapped in each ward and uploaded to a shared dashboard or portal that tracks action and budgets.
- Workshops and writeshops should be institutionalized to facilitate direct experience and collective planning.

Discussion: **How Should Data Gaps Be Addressed?**

Data availability and usability were recognized as a critical gap in evidence-based climate action. Ward-level information is often fragmented or siloed across agencies.

Response & Conclusion:

- A city-level climate data repository is to be created with ward-wise granularity.
- Departments must feed real-time data into this system—on land use, greening, temperature, waste, budgets, etc.
- Mapathons and Hackathons were suggested as tools to co-generate spatial data (e.g., greening potential, heat exposure).
- All climate projects (government or private) must submit baseline and outcome data for evaluation and transparency.
- Tools like mobile apps, dashboards, and open data portals should be developed to help the public access and contribute to this knowledge pool.

Discussion: **How Do We Address the Needs of Marginalized Communities?**

There was deep concern that climate impacts are disproportionately borne by the urban poor, especially migrants, informal workers, women, the elderly, and those living in legal limbo.

Response & Conclusion:

The following actions were suggested to prioritize inclusion:

- Ensure universal access to WASH services, regardless of legal housing status.
- Set up heat-health infrastructure like:
  1. Shaded resting areas or cooling shelters
  2. Distribution of electrolytes and hydration kits
  3. Health awareness camps during heatwaves
- Incorporate vulnerability mapping into ward-level CAPs, using parameters like occupation, gender, housing, and mobility.
- Document and institutionalize lived experiences of these communities to inform climate policy.
- Strengthen climate literacy and capacity building for informal workers and street vendors.
- Encourage community-based resilience hubs as physical centers for safety, information, and response.

The larger goal is to move from project-based responses to systemic inclusion, ensuring that adaptation investments intentionally address exposure and sensitivity of vulnerable groups.

Bengaluru Climate Action Cell