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The Fragmented Future: A Critical Appraisal Of India's Smart Cities Mission (SCM) And The Quest For Inclusive Urbanism

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Introduction: The Urban Imperative and the 'Smart' Promise

India, experiencing one of the world's most rapid strides of urbanisation, launched the Smart Cities Mission (SCM) in June 2015. Envisioned as a flagship urban renewal and retrofitting program, its ambitious goal was to promote cities that provide core infrastructure, a decent quality of life to citizens, a clean and sustainable environment, and the application of 'Smart' Solutions. The Mission selected 100 cities through a competitive "Smart City Challenge," committing a substantial outlay to transform them into models of compact, inclusive, and sustainable development. The core strategy revolved around two components: Area-Based Development (ABD)—focused on retrofitting, redevelopment, or greenfield development in a specific area—and Pan-City Solutions—implementing smart technology across the entire city, often through integrated command and control centres (ICCCs).

As the Mission approaches its extended deadline (June 2024), a comprehensive, critical appraisal is vital. This publication seeks to move beyond the project completion statistics and critically examine the SCM's impact on governance, finance, equity, and the fundamental question of whether it has truly fostered an inclusive and resilient urban future for all Indian citizens. This analysis draws upon the latest progress reports, parliamentary evaluations, and academic critiques to present a balanced yet rigorous assessment.

Highlighting successful case studies is crucial to a balanced appraisal. They represent the "lighthouses" of the Mission, offering vital lessons in governance, finance, and social inclusion that can inform future urban policy.

1. Best Practices in Governance and Institutional Innovation

Conceptual Ambiguity and the Technological Fetish

City	Challenge Addressed	Successful Strategy &Outcome	Key Lesson
Bhubaneswar	Institutional & Financial Coordination	**Bhubaneswar Smart City Limited (BSCL)** became a model SPV by focusing on convergence with other schemes (like AMRUT). It successfully generated non-tax revenue and attracted private investment, making it financially resilient and project-ready early on.	**Early Establishment of a Robust SPV** and a focus on **Financial Innovation** (e.g., municipal bonds, value capture finance) are essential for project continuity and sustainability.
Indore	Citizen Engagement & Operational Management	Indore focused on **Solid Waste Management (SWM)** as a pan-city solution. It achieved 100% door-to-door waste collection and segregation at source through intense citizen awareness campaigns and involving **Self-Help Groups (SHGs)** (especially women). The successful SWM model generated revenue and earned it the "**Cleanest City in India**" title multiple times	**Aligning 'Smart' with Foundational Services** (SWM, water) and integrating Genuine **Grassroots Participation** leads to measurable and sustainable success.
Kochi	Public Transport Integration	The city-level SPV, Kochi Metro Rail Limited (KMRL), ensured the **Intelligent Transportation System (ITS)** was designed for multimodal integration. **The Common Mobility Card (Kochi1)** and integrated digital payment for metro, buses, and ferries greatly enhanced urban mobility	**Focus on Pan-City Solutions** that solve the biggest urban problem (mobility) through seamless **Digital Integration** provides immediate and widespread citizen benefit.

A. Defining 'Smart' in the Indian Context

One of the SCM's initial and persistent critiques lies in the lack of a clear, standardized definition of a 'Smart City'. While the guidelines were flexible, allowing cities to tailor proposals to local needs, this ambiguity often led to a focus on easily quantifiable, technology-driven interventions rather than holistic urban transformation. The definition was often reduced to a technological fetish, prioritising digital infrastructure (CCTV, ICCCs, Wi-Fi hotspots) over foundational urban deficits like public health, education, and social housing. Critics argue that a truly "smart" city in India should first be a "livable" and "just" city, addressing poverty, sanitation, and water supply for all residents before focusing on surveillance and digital dashboards.

B. Technology as an End, Not a Means

The emphasis on Information and Communication Technology (ICT) and the Integrated Command and Control Centres (ICCCs) is a defining feature. While ICCCs proved invaluable during the COVID-19 pandemic for monitoring and resource allocation, their long-term value is debated.

- Data Privacy Concerns: The massive rollout of surveillance infrastructure raises significant concerns regarding data privacy and the potential for a "surveillance state," especially in the absence of a robust data protection law at the time of maximum implementation.
- Operational Sustainability: The high-tech, capital-intensive systems require significant, sustained Operational and Maintenance (O&M) expenditure, which places a heavy and potentially untenable burden on financially weak Urban Local Bodies (ULBs) post-mission completion. Concerns exist over the technical capacity of local staff to manage and leverage these complex systems effectively.

Lessons in Equity, Inclusion, and Sustainability

The most critical test for the SCM was translating 'smart' technology into inclusive outcomes. These cases show how cities achieved measurable social and environmental impact.

- Pimpri-Chinchwad (PCMC) - Citizen-Centric Services:
  - PCMC focused on the Pan-City E-Governance model by creating an Integrated Smart City Platform. This platform provides over 100 municipal services online, drastically reducing the need for citizens to visit municipal offices, enhancing transparency, and improving the 'Ease of Living' index for all residents, regardless of location. This moves beyond "smart enclaves" to provide a city-wide benefit.
- Vadodara - Area-Based Development (ABD) with a Social Focus:
  - Vadodara's redevelopment plan focused on the revitalization of the Sursagar Lake area. Crucially, the plan included provisions for affordable housing and improved services for existing low-income residents near the core redevelopment zone, counteracting the usual critique of gentrification by maintaining a degree of social mix and inclusion. The focus was on leveraging the cultural heritage for economic development while being socially responsive.
- Ahmedabad - Sustainable Mobility and Infrastructure Finance:
  - Ahmedabad was a pioneer in using Municipal Bonds to raise capital for its infrastructure projects, demonstrating a financially self-sustaining approach rather than relying solely on Central and State funds.

Its success in the Bus Rapid Transit System (BRTS), which was integrated with the SCM's ITMS, proves that investing in mass public transport can be the most effective 'smart' solution for citizens and the environment.

Governance, Implementation, and Institutional Challenges

A. The Special Purpose Vehicle (SPV) Model.

The mandatory creation of a Special Purpose Vehicle (SPV) for each Smart City was a radical institutional innovation designed to bypass bureaucratic delays and ensure dedicated, professional management. However, this structure has faced major criticisms:

- Dilution of Democratic Accountability: The SPVs, run by appointed officials and technical experts, often side lined the elected municipal councils (ULBs), leading to a perceived erosion of local democratic processes and accountability to citizens. Key decision-making authority was centralized outside the traditional governance structure established by the 74th Constitutional Amendment Act.
- Capacity Deficit: Frequent transfer of SPV CEOs hampered project continuity. Furthermore, the capacity gap was acute in smaller cities, North-Eastern states, and Himalayan regions, which lagged significantly in project progress due to insufficient in-house technical and financial expertise.

B. Financial and Project Implementation Gaps

Despite significant central government funding, the Mission has struggled with various implementation challenges:

- Delays and Incomplete Projects: The Mission, initially slated for a five-year period, was extended multiple times, indicative of widespread implementation delays. As of late 2023, while overall project completion was high, significant inter-city disparities remained, with several cities falling far behind deadlines due to issues like land acquisition, lack of inter-agency coordination, and frequent project revisions.
- Financing Failure: The target for Public-Private Partnerships (PPPs), a core mechanism for resource mobilisation, was largely unmet. PPPs accounted for a small fraction of the total funding, highlighting the mission's failure to effectively attract private investment at the city level. Moreover, several State Governments/ULBs failed to release their matching share of funds in a timely manner, further slowing down project execution.
- Focus on Area-Based Development (ABD): The ABD model, which focuses on a small enclave (often less than 1% of the city area), created pockets of excellence but failed to achieve the "rub-off effect" or pan-city impact as originally envisioned. This approach risks creating a two-tier city—a shiny, smart enclave for the privileged and a perpetually underserved rest of the city.

Key Takeaways for Future Urban Policy

The success stories underscore three critical principles for the next phase of Indian urban development:

1. Prioritising Convergence: Successful cities effectively merged SCM funds with grants from other central/state schemes (AMRUT, Swachh Bharat), demonstrating a holistic and efficient use of public resources.

2. Focusing on 'Low-Tech' Impact: The most impactful interventions were often foundational (e.g., waste management, water monitoring, public transport) where technology was a tool to improve an existing service, not the end goal itself.
3. Building Institutional Capacity: Cities with a high completion rate consistently invested in strengthening the technical expertise and political autonomy of the SPV/ULB to ensure project continuity and post-mission maintenance.

Equity and Social Inclusion: The Unmet Mandate

A. Exclusionary Urbanism and Gentrification

The SCM guidelines mandated inclusive development, yet its implementation has often been exclusionary. Several reports and activist groups have highlighted:

- Displacement and Land Rights: Area-Based Redevelopment projects have, in some instances, led to the displacement of vulnerable populations, including slum dwellers and street vendors, or threatened their livelihoods through gentrification. The prioritisation of physical infrastructure in central business districts often comes at the cost of housing and basic services for the urban poor, violating the spirit of the 'right to the city.'
- Lack of Genuine Citizen Participation: While Citizen Engagement was a scored component in the selection process, critics argue that participation was often tokenistic (e.g., online polls, suggestion boxes) rather than substantive. This top-down approach failed to truly incorporate the needs and priorities of marginalised and non-digitally literate citizens, resulting in projects that did not align with the immediate social and economic needs of the majority.

B. Neglect of Foundational Infrastructure

The focus on 'smart' solutions often overshadowed the critical need for foundational infrastructure upgrades:

- Water and Sanitation: While projects exist for SCADA-based water management, the fundamental challenge of 24x7 water supply, sewage treatment, and non-revenue water (NRW) remains a significant hurdle in many cities, indicating a disparity between technological deployment and basic service delivery.
- Social Infrastructure: Investments in social infrastructure, such as affordable housing, public health, and education, were frequently deprioritised in favour of ICT and physical infrastructure, further exacerbating urban inequalities.

Characteristics and Challenges of Lagging Cities

The cities at the bottom of the implementation rankings, particularly those from the North-Eastern, Himalayan, and smaller Union Territories, share several common and interconnected characteristics that significantly hampered their progress:

A. Institutional and Capacity Deficits

1. Weak Urban Local Bodies (ULBs) and SPVs: In many lagging cities, the foundational ULBs are characterized by inadequate human resources and limited technical expertise to handle projects of the scale envisioned by the SCM.
   - The specialised SPV model often failed to function effectively due to the frequent transfer of CEOs and key personnel, breaking project continuity and institutional memory.
2. Lack of Execution Capability (Regional): The Parliamentary Committee reports specifically highlighted the lack of execution capability in the Himalayan and North-East regions. Projects in these areas are intrinsically more complex due to challenging terrain, seismic sensitivity, and difficult logistics, requiring highly specialised planning and implementation expertise that was often absent.
3. Governance Overlap and Lack of Convergence: Projects frequently stalled due to overlapping jurisdictions and poor coordination between the Smart City SPV and traditional utility departments (Water, Sewerage, Electricity). Projects meant to be co-funded or synchronised with other schemes like AMRUT (Atal Mission for Rejuvenation and Urban Transformation) often lacked integrated monitoring.

B. Financial and Project Planning Failures

1. Inadequate Financial Progress and Low Fund Utilisation: A critical issue was the failure of State Governments/ULBs to provide their mandatory matching share of funds in a timely manner. This financial dependency delayed the initiation of many projects.
2. Failure of Public-Private Partnerships (PPPs): Most lagging cities could not attract private investment, with nearly 50% of smart cities unable to undertake a single PPP project. This exposed the vulnerability of their projects, which were designed to be self-sustaining but lacked the economic viability or financial mechanisms (like Municipal Bonds) to draw private capital.
3. Impractical and Un-implementable Projects: Many projects were either overly ambitious or poorly designed without adequate pre-feasibility studies, leading to frequent dropping or revising of projects. Examples include ambitious underground cabling in congested markets or multi-level parking that remains grossly underutilised.
4. Land Acquisition Hurdles: Projects requiring the use of new or existing land, particularly for greenfield developments or infrastructure retrofitting, were often delayed or dropped due to complex land acquisition issues and a lack of local political will to push contentious decisions.

C. Exclusionary Outcomes and Technical Flaws

1. Technology Over-emphasis over Basic Services: In many low-performing cities, the focus remained skewed towards the easily implementable "Pan-City" technology solutions (like ICCCs and CCTV cameras) while the core deficiencies in water supply, sanitation, and public transport remained

unaddressed. In some instances, the high-tech assets were installed but became non-functional due to poor maintenance planning and technical capacity.

2. Digital and Geographical Divide: The implementation of Area-Based Development (ABD) in small or less economically dynamic cities was insufficient to create a palpable, city-wide impact. The benefits remained confined to a small, already relatively developed geographical pocket, failing to be truly inclusive.

The Critical Appraisal in Summation

The Smart Cities Mission offers a potent paradox: it is a top-down policy that sought to inspire bottom-up city transformation. While the idea was revolutionary, the execution was constrained by the deep-seated structural issues of Indian urban governance.

- Successes (The "Lighthouses"): Cities like Indore, Pune, and Bhubaneswar demonstrated that success is achieved through institutional convergence, financial innovation, and aligning technology with critical citizen needs (waste management, mobility).
- Failures (The "Lagging Cities"): Low-performing cities confirmed that the SPV model alone is insufficient to overcome fundamental weaknesses in ULB capacity, political apathy, and the failure to mobilise diverse financial resources.

The Mission ultimately served as a stress test for Indian urban institutions. It revealed that mere allocation of funds and sophisticated technology cannot bypass the need for strong local governance, robust fiscal health, and planning that genuinely prioritises equity and inclusion over technological aesthetics.

V. Conclusion: Lessons for the Next Urban Mission

The Smart Cities Mission is arguably India's most ambitious and expensive urban development experiment. On the positive side, it has catalysed the adoption of technology in urban governance, fostered a sense of competitive federalism among states and cities, and led to the creation of professional Special Purpose Vehicles (SPVs), which, despite their flaws, represent a shift towards dedicated project management. The ICCCs have demonstrated their utility in emergency management, notably during the pandemic.

However, a critical appraisal reveals that the Mission's successes are fragmented and uneven. The core challenges of institutional weakness, financial unsustainability, technological over-emphasis, and a failure to deliver on the equity and inclusion mandate persist. The biggest lesson from the SCM is that 'smart' is not a substitute for 'good' governance. Future urban missions in India must incorporate the following shifts:

1. Prioritise Foundational Needs: Anchor the definition of "smart" in livability and social equity, addressing basic needs like water, sanitation, and affordable housing before advanced technology.
2. Strengthen ULBs: Integrate new management models with, rather than bypass, the Urban Local Bodies (ULBs) to ensure democratic accountability and long-term O&M sustainability.
3. Ensure Genuine Participation: Move from tokenistic citizen engagement to substantive, inclusionary planning that actively incorporates the voices of the poor and marginalised.
4. Balance Pan-City vs. Area-Based: Emphasize Pan-City solutions and the upgrading of core utility infrastructure to ensure benefits are distributed across the entire urban fabric, not just in small enclaves.

The Smart Cities Mission has set the stage for India's next generation of urban planning. Its legacy will be defined not by the number of completed projects, but by whether the lessons learned lead to a future of urban development that is truly inclusive, resilient, and cantered on human well-being.

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