



## Extension of Smart Cities Mission

**For Prelims:** [Smart Cities Mission](#), [Centrally Sponsored Scheme](#), [Sustainable development](#), [Special Purpose Vehicle \(SPV\)](#), [Public-Private Partnership \(PPP\)](#), [Atal Mission for Urban, Rejuvenation and Urban Transformation \(AMRUT\)](#), [Pradhan Mantri Awas Yojana-Urban \(PMAY-U\)](#), [Climate Smart Cities Assessment Framework 2.0](#), [TULIP-The Urban Learning Internship Program](#)

**For Mains:** Smart Cities Mission: Significance & Challenges

[Source: TH](#)

### Why in News?

Recently, the Central Government has decided to extend the deadline for [Smart Cities Mission](#) till **31st March 2025**.

- Initially planned for completion by 2020, **the mission had already been extended twice.**

### What is the Smart Cities Mission (SCM)?

#### ▪ About:

- It is a [Centrally Sponsored Scheme](#), **launched in June 2015** to transform 100 cities to provide the necessary core infrastructure and clean and sustainable environment to enable a decent quality of life to their citizens through the application of "**Smart Solutions**".
- It aimed to improve the quality of life for citizens through sustainable and [inclusive development](#).

#### ▪ Components of the SCM:

##### ◦ Area-based Development:

- **Redevelopment (City Renewal):** Renewal of existing urban areas to improve infrastructure and amenities. E.g. Bhendi Bazar, Mumbai.
- **Retrofitting (City Improvement):** Upgrading infrastructure in existing areas to make them more efficient and sustainable. E.g. Local Area Development (Ahmedabad).
- **Greenfield Projects (City Extension):** Development of new urban areas with a focus on sustainability and smart technologies. E.g. New Town, Kolkata, Naya Raipur, [GIFT City \(Gujarat International Finance Tec-City\)](#).

##### ◦ Pan-City Solutions:

- Implementation of [Information and Communication Technology \(ICT\)](#) solutions across various sectors such as **e-governance**, **waste management**, **water management**, **energy management**, **urban mobility**, and **skill development**.

### ▪ **Governance Structure:**

- To enhance effectiveness, a new governance model was adopted.
  - A **Special Purpose Vehicle (SPV)** was created under the **Companies Act, 2013** led by a bureaucrat or a representative of a **Multinational Corporations (MNC)**.

### ▪ **Financing of Smart Cities:**

- The SCM receives **Rs. 48,000 crores over 5 years** from the Central Government, averaging **Rs. 100 crore per city per year**.
- States and **Urban Local Bodies (ULB)** are required to **contribute an equal amount**, resulting in a total of nearly Rs. 1 lakh crore for Smart Cities development.

### ▪ **Convergence with Other Government Schemes:**

- The SCM can be strategically converged with other Central and State Government programs to utilise its full potential.
- **Benefits of Convergence:**
  - Combining resources and objectives of SCM with schemes like **AMRUT (urban transformation)**, **Swachh Bharat Mission (cleanliness)**, **HRIDAY (heritage city development)**, **Digital India**, **Skill Development**, and **Housing for All** leads to a **more comprehensive approach**.
  - Existing funds and infrastructure from various schemes can be leveraged to **achieve common goals** within the SCM framework.
  - Convergence ensures **social infrastructure** (health, education, culture) is **addressed alongside physical infrastructure development** in smart cities.

## What is a Smart City?

- A Smart City is a concept that refers to the **use of technology, data, and innovative solutions** to **improve the efficiency, sustainability, and quality of life** in urban areas.
- Core Infrastructure Elements of a Smart City include:
  - Adequate water supply,
  - Assured electricity supply,
  - Sanitation, including solid waste management,
  - Efficient urban mobility and public transport,
  - Affordable housing, especially for the poor,
  - Robust IT connectivity and digitalisation,
  - Good governance, especially e-Governance and citizen participation,
  - Sustainable environment,
  - Safety and security of citizens, particularly women, children and the elderly, and
  - Health and education.

# Smart Solutions

## E-Governance and Citizen Services

- 1 Public Information, Grievance Redressal
- 2 Electronic Service Delivery
- 3 Citizen Engagement
- 4 Citizens - City's Eyes and Ears
- 5 Video Crime Monitoring

## Waste Management

- 6 Waste to Energy & fuel
- 7 Waste to Compost
- 8 Waste Water to be Treated
- 9 Recycling and Reduction of C&D Waste

## Water Management

- 10 Smart Meters & Management
- 11 Leakage Identification, Preventive Maint.
- 12 Water Quality Monitoring



## Energy Management

- 13 Smart Meters & Management
- 14 Renewable Sources of Energy
- 15 Energy Efficient & Green Buildings

## Urban Mobility

- 16 Smart Parking
- 17 Intelligent Traffic Management
- 18 Integrated Multi-Modal Transport

## Others

- 19 Tele-Medicine & Tele Education
- 20 Incubation/Trade Facilitation Centers
- 21 Skill Development Centers

## Note:

Cities accommodate nearly 31% of India's current population and contribute 63% of **Gross Domestic Product (GDP)** as per **Census 2011**. Urban areas are expected to house 40% of India's population and contribute 75% of India's GDP by 2030.

## What are the Challenges Faced by the Smart Cities Mission?

- **Lack of Clarity in Definition:** The SCM has acknowledged the lack of a universal definition for the term "smart city." This recognition reflects the understanding that each city's vision for a smart city is shaped by its unique local contexts and aspirations. However, this ambiguity in the conceptualisation of a smart city poses a challenge in effectively allocating resources and prioritizing projects.
  - The conceptualisation of a Smart City **varies significantly from one city to another, and even from country to country**. These differences are influenced by factors such as the level of development, the willingness to embrace change and reform, the availability of resources, and the aspirations of the city's residents.
- **Delay in Project Completion:** Despite the extension of the deadline, a significant number of projects (**around 10%**) are **still incomplete**, indicating delays in execution. This can be attributed to factors such as **inadequate planning, lack of technical expertise, and issues in land acquisition and clearances**.
- **Inadequate Funding and Its Utilisation:** While **74 cities have received 100% of their central share, 26 cities are yet to get the full funding due to the slow progress of projects**.

- The SPV model adopted for smart city projects has faced objections due to its misalignment with the [74th Constitutional Amendment](#). This has **resulted in criticism of the top-down governance structure of the smart city initiatives**.
- **Lack of Coordination:** Effective coordination between the central, state, and local governments has been a challenge due to **differences in priorities, bureaucratic hurdles, and lack of clarity in roles and responsibilities** that have hindered the seamless implementation of the mission.
- **Sustainability Concerns:** There are doubts about the **long-term sustainability** of the smart city projects, as many of them focus on **technology-driven solutions** rather than addressing the **fundamental issues of urban planning and governance**.
- **Displacement and Social Impact:** According to the [World Bank](#), in urban areas of India more than **49% of the population live in slums**.
  - The execution of smart city projects **has led to the displacement of residents in poorer areas, such as street vendors**, disrupting the fabric of urban communities. Infrastructure development in certain towns has contributed to increased urban flooding due to disruptions in water channels and contours.

## What Should be the Steps Taken to Strengthen Smart Cities Mission?

- **Effective Governance and Implementation: Appointing CEOs with fixed tenures ensures continuity and attracts qualified professionals. Stakeholder representation, including experts and [Member of Parliaments \(MPs\)](#), fosters inclusive decision-making.**
- **Strategic Project Focus:** The SCM digital infrastructure is expected to generate and utilise vast amounts of data from diverse sources. Therefore, it is necessary that a robust system should be implemented to protect these platforms from cyberattacks and guarantee adequate protection for sensitive public and private data.
- **Data Security and Upgradation:** Establish robust digital infrastructure protection to counter cyber threats and safeguard data privacy.
  - Develop comprehensive **Operation and Maintenance (O&M) strategies** to maximise infrastructure lifespan and ensure timely upgrades.
- **Building Capacity and Funding:** Strengthen **Urban Local Bodies (ULBs)** in smaller cities through capacity building programs. Central government assistance can be crucial for organisational restructuring and skill development.
- **Ensuring Project Completion:** The Ministry's role should extend beyond fund allocation. **Active monitoring and providing expertise** for timely project execution are essential.
- **Global Knowledge Sharing:** India's focus on sustainable urban development positions it to guide similar projects in developing nations (Example: **Gelephu Smart City Project in Bhutan**).
  - The Gelephu Smart City Project aims to create an economic corridor connecting **South Asia with Southeast Asia** through **India's northeastern States**. It will prioritise environmental standards and sustainability, seeking quality investment from specially screened international companies.



# SMART CITIES MISSION

## About

- **Launched:** 2015
- **Nature:** Centrally Sponsored
- **Nodal Ministry:** Ministry of Housing & Urban Affairs
- **Implemented through:** Special Purpose Vehicles (SPVs) at city level
- **Mission Deadline:** Extended to June 2023
- **Coverage:** Developing 100 selected cities as Smart Cities

## Six Fundamental Principles

- Citizen at the core
- More from Less
- Cooperative and competitive federalism
- Integration, innovation & sustainability
- Technology as means, not the goal
- Convergence

## SMART SOLUTIONS

### E-Governance and Citizen Services

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- Electronic Service Delivery
- Citizen Engagement
- Citizens-City's Eyes and Ears
- Video Crime Monitoring



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- Smart Meters & Management
- Renewable Sources of Energy
- Energy Efficient & Green Buildings



### Waste Management

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- Waste to Compost
- Waste Water Treatment
- Recycling and Reduction of Waste



### Water Management

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▪ 60% projects have been completed so far ▪

## Challenges

- **Managing Finance:** Difficulty in mobilising funds, transferring them to SPVs, and using them efficiently
- **Urban Problems:** Like air pollution, road congestion & decline in public transport
- **Policy Issues:** Like hindrances in getting environment clearances
- **Data privacy and security**
- **Lack of Center-State Co-ordination**

## Way Ahead

- **Decentralisation:** Planning at Municipal & state level for better implementation
- **Policy Issues:** Like red-tapism, environmental clearances need to be taken care of
- **PPP Model:** For better administrative & technological capabilities
- **Integrated Approach:** For holistic development of transportation, energy, housing
- **Promote Citizen Engagement**



## Drishti Mains Question:

Q. What is the Smart Cities Mission? What are the challenges faced by this and suggest the measures to address these challenges.

## UPSC Civil Services Examination, Previous Year Question (PYQ)

### Mains:

Q. With a brief background of quality of urban life in India, introduce the objectives and strategy of the 'Smart City Programme.' (2016)

PDF Refernece URL: <https://www.drishtias.com/printpdf/extension-of-smart-cities-mission>

