



ICCAP

InclusiveCityClimate Action Planning: Framework for Indian Cities, and Beyond

Research Summary
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Table of Contents

Introduction	4
Climate Justice in City Climate Action Planning	4
The Indian Urban Context	
Bridging Global Frameworks and City Climate Action Plans	5
Methodology	6
Gaps and Blind Spots in City Climate Action Planning from an Informal Settlement Perspective	8
Community Climate Action Planning: Learning from YUVA	10
Inclusive Climate Action Planning Framework	11
Bibliography	14



Introduction

1.1 Climate Justice in City Climate Action Planning

The climate crisis has brought unprecedented global attention to the need for immediate action. Internationally coordinated climate action strategies such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement have established shared goals to limit global warming and strengthen climate resilience. The widely recognised objective of limiting temperature rise up to 2°C above pre-industrial levels reflects an urgent global consensus: the impacts of climate change are not a distant but an ongoing and escalating reality.¹

Yet despite growing international momentum, **cities across the Global South remain underrepresented within global climate governance and advocacy conversations.**

This gap is significant. As of 2018, approximately 55 per cent of the global population lived in urban areas, a figure projected to reach nearly 68 per cent by 2050, with the majority of future urban growth occurring in Asia and Africa.² Urban areas are now home to the majority of the world's population, and rural-to-urban migration is only increasing.³

Moreover, **climate vulnerability is increasingly concentrated in informal settlements,** where physical infrastructure pressures, social inequality, and climate hazard exposure intersect. In 2022, an estimated 24.8 per cent of this urban population, roughly 1.12 billion people, lived in informal settlements.⁴

For people living in informal settlements, climate change is experienced unevenly. Extreme heat, flooding, water scarcity, and lack of basic services disproportionately affect residents of informal settlements and workers in informal economies who often lack secure housing, reliable services, social protections, or political representation.⁵ From a climate justice perspective, this imbalance reflects a fundamental contradiction: the populations least responsible for global emissions frequently bear the greatest burden of their impacts.⁶ If cities and people living in informality continue to be insufficiently represented in climate policy processes, the cumulative effects on housing security, public health and infrastructure access will continue to intensify.

1.2 The Indian Urban Context

India illustrates both the urgency and opportunity of inclusive urban climate action. Many Indian cities have begun developing City Climate Action Plans (City CAPs), yet a review of 53 existing plans reveals persistent social gaps: unaddressed income inequality, unequal access to basic services, and missing bottom-up adaptation processes often dominated by middle-class groups rather than the informal settlement dwellers. The review also showed that climate action strategies frequently remain sectoral, focusing on abstract sectoral interventions rather than delivering targeted spatial interventions to populations that face the greatest vulnerabilities.⁷ With 5.3% of India's population living below the international poverty line and an estimated 14.3% classified as urban poor, the stakes are significant.⁸

These patterns point to a broader governance challenge. **While international climate frameworks increasingly emphasise equity and justice, translating these principles into local planning practice remains difficult.** City governments often lack the operational guidance needed to translate global climate concepts into actions that effectively target the most vulnerable, while civil society organisations often lack accessible tools to advocate for vulnerable populations' needs within formal planning processes. This research summary seeks to bridge that gap by detailing a practical, six-component framework for what inclusive city climate action planning processes could look like, focusing on the needs of informal settlements. This framework was developed through close reading of nine City CAPs and six case studies of how civil society organisations are working on grassroots climate action.

1.3 Bridging Global Frameworks and City Climate Action Plans

The research summary is grounded in two critical questions:

- How can informal settlements be intentionally integrated into city climate action planning?
- How can local governments and civil society translate different climate frameworks into actionable municipal policies and local action?

The research summary responds to these questions through a climate justice lens grounded in the realities of cities in the Global South, with a particular focus on Indian cities.

2. Methodology

Towards the creation of a framework for more inclusive City CAPs, an international and multidisciplinary team of student researchers from a variety of different disciplines including architecture, environmental studies, public policy, international relations, computer science, and political science. **Together, the team produced a 112-page research report, the key findings of which are summarised in this report.** The approach investigated existing practices in city CAP processes, identified common patterns, and used secondary source literature to cross-reference gaps in the inclusion of informal settlements. This research was divided into two processes: (1) a City CAP literature review, which aimed to develop a deeper understanding of what meaningful inclusion of informal settlements looks like across six Indian City CAPs and three international climate action frameworks; and (2) Case studies, which aimed to identify the distinct roles that civil society and local governments themselves play in city climate action planning.

1. City Climate Action Plan Literature Review

Nine City CAPs, six in India and three international, were selected for review from cities in the Global South, to maintain relevance and cross-comparisons across different cities. The nine CAPs selected for review were **Ahmedabad, Bengaluru, Junagadh, Mumbai, Nashik, and Solapur** in India, and **São Paulo, Brazil; Accra, Ghana; and Dhaka North, Bangladesh**, as the Global South case studies. The cities were selected to ensure representation across geographic regions and diverse climate vulnerability profiles, including coastal flooding, urban heat stress, and water scarcity. Within the Indian cities, the selection reflected the major climate action frameworks shaping climate planning, namely the Climate Smart Cities Assessment Framework (CSCAF),⁹ the C40 Cities framework,¹⁰ and the Local Governments for Sustainability (ICLEI) framework.¹¹ Additionally, within India, CAPs from Maharashtra were given preference, which helped draw direct relevance for YUVA's work in the state.

For each CCAP, **the team analysed each climate action according to two criteria: the climate action framework to which it was most relevant, including adaptation, mitigation, and loss and damage; and the quality of inclusion of informal settlements in the action's design**, categorised as no inclusion, indirect inclusion, or direct inclusion. Through this analysis, patterns across all nine plans were used to identify what meaningful inclusion of informal settlements looks like.

2. Case Studies

To ground the study in practice and understand how civil society and grassroots organisations are responding to the impacts of climate change, case studies were drawn from cities across the Global South. For each international climate action framework, one international civil society organisation and one India based were researched in depth. The research team investigated the initiatives undertaken by each organisation and how they interacted with other relevant stakeholders for both vulnerability assessment and climate action planning. Through this analysis, the research team identified framings and methods each organisation carried out for climate action.

3. Findings

Findings from the CAP review and case studies were brought together to identify the minimum conditions for an inclusive city CAP. Rather than treating inclusion as a single measure of participation, **the analysis considered whether informal populations are visible in the evidence base, have influence over priorities, are connected to municipal decision making and finance, and have a role in implementation and accountability.**

Based on these patterns, the research developed three levels of inclusion i.e. **Tokenised, Programmatic and Structural**, to distinguish between plans that merely acknowledge vulnerable communities, those that target them through specific programmes, and those that integrate their priorities into the wider planning, investment and governance process.

For the purpose of this research summary, the detailed analysis of City CAPs and case studies is not presented in full; instead, the key findings emerging from the analysis are synthesised.



3. Gaps and Blind Spots in City Climate Action Planning from an Informal Settlements Perspective

City CAPs mark an important advance in urban climate governance by formalizing municipal commitments, enabling cross-sector coordination, and signaling alignment with global climate goals. However, our review of city CAPs across Indian cities and the broader Global South reveals a persistent gap in how these plans include the informal sector. The following sub-chapter outlines the typical structure of a city CAP, explaining the role of each city CAP section while identifying recurring gaps and blind spots of inclusion from an informal settlement perspective.

1. Problem Framing

The opening section of a city CAP establishes why climate action is necessary for the city. It typically includes an overview of global and national climate commitments, a summary of city level demographic profile, climate projections, a vision statement and a rationale for the plan's ambitions and scope.

Informal Settlement Inclusion Gaps:

- Climate vulnerabilities are framed primarily through city-wide aggregates that obscure the disproportionate exposure of informal settlements and low-income communities.
- **The communities most affected by climate change are rarely involved in defining the problem itself**, resulting in framings that reflect institutional and technocratic priorities over lived experience.

2. Vulnerability Assessments

This section assesses which parts of the city are most exposed to climate hazards and which populations or systems face the greatest vulnerabilities. Here, **our analysis revealed significant gaps.**

Informal Settlement Inclusion Gaps in Vulnerability Assessments

- Data on informal settlements is often incomplete, outdated or inconsistent, leaving gaps in mapping vulnerabilities of all informal settlements.
- Even where the most vulnerable are considered, CAPs often rely narrowly on informal-settlement mapping. This overlooks vulnerable informal workers and households across the city, including street vendors, construction workers at labour nakas, domestic workers and home based workers, whose vulnerabilities may occur along mobility corridors, transit points and work routes.
- Climate vulnerabilities are not assessed at the places where informal workers spend their working day i.e. markets, streets, construction sites, labour nakas, transport nodes and other outdoor workplaces.
- Urban villages/gaothans, adivasi padas, koliwadass and other settlements with distinct tenure, infrastructure and service conditions are often not captured.
- Conditions within households including overcrowding, care responsibilities, indoor heat and limited access to cooling are unaccounted for.

3. Action Design

The core of most City CAPs, this section sets out proposed policy interventions across key urban sectors. Our analysis of nine city CAPs found that most of the sectors included fit the following six themes: (1) Energy and Emissions (2) Sustainable Mobility and Transport (3) Solid Waste Management (4) Water Systems and Flood Management (5) Air Quality and Environmental Health (6) Urban Planning. **Further analysis of city CAP action design is presented in section 5.**

Informal Settlement Inclusion Gaps:

- Even where plans acknowledge the disproportionate climate impacts on informal settlements, actions rarely translate this into targeted sub actions that address their specific needs. The suggested interventions are often abstract and non spatial in nature, which limits their implementation or budgeting.
- Action design is heavily skewed toward mitigation, with insufficient attention to adaptation and/or coping measures. Provisions addressing loss and damage are particularly scarce, appearing in only three city CAPs.
- Sectoral actions largely overlook the informal economy, leaving workers without climate protections or pathways for a just transition.

4. Accountability

This section outlines how the plan will be implemented, monitored, and evaluated over time. It covers institutional arrangements, financing mechanisms, and the systems through which progress tracking and reporting.

Informal Settlement Inclusion Gaps:

- Monitoring frameworks measure outputs rather than outcomes for vulnerable populations, making it difficult to assess whether climate action is reaching those most at risk.
- **There are rarely formal mechanisms through which informal settlement dwellers or civil society organisations can participate in monitoring plan implementation, or provide feedback that shapes future planning cycles.**



4. Community Climate Action Planning: Learning from YUVA

City CAPs set the formal framework for urban climate action, but they are rarely built from the ground up with citizens. For CSOs working in informal settlements and with marginalised communities across India and the Global South, the complementary process of making **Community Climate Action Plans (CCAP)** offers an essential linkage to city processes. CCAPs center the lived experience of communities, and produces locally owned climate action that city governments have struggled generate on their own.

A CCAP complements and follows a similar architecture to a city CAP climate hazard vulnerability assessment, sectoral priority assessment through analysis, followed by implementation in partnership with local government but every stage is driven by the community itself. When done correctly, creating **CCAPs can develop the evidence that communities can present to city governments, demand integration into formal plans, and use it to access resources at local, national, and international levels.**

Youth for Unity and Voluntary Action (YUVA), a Mumbai based non profit organisation, has developed the four step CCAP framework through their sustained and long term work in informal settlements across the Mumbai Metropolitan Region. Each step is designed to centre the community in both knowledge production and decision making.

1. Climate Hazard Mapping

The process begins by mapping marginalised communities (refer section 5) that are absent from official records. Overlaying climate hazards data such as flooding, air quality, landslides, sea-level rise; across these communities identifies “climate hotspots” where multiple hazards overlap. YUVA’s mapping across Mumbai Metropolitan Region identified 27 such hotspots, providing the spatial foundation for the next stage.

2. Rapid Assessment

At each hotspot, a rapid assessment is conducted in each climate hotspot to document ground level conditions on exposure, sensitivity, and adaptive capacity. This stage helps to identify the communities facing the highest combined climate and social vulnerability, and selects pilot sites for deeper investigation.

3. Vulnerability Assessment (VA)

Third, a community led Vulnerability Assessment (VA) combines geo tagging, interviews, and focus group discussions, led by young volunteers from the community. The VA expands the framing of vulnerability by conducting FGDs with domestic workers, street vendors, construction workers, auto-rickshaw drivers, home-based workers etc. to capture differentiated climate vulnerabilities. Findings from the VA guide the final stage.

4. Community Climate Action Plan

The final stage translates VA findings into sectoral plans for prioritised action across themes such as stormwater management, waste management, open spaces, and housing. Actions are categorised as immediate, short term, and long term. Community coalitions formed during this stage become the vehicle for prompting action.

5. Inclusive City Climate Action Planning Framework

Our analysis suggests that a City CAPs becomes inclusive not simply by identifying informal settlements as vulnerable, but by changing what is mapped, who sets priorities, where public investment is directed, and how implementation is governed.

Our findings show that the policy design of the actions of an inclusive City CAP (ICCAP) should include the following eight Areas of Inclusion (AOIs):

- **Community Priorities:** Translate community priorities into specific departments, budgets and timelines in the CAP, not just recommendations.
- **Municipal Governance:** Assign each community priority a responsible department, scheme, budget and timeline within the CAP.
- **Civil Society:** Define where communities and CSOs participate, what they influence, and how their input is tracked through implementation.
- **Data & Vulnerability:** Map vulnerabilities where people live, work, and move, including informal settlements, gaothans, labour nakas, and mobility corridors, by combining official city data with community knowledge.
- **Accountability & Finance:** Assign departments, budgets and tracking mechanisms to ensure commitments reach vulnerable communities and workers.
- **Adaptation & Basic Services:** Prioritise drainage, water, sanitation, housing, shade and cooling access based on locally identified needs.
- **Just Transition:** Involve informal workers in designing protections for income, workspace and conditions against heat, flooding and pollution.
- **Loss & Damage:** Identify recurring losses beyond adaptation's reach and fund recovery, compensation and social protection mechanisms.

In practice, however, the City CAPs reviewed varied considerably in how far they translated these principles into planning and implementation. Many plans incorporated elements of inclusive planning, but often only partially. We therefore broadly distinguish three successive levels of inclusion:

ICCAP Levels of Inclusion

Tokenised inclusion

The informal settlements are visible in the plan, but not in the evidence, decisions or allocation of resources.

Programmatic inclusion

The informal settlements are targeted through schemes and projects, but priorities, design and implementation remain largely city led.

Structural inclusion

Informal settlement dwellers and grassroots organisations have a defined role in generating evidence, setting priorities, shaping investments and holding implementation accountable.

Combining the AOIs with the ICCAP levels of inclusion, we suggest the following evaluative framework to determine the extent to which City CAPs are inclusive of the informal sector:

Areas of Inclusion	Tokenised Inclusion	Programmatic Inclusion	Structural Inclusion
Community Priorities	<i>Communities are represented through general policies.</i>	<i>Community needs inform selected projects or programmes.</i>	<i>Community identified priorities influence the CAP, departmental projects, and investment priorities.</i>
Municipal Governance	<i>Climate actions remain within departments with limited coordination.</i>	<i>Departments implement targeted programmes for vulnerable areas.</i>	<i>Community priorities are linked to responsible departments, schemes, budgets, and implementation timelines within the CAP.</i>
Civil Society	<i>CSOs are treated primarily as knowledge or consultation partners.</i>	<i>CSOs support outreach, mobilisation or implementation.</i>	<i>Grassroots organisations have defined roles in assessment, planning, implementation, monitoring and accountability.</i>
Data & Vulnerability	<i>Informal settlements are listed as vulnerable areas, with poor data quality.</i>	<i>Vulnerable settlements are mapped and targeted through specific assessments.</i>	<i>City vulnerability assessment combines municipal data with community generated evidence across settlements at the ward level, workplaces and mobility spaces.</i>
Accountability & Finance	<i>Commitments are broad and unfunded.</i>	<i>Specific programmes have identified funding but remain top down.</i>	<i>Actions have identified budgets, timelines, and mechanisms for communities to track implementation.</i>
Adaptation & Basic Services	<i>Vulnerabilities are mapped without corresponding investment.</i>	<i>Targeted infrastructure or service interventions are funded in vulnerable settlements.</i>	<i>Infrastructure and services are prioritised and designed around locally identified climate vulnerabilities and everyday needs.</i>
Just Transition	<i>Informal workers are acknowledged as vulnerable but their workplaces and livelihoods are not.</i>	<i>Workers are targeted through heat advisories, awareness or reskilling programmes.</i>	<i>Workers participate in designing heat safe workplaces, livelihood protection and transition measures, with identified institutional and financial responsibility.</i>
Loss & Damage	<i>Losses are acknowledged after disasters.</i>	<i>Relief or rehabilitation is provided after an event.</i>	<i>Recurring livelihood, housing and household losses inform planning, with recovery, compensation, social protection and fund access.</i>

Inclusive City Climate Action Planning Summary Graphic

Synthesising the table, we developed a visual framework inspired by a spider diagram to represent how a city CAP performs across the eight AOIs and three levels of inclusion. The graphic shows how climate action can move from tokenised representation and toward structural inclusion. We hope it can support advocacy for the genuine inclusion of informal workers and settlements in city CAPs in Indian cities, and beyond.



6. Bibliography

- [1] Taylor, Graeme, and Sue Vink. "Managing the Risks of Missing International Climate Targets." *Climate Risk Management* 34 (2021): 100379. <https://doi.org/10.1016/j.crm.2021.100379>.
- [2] United Nations Department of Economic and Social Affairs. "68% of the World Population Projected to Live in Urban Areas by 2050, Says UN." May 16, 2018.
- [3] United Nations. 2024. "Goal 11: Sustainable Cities and Communities." In *The Sustainable Development Goals Report 2024*. <https://unstats.un.org/sdgs/report/2024/Goal-11/>
- [4] Satterthwaite, David, Diane Archer, Sarah Colenbrander, David Dodman, Jorgelina Hardoy, Diana Mitlin, and Sheela Patel. 2020. "Building Resilience to Climate Change in Informal Settlements." *One Earth* 2 (2): 143–56. <https://doi.org/10.1016/j.oneear.2020.02.00>
- [5] Singh, Chandni, Mythili Madhavan, Jasmitha Arvind, and Amir Bazaz. 2021. "Climate Change Adaptation in Indian Cities: A Review of Existing Actions and Spaces for Triple Wins." *Urban Climate* 36: 100783. <https://doi.org/10.1016/j.uclim.2021.100783>
- [6] Adams, Barbara, and Gretchen Luchsinger. *Climate Justice for a Changing Planet: A Primer for Policymakers and NGOs*. New York: United Nations Non-Governmental Liaison Service, 2009. https://unctad.org/system/files/official-document/ngls20092_en.pdf
- [7] Singh, Chandni, Mythili Madhavan, Jasmitha Arvind, and Amir Bazaz. 2021. "Climate Change Adaptation in Indian Cities: A Review of Existing Actions and Spaces for Triple Wins." *Urban Climate* 36: 100783. <https://doi.org/10.1016/j.uclim.2021.100783>
- [8] World Bank. *India Poverty and Equity Brief : October 2025 (English)*. Poverty and Equity Brief Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/099722104222534584>
- [9] Ministry of Housing and Urban Affairs (MoHUA), *ClimateSmart Cities Assessment Framework (CSCAF) 3.0 Technical Document*, 2022. [https://niu.in/project-details/ClimateSmart_Cities_Assessment_Framework_\(CSCAF\)](https://niu.in/project-details/ClimateSmart_Cities_Assessment_Framework_(CSCAF))
- [10] C40 Cities, *Climate Action Planning Framework*, 2020. https://www.c40knowledge-hub.org/s/article/Climate-Action-Planning-Framework?language=en_US
- [11] ICLEI – Local Governments for Sustainability, *ICLEI Climate Neutrality Framework*, 2021. <https://southasia.iclei.org/publication/net-zero-climate-resilient-cities-methodology-toolkit/>

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