Smart Cities
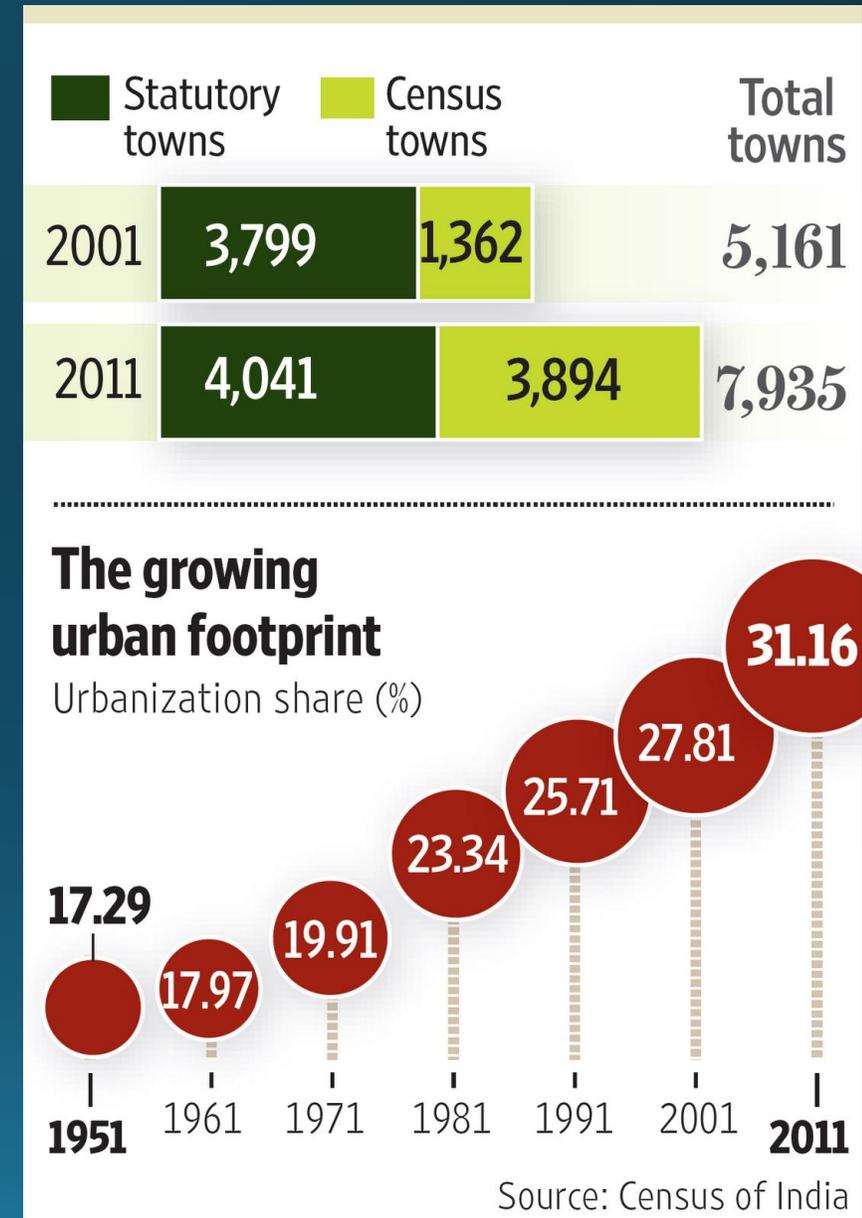
Investment & Technology Promotion (ITP) Division,

Ministry of External Affairs

Government of India

Investments & Technology Promotion Division, Ministry of
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Challenge of Urbanization

- 31% of India's population lives in urban areas - contributes 63% of India's GDP (Census 2011).

- By 2030, urban areas are expected to house 40% of India's population and contribute 75% of India's GDP.

- **What is needed**: Comprehensive development of physical, institutional, social and economic infrastructure.

- **Goal**: Improving the quality of life and attracting people and investments to the City, setting in motion a virtuous cycle of growth and development.

- **Solution**: Development of Smart Cities

	Statutory towns	Census towns	Total towns
2001	3,799	1,362	5,161
2011	4,041	3,894	7,935

The growing urban footprint

Urbanization share (%)

17.29 (1951)
17.97 (1961)
19.91 (1971)
23.34 (1981)
25.71 (1991)
27.81 (2001)
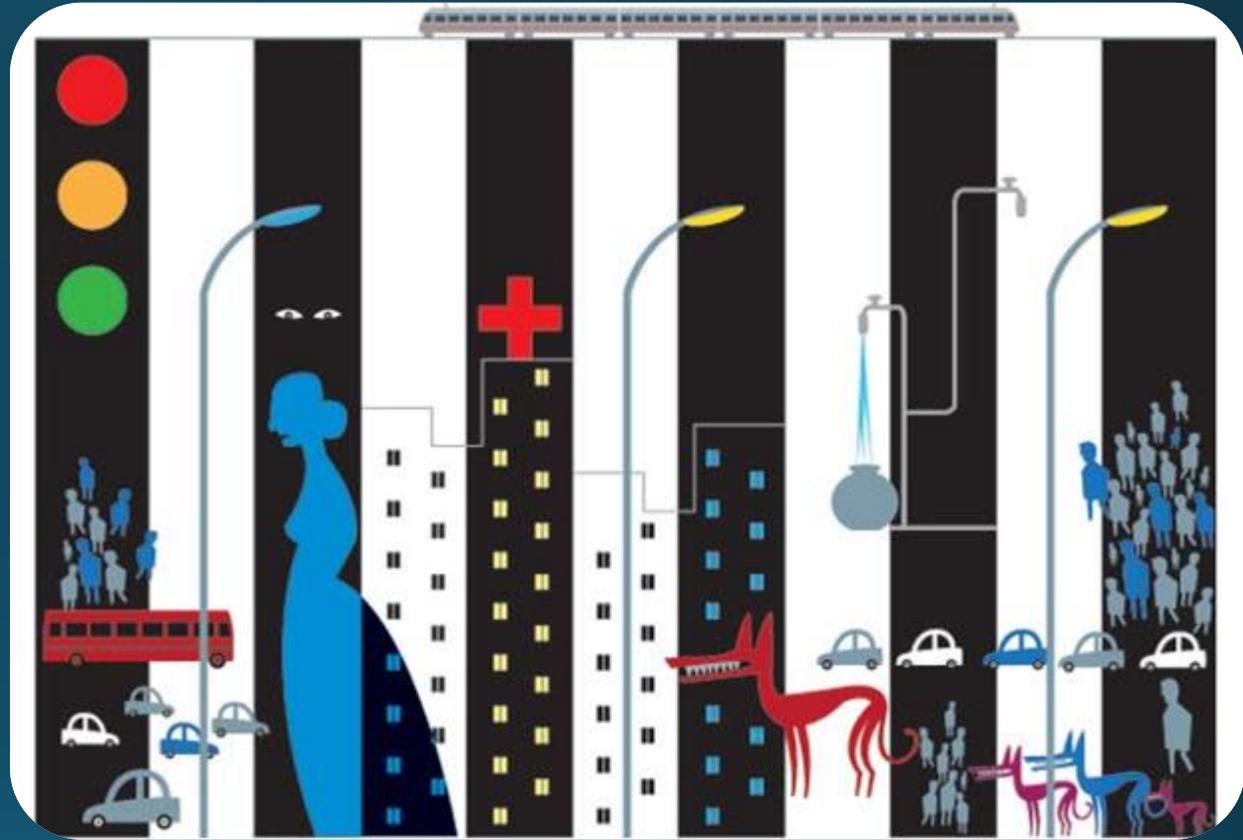31.16 (2011)

Source: Census of India

Objectives of Smart city

- Provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions.

- Focus on sustainable and inclusive development

- Create a replicable model which will act like a light house to other aspiring cities

Smart city: Core elements

- 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 digitalization
- Good governance (E-Governance and citizen participation
- Sustainable environment
- Safety and security of citizens
- Health and education

Smart Solutions

E-governance and citizen services

- Public information & grievance redressal
- Electronic service delivery
- Citizen engagement
- Citizen's – City's eyes and ears
- Video crime monitoring

Waste Management

- Waste to energy & fuel
- Waste to compost
- Waste water treatment
- Recycling & reduction of C&D waste

Water Management

- Smart meters and management
- Leakage identification
- Water quality monitoring

Energy Management

- Smart meters and management
- Renewable sources of energy
- Energy efficient & green buildings

Urban Mobility

- Smart parking
- Intelligent traffic management
- Integrated multi-modal transport

Others

- Tele-medicine and tele-education
- Incubation/trade facilitation centers
- Skill development centers

Coverage & Duration

- The Mission will cover 100 cities and its duration will be five years (FY2015-16 to FY2019-20).

- The Mission may be continued after an evaluation to be done by the Ministry of Urban Development (MoUD) and incorporating the learnings into the Mission

States where Smart Cities will come up

State/UT	No.
Andaman & Nicobar	1
Andhra Pradesh	3
Arunachal Pradesh	1
Assam	1
Bihar	3
Chandigarh	1
Chhattisgarh	2
Daman & Diu	1
Dadra & Nagar Haveli	1
Delhi	1
Goa	1
Gujarat	6

State/UT	No.
Haryana	2
Himachal Pradesh	1
Jammu & Kashmir	2
Jharkhand	1
Karnataka	6
Kerala	1
Lakshwadeep	1
Maharashtra	10
Manipur	1
Meghalaya	1
Nagaland	1
Odisha	2

State/UT	No.
Puducherry	1
Punjab	3
Rajasthan	3
Sikkim	1
Tamil Nadu	12
Telangana	2
Tripura	1
Uttar Pradesh	13
Uttarakhand	1
West Bengal	4
Total	**100**

List of 98

- August 27, 2015: Names of 98 smart city aspirants was released.

- Jammu & Kashmir and Uttar Pradesh are yet to come up with one nomination each from the number of smart cities allotted to them.

- 4 of the nominated cities – Chennai, Hyderabad, Ahmedabad and Mumbai have a population of over 5 million

- 35 cities have a population ranging between 100,000 to 500,000.

- 25 have a population between 1 and 2.5 million

- 8 have a population of 100,000 or less

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Area-based developments

Retrofitting:

- Introduce planning in an existing built-up area.

- An area consisting of more than 500 acres will be identified by the city in consultation with citizens.

- More intensive infrastructure service levels and a large number of smart applications will be packed into the retrofitted Smart City.

- This strategy may be completed in a shorter time frame, leading to its replication in another part of the city

Redevelopment:

- Replacement of existing built-up environment and creation of a new layout with enhanced infrastructure using mixed land use and increased density.

- Envisages an area of more than 50 acres, identified by Urban Local Bodies (ULBs) in consultation with citizens.

- **Example**: Saifee Burhani Upliftment Project in Mumbai (also called the Bhendi Bazaar Project) – *shown in picture*

Greenfield:

- Introduce most of the Smart Solutions in a vacant area of more than 250 acres using innovative planning, plan financing and plan implementation tools (e.g. land pooling/ land reconstitution) with provision for affordable housing.

- Greenfield developments could be located either within the limits of the ULB or within the limits of the local Urban Development Authority (UDA).

- Example is the GIFT City in Gujarat.

Pan-city

- Envisages application of selected Smart Solutions to the existing city-wide infrastructure.

- Example, applying Smart Solutions in the transport sector (intelligent traffic management system) and reducing average commute time or cost to citizens will have positive effects on productivity and quality of life of citizens.

- Example can be waste water recycling and smart metering which can make a substantial contribution to better water management in the city.

Process of selection of Smart Cities

- Each aspiring city competes for selection in what is called a 'City Challenge'.
- Two stages in the selection process.

- **Stage 1 of the competition**
  - Intra-state competition. Cities in the State will compete on the conditions precedent and the scoring criteria laid out in Annexure-3 of the Smart City guidelines.

  - Highest scoring potential Smart Cities will be shortlisted

  - Information sent by the ULBs will be evaluated by the State Mission Director and the evaluation placed before the State-level High Powered Steering Committee (HPSC) for approval.

  - The cities emerging successful in the first round of competition will be sent by the State/UT as the recommended shortlist of Smart Cities to MoUD by the stipulated date.

  - The MoUD will thereafter announce the list of 100 Smart Cities.

- **Stage II of the competition**

  - Each of the potential 100 Smart Cities prepare their proposals for participation in the 'City Challenge'.

  - Proposal to contain the model chosen - retrofitting or redevelopment or greenfield development or a mix thereof, and additionally include a Pan-City dimension with Smart Solutions.

  - Proposal to outline consultations held with city residents and other stakeholders; financing model; and revenue model to attract private participation.

  - Proposal will be evaluated by a Committee involving a panel of national and international experts, organizations and institutions.

  - The winners of the first round of Challenge will be announced by Ministry of Urban Development. Thereafter, while the winning cities start taking action on making their city smart, those who do not get selected will start work on improving their SCPs for consideration in the second round.

Implementation

- The implementation of the project at the City level will be done by a Special Purpose Vehicle (SPV).

- The SPV will plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects.

- Each Smart City will have a SPV which will be headed by a full time CEO and have nominees of Central Government, State Government and ULB on its Board.

The States/Urban Local Bodies (ULBs) shall ensure that,

a) dedicated and substantial revenue stream is made available to the SPV so as to make it self-sustainable and could evolve its own credit worthiness for raising additional resources from the market; and

b) Government contribution for Smart City is used only to create infrastructure that has public benefit outcomes. The execution of projects may be done through joint ventures, subsidiaries, public-private partnership (PPP), turnkey contracts, etc. suitably dovetailed with revenue streams

- The SPV will be a limited company incorporated under the Companies Act, 2013 at the city-level, in which the State/UT and the ULB will be the promoters having 50:50 equity shareholding.

- The private sector or financial institutions could be considered for taking equity stake in the SPV, provided the shareholding pattern of 50:50 of the State/UT and the ULB is maintained and the State/UT and the ULB together have majority shareholding and control of the SPV

- The paid up capital of the SPV should be such that the ULB's share is at least equal to Rs.100 crore. With a matching equity contribution by State the initial paid up capital of the SPV will thus be Rs. 200 crore. With GoIs contribution of Rs.194 crore, the initial paid up capital can go up to Rs.394 crore at the option of the SPV.

- The SPV may appoint Project Management Consultants (PMC) for designing, developing, managing and implementing area-based projects.

Financing of Smart Cities

- The Smart City Mission will be operated as a Centrally Sponsored Scheme (CSS)

- 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.

Funds for Smart Cities can also be mobilized from:

- States/ ULBs through collection of user fees, beneficiary charges & impact fees, land monetization, debt, loans, etc.

- Municipal bonds with credit rating of ULBs, Pooled Finance Mechanism, Tax Increment Financing (TIF).

- Central Government schemes like Swachh Bharat Mission, AMRUT, National Heritage City Development and Augmentation Yojana (HRIDAY).

- Leverage borrowings from financial institutions, including bilateral and multilateral institutions, both domestic and external sources.

- States/Union Territories may also access the National Investment and Infrastructure Fund (NIIF) - likely to be set up this year.

- Private sector through PPPs.

Distribution of funds

- From the allocated fund,
  - ➢ 93% will be utilized for smart city projects
  - ➢ 7% could be spent on Administrative and Office Expenses (A&OE), Research, Pilot studies, capacity building etc.

Fund Release

- After the Stage-1 of the challenge, each potential Smart City will be given an advance of Rs. 2 crore for preparation of SCP which will come from the city's share of the A&OE funds.

- In first year, Government proposes to give Rs.200 crore (A&OE advance) to each selected Smart City to create a higher initial corpus.

- Rs. 98 crore out of Rs. 100 crore every year for the next three years will be given.

Fund release conditions

Yearly instalment of funds will be released to SPVs after they meet the following conditions:

- Timely submission of the City Score Card every quarter to the MoUD

- Satisfactory physical and financial progress as shown in the Utilization Certificate and the annual City Score Card

- Achievement of milestones given in the roadmap contained in SCP

- Fully functioning SPV as set out in the Guidelines and the Articles of Association.

Mission Monitoring

National Level: 2 levels - Apex Committee and National Mission Directorate

Apex Committee (AC)
- Headed by Secretary, Ministry of Urban Development (MoUD) and will be comprising representatives of related Ministries and organisations
- AC will meet periodically.
- Representatives: UN Habitat, World Bank, TERI, Centre for Development of Advanced Computing (C-DAC), Centre for Smart Cities (CSC), Bangalore or other bilateral/multilateral agencies and urban planning experts may be invited with the approval of the Chair.

Responsibilities of *Apex Committee*
- Review the list of the names of Cities sent by the State Governments after Stage 1.
- Review the proposals evaluated by panel of experts after Stage 2.
- Approve the Proposals, monitor their progress and release funds based on progress in implementation.
- Recommend mid-course correction in the implementation tools as and when required.
- Undertake quarterly review of activities of the scheme.

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National Mission Directorate

- Headed by an officer, not below the rank of Joint Secretary to GoI.
- Overall in-charge of all activities related to the Mission.
- Will take support from subject matter experts and such staff as considered necessary

Key responsibilities

➢ Develop strategic blueprint and detailed implementation roadmap of the Smart Cities Mission
➢ Coordinate across Centre, States, ULBs and external stakeholders
➢ Oversee Capacity building and assisting in handholding of SPVs, State and ULBs.

State Level

2 levels, HPSC and SMD

High Powered Steering Committee (HPSC)
- Chaired by the Chief Secretary, which would steer the Mission Programme in its entirety.
- HPSC will have representatives of State Government departments, the Mayor and Municipal Commissioner of the ULB relating to the Smart City.

State Mission Director (SMD)
- Headed by an officer not below the rank of Secretary to the State Government
- SMD will function as the Member-Secretary of the State HPSC

Responsibilities of the HPSC
- Provide guidance to the Mission and provide State level platform for exchange of ideas pertaining to development of Smart Cities.

- Oversee the process of first stage intra-State competition on the basis of Stage-I criteria.

- Review the SCPs and send to the MoUD for participation in the Challenge.

City Level

Smart City Advisory Forum (SCAF)

- Will include the District Collector, MP, MLA, Mayor, CEO of SPV, local youths, technical experts, and at least one member from Residents Welfare Association/Tax Payers Association/Rate Payers Association/slum level federation/Non-Governmental Organization (NGO) or Mahila Mandali/Chamber of Commerce/Youth Associations.

- The CEO of the SPV will be the convener of the Smart City Advisory Forum.

- SCAF advise and enable collaboration among various stakeholders

Convergence with Other Govt Schemes

- There is a strong complementarity among Central and State Government programmes/schemes.

- Greater benefits can be derived by seeking convergence of these programs/schemes with 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), 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

- Mission based on the spirit of 'competitive and cooperative federalism'
- Use of Challenge/competition method first time to select cities for funding and using a strategy of area-based development.
- Smart leadership and vision at States and ULBs level and ability to act decisively will be important factors determining the success of the Mission.

- Understanding the concepts of retrofitting, redevelopment and greenfield development by the policy makers, implementers and other stakeholders at different levels will require capacity assistance.
- Major investments in time and resources will have to be made during the planning phase prior to participation in the Challenge.
- Active citizen involvement and participation.

http://smartcities.gov.in/

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