Need Of Smart City Mission For Resolving Present Day Urban Problems

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Abstract

This research paper has focused on the problems of cities that are creating the need for implementation of the smart City mission. Secondly the implementation of smart City mission is focused to understand it's relevance along with the accomplishments. Here only the positive aspect of smart City mission is focused.

Introduction

Due to Increase in the population of cities because of migration and high birth rate there is an increase in urban problems like traffic issues, housing, transportation. In India, as per census 2001, about 307 million people have been reported as migration by place of birth. Out of them about 259 million (84.2%), migrated from one part of the state to another, i.e., from one village or town to another village or town. 42 million (2%) from outside the country. The data on migration by last residence in India as per Census 2001 shows that the total number of migrants has been 314 million. Out of these migrants by last residence, 268 million (85%) has been intra-state migrants, those who migrated from one are of the state to another. 41 million (13%) were interstate migrants and 5.1 million (1.6%) migrated from outside of the country.[1]

In India out of the total population of 1210.2 million as on 1st March, 2011, about 377.1 million are in urban areas. The net addition of population in urban areas over the last decade is 91.0 million. The percentage of urban population to the total population of the country stands at 31.6. There has been an increase 3.35 percentage points in the proportion of urban population in the country during 2001-2011.

The provisional results of Census 2011 reveals that there is an increase of 2774 towns comprising 242 Statutory and 2532 Census towns over the decade. Growth rate of population in urban areas was 31.8%.[2]

During the year 2009, 115 million vehicles were plying on Indian roads (Table 1). According to the statistics provided by the Ministry of Road Transport & Highways, Government of India, the annual

rate of growth of motor vehicle population in India has been around 10% during last decade. The basic problem is not the number of vehicles in the country but their concentration in

a few selected cities, particularly in metropolitan cities. From 1999 to 2009, number of vehicles per 1000 people in metropolitan cities has increased more than two-fold from 132 to 286.[3]
N.Mani "focuses on policies and programmes of the government in dealing with the challenges due to rising urbanization. Migration of rural people to urban areas in search of employment is included as a major problem".[4]

The Research question of the study are

1. What are the conditions of Indian cities, causing problems to infrastructure?

2. How can smart city missions help in solving the problem of infrastructure?

Under the theoretical part some of the major challenges are focused and it is analyzed if the smart city mission is resolving the challenges or not. For the purpose of the study statistical data is used.

Population growth

Among all the States and Union territories, the National Capital Territory of Delhi and the Union territory of Chandigarh are most urbanized with 97.5 percent and 97.25 percent urban population respectively, followed by Daman and Diu (75.2 percent) and Puducherry (68.3 percent).

Among States, Goa is now the most urbanized State with 62.2 percent urban population, a significant increase since 2001 when urban population of Goa was 49.8%. Another significant instance of rapid urbanization is that of Kerala, its urban population is now 47.7 per cent, while a decade ago it was just 25.9 percent. Among the North-Eastern States, Mizoram is most urbanized with 51.5 per cent urban population, though in terms of absolute contribution to total urban population in the country, Mizoram's contribution is just 0.1 percent. Similarly, Sikkim, which was just 11.0 urbanized a decade ago became almost 25 percent urbanized in 2011. Among major states, Tamil Nadu continues to be the most urbanized state with 48.4 percent of the population living in urban areas followed now by Kerala (47.7 per cent) upstaging Maharashtra (45.2 percent). The proportion of urban population continues to be the lowest in Himachal Pradesh with 10.0 per cent followed by Bihar with 11.3 percent, Assam (14.1 percent) and Orissa (16.7 percent).

In terms of absolute number of persons living in urban areas, Maharashtra continues to lead with 50.8 million persons which comprises 13.5 percent of the total urban population of the country. Uttar Pradesh accounts for about 44.4 million, followed by Tamil Nadu at 34.9 million.[5]

Migration

In Ghatkopar, a suburb of Mumbai, migrants from drought-prone districts in Marathwada arrive every year. They work in the construction industry and live in makeshift shacks. Based on the sugarcane cycle, they usually migrate in November to harvest cane and earn a lump-sum (of about ` 50,000) in the four to five months following the monsoon. In summers, they come to bigger cities for another four months for temporary but relatively high-wage jobs in construction[6]

Traffic Problem

About 55 million vehicles were playing on Indian roads in 2001. The annual rate of growth of motor vehicle population in India has been about 10% during the decade (1991-2001), It is seen that two wheelers are growing faster than cars.[7]

Housing

Nationally, the government estimated a shortage of over 18.78 million homes in 2012, of which 95per cent were in the EWS (economically weaker sections) and LIG (low-income group) segments. This is expected to reach 30 million by 2022. This ever-increasing gap between demand and supply in the affordable-housing segment is forcing people to live in slums and illegal colonies. Urban housing shortage is primarily driven by EWS and LIG categories, yet capacity addition has been primarily in the middle-income group (MIG) and the high-income group (HIG) by real estate developers due to higher returns from these projects. High land costs, delay in project approvals, increasing building material costs and low profit margins have made low-cost housing projects less attractive to private developers. Besides, housing (including affordable housing) being a state subject, creates complexities in implementation because of precarious financial condition of development authorities, state/city-level agencies, and their limited capacities in handling these projects. For successful implementation of affordable housing projects, collaboration and coordination between the central government, state government, urban local bodies, private sector, and financial institutions is necessary.

Waste Management

With fast pace of urbanization in the country, the Management of Solid Waste has posed a tough challenge to Municipal Authorities and Policy Makers at different levels in Government. At present, Urban India produces about 54.75 million Tons of municipal solid waste annually i.e., 1.50 Lakh Tones Per Day (LTPD). Per capita waste generation in cities varies from 0.20 kg to 0.60 kg per day depending upon the size of population. The waste collection efficiency in India ranges between 70% and 90% in major Metro cities, whereas, in several smaller cities it is ranging between 50% to 70% or so.[8]

Solution of urban problems with the help of Smart City Mission

Waste management

- 100% MSW processed (300 TPD), including Wt E plant.
- Less than 5% residue to SLF.
- Residential door-to-door MSW collection improved to 100% in 2015 from 60% in 2012.
- Started construction of decentralized 70 TPD (1.4 MW) waste-to-energy plant.
- Commissioned 100% mechanization of MSW collection & transportation in 2015 (16 compactors, 28 auto-tippers & 12 open tipper trucks with GPS) in PPP mode.
- Commissioned 4 machines (8 TPD) to convert horticulture waste to fuel pellets in 2014.

- Increased composting capacity to 30 TPD by adding 21 composting pits in 2013-15.
- Introduced mechanized sweeping & mechanized sewer cleaning in 2013-15.
- Created field offices for Safai Karma Charis in 2015 (First in India).

Transportation

- Modernized 77 parking lots with handheld online ticketing machines and mobile app.

- Commissioned in 2012 automated multilevel car parking with 1408 and 800 ECS in BKS Marg and Sarojini Nagar respectively in PPP mode.
- Commissioned in 2014 multilevel car parking with 750 ECS at Shivaji Stadium.
- Constructed 11 Kms central verge in 2012-2014 at Mother Teresa Road, BHS Marg & South Avenue roads.
- Commissioned PELICAN signals for pedestrians at C-Hexagon & Africa Avenue.
- Constructed 8 TSR & taxi stands (signages & lots) at metro entry & exit points.
- Constructed cycle tracks of 1.4 kms at Lodhi Road

Housing

- Commissioned online property tax (PT) collection mechanism, citizens can access the portal with their unique property number.
- Collection of PT increased to INR 370 Cr in 2014-15 from INR 286 Cr in 2011-12.
- Online building plan approval system being commissioned & trials in progress.
- Online electricity/water bill & property tax payment facility implemented during 2013-14.
- Started construction of 240 EWS units at Bakkarwala in 2013 & 90% completed.
- Constructed 296 residential quarters at Bapu Dham for Safai Karmacharis in 2012-15.
- 60% digitization of building plans completed during 2013-15 for record management. [9]

Conclusion

As urban population is increasing and the development taking place with the help of available resources is not enough to maintain such a big population. So, there is a need for change in the infrastructure of cities. For changing the infrastructure there is a need for programs like Smart City Mission. Here in this paper the various rising challenges are discussed along with the methods used for solving these challenges. As the mission is not yet complete and the negative result cannot be discussed, the focus of the paper is on the issues and methods adopted for their solution. Not every challenge is yet fully resolved but good efforts are made by the government to remove them.

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