Citizen Engagement in Smart Cities: Theoretical Insights and Reflections on Northeast India

Ningthoujam Irina Devi
Dept of Public Administration
Mizoram University-Aizawl

Abstract
Citizen engagement has emerged as a foundational pillar of participatory governance and sustainable urban development, especially in the era of Smart Cities. Drawing on theoretical contributions from network governance, urban Marxism, and critical digital urbanism, this article explores how citizen participation has evolved, both conceptually and practically, within the framework of the Smart Cities Mission (SCM) in India. While global and national examples such as Porto Alegre, Seoul, Pune, and Bhubaneswar demonstrate innovative models of inclusive urban governance, the Indian experience reveals substantial gaps between participatory rhetoric and practice. These shortcomings are particularly pronounced in Northeast India, where socio-political complexities, infrastructural deficits, and surveillance-led governance have hindered meaningful public involvement. Using a comprehensive literature review approach, the article highlights how the promise of digital empowerment often falls short of delivering democratic inclusion. The article critiques the instrumental use of technology and calls for a reimagining of smart urbanism grounded in justice, inclusivity, and active citizenship.

Introduction

Smart city development represents a paradigm shift in urban governance, wherein cities aim to integrate data-driven technologies with participatory planning to address longstanding urban problems. In India, the Smart Cities Mission (SCM) envisions "citizen-driven" cities equipped with digital infrastructure, efficient service delivery, and resilient urban systems. With 100 cities selected under SCM since its launch in 2015, the mission reflects the growing emphasis on sustainable and inclusive urbanism.

Citizen participation is considered a foundational element of this vision. Yet, how participation is conceptualized and operationalized varies widely. In many cases, engagement remains procedural or superficial, failing to empower marginalized communities. This is particularly evident in urban peripheries and conflict-prone regions like Northeast India, where governance deficits, social fragmentation, and limited digital infrastructure complicate participatory efforts. This article interrogates the gap between the promise and practice of citizen engagement in smart cities. Anchored in theoretical and empirical analysis, it traces how participation is framed within smart urbanism discourses, examines illustrative global and Indian experiences, and critically engages with the case of Northeast cities under this mission. By doing so, it seeks to contribute to scholarly and policy debates on inclusive urban governance.

Conceptualizing Citizen Engagement in Smart Cities

Smart city governance has evolved alongside broader shifts in public administration, especially the turn toward networked and collaborative governance. Traditional top-down bureaucratic models are increasingly supplemented (though not always replaced) by multilevel, participatory mechanisms involving citizens, civil society, and private actors (Rhodes, 1996; Peters & Pierre, 1998).

The concept of community governance emphasizes trust, social capital, and local knowledge (Stoker, 1998). In this model, governance is not only about managing systems efficiently but also about creating spaces where citizens become co-producers of public goods. This approach resonates with Ostrom's (1990) ideas on polycentric governance, where multiple overlapping authorities manage complex social-ecological systems collaboratively.

In the smart city discourse, Information and Communication Technology (ICT) tools are promoted as catalysts for citizen participation. E-governance platforms, mobile apps, and online surveys are frequently used to solicit public inputs. However, scholars caution against techno-optimism. As Willis and Aurigi (2018) and de Waal (2014) argue, the use of digital tools must be embedded in inclusive institutional structures; otherwise, they risk amplifying existing exclusions.

Indeed, critical scholars like Morozov and Bria (2018) highlight how techno-deterministic approaches may obscure structural inequalities and depoliticize participation. In such contexts, digital citizenship becomes an abstract promise rather than a lived reality.

Critical Urban Theory and the Right to the City

Participation in urban governance cannot be meaningfully understood without engaging with critical urban theories. Henri Lefebvre's (1968) concept of the "right to the city" asserts that urban spaces should be collectively shaped by all inhabitants, not just by state planners or capital interests. This right is not only about access to urban services but also about the power to define and transform urban life.

David Harvey (2008) extends this argument by situating it within the political economy of cities. For Harvey, the commodification of urban space under neoliberal capitalism undermines democratic control, leading to spatial inequality and social exclusion. Smart cities, if driven by market logics and technocratic planning, risk becoming new instruments of enclosure.

In India, these critiques resonate with experiences of urban renewal programs that often prioritize infrastructure over inclusion. Studies by Baud et al. (2008), Coelho and Kamath (2012), and Kundu (2014) show that marginalized urban populations—especially informal settlers—are frequently left out of participatory processes. Even when engagement occurs, it is often mediated through elite civil society groups or consultants, limiting grassroots agency.

Arnstein's (1969) "Ladder of Citizen Participation" remains a useful heuristic in evaluating these dynamics. It reminds us that not all participation is equal—there is a continuum from tokenism to real empowerment.

Digital Governance and the Smart City Debate

The normative discourse of "smart citizenship" emphasizes transparency, innovation, and collaboration. However, as Kitchin (2014) and Cardullo, Di Feliciantonio & Kitchin (2019) argue, the actual implementation of smart governance often reproduces technocratic and exclusionary tendencies.

Their concept of the "Right to the Smart City" calls for a more just digital urbanism—one that includes citizens in decisions about data use, surveillance, and technological development. The framework they propose identifies levels of engagement from functional participation (using apps and services) to critical engagement (questioning and shaping governance).

Datta (2015) and Parthasarathy (2020) provide empirical evidence from Indian smart cities to show how digital platforms are unevenly accessible. While middle-class and tech-savvy citizens may engage through mobile apps and online portals, large sections of the urban poor, especially women and the elderly, remain excluded.

In this light, digital engagement must be seen not only as a technical issue but also a socio-political one. For engagement to be meaningful, digital tools must be complemented with offline forums, community facilitation, and rights-based frameworks.

Global and Indian Experiences of Citizen Engagement

Globally, participatory urbanism has seen both promising experiments and disappointing outcomes. The participatory budgeting process in Porto Alegre, Brazil, is often cited as a benchmark. It institutionalized citizen input in local budgets, leading to increased trust and service delivery in marginalized neighborhoods (Wampler, 2007).

Seoul's "mVoting" platform is another example where mobile technology facilitated direct public involvement in policy decisions. Yet, such models require strong institutional support and political will to be effective. In India, cities like Pune and Bhubaneswar made notable attempts at citizen engagement during the initial stages of SCM. Pune's "Smart City Hackathon" and Bhubaneswar's child-friendly city consultations were steps toward inclusive planning.

However, other cities like Dehradun and Ujjain saw minimal engagement. Vaishampayan et al. (2020) argue that cities with pre-existing participatory institutions, like active ward committees and civil society coalitions, were better able to implement the participatory mandate. Thus, the success of citizen engagement under SCM is contingent upon historical, institutional, and social contexts—not just digital readiness.

Smart City Mission in Northeast India: Critical Perspectives

A growing body of literature critically evaluates the performance of the Smart Cities Mission (SCM) in Northeast India, highlighting persistent implementation gaps and structural challenges unique to the region. Official data indicates that many Northeastern cities lag significantly behind their national counterparts in project execution. According to reports from *The Sentinel* (2023), eight of the lowest-ranked smart cities in India are from the Northeast, with nearly half of their projects either delayed or stalled due to limited technical capacity, inadequate institutional support, and insufficient monitoring mechanisms.

In the case of Imphal, initial public consultations generated optimism, with the inclusion of digital platforms and offline suggestions. However, numerous planned initiatives—such as GPS-enabled bicycle services and 'Streets for People' interventions—remain either underutilized or discontinued due to poor follow-up and lack of citizen awareness (*Imphal Times*, 2023). Civil society groups have raised concerns about certain smart mobility proposals that inadvertently displaced traditional e-rickshaw drivers and disrupted women vendors' access to public spaces without compensatory arrangements (*ESG India*, 2022).

This disconnect between the Special Purpose Vehicle (SPV)-led governance model and meaningful citizen participation points to deeper institutional fragmentation. Participatory mechanisms, while emphasized in initial consultations, rarely sustained beyond the proposal stage. As noted by *The Sentinel* and *ESG India*, this has contributed to tokenistic forms of engagement, wherein citizens act primarily as passive listeners, while state actors dominate the discourse.

Comparatively, cities like Namchi (Sikkim) and Aizawl (Mizoram) offer more contextually attuned smart urban models. Namchi's success in the 2023 India Smart Cities Conclave has been linked to the alignment of planning with community-led priorities and consistent monitoring mechanisms (*Mountain Echo*, 2023). Aizawl's inclusive mobility planning, which incorporates land-use integration and disaster preparedness in its hilly terrain, further underscores the importance of spatial and infrastructural adaptation (*Observer Research Foundation [ORF]*, 2023).

Theoretical contributions to this discourse—such as Saitluanga's (2017) critique of entrepreneurial governance in Northeast urbanism—argue that smart city frameworks often reproduce socio-spatial exclusions unless embedded in local community-state collaboration. Clark's (2020) concept of "uneven innovation" also explains how smart city policies can exacerbate urban inequalities when transposed into regions with limited infrastructure and participatory depth, as is the case in much of Northeast India. While institutions like the North East Centre for Technology Application & Reach (NECTAR) offer promising platforms for digital inclusion, geospatial planning, and civic engagement, their limited integration into SCM initiatives represents a missed opportunity to enhance citizen-centric governance.

The Northeast's broader socio-political context—marked by ethnic diversity, developmental lag, and intermittent conflict—demands more flexible and inclusive governance models. As McDuie-Ra (2008) emphasizes, uniform frameworks imported from metro-centric contexts fail to address the specific capabilities and vulnerabilities of the region. Empirical studies, including Bordoloi & Acharya (2020), further reinforce the importance of adapting smart city interventions to local needs, particularly in conflict-sensitive and infrastructurally fragile environments.

In Imphal, although the Smart Cities Mission began with participatory optimism, it soon revealed procedural gaps. Survey data and interviews suggest widespread unawareness among residents regarding the Mission's status. Participants who contributed during the public consultation stage—such as the President of Manipur Cycle Club, who advocated for pedestrian- and cycle-friendly infrastructure—reported no follow-up or acknowledgment. This reflects a hierarchical communication model wherein the state serves as an information disseminator while citizens remain passive recipients. Such dynamics mirror Arnstein's (1969) concept of tokenism in her "Ladder of Citizen Participation," where engagement lacks real decision-making power.

Digital participation is further constrained by infrastructural and socio-economic barriers. Imphal's relatively low internet penetration, weak digital literacy, and minimal local e-governance integration contribute to the technocratic and top-down orientation of the SCM. Moreover, the deployment of surveillance-oriented technologies—such as CCTV and facial recognition—has been prioritized over participatory planning tools. In a region where political volatility and public trust deficits are prevalent, such choices raise important questions about transparency, accountability, and inclusivity.

The case of Imphal exemplifies the broader tensions in Northeast India's urban governance under the Smart Cities Mission. Without context-sensitive planning and sustained participatory frameworks, smart city interventions risk replicating existing inequalities rather than resolving them.

Conclusion and Way Forward

Citizen participation is a normative pillar of the Smart Cities Mission, but its actualization remains uneven and often symbolic. Theoretical insights from collaborative governance, critical urbanism, and digital rights reveal the complexity of making participation meaningful in the age of smart urbanism.

While global and Indian case studies show potential pathways for participatory governance, the experience of Imphal demonstrates how structural constraints, political marginality, and digital exclusion can undermine such efforts.

For smart cities to be genuinely inclusive, they must go beyond consultation and embrace co-production. This requires not only institutional reform but also political commitment to democratize urban space and digital governance.

Policy recommendations include:

- Strengthening ward-level institutions for local planning
- Embedding offline and community-based engagement mechanisms
- Ensuring feedback loops in digital platforms
- Capacity building for marginalized communities
- Contextualizing SCM for fragile urban regions like Northeast India

In conclusion, smart citizenship cannot be engineered through apps alone; it must be cultivated through trust, inclusion, and the democratization of urban futures.

References

- Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners, 35*(4), 216–224.
- Baud, I., Sridharan, N., & Pfeffer, K. (2008). Mapping urban poverty for local governance in an Indian mega-city: The case of Delhi. *Urban Studies, 45*(7), 1385–1412.
- Bordoloi, R., & Acharya, M. (2020). *Urban Governance and Civic Participation in Northeast India*. Guwahati: NESRC Publications.
- Cardullo, P., Di Feliciantonio, C., & Kitchin, R. (2019). The right to the smart city. *Urban Geography, 40*(9), 1209–1229.
- Clark, J. (2020). *Uneven innovation: The work of smart cities*. Columbia University Press.
- Coelho, K., & Kamath, L. (2012). The politics of participation in urban planning in India. *Economic & Political Weekly, 47*(18), 59–67.
- ESG India. (2022). *Critical engagements with the Smart Cities Mission in India*. Retrieved from https://esgindia.org
- Harvey, D. (2008). The right to the city. *New Left Review, 53*, 23–40.
- Imphal Times. (2023). *Smart City plans in Imphal: Review and reflection*. Retrieved from https://imphaltimes.com
- Kundu, D. (2014). Urban development programmes in India: A critique of JnNURM. *Social Change, 44*(4), 615–632.
- Lefebvre, H. (1968). *Le droit à la ville* [The right to the city]. Paris: Anthropos.
- McDuie-Ra, D. (2008). Between national security and ethnic autonomy: Mapping urban citizenship in Northeast India. *Asian Survey, 48*(1), 92–114.
- McDuie-Ra, D. (2008). Between national security and ethno-nationalism: The regional politics of development in Northeast India. *Journal of South Asian Development, 3*(2), 185–210.
- Morozov, E., & Bria, F. (2018). *Rethinking the smart city*. Rosa Luxemburg Stiftung.
- Mountain Echo. (2023). *Namchi's smart city performance: An inclusive model*.
- Observer Research Foundation. (2023). *Smart mobility and urban planning in Aizawl*. Retrieved from https://www.orfonline.org
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.
- Saitluanga, L. (2017). Smart urbanism in Northeast India: Planning and inequality. *Taylor & Francis*.
- Sentinel Assam. (2023). *Editorial analysis of SCM in Northeast India*. Retrieved from https://www.sentinelassam.com
- Stoker, G. (1998). Governance as theory: Five propositions. *International Social Science Journal, 50*(155), 17–28.
- Wikipedia. (2023). *Smart Cities Mission overview*. Retrieved from https://en.wikipedia.org/wiki/Smart_Cities_Mission