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# Smart City Mission of India and Smart City AGRA

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**ABSTRACT**

Indian cities are like engines of growth which will help to make India a very advanced country, very soon the number of youths in India will be high, they will need a lot of new jobs. So the Indian government has launched the Smart City Mission to promote planned urbanization on a large scale to promote development and growth. This scheme will help to develop the cities of India, making them smart cities. This paper puts forward the strategies and guidelines for planned urbanization. This paper talks about the challenges coming in the way of making it modern and developed. We will give a brief description about Smart City Agra under Smart City Mission in this paper.

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## Introduction

The number of people living in India's cities is growing rapidly and is expected to continue rising. According to the Census of India report, India's urban population increased from 286 million in 2001 to 370 million in 2011 and will reach 590 million by 2030. This is because more and more people are moving from rural areas to cities in search of better job opportunities. Rural people are migrating not only to state capitals but also to tier 2 and tier 3 cities. As a result, cities are becoming overcrowded and need to improve infrastructure to accommodate the growing population.

Urban development must be comprehensive, involving development of physical, institutional, social and economic infrastructure. Comprehensive development is important to improve the quality of life and attract people and investments to cities, thereby starting a virtuous cycle of growth. Smart cities are urban ecosystem which are represented by which is represented by the four pillars of comprehensive

development — institutional, physical, social and economic infrastructure.. The Indian Government under the leadership of our Prime Minister Narendra Modi has initiated the 'Smart Cities Mission' – an urban renewal and retrofitting program with a mission to develop 100 cities all over the country in the next five years (FY 2015-16 to FY 2019-20) making them citizen friendly and sustainable.

A smart city is a place that uses technology and innovative ideas to improve the lives of the people who live there. Each city can decide what being a smart city means to them, depending on how advanced they are, how much they want to improve, and what their residents want. For example, in India, a smart city might focus on providing good infrastructure, a clean environment, and using smart solutions to make life easier. The government's Smart City Mission is a new way to make cities smart and inspire others to do the same. The goal is to create model cities that show how to develop in a sustainable and inclusive way and then help other cities do the same.

**Strategy**

In a smart city, important things include having enough water and electricity, keeping the city clean, and having good transportation. It is also important to have a place for everyone to live, the city must have good technology and people must be able to participate in decision making. Keeping the environment healthy, making sure everyone is safe, and having good healthcare and schools are also key parts of a smart city.

In the Smart City Mission, there are three main ways cities can improve: fixing existing areas, rebuilding old areas, and building new areas. They can also use smart technology in different parts of the city to make things better.

**Retrofitting** means making changes to an already built area to make it smarter and more efficient. The city will work with residents to choose an area of at least 500 acres for improvement. They will come up with a plan to upgrade the area's infrastructure and add new technology to make it a better place to live. This process can be done quickly and can be used in other parts of the city as well.

**Redevelopment** means changing and improving an area by building new things and making better use of land. It usually involves planning for a large area, such as a neighborhood, with input from the people who live there. Some examples of redevelopment projects are the Saifee Burhani Upliftment Project in Mumbai and the East Kidwai Nagar Redevelopment in New Delhi.

**Greenfield development** is when a completely vacant area is used to create new buildings and infrastructure, with a focus on smart and affordable solutions. GIFT City in Gujarat is a well-known example of greenfield development. Unlike redevelopment, greenfield developments can be located within the boundaries of a city or a particular urban development authority.

**Pan-city development** means using smart solutions to improve the city. This includes using technology and data to improve things like transportation and water management. For example, using smart traffic systems can make commuting easier and recycling wastewater can help save water. Overall, using smart solutions can make life better for everyone in the city.

The smart city proposal of each selected city must include plans to upgrade existing buildings, build new buildings or build afresh using environmentally friendly methods. The city must also include smart solutions that benefit everyone in the city, not just a specific region. In regions such as the Northeast and Himalayan states, only half of the proposed development area can be used for these projects.

**Smart Cities Selection Process**

1. A communication is to be sent to all state governments requesting the identification of potential Smart Cities in accordance with Stage-I criteria, which are determined by the distribution of Smart Cities across states and Union Territories as outlined by the Ministry of Urban Development (MoUD). This marks the commencement of the first phase of the intra-state competition.

2. Following the feedback received from the states and Union Territories, a list of 100 potential Smart Cities will be published. This will initiate the second phase of the nationwide competition.

3. Each identified potential Smart City will develop its proposal with the assistance of a consultant selected from a panel established by the MoUD, along with support from an external agency. Various organizations, including the World Bank, Asian Development Bank (ADB), Global Environment Facility (GEF), U.S. Trade and Development Agency (USTDA), Japan International Cooperation Agency (JICA), Department for International Development (DFID), Agence Française de Développement (AFD), KfW Bank, and UN Habitat, have expressed interest in providing assistance.

4. Proposals for Stage 2 must be submitted by the designated deadline, after which they will undergo evaluation by a panel of experts.

5. The cities that have been selected will be announced in Round 1.

6. The cities chosen as Smart Cities will establish a Special Purpose Vehicle (SPV) and commence the implementation of their Smart City Proposal (SCP), which includes the preparation of Detailed Project Reports (DPRs), tenders, and other necessary documentation.

7. Other cities will work on enhancing their proposals in preparation for the subsequent round of the Challenge.

**Special Purpose Vehicle (SPV)**

To ensure that smart city plans are implemented, a special team called a Special Purpose Vehicle (SPV) will be set up in each city. This team will be responsible for coming up with ideas, approving projects, and making sure they are completed. The SPV will have a CEO and government representatives to help make decisions. The state and local government will make sure the SPV is doing its job properly. The SPV will have enough money to support itself and be financially independent, which will help it borrow more money in the future. The government helps build things in a smart city that everyone can use, like roads and parks. They work with other companies to make sure these projects make money too.

A Special Purpose Vehicle (SPV) is a company created by the government and city council to work on projects together. Both the government and the city council will own half of the company. Other private companies can also invest in the SPV, but the government and the city council will always have the most control. The government will fund the SPV for specific projects, and this money can be used only for those projects. The government and the city council will decide how much money the SPV needs, and the government's contribution can be used as part of the city council's investment in the company. Initially, the SPV will start with a minimum capital of Rs 100 crore, with an option to increase it to Rs 200 crore with more funding from the government and the city council. The amount of money a city puts into a project can increase over time if necessary. This will help the city work closely with the state to ensure the project is successful. The project plan and responsibilities are listed in a document called Annex 5. A set of rules called the Articles of Association will also be included. The next step after choosing cities for the project is to set up a special group to manage it. This group can hire a consultant to help plan and carry out the project. They can also seek help from approved consulting firms. All procurement for the project will follow fair and clear rules. The city can use the guide created by the Ministry of Urban Development for smart city projects.

The government is providing funding to help make cities smart. They will give Rs 48,000 crore over five years, or Rs 100 crore for each city every year. States and urban local bodies will also have to contribute an equal amount, so a total of Rs 1 lakh crore will be available for the development of smart cities.

The cost of each smart city project will vary, depending on how big and ambitious it is, how it is carried out, and how it is paid for. The government will use grants from both the national and state levels to attract more money from different sources. The success of the project will depend on how well it can make money and attract lenders and investors. Some states have already set up financial organizations to help with funding, and others may do the same. The state or these organizations may also offer guarantees to help ease the project. Many smart city projects will be done through partnerships with private companies, and the organization in charge will have to handle this. The Indian government and states/cities will only pay for a portion of the project. The rest of the money needed will come from charging people to use the project, selling land, taking loans and other ways of raising funds.

States were given more money because they agreed to follow the Fourteenth Finance Commission's suggestions.

New ways of raising money for cities, such as selling bonds, pooling money together and using tax money as the city grows, are being used. Also, cities are being rated based on how well they manage their money. Borrowing from domestic and foreign financial institutions (including bilateral and multilateral agencies). States/UTs can also use the National Investment and Infrastructure Fund (NIIF), which was announced by the Finance Minister in the 2015 Budget speech and is likely to be set up this year. Attracting private sector through PPP.

The funds will be divided as follows: 93% for projects and 5% for administrative and office expenses incurred by the State or City Government in planning and implementing the smart city projects. iii. 2%

A&OE funds for MoUD (Mission Directorate and connected activities/structures, Research, Pilot studies, Capacity Building, and concurrent evaluation).

**Smart City Agra**

Smart City Agra is a project of the Government of India that aims to improve the city by improving the city's buildings, roads, and services. The city will come up with a plan to make a specific area better and more modern, while also using technology to make things better for everyone in the city.

Agra has long been an important city due to its location and history. People have lived here for thousands of years, even before it became a major city. Many different rulers and emperors have controlled Agra, including the Mughals who built famous buildings such as the Taj Mahal. Over time, Agra has seen many changes and different groups have taken over. Today, Agra is known for its historical sites and attracts tourists from all over the world.

Agra was selected to become a smart city in September 2016 under a competition called the Smart City Challenge. After this, a special team SPV called Agra Smart City Limited was formed to improve the city. This team is headed by an important government official and this team will decide on and implement projects to make Agra a better place to live. The plan to make Agra a smart city involves spending a lot of money to improve various parts of the city, such as the Taj Mahal and the Agra Fort. This project will cover a large area of land.

Citizen participation means that common people like you and me can get involved and have a say in decisions that affect our community. The people of the city held meetings, discussions and used social media to talk about what they would like to see in their smart city plan. A special website was created for people to give their opinions about what should be the focus of the city's development. The main topics people paid attention to were heritage, culture, toilets, waste management, safety and transportation. When cities plan to make themselves smart, they want the people who live there to help come up with ideas as well.

In the first part of the Smart City Challenge, children, schools, colleges and community groups in Agra shared their ideas and opinions on what they would like their city to be like. They collected 30,000 forms from them to learn about people’s vision and goals for Agra Smart City.

In Smart City Challenge Round 2, people of Agra were asked for their ideas on how to make their city better. They received over 1,12,000 suggestions from various groups like self-help groups, doctors and local artisans. The government also collected over 6,71,000 responses online and organised events like workshops and campaigns to involve more people. The mayor also led conversations to encourage people to share their ideas. The goal was to involve as many citizens as possible in planning the future of their city.

**Threats to Agra**

Pollution caused by the upper reaches of the Yamuna river can worsen the environmental condition of the city and damage historical monuments.

o As the Taj Mahal is an international tourist destination, security/terrorism related concerns are major concerns.

o Inadequate quality of life and living conditions may negatively impact tourist arrivals.

o Sensitivity to global economic scenario – Due to high dependence on foreign tourists, a global economic slowdown may have a negative impact on the city's economy.

The development areas in the Agra Smart City were selected based on analytical assessment and consultation with stakeholders. In the third challenge of the Smart City proposal, the areas have been narrowed down to the Taj Mahal and Tajganj areas, Agra Fort and its surrounding areas, and areas around Fatehabad Road, which is connected to the Inner Ring Road. This area was selected to integrate existing development activities and provide maximum benefits to residents and tourists, in line with the stated vision of becoming a tourist-friendly destination. The Agra Area-Based Development Plan will improve social equity and infrastructure for citizens, improve cultural heritage and tourism infrastructure for tourists, restore green spaces, and improve the quality of life for residents and people. Visitors experience key elements of the Agra Smart City Area Based Development Plan

**Theme #1: Linkage between Taj Mahal and Agra Fort**

• Development of tourist route between Taj Mahal and Agra Fort.

• Construction of a visitor centre and provision of a rechargeable tourist bus.

• Develop livelihood opportunities along the proposed route.

**Theme #2: Integrated development of Tajganj area**.

• Rehabilitation and improvement of living conditions in 22 slums.

• Rooftop solar power.

• Improvement of lesser-known monuments.

• Construction of Mughal Museum and Taj Orientation Centre.

• Creation of sustainable civic infrastructure (water, power)

• Tourism and transport facilities (Wi-Fi hotspots, digital signage, tourist kiosks, cultural trails, e-toilets, e-rickshaws, e-bikes)

• Soft components (festivals, evening cultural programmes at Agra Fort, improvement of structures on the façades of 49 cultural monuments) • Rejuvenation of green spaces (Shahjahan Park, Taj Nature Walk, Taj Park)

• Modernization of the Ark, My Tree Project) • Sustainable Development Survival Tools (Skill Development Centre, Night Market, Digital Literacy Centre) • Social Infrastructure and Security (CCTV, Women Crisis Centre, Police Kiosk, LED Lighting)

**Issue No. 3: Improved connectivity to Taj Mahal via Fatehabad Road.**

• Construction and improvement of road from Mall Road to Inner Ring Road.

The Agra Smart City Spatial Development Plan aims to achieve holistic impacts, which include not only economic benefits, but also governance, spatial, social and sustainability benefits.

**Measurable Impact of the Agra Smart City Development Program**

Management implications Improved water distribution. My Smart Card and Agra application. Central command and control point. Mobility. Waste management. Effective SPV.

Local -- Impact on revival of a heritage area. Taj parks and green areas. Taj Orientation Centre. Mughal Museum. International street cafes. Streets with shopping areas have been updated and facades have been improved. Tourist opportunities have been expanded.

Economic -- Impact: Improved living conditions for about 500 informal sector workers and about 8,000 artisans. Micro skill development centres. Landscaping, zoning, new tourist amenities and nightlife to increase tourist numbers.

Social -- Impact: Upgradation of slum areas through physical and social infrastructure. Modernization of city schools. Improved school sanitation. Improved road network and better accessibility. Training for advanced training of guides and artisans.

Impact of non-motorized transport on sustainability. Smart street lamps. Rooftop solar power. Rainwater harvesting. Improved drainage and sewerage systems. Open defecation free city. Improved road management, video surveillance and incident management.

Sustainable development is a plan created by many countries to make the world a better place by 2030. It focuses on taking care of the environment, helping the economy, and making sure everyone in society is happy and healthy. To reach these goals, we need to work together, have enough money, and make smart decisions. Building cities in a way that follows these principles is crucial for a better future.

Building sustainable cities is important, but balancing development with protecting the environment is not easy. Many cities in our country have grown quickly without any planning, harming nature and causing problems like water shortages and pollution. Fixing these issues and making sure that new developments are good for the environment is a big challenge. Poverty is also a big problem, with many people in India living on very little money. To make sure that everyone benefits from city development, we need to address poverty and inequality. States also play a key role in making sure that economic growth is fair to all.

Urban planners will focus on creating essential infrastructure such as roads, electricity, water supply and waste management systems that are environmentally friendly. This will help solve water shortage issues in Indian cities. They will also work on improving public transport systems to make them more efficient and connected. The development of smart cities will involve innovative planning to create green spaces, affordable housing and resilient infrastructure. The Ministry of Urban Development has provided guidelines for the development of smart cities, but there is flexibility in how cities can be designed.

## Conclusion

As urbanization accelerates, with projections indicating that nearly 600 million individuals will reside in urban India by 2030, cities have emerged as focal points for the most urgent economic, social, and environmental challenges facing society. Simultaneously, they present significant opportunities for fostering growth, innovation, and sustainable solutions. However, the landscape in which these cities operate has evolved considerably since the 1990s, marked by escalating energy costs, natural disasters,

environmental crises, global economic disparities, security threats, and a decline in urban social cohesion.

In light of these challenges, India is undertaking a bold initiative to modernize its urban environments amidst a complex and uncertain backdrop. It is imperative that strategies are pragmatic and leverage the latest technological advancements, with the aim of generating employment and bolstering economic activities while optimizing limited financial and human resources. A holistic urbanization strategy that emphasizes enhanced mobility and accessibility, effective urban design, equitable land management, and cohesive policy frameworks is essential. Such an approach will facilitate the development of integrated infrastructure systems that are sustainable, scalable, adaptable, and resilient over time, enabling Indian cities to evolve efficiently, sustainably, and inclusively, thereby enhancing urban living conditions and improving the quality of life for millions.

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