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# 'Smart Cities in India: The Road Ahead'

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# Understanding the Importance of People-Centric Smart City Initiatives

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**Abstract :** The Concept of Smart City has got different perspectives in different time frames. Traditionally, use of technology for better governance, creating facilities for public and facilitating administration are considered as smart city development initiatives. However, this view focused more on developing sophisticated technology, creating and maintaining data-base, advanced computing etc which is part of 'Internet of Thing' (IoT). Such approach however, has resulted into involvement of high cost and less returns, leading to under-delivery of potential benefits of smart city concept especially for the general public.

In order to reach its full potential, the smart city initiatives requires more and more a people-centric initiatives which is about citizens living in there and which is centered around their needs and problems which they face. The smart city initiatives studied here are about reaping full potential of digital technology centered around public. These public centric initiatives are about involvement of public in its development and implementation. These public centric initiatives are also cheaper, modular and they seek solution to the problems faced by general public. In other words, these people centric smart city initiatives are about 'collaborative technology' that brings about collaboration among urban communities, citizens and city governments.

This paper is an attempt to study the importance of such people centric smart city initiatives in the context of Government of India's Smart City Mission and find out whether this mission has made any provision for the people centric smart city initiatives

**Keywords:** Smart city, Government of India, People Centric Initiatives

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## 1. Introduction:

Even though there is no single definition of Smart City available, Government of India's Smart City Mission defines Smart City in this following manner: "Smart city' is a city equipped with basic infrastructure to give a decent quality of life, a clean and sustainable environment through application of some smart solutions. Creating smart cities would entail development of basic infrastructure like adequate water supply, electricity supply, sustainable sanitation and solid waste management mechanism, efficient urban mobility, affordable housing and ensuring robust IT connectivity and e-governance."

Another important definition given by Deakin and Al Wear lists following four important factors that contribute to the definition of a smart city:

- The application of a wide range of electronic and digital technologies to communities and cities
- The use of ICT to transform life and working environments within the region
- The embedding of such Information and Communications Technologies (ICTs) in government systems

- The territorialisation of practices that brings ICTs and people together to enhance the innovation and knowledge that they offer.

Currently, the concept of Smart City has generated high level interest in India with government projecting 'The Smart City Mission' as a much sought way of economic growth. The Smart City project is hailed as an engine of growth for the Indian economy. One of the major causes behind this notion is rapid urbanization that is taking place in India. According to census 2011, nearly 31% of India's population lived in urban areas and contributed about 63% of India's GDP. With current rate of urbanization, urban areas in India are expected to accommodate about 40% of India's population and contribute nearly 75% to India's GDP by the year 2030. This rapid urbanization will requires comprehensive development of physical, institutional, social and economic infrastructure in the urban areas to improve the quality of life of people and to attract investments in the city. Smart City development can be considered as a step towards this direction.

## 2. Research problem:

The Concept of Smart City has got different perspectives in different time frames. Traditionally, use of technology for better governance, creating facilities

for public and facilitating administration are considered as smart city development initiatives. However, this view focused more on developing sophisticated technology, creating and maintaining data-base, advanced computing etc which is part of 'Internet of Thing' (IoT). Such approach however, has resulted into involvement of high cost and less returns, leading to under-delivery of potential benefits of smart city concept especially for the general public.

In order to reach its full potential, the smart city initiatives requires a people-centric initiative about citizens living in there and their needs and problems. The smart city initiatives studied here are about reaping full potential of digital technology centered around public. These public centric initiatives are about involvement of public in its development and implementation. These public centric initiatives are also cheaper, modular and they seek solution to the problems faced by general public. In other words, these people centric smart city initiatives are about 'collaborative technology' that brings about collaboration among urban communities, citizens and city governments.

This paper is an attempt to study the importance of such people centric smart city initiatives in the context of Government of India's Smart City Mission and to find out whether this mission has made any provision for the people centric smart city initiatives

### **3. Objectives:**

The study attempts to understand provisions of Smart City Mission of Government of India to find out points related to development of people-centric Smart City initiatives and study the importance of having such initiatives from the point of view of Government's mission of development of Smart Cities.

### **4. Research Methodology:**

The present study study is related to the provisions of Government of India's Smart City Mission and find out whether there are provisions regarding development of People Centric Smart City initiatives. Further, the paper makes a point to know the importance of developing such people centric initiatives. Thus, the source of data used for the study is purely secondary which includes Government of India's Smart City Mission Documents; scholarly articles published in Journals, newspaper etc., informative websites and so on.

## **5. Overview of Government of India's Smart City Mission:**

The Government of India's flagship "Smart Cities Mission" was launched on June 25, 2015, to create 100 Smart Cities in India and announced the first list of 20 cities in January 2016. It then offered a special fast-track window for 23 cities that were rejected in the first round to upgrade their proposals, out of which, 13 cities were selected on May 24, 2016. In the second round, 27 more smart cities were announced in September 2016. The list of smart cities in the third round was announced on June 23, 2017. A total of 45 cities have participated in the third round of Smart City challenge, of which 30 will be selected to be developed as smart cities. The names of 30 new cities will take the total smart cities count to 90.

The Smart Cities Mission has adopted Area-Based Development (ABD) in which it includes 4 strategic components to prepare :

**A. City improvement (retrofitting):** Identify an area of more than 500 acres and prepare a plan to make it more efficient and liveable with citizens' participation.

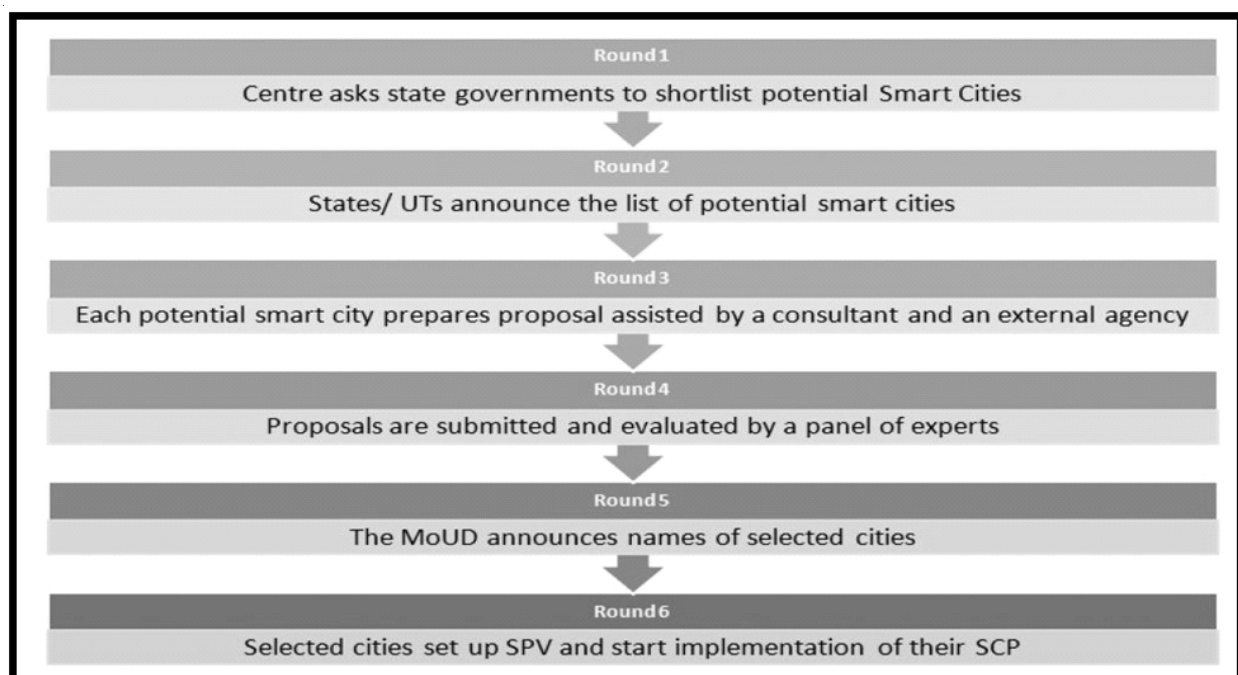
**B. City renewal (redevelopment):** Replace existing built-up area (50 acres) and prepare a new layout plan with enhanced infrastructure by way of mixed land use.

**C. City extension (Greenfield development):** Introduce smart solutions in an area of 250 acres by using innovative planning

**D. A pan-city initiative:** In this initiative smart solutions are applied covering larger parts of the city. Use technology, information and data to make existing city-wide infrastructure and services better. For example, initiating waste water recycling and smart metering which can make a substantial contribution to better water management in the city.

Despite above it is needed to be noted that, the government does not prescribe any particular model to be adopted by the Smart Cities. The approach is not 'one-size-fits-all'. Each city has to formulate its own concept, vision, mission and plan (proposal) for a Smart City that is appropriate to its local context, resources and levels of ambition.

Given below is the selection process of the Smart Cities:



Thus, Ministry of Urban Development (MoUD), only selects names of the Smart Cities and the implementation needs to be done by city government itself with Special Purpose Vehicle (SPV) to implement Smart City Plan (SCP). The SPV plans, appraises, approves, releases funds, implements, manages, monitors and evaluate the Smart City projects. Each smart city has a SPV headed by a full time CEO and has nominees of Central government, state government and Urban Local Body on its Board.

As far as financing is concerned, the SCM is operated as a Centrally Sponsored Scheme (CSS) and the Central Government proposes to give Rs 48,000 crores over five years, with an average Rs 100 crore per city per year. As States/ULBs have to contribute a matching amount, total amount likely to be allocated for Smart Cities development will be about Rs one lakh crore. The project cost of each SCPs varies depending upon the level of ambition, model and capacity to execute and repay. The funds from the Centre and the matching contribution by the States/ ULB will meet only a part of the project cost. Balance funds are expected to be mobilised from private sector through public-private partnerships (PPPs). The chart given below explains distribution of funds for the Smart City Mission:

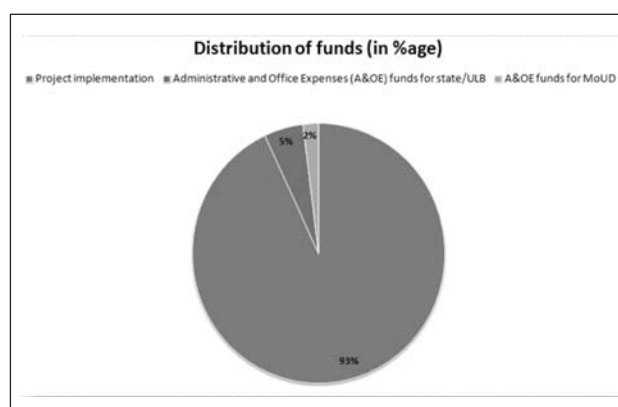


Table given below shows the details of how much amount has been approved for the 60 cities selected under Smart City Mission:

Selection Rounds	Total cities	Total urban population impacted	Total cost of Projects (in Cr.)
Round 1	20	37,308,257	48,064
Fast track	13	9,451,131	30,229
Round 2	27	25,506,844	55,471
<b>Total</b>	<b>60</b>	<b>7,22,66,232</b>	<b>1,33,764</b>

From the above analysis of the Smart City Mission of Government of India, it becomes clear that he

scheme speaks nothing clearly about the development of people-centric technological initiatives. It neither makes any provision regarding the same nor does it compel city government to do so. However, current world Smart City experience has proved that people-centric technological initiatives are the best solution to involve citizens in Smart City development.

## **6. Importance of People-centric Smart City Initiatives:**

**A. Support in decision-making:** People-centric Smart City Initiatives facilitates the identification of the needs of the city population through their involvement in day to day governance of the city and the approach for new services to provide them with the support of city population.

**B. Creation of Smart Citizens:** The success of Smart City requires active involvement of citizens especially, smart citizens so that they can get maximum benefit out of smart initiatives. The People-centric Smart City Initiatives can provide an opportunity to create smart citizens.

**C. Promotes innovation:** People-centric Smart City Initiatives provides an ideal platform for innovating, incubating new ideas and, in general, promoting social developments which can be beneficial to large proportion of population. Eg. Vertical building garden in Paris was outcome of People-centric Smart City Initiatives called ‘**Madame Mayor I have an idea**’ in which people can give suggestions to the mayor of the city directly.

**D. Improved efficiency and quality of services:** It makes it possible to manage resources more efficiently and improve the quality of the services can be provided when there is involvement of citizens in a smart way.

**E. Provides information in real time:** People-centric initiatives enhance the awareness of citizens about the environment in which they live by providing information that flows in real time and, at the same time, improves the transparency of the administration.

**F. Management of the city’s infrastructures:** People-centric initiatives also help in management of public buildings and building automation, management

of public infrastructures and urban facilities, reporting of incidents by citizens, etc. E.g. ‘Wheelmap’ is one such initiative in which people update the places suitable for wheelchair in their area on given map.

**G. Reducing the gap between the government and citizens:** The smart city concept necessarily emphasises the inclusion of ICT solutions as part of its entire proposal. There are lot of People-centric initiatives in the form of apps and online platforms which are available to facilitate citizen participation in government efforts even in India, some of which are the Swachh Bharat Clean India mobile app, IPaidABribe.com, Safecity India, Next Bengaluru and Kumbhathon etc. Cities become more dynamic by the use of such platforms.

## **7. Conclusion:**

If a developing country like India wants to become a successfully developed country using Smart City Mission then its citizens also require themselves to be upgraded and update themselves to be smart citizens. Smart city initiatives also require such smart citizens to use such technologies. Thus, the most vital aspect under Smart City Mission should be the citizens who live and work in these cities and they must be integral to the implementation process as well. The success of the Smart City Mission is heavily dependent in smart citizens but further, for developing true smart citizens, development and awareness about smart solutions in the form of People-centric initiatives plays crucial role.

## **References:**

- <http://smartcities.gov.in/content/innerpage/what-is-smart-city.php>
- Deakin, Mark; Al Waer, Husam. (2011) “From Intelligent to Smart Cities”. *Journal of Intelligent Buildings International: From Intelligent Cities to Smart Cities.* , Great Britain.
- <http://smartcities.gov.in/writereaddata/SmartCityGuidelines.pdf>
- <https://atelier.bnpparibas/en/smart-city/article/parisians-encouraged-part-planning-city-s-future>
- <https://wheelmap.org/en/map#/?zoom=14>