



Smart City
MISSION TRANSFORM-NATION



सत्यमेव जयते

Ministry of Housing and Urban Affairs
Government of India



Smart Cities Mission

Building Cities for People...



Ministry of Housing and Urban Affairs
Government of India

Smart Cities Mission

Building Cities for People...



Surat Canal Corridor comprises of recreational zones along the canal with 13 meters of landscaped area on either side, and includes a jogger's park, children's play area, walkways, seating, senior citizens' park, street furniture and parking facilities, etc. For differently abled citizens, tactile paving tiles & bollards were installed. To ensure obstruction-free pathway, a 1.0-meter buffer zone with trees and shrubs is added to avoid the misuse of the footpath as parking space.

Message from Hon'ble Minister



Shri Hardeep Singh Puri
Hon'ble Minister of State (Independent Charge)
Housing & Urban Affairs

The Smart Cities Mission completes six years of its journey today with many achievements to boast of. From a focus on implementing projects to building a practice of innovation and technology, the Mission has come a long way. The Mission does not have to push its own priorities; it imbibes and champions the priorities of communities that inhabit the 100 cities within its fold. Building cities for people is what it aspires to do.

Recounting the many successes of the Mission would be an endless exercise, for none of the projects initiated under the Mission are ends unto themselves. They have ushered in an era of thinking in the journey of India's urban development of a kind that has never been seen before. The Mission is building templates, setting benchmarks, and opening avenues that are going to guide our path in the future. What the Mission has shown us the most is the value of keeping the community at the core of the development process. Whether it is about using data and technology, building infrastructure, or providing different services, at the core of it all is the citizen who defines the contours and forms of those interventions. Continuous citizen engagement

has helped build greater public appetite for bolder and more transformative interventions.

It is noteworthy that most of the progress captured in this document is from a time when the whole country was reeling from the COVID-19 pandemic. It is really heartening to recount the many ways in which the Integrated Command and Control Centres established in the Smart Cities were used to support citizens and manage services during the pandemic.

The 'Smart Cities Mission: Building Cities for People..' is testimony to the journeys each of the smart cities have made, and the awe-inspiring destinations they aspire to reach. I congratulate the Smart Cities Mission team at the Ministry of Housing and Urban Affairs and the team at the National Institute of Urban Affairs that have contributed to this compilation.

I wish you all the best on this onwards and upwards journey!



4MWh floating solar farm at Kailashgiri Reservoir in Chittoor district near Tirupati. It is the largest floating solar farm in India. Spread over 12 acres, the plant includes 12,330 modules and 25,000 HDPE floats. The plant generates around 6,000 units of electricity, which has led to electricity bill saving of around Rs 4 crore in its first year of operations of CO₂ emissions. The plant has successfully reduced around 5,500 tons per annum.

Message from Secretary



Shri Durga Shanker Mishra
Secretary
Ministry of Housing and Urban Affairs

The Smart Cities Mission launched by the Government of India in 2015, has slowly and steadily transformed the way cities look at improving urban infrastructure and service delivery. The Mission has championed ideas like achieving more from less, fostering sustainable and inclusive development, and using technology as an important means for improving governance. Above all, the core principle espoused by the Mission has been the centrality of the community to the city's existence - its past, present and future. Building cities for people is what the Mission truly aspires to do.

The positive impacts of this approach, collectively transformed into action by smart cities across India is becoming more and more evident by the day. Initiatives to promote ease of living through smarter and better practices are being recognized. Participation from public and local officials in the Mission projects and initiatives has been proactive. As a result, 65+ Integrated Command and Control Centres are up and running, which have supported cities and citizens as COVID-19 war rooms during the first and the second wave. Cities are transforming their outlook on urban mobility in alignment with the principles of complete streets and in response to the Smart

Cities Mission's calls to action on promoting walking, cycling and public transport. Enhanced safety and security of citizens through technology initiatives, rejuvenation of open spaces, revival of waterfront areas, smart water management, and innovations in waste management are important contributions of the Smart Cities Mission.

Today, on the Sixth Anniversary of the Mission, I am proud to share the compendium 'Smart Cities Mission: Building Cities for People...', a showcase of some of our best efforts. Along with the 'India Smart Cities Awards 2020: Compendium of Winning and Shortlisted Proposals', this publication provides in visual detail what India's smart cities have been able to accomplish.

I congratulate the Mission Team, Smart Cities Mission, Government of India, Principal Secretaries of States, Smart City MDs/ CEOs, their teams, NIUA and all those who have contributed to this publication.

My best wishes to the entire team for all future endeavors!



Street food culture is a true representation of India and its dynamic culture, and Indore is famous for its Chaupati like markets such as the Sarafa and Chappan Dukaan. Keeping up with this culture, Chappan Dukaan has been redeveloped as a modern eatery hub in just 56 days. Facades of the 56 shops were upgraded to reflect a consistent theme and the area was transformed into a vehicle free zone and provided with thematic seating areas.

Message from Joint Secretary



Shri Kunal Kumar
Joint Secretary
(Mission Director Smart Cities)
Ministry of Housing and Urban Affairs

The Smart Cities Mission is completing six years of innovative ideas, groundbreaking projects and exemplary citizen engagement at a speed and scale unmatched by any urban mission before it. The last two years of the Mission were riddled with COVID-19 induced hurdles. Every city faced different and unique challenges. It was encouraging to see India's smart cities rise up to the challenge in the response to the pandemic. Through the use of data and technology, community-driven actions, agile governance mechanisms and timely infrastructure interventions, smart cities continued to make good progress even as the nation came to a grinding halt.

The pandemic has tested the effectiveness of the Mission, and I am proud to note that the smart cities have collectively withstood that test with resilience and quick action. Integrated Command and Control Centres (ICCCs), converted into 'war rooms' formed essential nodes for collecting information, enforcing social distancing, conducting predictive modelling, coordinating response and communicating with citizens. Today, we have 69 such Integrated Command and Control Centres. Our other on-ground initiatives to build cities for people found wide acceptance too. Citizens and officials alike joined hands to make streets and neighbourhoods more liveable. Sanitation

and waste management practices set up in smart cities even before the start of the pandemic are examples of proactive urban planning for healthier cities. The excellence in design and execution of physical interventions through extensive stakeholder consultations continues to be unparalleled.

The highlights of the Mission have been captured in this compendium titled 'Smart Cities Mission: Building Cities for People...!'. This compendium encapsulates best practices in a format that will make it palatable for a larger base of readers to absorb, and will make excellent food for the imaginations of planning students, professionals and decision-makers.

I thank the Smart City CEOs and their teams, my team at the Ministry of Housing & Urban Affairs, and the team at the National Institute of Urban Affairs team who helped bring out this useful publication. Most of all, I thank our dear colleague, Aftab Alam, who led the majority of the effort for this spectacular publication until he left for his heavenly abode on the 9th of May, 2021.

I dedicate this publication to Aftab with deep gratitude and respect.

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1

Mission Overview

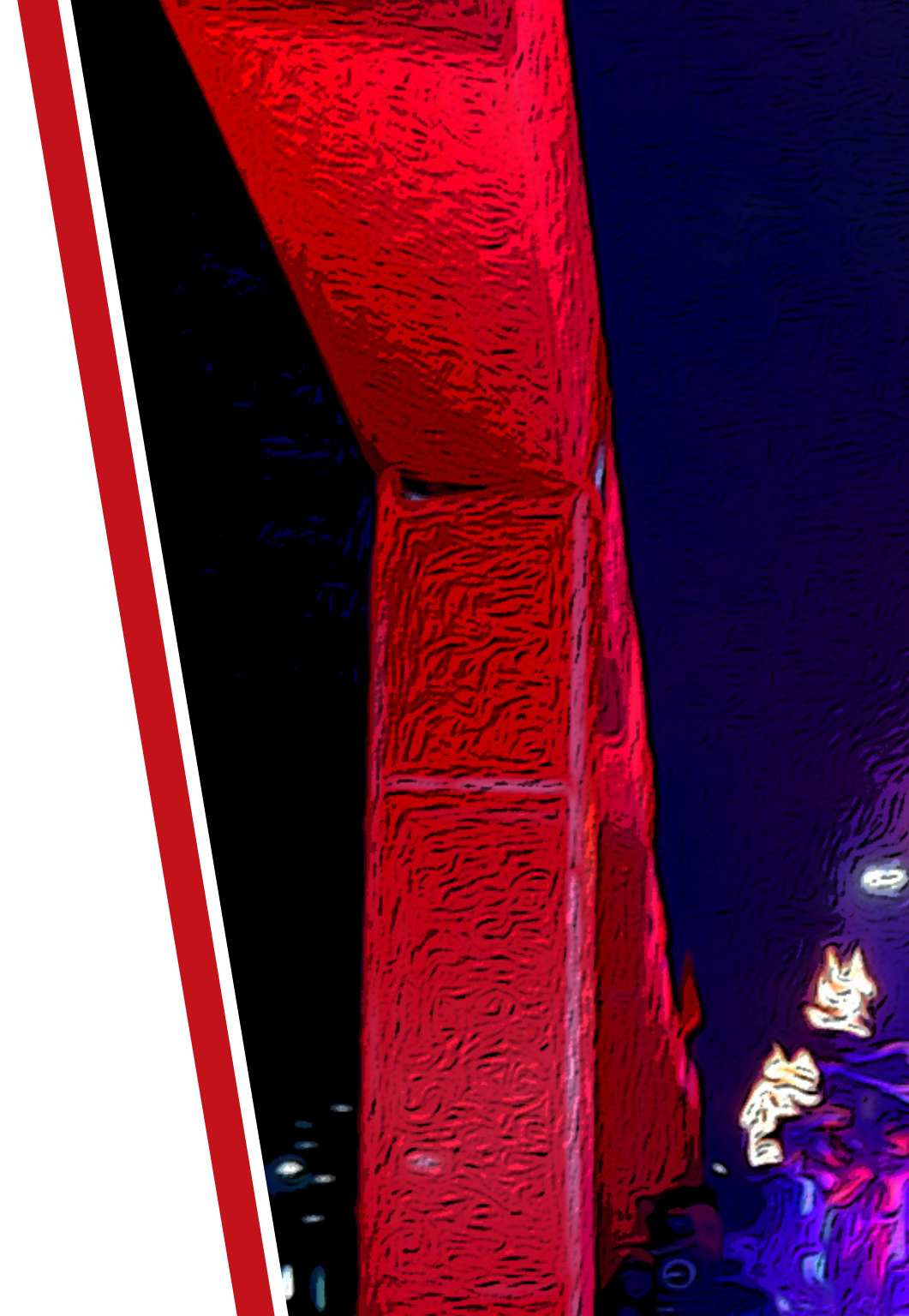
Mission Overview

Smart Cities Mission was launched by the Prime Minister Shri Narendra Modi six years ago on June 25, 2015. The main objective of the Mission is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart Solutions'. The Mission is focused on sustainable and inclusive development. The areas and projects developed under the Mission will act as 'lighthouses' for urban development across cities in India.

Smart cities projects are heavily contextualised and aim to reflect the aspirations of the city's citizens. The principles of ease of living, economic growth and sustainability are underpinned in each project taken up under the Mission. The envisaged development is based on four pillars of comprehensive development viz. Institutional, Physical, Social and Economic.

The strategic components of area-based development in the Smart Cities Mission are city improvement (retrofitting), city renewal (redevelopment) and city extension (greenfield development) plus a pan-city initiatives in which smart solutions are applied covering larger parts of the city.

The 100 cities under the Mission have proposed to execute 5,151 projects worth Rs. 2,05,018 crores in 5 years from their respective dates of selection. Cities are working in multiple sectors in an integrated manner covering Solid Waste Management, Social Sectors, Storm Water Drainage, Environment, Smart Roads, Wastewater/Sewerage, Water Supply, Affordable Housing, Energy, IT Connectivity, Economic Development, Urban Mobility, Area Development.





Ujjain Smart City organized Maa Kshipra Aarti at Ram Ghat as a mass public event portraying the cultural and religious heritage of the city and showcasing the local talent. The initiative saw 200 visitors in each event and provided platform to around 80 artists to showcase their skills.



The background features a stylized city skyline on the left and bottom, with human silhouettes in the center. The skyline consists of various building shapes, some with windows. The human figures are simple, rounded shapes representing people. The entire scene is rendered in shades of red against a dark red background.

2

Building Cities for People

Building Cities for People

Smart cities are envisioned as cities whose main objective is to promote cities with technology-enabled core infrastructure and improve the quality of life to its citizens; a clean, a clean and sustainable environment and equal opportunities for economic development for all citizens.

Cities built for people focus on inclusivity and compactness. Such cities make efficient use of resources and provide for all denizens indiscriminately. The 'building cities for people' approach of the Mission will help create examples that can be replicated both within and outside the smart city, catalysing the creation of similar smart cities throughout the country. The Mission has identified key sectors to facilitate smart innovative solutions like Integrated Command

and Control Centres, smart mobility, smart water and wastewater, smart solar, smart governance, impactful projects, and several initiatives/frameworks that directly contribute towards realising the full potential of technology interventions and smart-innovation ecosystems in our cities.

One of our most critical development challenges is making effective decisions around urban planning in order to build sustainable towns and cities that work for everyone. More than half of the global population—nearly 4 billion people—live in urban areas. Two decades from now, that number is expected to grow to 5.5 billion. Never in time has 'Building Cities for People' been more relevant than now.







Micro Skill Development Centre and Women Self Help Groups Centres in 4 available community centres in Tajganj area for Agra under smart city mission for the ABD area.

- Adarsh has Found the 7 Traditional and Modern Skills in 107 SHGs which are:-
- Marble Inlay
- Zardozi
- Flower Work
- Carpet
- Stitching
- Decorative
- Brush Making



Stitching training in Micro Skill Development Centre at Agra



Kalamkari Master Artist working in the design studio at Tirupati





2.1

Smart Governance

SMART GOVERNANCE

Smart governance is one of the key enablers of performance under the smart cities Mission. Integrated Command and Control Centres (ICCCs), currently operationalised in 69 smart cities, have helped cities in evidence-based smart governance. Integrating smart solutions for data collection and analysis, ICCCs aid municipal authorities in delivery of urban services. In recent times, integration of smart governance solutions like CCTVs, city-level GIS mapping, smart communication infrastructure, web-based/mobile applications and integrated dashboards, have been instrumental in managing the COVID-19 crisis.





Integrated Command and Control Centre (ICCC) at Sagar. Since October 2020, more than 2000 challans for traffic rule violations have been issued.



Integrated Command and Control Center at Gwalior, an incredible example of adaptive reuse of heritage building. The Swachhata Helpline has resolved around 1000 cleanliness related complaints since January 2021.



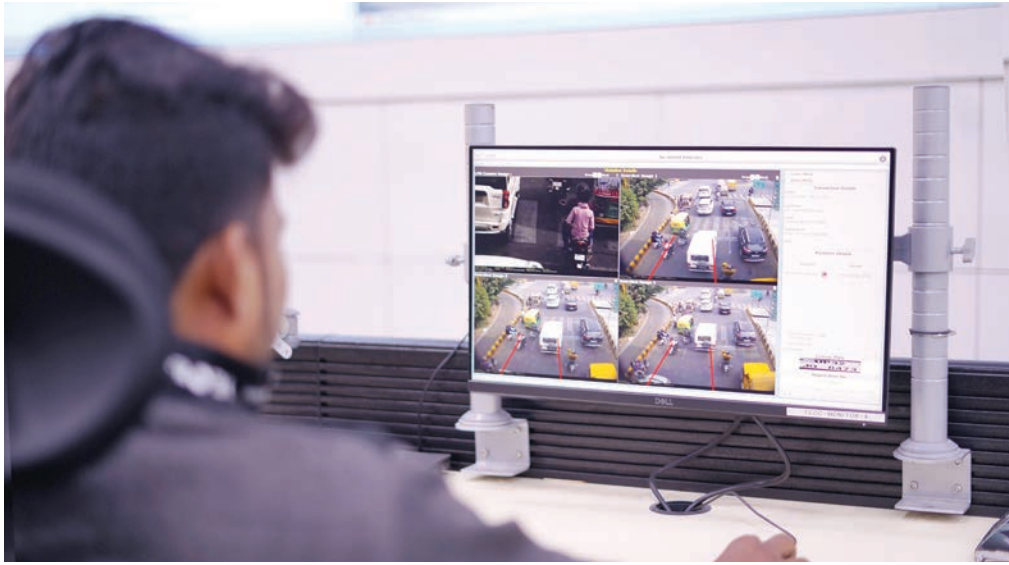
Kochi Integrated Command and Control Centre



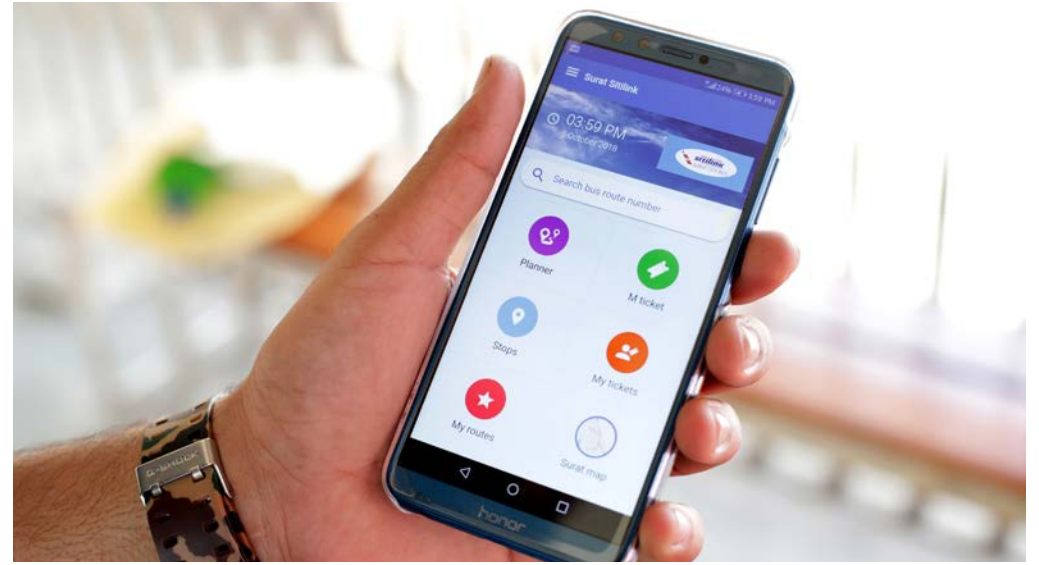
Gwalior Integrated Command and Control Centre is monitoring 500 bicycles of Public Bike Sharing System to ensure efficient operations across 50 bike docking stations



Since July 2018, Bhubaneswar Integrated Command and Control Centre dashboard counted 3,13,90,111 Mo Bus ticket and handled around 21,000 citizen grievances.



Traffic monitoring by Lucknow Integrated Command and Control Centre



Surat Citilink Mobile App



Electric Buses at a Depot in Pune



Elderly citizens using Pune Wifi facility



Bhubaneswar Pelican Signal for differently abled



Since February 2021, Itanagar Integrated Command and Control Centre assisted city police with 101 video footages related to law and order



Satna Integrated Command and Control Centre assisted city police in resolving 55 cases since its launch



Operators working at 1929 call centre at Bhubaneswar Integrated Command and Control centre



Citizen using Emergency Call Box in Satna



Citizen using Smart Kiosk in Pimpri Chinchwad



Operators working at Aligarh Integrated Command and Control centre



Public awareness campaign at Aligarh Integrated Command and Control Centre



Visakhapatnam Smart Poles



City officials reviewing situation at Dehradun Integrated Command and Control Centre



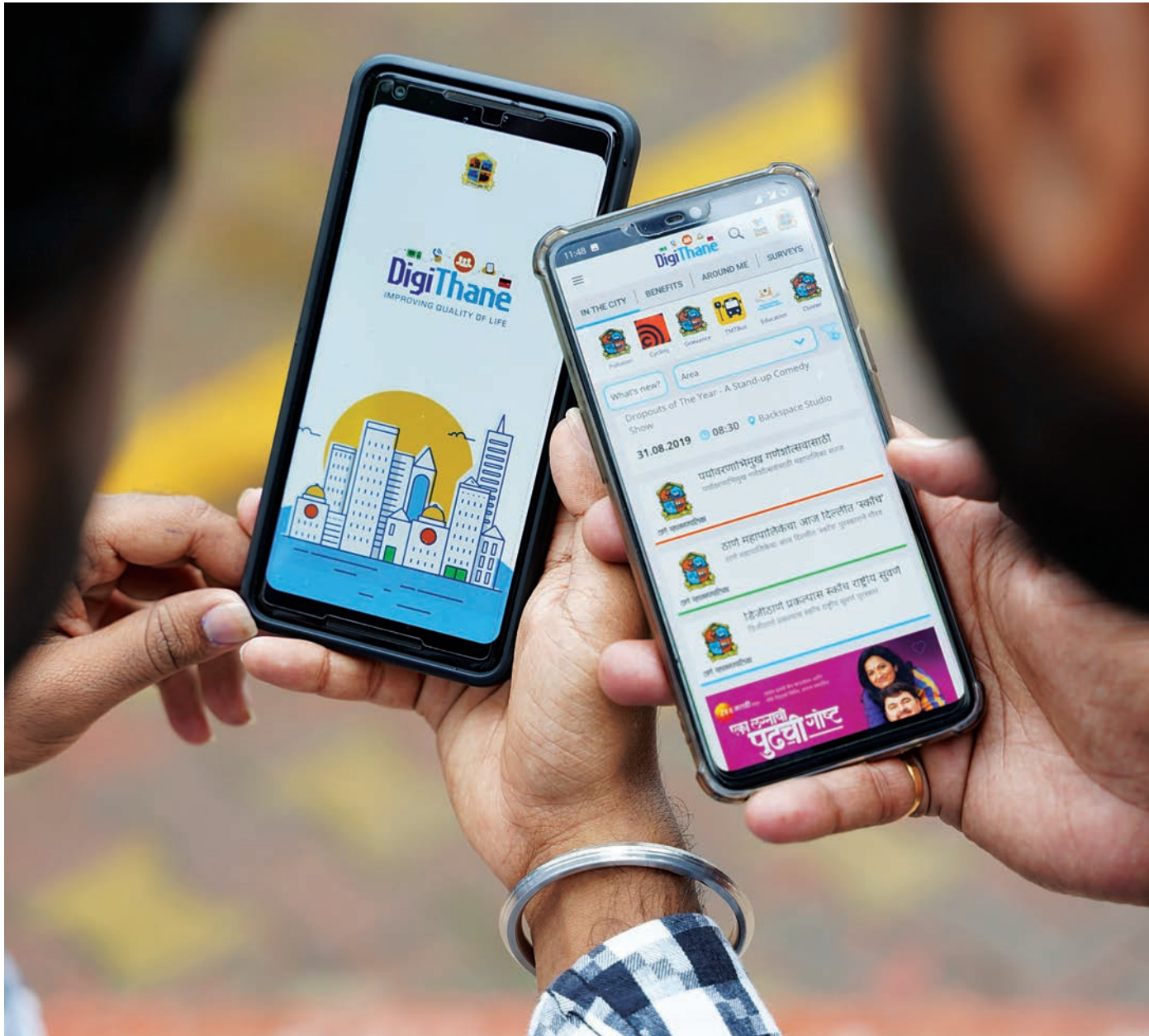
Citizen charging mobile at a Smart Pole in Tumakuru



Training session at Pimpri Chinchwad Smart Incubation Center



Surat Suman Eye



DigiThane App



Commuter holding Surat Money Card



Bhopal Intelligent Traffic Management System (ITMS)



Chennai Traffic Park





2.2

Built Environment



BUILT ENVIRONMENT

Innovation in development of sustainable habitats and vibrant communities has been a guiding principle of the Smart Cities Mission. Ideas which promote the use of public spaces to drive a sense of ownership and pride in citizens their city are encouraged. Redevelopment of public spaces, markets, residential areas, etc., to add vibrancy, promote local economy and foster a sense of well-being, makes cities more 'liveable'.





Indore Riverfront project is developing 3.9km pathway along the Kahn River and Saraswati River



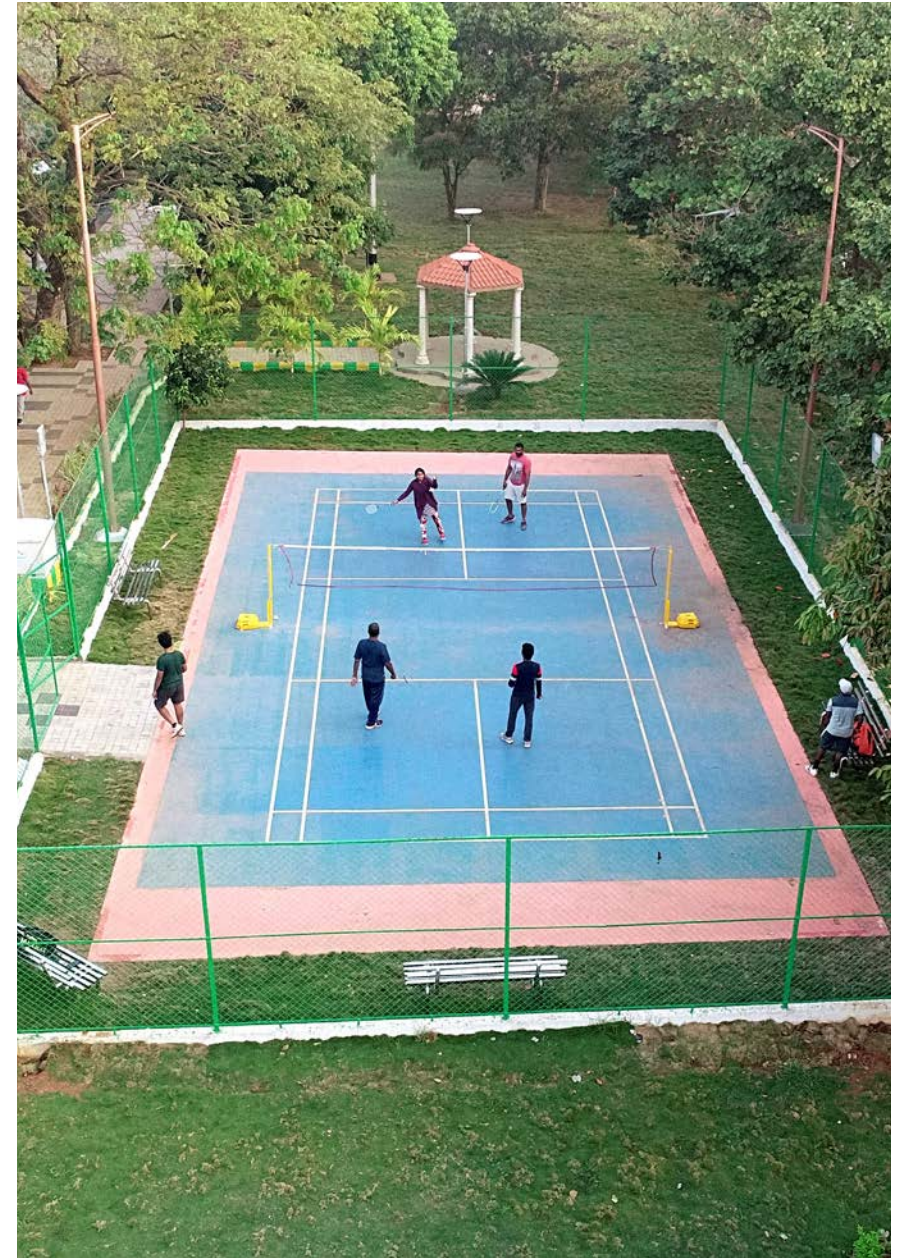
People enjoying their visit at Rangbhavan in Solapur



A view of Rangbhavan in Solapur



Pune Citizen's Park



People playing in a Badminton Court at a Public Park in Kakinada



Redevelopment and beautification at Gulaua lake in Jabalpur.



People taking selfie at Satna Selfie Point



Solar Tree in a park at NDMC



Pune Play Park



Bhubaneswar Integrated Public Service Centre



A refurbished park in Tirupati



Containerised Cafe in New Town Kolkata



Affordable Housing in Surat



Visakhapatnam all-abilities park enables social inclusion through universal accessibility and sensory park equipment for persons with All Abilities



Children paying at a redeveloped park in Erode



Citizens participation in 5km long run at Tirupati



Youth swimming in a newly built swimming pool in Tirupati



Smart Health Clinic in Pune



People visiting Riverfront Flower Garden in Ahmedabad



Visitors at Riverfront Flower Garden in Ahmedabad



Citizens using Park at Gwalior



Citizens using open air gym at a Park in Ajmer



People attending a yoga session at a park in Ajmer



Kids play area at Ghoghla Beach in Diu



Citizens participating in recreational activities at CP Shekhar Garden in Indore



Children enjoying play area at a park in Udaipur



Placemaking through installation of public art, Indore



Indore river front development. Recreational open spaces along the Kahn River and Saraswati River is being developed. Over 3500 slum families living near the riverbanks has been rehabilitated



Children playing at a redeveloped park in Erode



Walking/Jogging track at a park in Bhubaneswar



Elderly citizen performing yoga at a public park in Gwalior



School children visiting a park in Tumakuru



2.3

Social Aspects



SOCIAL ASPECTS

The welfare of citizens lies at the heart of the Smart Cities Mission. The Mission encourages initiatives focused on development in areas of health, education, safety and livelihood generation, particularly for women, children and the elderly. Some of these projects have played a pivotal role in the fight against COVID-19. Closed-Circuit Televisions (CCTVs) have been used for crowd management, smart health initiatives in reducing the burden on tertiary health care providers or in improving health monitoring of young children, smart libraries in bringing knowledge closer to citizens, and skill development centres in imparting women and local handicraftsmen tools for income generation.





NDMC has set up 444 'Smart Classrooms' in NDMC Schools in order to meet the broader objective of enabling the learning environment with technology. Smart classrooms provide instruction in both Hindi and English languages to students from Class VI to XII in all NDMC schools. Smart classrooms are transforming traditional classrooms into futuristic technology enabled smart-learning classes by amalgamating state-of-art technology, infrastructure and professionally developed learning content.







Android based Vector Borne Diseases Surveillance System in Surat



Smart classrooms in Dehradun



Public awareness about health ATM in Aligarh



Selfie point in Ajmer



Smart Library in New Town Kolkata is a state of the art facility equipped to maintain its key activities without human interventions



1 My Mother at Sixty-six

About the poet

Kamal Das (1914) was born in Madurai, Kerala. She is one of India's foremost poets. Her works are known for their originality, versatility and the simplicity of the soft. Kamal Das has published several books of short stories in English and Malayalam under the name Madhavikutty. Some of her works include the novel *Alphabet of Lust* and a collection of short stories *Padmanabi the Harlot* (1992), in addition to five books of poetry. She is a sensitive writer who captures the subtleties of human relationships in lyrical poetry. *My Mother at Sixty-six* is an example.

Q: Have you ever thought what our elderly

Driving from my parents

Teacher using projector based multimedia content to teach students in a Smart Classroom in Dehradun



Belagavi Smart Classrooms



State of the art health kiosk/Health ATM at Saharanpur having more than 40 non-invasive health parameter and tests



Digital Library in Warangal



Distribution of pre-school learning kits to Anganwadi Children in Amritsar



Kumaran Statue at Tiruppur



'B-Nest' Incubation Centre in Bhopal



Silvassa





Citizens using Digital Center for Learning in Ujjain



Students in Smart Classrooms in Tumakuru



Smart classroom in Silvassa



Students in smart classrooms in Udaipur



People using Smart Classrooms for learning in Ujjain



No Plastic Use campaign in Raipur



IncubationCentre in Udaipur



Hackathon organized at Incubation Centre at Surat



Awareness program at Jaivabai Girls School in Tiruppur



Citizens kickstarting 'Lets Cycle Nagpur' campaign in Nagpur



Smart classroom in Shivamogga



Public Wall Art from community-led Rangotsav in Dehradun



Smart classrooms in Erode



Youth participating in IEC activities at Raipur



Citizens cycling along cycle tracks in Raipur



People using Open Air Gym in Shastri Park at Varanasi



Childrens playground in Silvassa



Citizens participating in 'Run to Clean' campaign in NDMC



Citizens engaged in public activities like yoga in Gwalior



Promoting wellness in Raipur



All abilities park in Visakhapatnam

2.4

Culture & Heritage



CULTURE & HERITAGE

A smart city builds its identity on its citizens' perceptions, aspirations and vision. Areas of historical, tourist or cultural significance – food streets, monuments, religious buildings, palaces, forts, local arts and handicrafts industry – all help put a face to a city's name. Smart cities have not only recognised and enhanced these existing places of interest, but some have even used mundane urban elements such as water tanks and public walls to create new spaces of cultural value. These projects have infused a sense of pride and ownership in the residents, and fresh opportunities for the citizens to connect with their cities.





Outside view of Gwalior Integrated Command & Control Centre, an outstanding example of adaptive reuse of heritage building



Visitors outside restored
Surat Fort in Surat



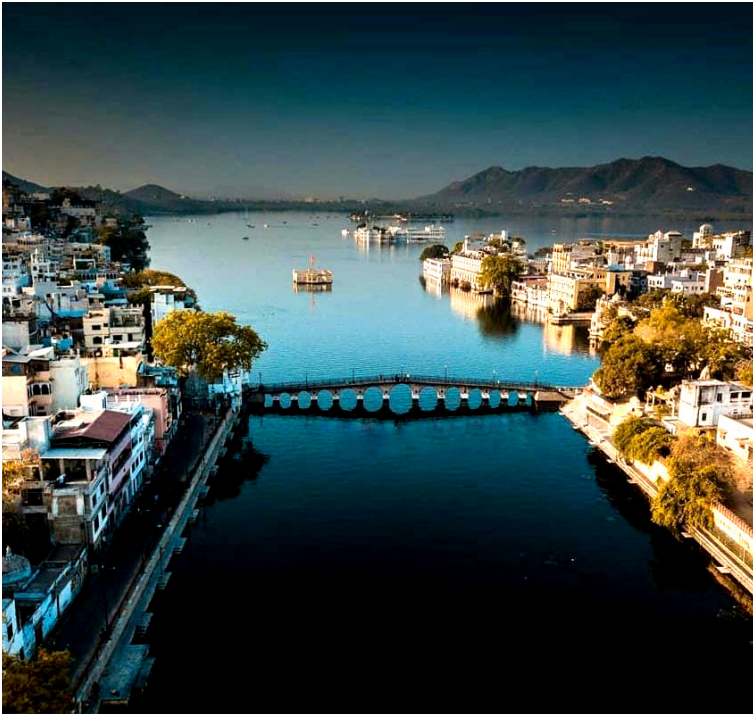
Upgraded heritage precincts in Udaipur



A vibrant marketplace in Kochi



Atal Smriti Vendor Market in Ranchi



Ghats in Udaipur



Visarjan Kund in Jabalpur



Wall painting in Bhubaneswar



Open art gallery in Chandigarh



Visitors strolling in the restored passage of the Surat Castle in Surat



Façade lighting at Lucknow University in Lucknow



Citizens offering Chhatt Puja at the riverfront in Ahmedabad



Beautification of Taka Bench at the Ridge in Shimla



Citizens gathered for Maa Kshipra Aarti at a ghat in Ujjain



Citizens enjoying at redeveloped Chappan Dukaan Market in Indore



Citizen engagement activity at Big Bazaar in Tiruppur



Interiors of the Atal Smriti Market in Ranchi





2.5

City
Economy

CITY ECONOMY

A smart city builds its identity on its citizens' perceptions, aspirations and vision. Areas of Smart cities have undertaken various projects in order to boost their local economy and for improving the livelihood of its citizens. Incubation centres to help nurture and grow small businesses by supporting them through early stages of development have been set up. Establishment of micro-skill development centres to upskill women, design studios imparting digital skills to local artisans, waste management plants to generate city revenue through carbon credit trading are some of the many ways smart cities have taken towards financial empowerment.





Social Equity Centre, Bhubaneswar has been designed to provide shelter and food to the vulnerable citizens and migrant workers in the city



Children using Smart Lounge facility in Tumakuru



Training at the Digital Handicrafts Incubation Centre in Tirupati



Rooftop Solar at ISBT Sector 43, Chandigarh



Citizens attending training program at Ujjain Digital Centre





 
SURAT
MUNICIPAL
CORPORATION
SURAT IDEAS & INNOVATIONS LAB
SURATI iLAB
Welcomes You


AIC SURATI iLAB Foundation provides startups with open concept office space with necessary office supplies to get their businesses up and running



Agra
Adarsh has Found the
7 Traditional and Modern Skills
in 187 SHGs which are as:
• Marble Inlay
• Zardozi
• Flower Work
• Carpet
• Stitching
• Decorative Handicraft
• Brush Making

Special focus on marketing
support for products
made by the
Micro Skill
Centres
Nala

Adarsh S

Micro Skill Development Centre and
Women Self Help Groups Centres in 4 available
community centres in Tajganj area for
Agra under smart city mission for the
ABD area.

Women engaged in paper craft training at
Micro-skill Development Centre in Agra



Installation of 1000kWp power plant for generation of energy at PEC-12, Chandigarh



Women attending sewing training classes at Micro-skill Development Centre in Agra



Workshop for school teachers on 3D Modelling and use of using 3D printers for physical realisation



Hackathon initiative of Incubation Centre in Jabalpur



Women showing final product at Micro-skill Development Centre in Agra

A large, light teal graphic on the left side of the page. It features a stylized plant with a circular top and several leaves, positioned above a stylized building with a central archway and two side towers. The entire graphic is rendered in a light teal color against the darker teal background.

2.6

Urban Environment



URBAN ENVIRONMENT

The Smart Cities Mission has a strong focus on environmental sustainability and reducing pollution. The Mission promotes the use of clean technologies and generation of clean energy. Smart cities projects like waste-to-energy plants involving reuse and recycling of waste have led to a discontinuation of unsustainable practices such as landfilling; bio-methanation plants have helped convert waste into energy and compost and, and solar/wind plants generating clean energy have resulted in the reduction in electricity costs for the consumers.





Rejuvenation of Sappathi Kuttai School Road at Sholinganallur in Chennai



Wind Power Plant, Surat



Distribution of gas stoves to beneficiaries in Patna



Solar Tree in Satna



Generation of clean energy through rooftop solar projects in Bhagalpur



Tree plantation campaign in Saharanpur



Rooftop Solar panels installed at GVMC parking in Visakhapatnam



Rooftop solar panels installed at Government Medical College in Amritsar



Children on a tree plantation drive in Tumakuru



Installation of solar rooftop panels powering the Wastewater Treatment Plant in Jabalpur



'Waste to Energy' plant in Jabalpur



Awareness on single-use plastic drive in Surat



Beach Road in Visakhapatnam



Floating solar project installed in Tirupati



Smart LED streetlights in Ahmedabad



Smart LED Streetlights installed in Pune



267 KW capacity solar rooftop panels at school campus in Thane



Smart poles along Beach Road in Visakhapatnam



Revival of a public park in New Town Kolkata





2.7

Mobility and Transport



MOBILITY AND TRANSPORT

Smart cities aim to make urban mobility safe, affordable, comfortable, universally accessible and reliable. To this end, the cities have used a combination of measures including developing infrastructure to prioritise public transport, cycling, walking and placemaking on smart roads; technological enhancements through the use of smart solutions, and operational improvements such as route optimization. Using these measures, smart cities have developed equitable street space, increased capacity of the public transport/non-motorised transport systems, and improved overall efficiency and safety of the entire urban mobility networks.





Citizens in Bhubaneswar using free Wi-Fi in smart buses



Citizens using public bike sharing scheme in Ahmedabad



य बस अड्डा
AN TALKIES
दयाल बाग
DAYAL BAG

विशेष संचारी रोग
नियंत्रण माह
1 जुलाई 2020 से 31 जुलाई 2020 तक
करोड़ों की जान बचाओ
कमरेदारों को सतर्क रहें
शुद्धता और स्वच्छता को बढ़ावा दें
कमरेदारों को सतर्क रहें
शुद्धता और स्वच्छता को बढ़ावा दें

स्वच्छता ही सेवा है
आगरा नगर निगम
SAY NO TO BIG 4 OF PLASTIC
BOTTLES CANS
CUPS

Intelligent Traffic Management System (ITMS) at Sursadan Junction in Agra



Presenting
THE NEW 2018 ELITE I20

Ellis
Nehru

Presenting THE NEW 2018 ELITE I20. A brand new car to meet all your needs. Features include: 1. 1.2Litre Diesel Engine, 2. 1.2Litre Petrol Engine, 3. 1.2Litre Petrol Engine with 4-Speed Manual Gearbox, 4. 1.2Litre Petrol Engine with 5-Speed Manual Gearbox, 5. 1.2Litre Petrol Engine with 5-Speed Automatic Gearbox, 6. 1.2Litre Petrol Engine with 5-Speed Automatic Gearbox and 4-Speed Manual Gearbox, 7. 1.2Litre Petrol Engine with 5-Speed Automatic Gearbox and 4-Speed Manual Gearbox.

Real-time traffic advisory in Ahmedabad



Citizens using public bicycles in Chennai



Electric Buses in Ahmedabad



Commuter using Surat Smart Card for on-board fare collection



People using citizen's portal in Aurangabad



Citizens using public bike sharing scheme in Ahmedabad



Students boarding city bus in Aurangabad



"VIP Model Road in Surat is a 5kms stretch redesigned to provide 6m wide service lane, 2.5m wide footpaths with ramps and bollards, LED streetlights, raised pedestrian crossings, street furniture and on-street parking spaces"



Solar Panels wrapped smart bus shelter in NDMC



Citizens using city buses in Aurangabad



Citizens using public bikes in Chennai



Safe, affordable and environment-friendly public transport in Aurangabad



Aurangabad has deployed a fleet of 100 buses in a first step towards initiating a public bus service



Smart traffic management through smart roads in Bhubaneswar



People using emergency call box at an ITMS enabled Junction in Sagar



Citizens promoting public bicycles in Vadodara



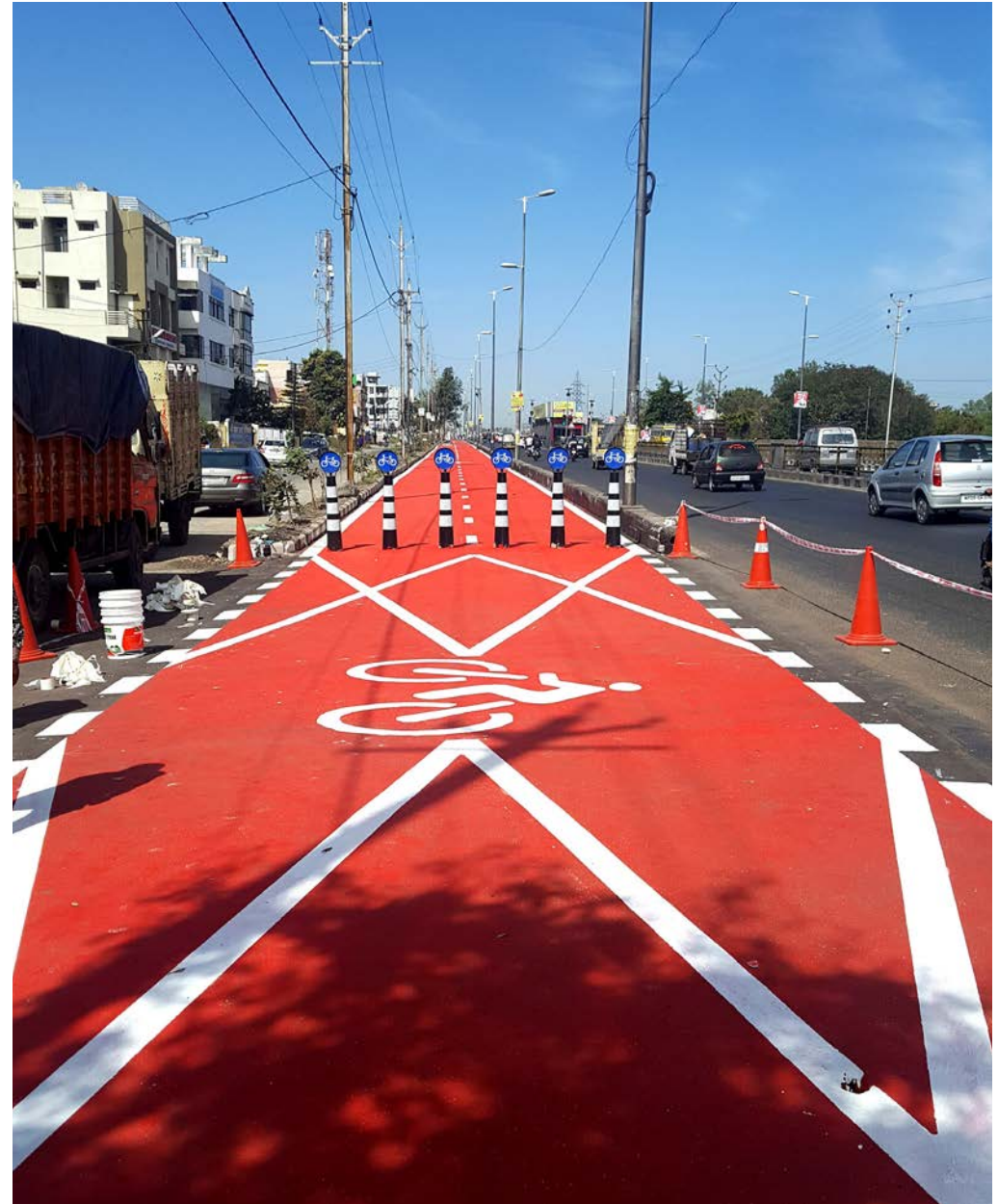
People using electric auto rickshaws in Udaipur



Pedestrian plaza at Pondy Bazaar in Chennai



Safe cycling campaign under the Cycles4Change Challenge in Amritsar



Dedicated Cycle Tracks in Bhopal



Citizen using innovative battery scooter in Gwalior



Smart bike ecosystem for promotion of PBS in Surat





Buses facilities for Doctors in Gwalior during COVID



NMT Corridor in Kochi



Citizen using innovative battery scooter in Gwalior



Public bike sharing scheme in Nashik

The background is a solid teal color. On the left side, there are stylized, light teal graphics: a vertical bar, a horizontal bar, and a curved shape resembling a waterfall or a pipe. At the bottom left, there are wavy lines representing water and several small diamond shapes. At the bottom right, there is a faint, stylized city skyline with various building shapes.

2.8

Water and Wastewater

WATER AND WASTEWATER

Smart Cities Mission encourages cities to strengthen core infrastructure and ensure universal access to basic urban services. Sustainable urban water supply systems must link more closely with the natural water systems in which they are located. Smart cities have introduced projects which focus on water conservation, optimising water supply and restoring water bodies. With projects ranging from rainwater harvesting, tertiary treatment of wastewater, water reuse, infrastructural improvements in the water supply network, and restoration of water bodies, smart cities have developed context-specific solutions to improve ease of living for people.





Restoration of water bodies in Chennai



Sanitary pad vending machine at a community toilet in Sagar



Containerised public toilets in New Town Kolkata



Students using water ATM in Indore



Water supply project in Dahod



Lakeside redevelopment of Anasagar Bund in Ajmer



Automated smart toilets facility near Taj Mahal in Agra



Restoration of Villivakkam lake in Chennai



Hon'ble LG reviewing the Model of Sewage Treatment Plant at Bhawati Nagar in Jammu



Urban restroom in Thane



Students using water ATM in Dehradun



Students rally at a 'Save Water' awareness drive in Aligarh



Citizens using water ATM in NDMC



Citizens using self-cleaning smart public toilet in Agra



Anjana STP at Surat retrofitted with SCADA & energy generation capabilities



Rainwater harvesting system in Dahod





2.9

Sanitation and Waste Management

SANITATION AND WASTE MANAGEMENT

Smart cities follow an integrated approach to manage urban solid waste. This involves innovation in collection, segregation, transportation, storage and processing of waste. Smart cities have initiated awareness campaigns to promote segregation at the source, installed smart bins, decentralized waste processing centres reducing collection and transportation costs, and deployed sustainable waste-to-energy technologies for municipal solid waste treatment. Use of waste management practices like bioremediation, bio-mining and bio-methanation plants to process biodegradable waste has reduced emission of harmful gases included greenhouse gases, elimination of landfills and reclamation of land.





Smart vehicles transferring waste collected from households to local transfer stations for further transportation to treatment/disposal facilities in Tirupati.



Tirunelveli has achieved 100% efficiency in door-to-door collection. The battery-operated vehicles are able to handle nearly 180 MT of waste generated by the city





Segregating of waste in Material Recovery Centre in Indore



Distribution of household bins to 20,000 households in ABD area of Kochi Smart City



Citizen Engagement activity: 'Plastic Wapasi Abhiyan' in Dehradun



Doorstep collection of household waste in Salem



Underground dust bins installed by Aligarh are an efficient and accessible way of collecting waste and recycling materials



Sensitisation drive to build awareness on plastic waste disposal, waste segregation, plantation and drainage in Kohima



Battery Operated Vehicle introduced by Tirunelveli has helped for better sanitation across the Tirunelveli Corporation and has also supported to a great extent in reducing the carbon emissions, which generally occurs from the garbage collection lorry and vehicles.



Battery operated vehicle introduced by Vellore has revamped and replaced the regular pushcarts across the city thereby improving the overall working condition of sanitation workers



Battery operated vehicle for waste collection in Tirunelveli



50 semi-underground bins installed across 25 locations in core and prominent parts of the city of Visakhapatnam. The bins are automatically monitored using sensors from the city operations centre



2.10

COVID Innovation

COVID INNOVATION RESPONSE

India's smart cities have been at the forefront in leveraging technology to manage the COVID crisis. 50+ smart cities have transformed their ICCCs into COVID-19 war rooms to enable collaboration with various government departments dealing with COVID response. Some smart cities leveraged web-based and mobile applications for contact tracing, tracking and monitoring virus infected persons. Some leveraged their ICCCs for two-way communication with dedicated lines for doctor consultations and counselling for patients, and yet others used smart communication infrastructure (public announcement systems, variable message displays, and drones) to manage lockdowns and monitor social distancing in public spaces more effectively.





Doctor's consultation at Smart Health Center in Agra

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Ishani Chawla (B.D.S., M.D.S.)

DEPT. DENTISTRY HOURS

Monday - Saturday 10:00 AM to 2:00 PM

10:00 AM to 8:00 PM

SUNDAY, 10:00 AM to 2:00 PM ONLY

SMART HEALTH CENTER

MOSKAR...
उत्तर प्रदेश की आयुष्य
पेयल... लेव मे...

TEST PACKAGE 3

Test Name	Test No.
Glucose F / pp / R (mmol/l)	1
Che. (Hb)	2
Urine Routine (R)	3
Thyroid (T4)	4
Lipid Profile (Cholesterol, TG)	5
Kidney Function Test (Urea, Creat)	6
Liver Function Test (SGPT, SGOT)	7
TOTAL TEST 63	
PACKAGE 3 ₹ 599/-	

TEST PACKAGE 4

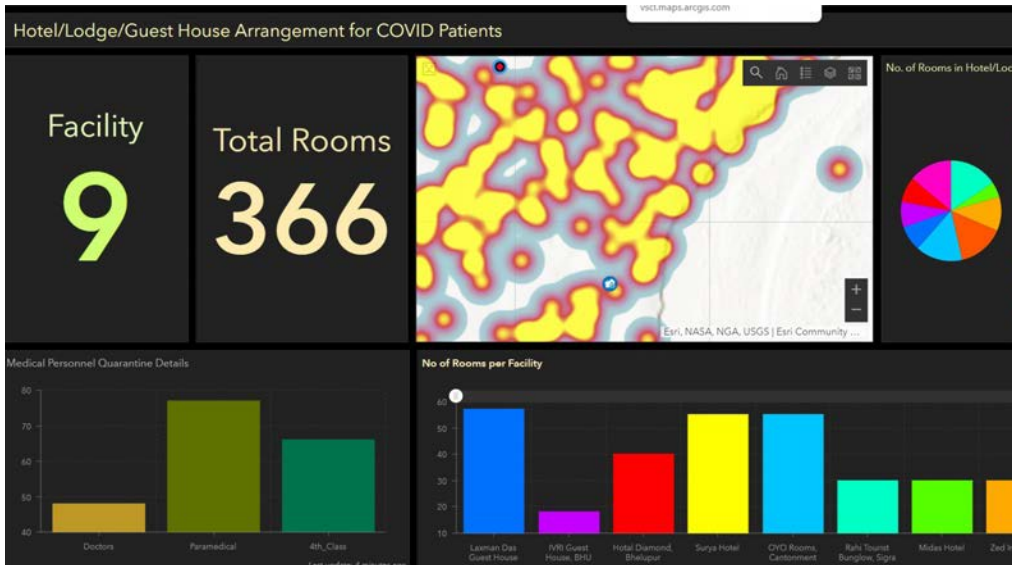
Test Name	Test No.
Glucose F / pp / R (mmol/l)	1
Che. (Hb)	2
Urine Routine (R)	3
Thyroid Profile (T4)	4
Lipid Profile (Cholesterol, TG)	5
Kidney Function Test (Urea, Creat)	6
Liver Function Test (SGPT, SGOT)	7
Urea, Creat	8
Vitamin D (25-OH)	9
Vitamin B12 (pg/ml)	10
HbA1c (%)	11
TOTAL TEST 64	
PACKAGE 2 ₹ 999/-	

TEST PACKAGE 6

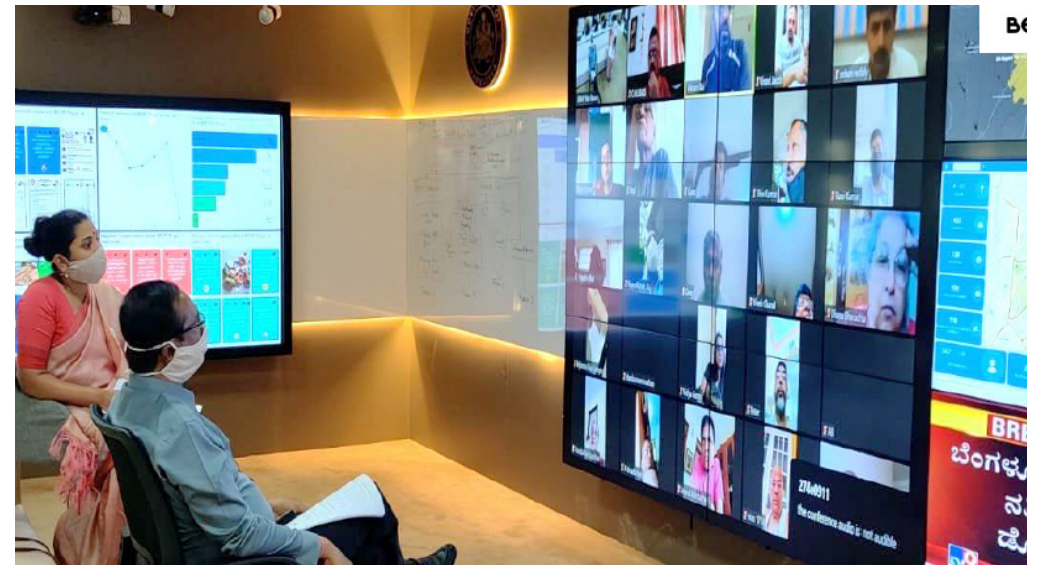
Test Name	Test No.
Glucose F / pp / R (mmol/l)	1
Che. (Hb)	2
Urine Routine (R)	3
Thyroid Profile (T4)	4
Lipid Profile (Cholesterol, TG)	5
Kidney Function Test (Urea, Creat)	6
Liver Function Test (SGPT, SGOT)	7
Urea, Creat	8
Vitamin D (25-OH)	9
Vitamin B12 (pg/ml)	10
HbA1c (%)	11
Urea, Creat	12
TOTAL TEST 84	
PACKAGE 1 ₹ 1899/-	

डॉक्टर परामर्श @ ₹50/-

The country's first Smart City Health Centre was developed in Agra. The Centre is equipped with advanced machines. Patients at the clinic are provided medicines and diagnostic facilities at concessional rates.



Dashboard for monitoring of Covid-19 Patients in Varanasi



The Bruhat Bengaluru Mahanagara Palike (BBMP) developed a Coronavirus War Room, in a record 24 hours. The 24x7 War Room mapped all positive cases, quarantined and health workers using GPS and geofencing, and helped draw up containment plans using heat mapping technology.



Use of contactless robots in Kalyan Dombivli to deliver food and medicine to patients in hospitals and quarantine centers to minimize the risk of transmission



Corona Warrior demonstrating the use of vending machine for distribution of masks in Kalyan Dombivli



Tele-counselling Centre in Chennai to address citizen concerns during the COVID-19 crisis



Oximeters were provided to monitor the health of COVID-19 patients in Aurangabad



State Control Room was created for monitoring COVID-19 spread in Itanagar. SCR served as the hub for surveillance, information gathering and implementation of all COVID-19 related activities.



Mangaluru established Intensive Care Unit (ICU) of highest standards in a record time of less than 21 working days.



Aurangabad created three levels of teams for effective management of the COVID-19 crisis.



The Smart Health Center in Agra worked to spread awareness about COVID-19 with patients. People buying medicines from a Smart Health Centre in Agra



Elderly COVID-19 patient being discharged from a hospital in Kalyan Dombivali



Itanagar Smart City ICCC COVID-19 Call Centre Service



Mangaluru Smart City has set up a state-of-the-art 37-bed COVID-19 ICU at Wenlock Government Hospital in just 21 days. The facility was available to the people free of cost.



A large, stylized graphic of a rocket ship in shades of red, pointing upwards and to the right, occupies the left side of the slide.

3.0

Ongoing Mission Initiatives

Ongoing Mission Initiatives

Smart Cities Mission has also introduced various transformative projects/ challenges/ initiatives

- Assessment under the Ease of Living Index and Municipal Performance Index measured the quality of life and city performance in 114 cities. Over 31 lakh citizens engaged with the exercise by being part of the Citizen Perception Survey.
- The Urban Learning and Internship Program (TULIP) aims to match opportunities in ULBs/smart cities with learning needs of fresh graduates. About 300 Smart Cities/ULBs have posted over 16,316 internships out of which 1,029 are undergoing internships and 440 students have completed their internships.
- DataSmart Cities has been rolled out in 100 smart cities to help cities create a data ecosystem for data-driven governance. 100 City Data Officers (CDOs), one appointed in each city, have contributed roughly 3000+ datasets on smart cities data portal (smartcities.data.gov.in) to be used for research and solution-development. The first batch of 53 CDOs from smart cities have been trained on data-driven governance.
- The Data Maturity Assessment Framework (DMAF) rolled out to help cities undergo a process of self-evaluation and embrace a data-culture, also helps assess data readiness across five components of policy, people, process, technology and outcomes.
- A Centre for Digital Governance (CDG) has been established at the National Centre for Urban Affairs (NIUA).





Citizen engagement activities at subway from Sector 17 to Rose Garden in Chandigarh



Open Streets Campaign in Sadar Bazar, Gurgaon



Children Performing during Open Streets Campaign in Jabalpur

- The Mission has launched India Urban Data Exchange (IUDX) to facilitate secure and authenticated exchange of data amongst various data platforms, third-party applications, data producers and consumers, both within a city to begin with, and scaled up across cities eventually at a national level, in a uniform and seamless way.
- ClimateSmart Cities Assessment Framework (CSCAF) has been rolled out in 100 smart cities to help cities use urban planning and governance as means to lower the impact on climate. The Climate Centre for Cities (C3) has been established at NIUA.
- National-level Challenges like India Cycles4Change Challenge, Streets for People Challenge, Nurturing Neighbourhoods challenge, EatSmart Cities Challenge and Transport4All

Challenge have been launched by the Mission towards scaling-up transformative projects that promote sustainable and inclusive practices in urban development.

- National Urban Digital Mission (NUDM) was launched by the Mission in collaboration with Ministry of Electronic and Information Technology (MeITY) to institutionalise a citizen-centric and ecosystem-driven approach to urban governance and service delivery in smart cities by 2022, and across all cities and towns in India by 2024.
- City Innovation eXchange (Cix) was launched with an objective of fostering innovative practices in cities. Cix, through an 'open innovation' process, engages with innovators to design-test-deliver on solutions to pressing urban challenges.



Street transformation for children and their caregivers at Naiyon ki Talai, Udaipur Street transformation for children and their caregivers at Naiyon ki Talai, Udaipur



Citizens using public bikes in Bhubaneswar



Smart City Open Streets Campaign in Jabalpur





Stakeholder Discussion at Vadodra under Streets4People Campaign





4.0

Citizen Outreach

Citizen Outreach

Citizen Perception Survey

As part of the Ease of Living Index Assessment, a Citizen Perception Survey (#MyCityMyPride) was conducted on behalf of the Ministry (which carries 30% of the marks of the Ease of Living Index). This survey sought to directly capture perception of citizens with respect to quality of life in their cities. This survey, which was administered both online and offline, had commenced from the 16th of January 2020 and continued till the end of February 2020 for the online submission and till 20th of March for the face-to-face survey. The data for the survey was captured both online and offline.

The city administrations promoted this survey by putting up posters and hoardings in key places across each city, as well as releasing advertisements in newspapers. Citizens of this city were encouraged to wholeheartedly participate in this survey by scanning the QR code in the collaterals and advertisements or by simply visiting the website.

While the team created a large number of collaterals, for both hoardings as well as print media, cities were also encouraged to create their own

collaterals using locally relevant pictures and messaging, while retaining the essential branding and key access and communication features. Most cities, in a bid to promote the survey among its citizens, became very creative with their outdoor collaterals which were designed to not only solicit participation, but also promote the #MyCityMyPride ethos.

85 cities had advertised the survey on outdoor billboards and electronic display panels, 78 cities printed posters in bulk and distributed in schools, colleges and institutions and public places, 76 cities had held press meets to promote the survey and 70 of them published editorials in the leading English and vernacular papers. 85 cities also placed quarter page advertisements on weekends in the leading dailies so that their readers could use the QR code to access the online portal and take the survey. Engagement with the leading print media houses was a major reason behind the success of this survey. The engagements, be it through press meets, editorials, or quarter page advertisements, were timed to come out on three successive weekends where readership is usually high.





The Mayor of Surat interacting with citizens during Ease of Living campaign



Teacher engagement in EOL and MPI citizen perception survey activity in Surat



Citizens engagement program in Pimpri Chinchwad



Car Free Sunday campaign in Thoothukudi



1. Citizens engagement for awareness at DIT school in Dehradun
2. Awareness message regarding casting votes through wall paintings in Patna
3. Campaign for smart city projects in Aligarh
4. Citizen perception survey in Salem regarding Ease of Living & Municipal Performance Index
5. Awareness message regarding casting votes through wall paintings in Patna
6. Ease of Living campaign for citizens in Indore



'Car-Free Sunday' campaign in Thoothukudi



Helpdesk for citizens in New Town Kolkata



Children playing in a safe open space in Vadodara



'Car-Free Sunday' campaign in Thoothukudi



Self-defense training at Social Equity Centre in Bhubaneswar



Slum Interaction to build Covid19 awareness in Bhubaneswar



BUILDING CITIES FOR PEOPLE CAMPAIGN IN TIRUPPUR



In memory of...

Aftab Alam

(27 February 1984 - 9 May 2021)



This publication is an homage to our dear friend and colleague Aftab Alam, who succumbed to COVID-19 related complications on the 9th of May, 2021. He had studied architecture at Aligarh Muslim University and urban infrastructure planning at CEPT University, Ahmedabad. Aftab joined the Mission in the year 2019 as part of the Smart Cities Mission Management Unit. He was an urban planner with a specialisation in transport planning. A great human being with a friendly and compassionate manner, and a professional par excellence, Aftab was gifted with the ability to forge many positive bonds. His friends and family remember fondly the goodness of his heart and caring nature.

His colleagues miss his humour, support and company.

'Smart Cities Mission: Building Cities for People...' is a true reflection of Aftab's work in general – crafted with care, splendid to behold, and memorable. The pages of this book render a walk-through of his creativity in the final stretch of his journey with the Mission, and of

destinations hand-picked for the readers by Aftab.

TITLE

'Smart Cities Mission: Building Cities for People..!'

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