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Smart cities: Concept of new urbanization in India

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Abstract
Across the world, the stride of migration from rural to urban areas is increasing. By 2050, about 70 percent of the population will be living in cities, and India is no exception. It will need about 500 new cities to accommodate the influx. While the urban population is currently around 31% of the total population, it contributes over 60% of India's GDP. It is projected that urban India will contribute nearly 75% of the national GDP in the next 15 years. The government has now realized the need for cities that can cope with the challenges of urban living and also be magnets for investment. The announcement of '100 smart cities' falls in line with this vision. A 'smart city' is an urban region that is highly advanced in terms of overall infrastructure, sustainable real estate, communications and market viability. Under the Smart Cities Mission, each selected city would get central assistance of Rs.100 crore per year for five years. Smart City aspirants will be selected through a 'City Challenge Competition' intended to link financing with the ability of the cities to perform to achieve the mission objectives. The strategic components of Area-based development in the Smart Cities Mission are city improvement (retrofitting), city renewal (redevelopment) and city extension (Greenfield development) plus a Pan-city initiative in which Smart Solutions are applied covering larger parts of the city.

Keywords: urbanisation, smart city, area-based-development, pan-city initiative

Introduction

Across the world, the stride of migration from rural to urban areas is increasing. By 2050, about 70 percent of the population will be living in cities, and India is no exception. It will need about 500 new cities to accommodate the influx. While the urban population is currently around 31% of the total population, it contributes over 60% of India's GDP. It is projected that urban India will contribute nearly 75% of the national GDP in the next 15 years. It is for this reason that cities are referred to as the "engines of economic growth" and ensuring that they function as efficient engines is critical to our economic development. The speed of urbanization poses an unprecedented managerial and policy challenge—yet India has not engaged in a national discussion about how to handle the seismic shift in the makeup of the nation. As the urban population and incomes increase, demand for every key service such as water, transportation, sewage treatment, low income housing will increase five- to sevenfold in cities of every size and type. The government has now realized the need for cities that can cope with the challenges of urban living and also be magnets for investment. The announcement of '100 smart cities' falls in line with this vision.

A 'smart city' is an urban region that is highly advanced in terms of overall infrastructure, sustainable real estate, communications and market viability. It is a city where information technology is the principal infrastructure and the basis for providing essential services to residents. The core infrastructure elements in a smart city would include:

1. adequate water supply,
2. assured electricity supply,
3. sanitation, including solid waste management,
4. efficient urban mobility and public transport,
5. affordable housing, especially for the poor,
6. robust IT connectivity and digitalization,
7. good governance, especially e-Governance and citizen participation,
8. sustainable environment,
9. safety and security of citizens, particularly women, children and the elderly, and
10. Health and education.

The concept of smart cities originated at the time when the entire world was facing one of the worst economic crises. In 2008, IBM began work on a 'smarter cities' concept as part of its Smarter Planet initiative. By the beginning of 2009, the concept had captivated the imagination of various nations across the globe. o Countries like South Korea, UAE and China began to invest heavily into their research and formation. Today, a number of excellent precedents exist that India can emulate, such as those in Vienna, Aarhus, Amsterdam, Cairo, Lyon, Málaga, Malta, the Songdo International Business District near Seoul, Verona etc.

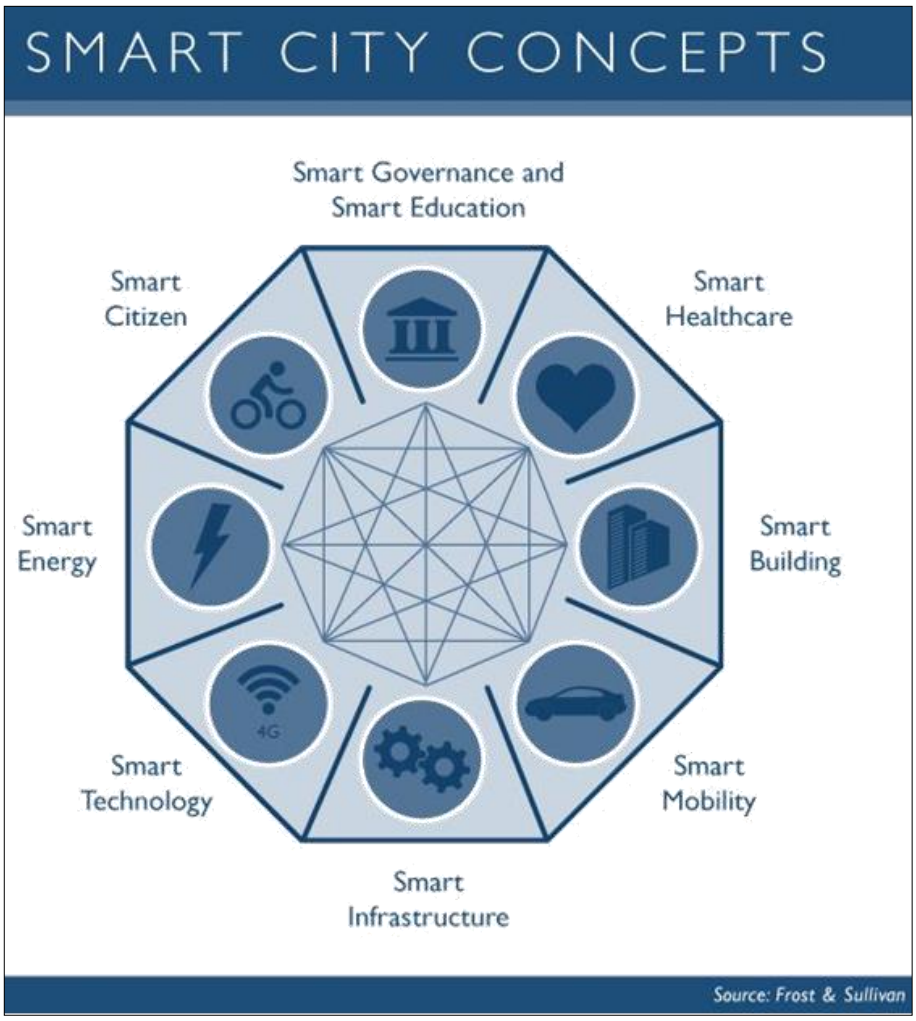

Fig 1

Smart city mission

The Smart Cities Mission is an innovative and new initiative by the Government of India to drive economic growth and improve the quality of life of people by enabling local development and harnessing technology as a means to create smart outcomes for citizens. Under the Smart Cities Mission, each selected city would get central assistance of Rs.100 crore per year for five years. Smart City aspirants will be selected through a 'City Challenge Competition' intended to link financing with the ability of the cities to perform to achieve the mission objectives. Each state will shortlist a certain number of smart city aspirants as per the norms to be indicated and they will prepare smart city proposals for further evaluation for extending Central support.

This Mission of building 100 smart cities intends to promote adoption of smart solutions for efficient use of available assets, resources and infrastructure with the objective of enhancing the quality of urban life and providing a clean and sustainable environment. Special emphasis will be given to participation of citizens in prioritizing and planning urban interventions.

It will be implemented through 'area based' approach consisting of retrofitting, redevelopment, pan-city initiatives and development of new cities. Under retrofitting, deficiencies in an identified area will be addressed through necessary interventions as in the case of Local Area Plan for downtown Ahmedabad. Redevelopment enables reconstruction of already built-up area that is not amenable for any interventions, to make it smart, as in the case of Bhendi Bazar of Mumbai and West Kidwai Nagar in New Delhi. Pan-city components could be interventions like Intelligent Transport Solutions that benefits all residents by reducing commuting time. Smart City Action Plans will be implemented by Special Purpose Vehicles(SPV) to be created for each city and state governments will ensure steady stream of resources for SPVs.

Strategy

The strategic components of Area-based development in the Smart Cities Mission are city improvement (retrofitting), city renewal (redevelopment) and city extension (Greenfield development) plus a Pan-city initiative in which Smart Solutions are applied covering larger parts of the city.

1. Retrofitting will introduce planning in an existing built-up area to achieve Smart City objectives, along with other objectives, to make the existing area more efficient and liveable. In retrofitting, an area consisting of more than 500 acres will be identified by the city in consultation with citizens.

2. Redevelopment will effect a replacement of the existing built-up environment and enable co creation of a new layout with enhanced infrastructure using mixed land use and increased density.
3. Greenfield development will introduce most of the Smart Solutions in a previously vacant area (more than 250 acres) using innovative planning, plan financing and plan implementation tools (e.g. land pooling/ land reconstitution) with provision for affordable housing, especially for the poor.
4. Pan-city development envisages application of selected Smart Solutions to the existing city-wide infrastructure. Application of Smart Solutions will involve the use of technology, information and data to make infrastructure and services better.

The Smart City Mission will be operated as a Centrally Sponsored Scheme (CSS) and the Central Government proposes to give financial support to the Mission to the extent of Rs. 48,000 crores over five years i.e. on an average Rs. 100 crore per city per year. An equal amount, on a matching basis, will have to be contributed by the State/ULB; therefore, nearly Rupees one lakh crore of Government/ULB funds will be available for Smart Cities development. Comprehensive development occurs in areas by integrating the physical, institutional, social and economic infrastructure. Many of the sectoral schemes of the Government converge in this goal, although the path is different. There is a strong complementarily between the AMRUT and Smart Cities Mission in achieving urban transformation. While AMRUT follows a project-based approach, the Smart Cities Mission follows an area-based strategy.

Similarly, great benefit can be derived by seeking convergence of other Central and State Government Programs/Schemes with the Smart Cities Mission. At the planning stage itself, cities must seek convergence in the SCP with AMRUT, Swachh Bharat Mission (SBM), National Heritage City Development and Augmentation Yojana (HRIDAY)- External Website that opens in a new window, Digital India, Skill development, Housing for All, construction of Museums funded by the Culture Department and other programs connected to social infrastructure such as Health, Education and Culture.

Challenges

Traditionally, initiatives like Smart Cities are indicators of developed economies. A developing country will become a developed one when its citizens upgrade and update themselves. The mission focuses on the technology overlaying the basic infrastructure that will be built in right places and in sufficient quantity in the cities. However, the vital aspect — the citizens who live and work in these cities — must be integral to the implementation process as well. The success of this initiative is firmly vested in smart citizens. A Smart City connects people with their environment and allows it to create more efficient and optimal relationships between available resources, technology, community services and events in the urban fabric. This connection is a tool that links the implementation of the smart city and the proposed technology. The aspects to be followed to make the Smart City mission successful through smart citizens across India. i.e. Citizen participation, joint engagement of citizen and government, technology support

The smart city concept implies an oversimplified vision of technology. It is based on the belief that technology can solve any problem without fundamentally changing lifestyles. Given a country as diverse as India, the heterogeneity of its cities cannot be accommodated in a linear vision backed by technology. The combined funding from the union and state governments, as well as the urban local bodies, for all cities is less than Rs 1 lakh crore. This is a disproportionately small sum for the scale of ambition involved in a project to develop 100 Smart Cities. Smart city project along with other city development initiatives have sidelined state ministries and agencies by establishing direct contact and transfer of funds. The municipal commissioners, who are trained to administer the city services, are struggling to make the transition in their roles from city administrator to a city planner.

Implementation has been weakest link of urban infrastructure projects. Nearly 54 percent of such projects taken up in major cities under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) are yet to be completed. Same could be the fate with Smart Cities. o JNNURM partially relied on private sector investments to speed up its implementation. However, private investors refused to come forward. Out of 2,900 JNNURM projects, only 50 projects were backed by the PPP model, with a private sector capital investment of just about Rs. 1,000 crore, which barely covered 0.2 percent of the total project cost. The total estimate of investment requirements for the smart city comes to Rs 7 lakh crore over 20 years which translates into Rs.35000 crore annually. Raising this capital from private players will require huge efforts on part of government. Most ULBs have limited technical capacity to ensure timely and cost-effective implementation and subsequent operations and maintenance of smart city projects owing to limited recruitment over a number of years along with inability of the ULBs to attract best of talent at market competitive compensation rates. For timely completion of the project, all clearances should use online processes and be cleared in a time bound manner. Considering the delays in earlier projects its challenging to secure timely clearances. Building capacity for 100 smart cities is not an easy task and most ambitious projects are delayed owing to lack of quality manpower, both at the centre and state levels. The allocation made for capacity building is meager as compared to the requirement over next five years.

Another challenge is pollution. The report of high pollution levels of Indian cities comes at a time when the government has set an ambitious plan to build 100 smart cities across the country. Interestingly, out of the 100 cities that have been shortlisted to be built as smart cities, 17 of them figure in the 100 most polluted cities in the world. So, while use of technology, better modes of transportation, up gradation of civic amenities and improvement of the urban infrastructure will form a part of the smart city mission, the government and the municipal bodies will also have to focus on improving the air quality in those cities.

Conclusion

1. To speed up growth for a slowing economy and create a consuming class of city dwellers, the role of a municipal

body is crucial. Since the Smart City initiative is cutting out aggressive State spending, municipalities have to generate funds from private investors and take capacity building measures to initiate big projects.

2. Before jumping into the deep end with urbanizing 100 small towns that have met the "smart city" criteria, the government should consider whether its financing model is feasible. And simultaneously mayors and commissioners should be trained to design new projects and tap into local resources. Otherwise, the Smart City Mission will turn into an unattractive proposition right from the municipal level, which is its core.
3. In this era of digitization, it is interesting to see the nation's leader envision such a future. On paper, the initiative seems to be an ideal plan for the poverty stricken economy, but given the high levels of bureaucracy, it will be interesting to see how it plays out. The move is very much in the right direction; execution, however, will be key.

References

1. Minisrty of Urban Development and Poverty Elivation, Government of India.
2. Niti Aayog, Government of India.
3. Smartnet, Ministry of Housing and Urban Affairs.
4. http://visionias.in/home/resources/open_doc/current_affairs/imp_issues/Smart_Cities
5. http://indianexpress.com/article/india/india-news-india/of-100-smart-cities-17-figure-in-the-list-of-whos-most-polluted-2799622
6. http://indianexpress.com/article/india/india-news-india/creating-synergy-smart-citizens-to-be-a-crucial-part-of-smart-city-plan-2788174/
7. https://india.gov.in/spotlight/smart-cities-mission-step-towards-smart-india
8. http://smartcities.gov.in