ACADEMIA | Letters

Will the real Indian Smart Cities please stand up?

Saswat Bandyopadhyay

Even after six years since its launch, many of the Indian Smart cities are struggling to deliver on the ground. Several of the mission buzzwords like Data Smart, Climate Smart, Nurturing neighborhoods, City Inx etc., are unable to create the desired level of impacts as was anticipated. The mission to build 100 Smart Indian cities was launched in 2016. The launch and its subsequent roll out through a pan India "smart cities challenge" had generated plenty of euphoria among the potential cities and urban professionals. This was probably the first national urban mission in India, receiving such a massive public attention in recent times!

However, the mission was launched without the definitional precision regarding "what is a smart city" and also, "what value addition is expected to India's urban development trajectory?"

Recently, during the 6th Anniversary celebration, the Indian minister for Housing and Urban Affairs highlighted the achievements of various urban missions like, Pradhan Mantri Awaas Yojna (PMAY), Swachh Bharat Mission (SBM), Atal Mission for Urban Rejuvenation (AMRUT) etc. But the mission of Indian Smart cities found very limited mentions in his speech. While the minister announced the upscaling of AMRUT mission in to a larger mission, to be named as "Jal Jeevan-Urban", he remained conspicuously silent about the future of Indian smart cities mission. Post this anniversary speech, speculations are rife about the future of Indian Smart Cities mission, beyond 2023.

Why Are the Indian Smart Cities Struggling?

According to a recent analysis by India Spend, published on 24th June, 2021, which highlighted that 49% of 5196 planned projects remain unfinished under the smart cities mission.

Corresponding Author: Saswat Bandyopadhyay, saswatb@cept.ac.in
Citation: Bandyopadhyay, S. (2021). Will the real Indian Smart Cities please stand up? *Academia Letters*, Article 2960.

Among the 33 cities which have completed their fifth year, about 42% projects remain incomplete. Also, till June, 2021, the smart cities could utilize only 69% of the grants available to them. The key question, therefore, is, in spite of gaining massive public and political attention, why are the India Smart cities unable to deliver on their promises of building "livable", "sustainable" and "thriving' with opportunities for their residents?

Some observers have pointed out about the "overambitious" and "illusive" nature of this mission and the administrative clutters created due to the formation of Smart City SPVs being the potential reasons. The mission was also criticized for its attempt to by-pass the democratic provisions, stipulated under the 74th constitutional amendment act.

Some critics have also highlighted about the mission's over dependence on the buzzwords and superfluous ideas which were hurriedly collated from various global regions without much probing for localization in Indian context. Also, there exists an underlying assumption of positive impact of Information Technology on the urban morphology which is yet to be grounded empirically!

Urban professionals supporting the idea of Smart cities, claim that, the smart cities are not built overnight and it would take some time to see the results on the ground. However, the critics counter argue that, by naming this as a "Mission", a sense of urgency should have been an integral part of this mission from its inception.

So, what are the key challenges of Indian Smart cities? Unlike its western counterparts, the core issue appears to be the "conceptual hollowness" of the term "Smart Cities" and the lack of clarity of purpose.

Professor Robert Hollands of New Castle University, in his seminal work on Smart Cities (Hollands, 2008), had critically interrogated the concept of smart cities. He also highlighted the aspects of limited availability of knowledge and understanding around this "urban labelling" phenomenon. Hollands further argued that the smart cities being developed under this "definitional impreciseness", numerous unspoken assumptions, and underlying tendency of "self congratulations", expected to have more rhetorics and limited influence towards the meeting the challenges of urbanization.

The Oversees Economic Cooperation (OECD) defines smart cities as "cities that leverage digitalization and engage stakeholders to improve people's well-being and build more inclusive, sustainable and resilient societies". This definition underlines that digitalization and digital innovation are not an end in itself, but rather aim to improve people's lives to achieve greater inclusion, sustainability and resilience.

However, it also cautions about the lack of guarantee that all smart cities initiatives would automatically improve the livability and well being. Globally, the smart cities are also facing the challenges of digitalization such as privacy risks, regulatory challenges and for widening

Corresponding Author: Saswat Bandyopadhyay, saswatb@cept.ac.in
Citation: Bandyopadhyay, S. (2021). Will the real Indian Smart Cities please stand up? *Academia Letters*, Article 2960.

inequalities.

In absence of a core focus, the Indian smart cities mission has been struggling continuously to identify a clear road map towards becoming "Smart Urban Development". A quick analysis of the mission portfolio reveals the generic nature of projects being undertaken by the mission cities. Some of these projects being funded under this mission, clearly lacks their focus on the "smart" or "digital infrastructure" aspects. Many of these projects could have been easily a part of the other missions like AMRUT or SBM and not necessarily to be included under this mission of smart cities!

Over the past six years, more than 25 diverse initiatives, ranging from, India urban observatory, Urban data exchange, urban innovation stack, Smart Net, India Urban Observatory and a few others have been onboarded as a part of this mission. "Spatial fix" approaches like the Nurturing neighborhoods, India cycles for Change and Streets for People, as well as a few stand alone projects like automated "Smart Toilets" and development of Bi-cycle tracks in its mission cities have been taken up for implementation through this mission.

A recent academic survey of the "Smart Toilets" in the city of Ahmedabad revealed very poor utilization due to their higher automation as well as their inappropriate locations. Likewise, the "bi-cycle tracks", developed under this mission, also remain under-utilized due to their incomplete networks.

Smart cities - What Values do they bring to India's Urban Development?

It is estimated that Indian cities contribute over 65% to the national economy. In spite of their significant contributions to the national exchequer, Indian cities remain under invested. While India's annual per capita investment on urban infrastructure was around USD 17, China spent around USD 116 and UK spent around USD 400.

In response to India's urbanization challenges, the High Powered Committee (HPEC, 2011), had estimated about INR 39.0 lakh crores of capital investment in urban infrastructure by 2030. A similar estimate of USD 1.2 trillion was put forth by the McKinsey Global Institute (MGI, 2012) towards the capital expenditure in next 20 years. Considering this massive gap in demand and availability of financial resources, Indian cities are left with very little choices, but to explore the opportunities of applying digital technologies for optimization of urban systems and processes.

Corresponding Author: Saswat Bandyopadhyay, saswatb@cept.ac.in
Citation: Bandyopadhyay, S. (2021). Will the real Indian Smart Cities please stand up? *Academia Letters*, Article 2960.

As pointed out by Hollands,

> "***Real smart cities will actually have to take much greater risks with technology, devolve power, tackle inequalities and redefine what they mean by smart itself!***"

Thus, for a context like India, the idea of " Smart Cities" holds tremendous promise. However, If the Indian cities aspire to become truly smart and impactful, they need to discard their present rhetorics and dive deeper into the world of urban data and technology space to spearhead their transformation towards a more inclusive and sustainable future.

For a country like India with higher share of urban poverty, huge backlog of urban services and rapidly exacerbating climate shocks and stresses, the future cities will have to demonstrate leadership in empirically grounded Smart Urban solutions. Collaboration and Co-creation will be the key in all future smart cities, offering appropriate smart urban solutions.

Tools and technologies to solve the urban issues will constantly evolve but the underpinning ideologies of inclusive, resilient and sustainable urban development must remain in their focus. The cities should also remember that the **technologies are just the means and not an end of this journey.**

The Future of Indian Smart Cities

Various projections suggest that India will be home to over 600 million urban population, residing in 12000+ towns and cities by 2030. If India has to achieve its vision of becoming a USD 10 Trillion economy, it will require continuous and strategic investments in its city system. The role of smart cities will be immense in this journey towards prosperity. The process of urbanization creates value and economic opportunities.

The future smart cities in India should strategically position themselves to leverage these opportunities while addressing the challenges. The future smart cities should develop its core focus on the most pertinent urban issues and must limit its reliance on typical buzzwords and rhetorics.

Some of the core areas where the future Smart Cities could focus are:

- **Urban Planning. Land Management and Service Delivery**
- **Urban Data Analytics and Risk Management**
- **Developing the Culture of co-operation and co-creation**
- **Managing Inequalities and Externalities**

Corresponding Author: Saswat Bandyopadhyay, saswatb@cept.ac.in
Citation: Bandyopadhyay, S. (2021). Will the real Indian Smart Cities please stand up? *Academia Letters*, Article 2960.

- **Urban Planning, Land Management and Service Delivery**

Indian states and cities have inherited an archaic and rigid form of urban planning and regulations, leading to pervasive outcomes in land, housing and in delivery of urban services. Globally, cities have explored digital technologies and artificial intelligence to modernize the processes of urban planning, land management and service delivery. Managing urban transactions through digital technologies should become one of the high priority areas for future Indian smart cities.

Data Analytics for Urban Risk Management

The present version of Indian Smart cities are unable to leverage urban data and digital technologies to minimize the risk of urban inequalities and climate change. Leveraging urban data and developing capabilities towards transactional analytics and predictive modeling should become an integral part of the future cities. These cities will be required to develop innovative protocols for data safeguards and Data Value capturing (DVC) to their advantage. For future cities, **Anticipating would be much more cost effective than reacting to the emerging challenges!**

The Culture of Co-creation and Coordination

In order to respond to the urban shocks and stresses as well as to unlock the economic potential, the future smart cities would require to actively foster the culture of collaboration and co-creation in sustainable urban development. Innovative models of People-Public-Private sectors need to be evolved and archaic processes of public procurement are to be discarded immediately.

Creative platform for collaborative actions such as, urban Climatorium should form the back bone of future smart cities in India.

Managing Urban Inequalities and Externalities

The process of urbanization exacerbates the urban divide, inequalities and process of marginalization. Our future smart cities will have to proactively engage towards managing these challenges so as to ensure that the future **Smart Cities are Not Leaving Anyone Behind!**

Will the future Indian Smart cities please stand up to these opportunities and challenges?

Corresponding Author: Saswat Bandyopadhyay, saswatb@cept.ac.in
Citation: Bandyopadhyay, S. (2021). Will the real Indian Smart Cities please stand up? *Academia Letters*, Article 2960.