Ministry of Housing and Urban Affairs
Government of India

Smart City
MISSION TRANSFORM-NATION

SMART CITIES MISSION

Compendium of Best Practices

2023

ACKNOWLEDGEMENT

Ministry Team – Smart Cities Mission

Kunal Kumar (IAS)
Joint Secretary and Mission Director (SCM)

Special Mention

Rahul Kapoor
Joint Secretary and Mission Director (NULM)

Director/ Deputy Director – Smart Cities Mission

Lal Chhandama, Jitendra Kumar Mehan, Kunj Bihari Tripathi

Under Secretary

Sabak Lal Prasad, Parveen Kumari, Jagdish Chandra Upreti

Smart Cities Mission Management Unit (SC-MMU)

Vikash Chandra (Team Leader), Rupesh Chopra, Dinesh Harode, Vishnu Pandey, Gargi Roy, Siddharth Barpanda, Srinivas Surya, Jaipal Daksh, Amit Kumar Sharma, Harshit Parashar, Kusha Goyal

National Institute of Urban Affairs (NIUA)

Hitesh Vaidya, Ruchi Gupta, Sarika Chakraborty

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litmus.ink

SHRI HARDEEP SINGH PURI

Union Minister for Housing and Urban Affairs
& Petroleum and Natural Gas
Government of India

MESSAGE

हरदीप एस पुरी
HARDEEP S PURI

आवासन और शहरी कार्य मंत्री
पेट्रोलियम एवं प्राकृतिक गैस मंत्री
भारत सरकार
Minister of
Housing and Urban Affairs; and
Petroleum and Natural Gas
Government of India

Message

Under the visionary leadership of the Hon'ble Prime Minister Shri Narendra Modi, transformative urban initiatives launched after June 2015 have fundamentally altered the urban development paradigm in the country. One aspect of this transformation has been the Smart Cities Mission, which has been at the forefront of cultivating a culture of innovation and technology-driven development.

Over the last eight years, the Smart Cities Mission has undertaken active citizen engagement during the course of its implementation to substantively improve the ease of living for citizens and businesses. As the mission nears its culmination, it is imperative that the good practices and learnings from this mission soak into the fabric of our towns and cities across the country.

The "Smart Cities Mission – Compendium of Best Practices" aims to do just that by comprehensively compiling breakthrough ideas, successful initiatives, and transformative projects from the 100 Smart cities. This compendium is a testament to the remarkable progress we have made as a nation in creating smart, sustainable, resilient and inclusive cities.

The success stories in this compendium are blueprints for urban change that any city, be it large or small, could take up. They underscore the power of collaboration between government, private sector, academia and civil society. These best practices show that sustainable urban development is not a distant dream, but a tangible reality that can be achieved through a shared vision.

I am hopeful that this compendium will be beneficial to city leaders, administrators, urban planners and other stakeholders in developing citizen-centric initiatives to build future-ready cities.

(Hardeep S Puri)

21 September 2023
New Delhi

Office:- Room No. 104-C, Nirman Bhawan, New Delhi-110011; Phone: 011-23061166, 23061162, 23062089 (Fax)

SHRI MANOJ JOSHI

Secretary
Ministry of Housing and Urban Affairs
Government of India

FOREWORD

Smart Cities Mission, launched in June 2015, has traversed a significant distance since its inception and has been a beacon of hope and action, bringing positive change to the lives of residents of the 100 cities. A distinctive feature of the Mission is its core emphasis on citizen engagement. Besides, it has institutionalized an innovative institutional mechanism in the form of the SPV which has borne promising results.

Urbanization is a significant global trend with far-reaching implications for society, economy and the environment. India is no different, and in fact along with countries like Nigeria, Vietnam and Indonesia is going to witness the largest wave of urbanization going forward. Our urban population is set to double in the next 25 years, reaching close to the 1 billion mark. It is in this context, that we need to appreciate the ideas, initiatives, projects and programs nurtured by the Smart Cities Mission. These exemplars provide us with templates for future action in other urban areas across the country and the globe.

In the face of complex challenges such as climate change, and resource scarcity, the lessons from these best practices become even more important. Our approach must be holistic, encompassing economic growth, social equity, environmental sustainability, and technological advancement. We must continue to prioritize citizen-centered solutions that emphasize inclusivity, accessibility, and participation.

Interventions under the Mission have contributed to improvements in the physical, institutional, economic and social spheres touching diverse areas like mobility, walkability, sanitation, water & waste-water management, affordable housing, renewable energy, etc. Of the total projects proposed under the Mission, more than 6,000 projects have been completed and the remaining 2,000 projects are expected to be completed by June 2024.

I am pleased to share the Mission's accomplishments through the document called "Smart Cities Mission - Compendium of Best Practices ". This will allow practitioners, academics, policymakers, and all stakeholders interested in learning of the progress of India's Smart Cities to appreciate the monumental work that these cities are undertaking. I congratulate the Mission Director, Smart Cities, Principal Secretaries of States/ UTs, Smart City CEOs, and all those who contributed to this publication.

SHRI KUNAL KUMAR

Joint Secretary and Mission Director
(Smart Cities Mission)
Ministry of Housing and Urban Affairs
Government of India

PREFACE

As Mission Director of the Smart Cities Mission, I have had the privilege of seeing work being undertaken in the 100 smart cities from very close quarters. As an ardent urban observer and practitioner, I have been involved in the mechanics of the Mission right from its inception. I have vivid recollections of the launch event which took place at Vigyan Bhavan, New Delhi in June 2015 when the Hon'ble Prime Minister exhorted the national urban fraternity to first of all, view urbanization as an opportunity and second, to work relentlessly in creating well-managed, well-governed and well-functioning cities so that they offer better ease of living and doing business to their citizens.

8 years on as I reflect on the Missions' journey, I get goosebumps. To be honest, the Mission has had its fair share of criticism from 'experts' and the 'ordinary' alike. I jokingly use the phrase 'burden of smartness' to underwrite the fact that the tag of being 'smart' cannot be earned easily. 'Being smart' is equated to 'being perfect', which is quite simply impossible to achieve, let alone achieve in a window of 5 to 10 years. Nevertheless, it is the combined force of these aspirations that acts as the Mission's fuel. Cities are but, their people. And by putting the hopes and aspirations of their citizens at the core of their work, smart cities may run the risk of being criticized due to the potential achievement-aspiration gap but would never run the risk of being irrelevant and unresponsive. For the ability to adapt to the ever-changing needs of its citizenry is the true measure of 'smartness' of a city.

The work in these 100 cities has evolved over time. Criticisms have mellowed and appreciations have flowed. It is very difficult to summarize work under the Mission because of the sheer scale, diversity and depth of its initiatives, projects and programs. In order to aggregate excellent initiatives, reward them suitably, and to enable peer-peer learning, the Ministry of Housing and Urban Affairs has been organizing the India Smart Cities Awards Contest (ISAC) since 2018. For the fourth edition of ISAC 2022, the Ministry received a phenomenal 845 entries in 19 award categories from 77 cities.

ISAC is a great platform for anyone who wants to know about the work being undertaken in India's smart cities. The compendium will fill you – the taxpayer with hope, happiness and a sense of fulfillment. Invaluable taxpayers money goes into implementing such programs and it is vitally important for everyone associated with their implementation to ensure that the taxpayer gets maximum bang for the buck – 'paisa vasool' as it is called colloquially.

Building smart cities is a never-ending work in progress. Reflecting on the Hon'ble Prime Minister's exhortation of 8 years ago, I still feel the same sense of excitement and opportunity looking forward into the future. The canvas of global urbanization in the next two decades is going to be painted, to a large extent, by the work we do in India. The practices and programs we implement will become global templates. This compendium, therefore, will not merely catch national attention but would be received with incredible interest globally.

I would like to extend my heartfelt appreciation to all individuals, teams, and organizations that have contributed towards putting together this compendium. I hope it inspires the 'expert' and 'ordinary' alike and gives you, the reader, a reason to cheer! For everyone's better future!

CONTENTS

Smart Cities Mission will help prepare our cities to take up the challenges of New India; and prepare world class intelligent urban centers in India, for the 21st century.

Shri. Narendra Modi
Hon'ble Prime Minister of India

Part A

SNAPSHOT

Smart Cities Mission

SMART CITIES MISSION: **OVERVIEW**

AREA BASED DEVELOPMENT: 3 MODELS

Retrofitting

Area: **500 acres**

Redevelopement

Area: **50 acres**

Greenfield

Area: **250 acres**

PAN-CITY: CITY WIDE SMART SOLUTIONS

100

Cities Selected

Total Projects

7,934

₹ 1,71,044 Cr.

Completed Projects

6,069

₹ 1,10,794 Cr.

KEY FEATURES

Two-stage competition

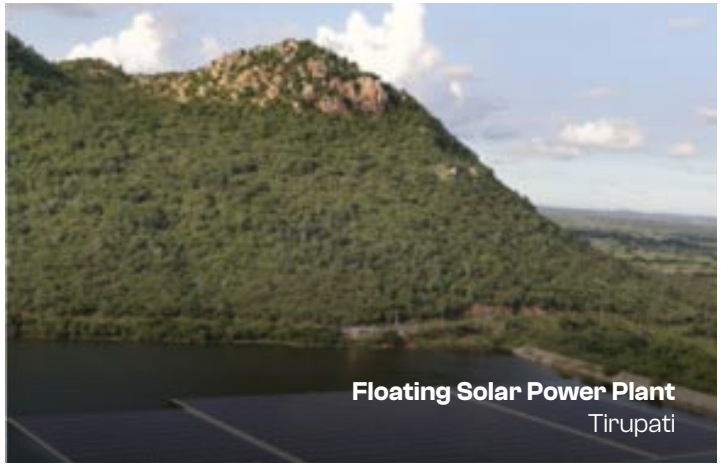
Center & State – 50:50

48,000 Cr. Centralgrants

Convergence and PPP

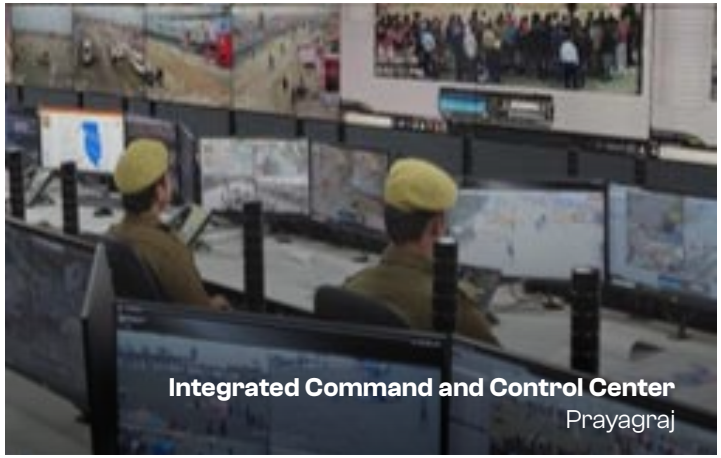
4 Key principles of Smart City Development in India

1.

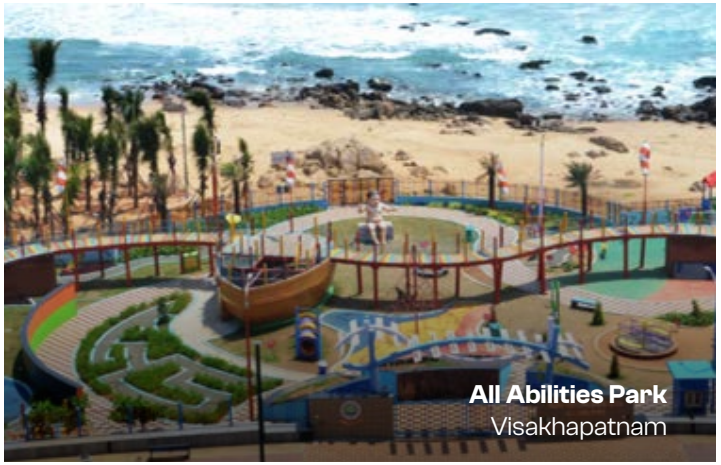


More from Less

Affordable Excellence



Being future-ready



Community Centricity

KEY ACHIEVEMENTS

Smart Cities Mission was launched in June 2015. 100 selected cities are developing around 7,900 multi-sectoral projects worth ₹ 1.7 lakh crore. As on 12 September 2023, 6,081 (77%) projects worth ₹1,10,890 crore have been completed and the remaining 1,853 projects worth ₹60,154 crore are on track for completion by 30 June 2024.

Integrated Command and Control Center

All 100 smart cities have operational Integrated Command and Control Centre (ICCC) which are utilizing real-time data for decision making. The use of technology towards urban management has increased manifold. **Urban services in each of the 100 cities have significantly improved** in diverse fields like crime tracking, safety & security of citizens, transport management, solid waste management, water supply, disaster management etc.

Public Safety and Security

More than **76,000 CCTV surveillance cameras** have been installed in 100 smart cities which helps in crime monitoring. **1,884 emergency call boxes, 3,000 public address system,** for traffic management and monitoring, more than **7,600 Red Light Violation Detection system (RLVD) and 7,100 Automatic Number Plate Recognition System (ANRP)** have been installed across the 100 smart cities which have helped improve public safety.

Vibrant Public Spaces

Almost all **100 cities** have developed **1300+ public spaces** including 180 **waterfront projects, 170 projects** developed focusing on **Cultural heritage, 200+ markets redevelopment.**

Water Supply

More than **6,800 kms of water supply network redeveloped;** most city water systems are being monitored through SCADA, **reducing non-revenue water** and leakages.

Solid Waste Management

More than **50 cities** are managing **Solid Waste Management** with increased usage of technology, which has **improved Route Management, Efficiency of Collection and Daily Management.** Around **4,800 vehicles** have been **RFID enabled** for **Automatic Vehicle Location (AVL)** to improve the efficiency of solid waste management.

Mobility

2,500+ km of Smart roads with universal accessibility, utility ducts and proper signages have been built. 7,**500+ new buses deployed** (including **2,000+ electric buses), 5,000+ bus stops** developed/ retrofitted. Further, **Intelligent Transport Management System (ITMS)** have been implemented and monitored through the ICCCs improving traffic operations, enforcing traffic violations, and improving journey time.

Affordable Housing and Shelter

44,054 Dwelling Units constructed, and **6,312 number of rooms built** in community housing projects like Rain Basera, Hostel (non-educational), night shelters etc. under the Mission.

Streetlights

More than **50 Lakh Solar/LED Streetlights** have been installed and over **89,000 kms of electricity cabling shifted underground.**

Smart Solutions

9,754 Wifi hotspots created, and more than **76,000 CCTV cameras** installed.

Education and Health

6,855 smart classrooms have been developed and **40 Digital Library developed, 1,600+ Anganwadis developed. 308 e-health centers and clinics** have been developed (without dedicated beds) and **255 health ATMs** installed.

Economic Hubs

37 incubation centers/skill development centers developed and over **50 market redevelopment projects** completed.

Public Private Partnership (PPP)

50+ cities have successfully developed **230+ projects** with Public Private Partnership (PPP) projects worth **₹ 15,000 Cr.**

National Challenges

The Smart Cities Mission has continually adapted itself with emerging needs and provided cities with choice on how to respond. For instance, when the COVID-19 pandemic raised global awareness about the importance of open spaces in having active and healthy lifestyles, the Mission launched campaigns such as **'India Cycles4Change'** and **'Streets4People'** in a challenge format. To ensure even the most vulnerable citizens have access to public spaces, especially young children and caregivers, cities participated in **'Placemaking Marathons'** and the **'Nurturing Neighborhoods Challenge'.** Other challenges like **'Transport4All'** and **'EatSmart Cities'** are promoting startups in public transport and improving food hygiene in smart cities, respectively.

Assessment Frameworks

Various assessment frameworks created under the Smart Cities Mission include **Ease of Living Index, Municipal Performance Index, Data Maturity Assessment Framework and ClimateSmart Cities Assessment Framework.** These multiple indices and frameworks have been integrated into the Urban Outcomes Framework, creating **1,00,000+ Datapoints of 250+ cities across 14+ sectors.**

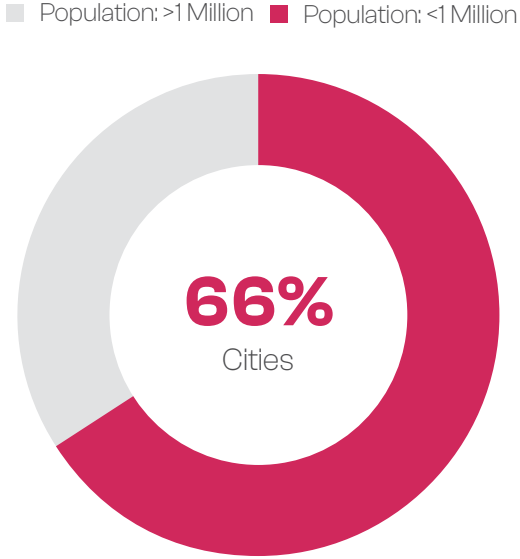
Climate Resilience

Environmental sensors have been installed in more than 30 cities and **5,300+ personnel** and volunteers **trained** for disaster response.

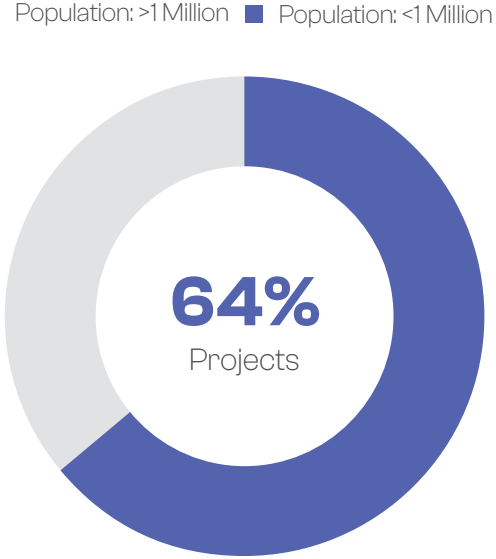
Institutional experimentation pays dividends
SPVs across 100 smart cities giving good results compared to peer institutions

2.

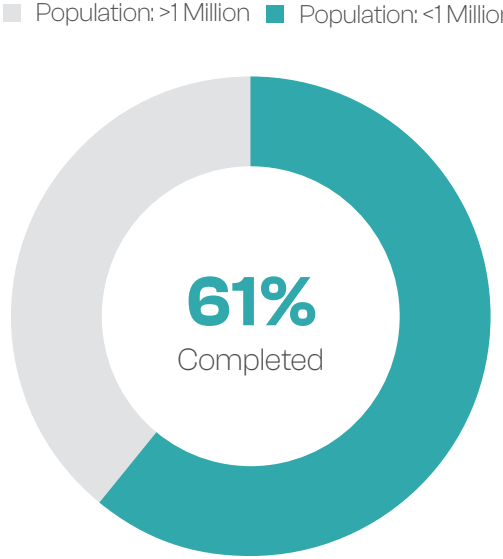
Ratio of Smart Cities by Population



Ratio of Projects in SCM: By Number



Projects Completed: By Cost



66 Smaller Cities contribute **64%** of total projects, performing as well as bigger cities

Smart Cities are Developing Templates for Greenfield Development

3.

The XV Finance Commission recommends incubation of new cities (performance-based challenge fund of ₹ 8,000 Cr. to States)

5 Cities have tried Greenfield development, with notable success

- **Rajkot**
- **Bhopal**
- **Ranchi**
- **Amravati**
- **Naya Raipur**

Greenfield Development, Bhopal

Ability to Adapt in an Agile Manner is Fundamental to Being Smart

4.

4 quadrant response of Indian Smart Cities during COVID-19

COMMUNICATION

New Town Kolkata – Communicating with citizens

INFORMATION

Surat – Mapping of positive cases

MANAGEMENT

Varanasi– Monitoring health infrastructure

PREPAREDNESS

Bengaluru – Towards predictive modelling

Our Rich History & Culture can be the Pedestal for a Glorious Future

5.

- Conservation of built heritage
- Development of incubation & skill centre
- Redevelopment of public land on TOD
- Solid Waste Management
- Sanitation/ Water/ Waste-water management
- Power supply Electricity
- Green mobility

Keeping Citizen at the Core is Non-Negotiable; Nothing is More Important

6.

Citizen Engagement
Vzag

Thinking in a Systemic Manner Creates Sustainable Impact

7.

4 - STEP PROCESS TO DEVELOP SMART STREETS

Policies/Regulations

Healthy Streets/ NMT Policy / Parking Policy etc.

Infrastructure/ Logistics

Streets with sidewalks, integrated utilities, cycle tracks, etc.

Processes

Complete streets guide, handle bar surveys, urban design cells

Wicked Problems

Getting people to embrace walking, cycling and public transport

To Nurture Tomorrow's Urban Champions, Cities Should Invest in Youth

8.

120 Fellows
India Smart Cities Fellowship

10,800 Internships
The Urban Learning Internship Program

Focus on Active Living Post Covid is Must to Improve Livability

9.

Public Bicycle Sharing and dedicated bicycle corridors
Chandigarh

Vision & Courage is Necessary for Building Smart Cities 10.

Child- Friendly Park at MH Nagar Slum
Warangal

Cities Need to be Built for People with all Abilities, Ages, & Gender 11.

Micro Skill Development Centre
Agra

All Abilities Park
Visakhapatnam

People Promenade at Valakulam Lake
Coimbatore

Cities Should Invest in Health & Education for the Country's Future

12.

Digital Library
Tumakuru

Smart Health Clinic
Pune

There is Huge Scope for PPPs in Indian Cities (Over ₹ 15,000 Cr. in The Mission)

13.

COMMON MOBILITY CARD
(Kochi, Bhubaneswar, Ahmedabad)

PUBLIC BIKE SHARING
(Jabalpur, Pune, Chennai, Vadodara)

AFFORDABLE HOUSING
(Surat, Vadodara, Bhubaneswar)

ENERGY EFFICIENT LIGHTING
(Chandigarh, Patna, Hubbali-Dharwad)

SOLID WASTE MANAGEMENT
(Indore, Gwalior, Jabalpur)

ROOFTOP SOLAR
(Kakinada, Mangaluru, Gwalior)

WASTE TO ENERGY PLANTS
(Jabalpur, Kanpur)

MULTI-LEVEL CAR PARKING
(Bengaluru, Nagpur, Belagavi)

WATER ATMS, SMART TOILETS
(Vadodara, NDMC, Ujjain)

SMART/INTELLIGENT POLES
(Nashik, Indore, Bhopal)

MULTI-MODAL TRANSIT HUB
(Pune, Vadodara, Bhubaneswar)

MARKET REDEVELOPMENT
(Raipur, Dharamshala, Bilaspur)

New Age Governance is not only About Government; its About 360° Engagement

14.

GOVERNMENT

₹42,000+ Cr.
Convergence

ACADEMIA

75+ case studies
documented

360°
Engagement

>10 Cr. lives
impacted

INDUSTRY

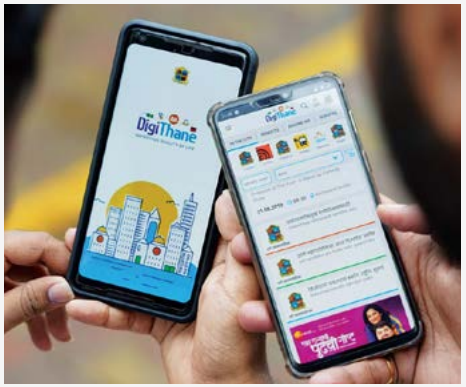
PEOPLE

₹ 15,000 Cr.
PPP projects

When Mindfully Deployed, Technology can Transform Governance

15.

Improving Service Delivery



Improving Efficiency

Monitoring Outcomes

Achieving Goals Like SDGs

Creating Innovative Solutions

Connecting Stakeholders

Driving Economic Growth

Evidence for Policy Making

CSCAF is a Potent Global Template For Collaborative Climate Action

16.

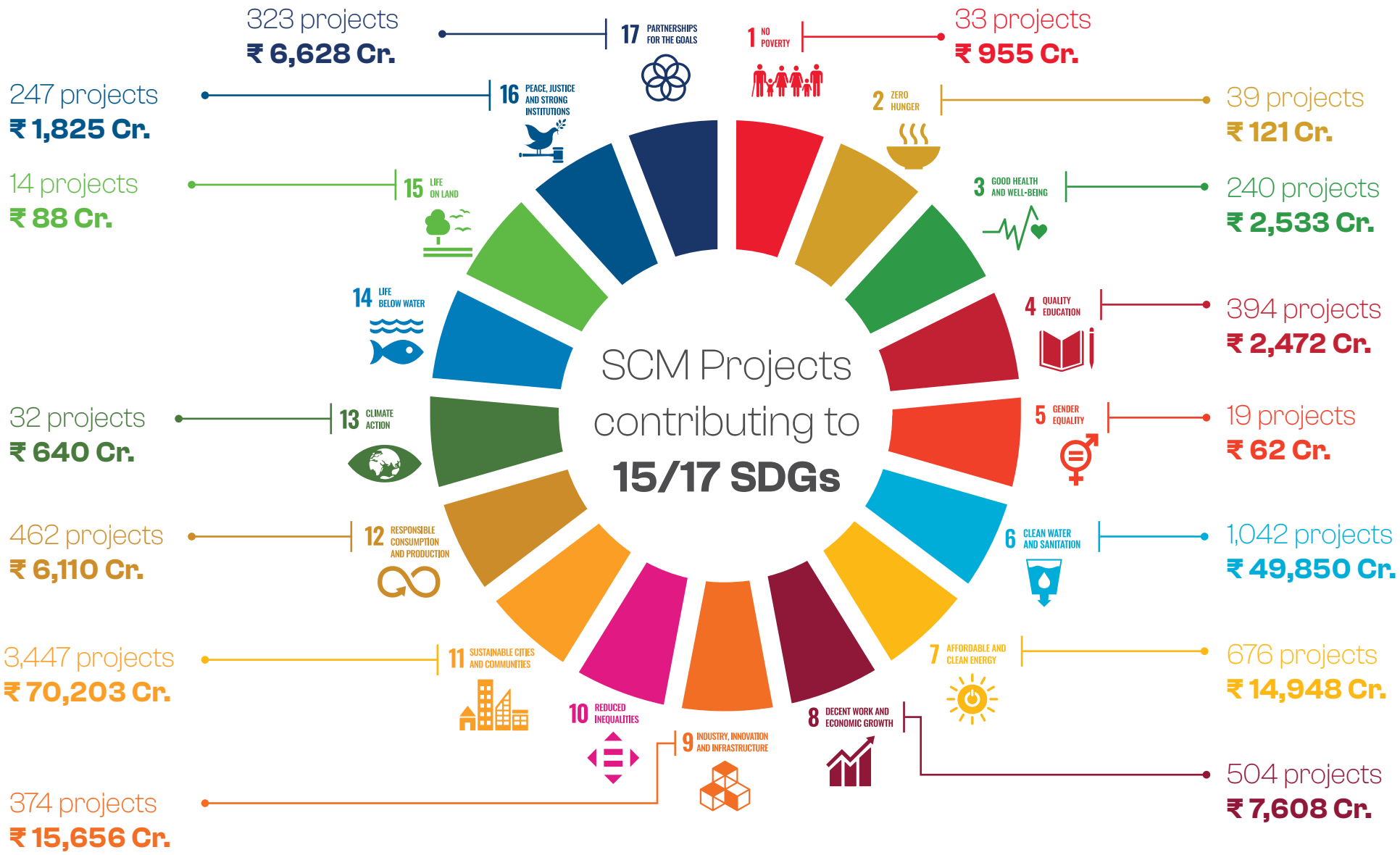
E-Buses for public Transport
Kanpur

Waste-to-Energy plant
Jabalpur

Wind Mills
Surat

Localization of SDGs at City Level, is the Key to Achieving Them

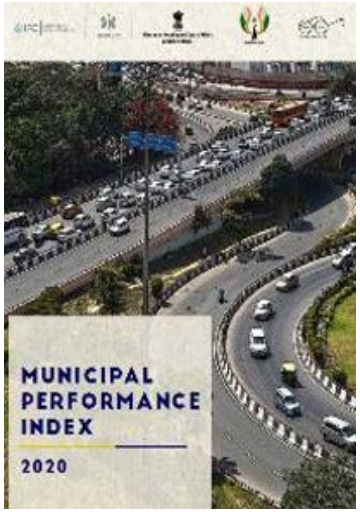
17.



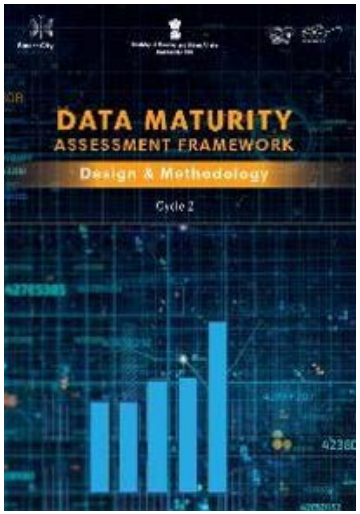
Projects are Mere Vehicles, Ultimate Focus Should be on Outcomes

18.

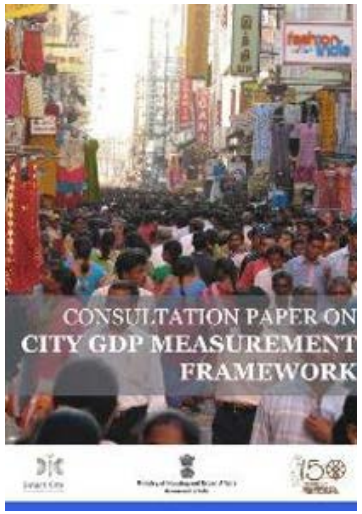
Ease of Living Index



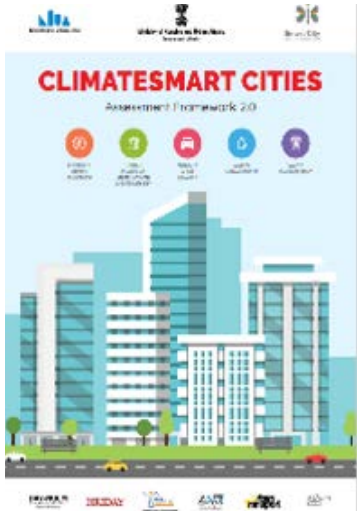
Municipal Performance Index



Data Maturity Assessment Framework



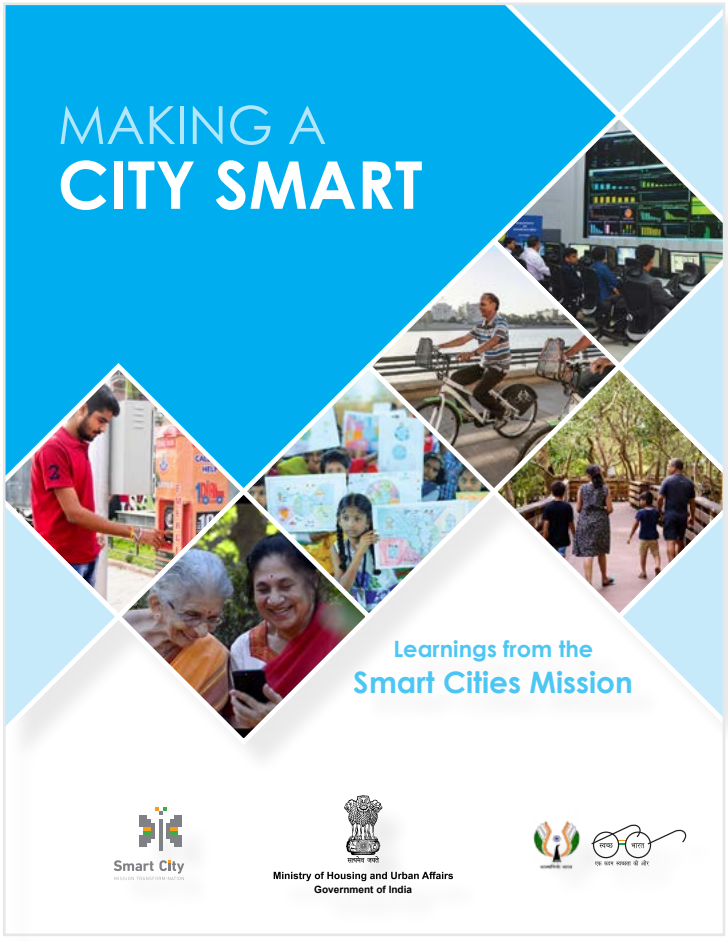
City GDP Measurement Framework



'Climate Smart Cities' Assessment Framework

‘Smart’ is a Journey, Not a Destination

19.



https://smartcities.gov.in/

Citizen Participation Surat

FROM MISSION TO MOVEMENT

Living spaces should be characterized by the 5 “E”s: Ease of Living, Education, Employment, Economy and Entertainment.

Shri. Narendra Modi
Hon’ble Prime Minister of India

Part B

ISAC 2022 AWARDS

SNAPSHOT OF ISAC 2022

April 2022
ISAC 2022 Awards announced in Surat

80 Cities
Qualified

4 Stage
Evaluation
Carried Out

77 No. of Unique
Cities Applied

12 Project
Categories

845
Proposals

67 Award
Winners
Across
28 Cities

01

Best States/ UT Awards

Redevelopment of Gulauaa Talab, Jabalpur

RANK 1
MADHYA PRADESH

TOTAL PROJECTS

779

₹ 15,695 Cr.

COMPLETED PROJECTS

630

₹ 9,777 Cr.

Winning Projects

Gwalior

- ICCC - Sustainable Business Model
- Intelligent traffic management system

Sagar

- Intelligent Traffic Management System Improving Road Safety

Jabalpur

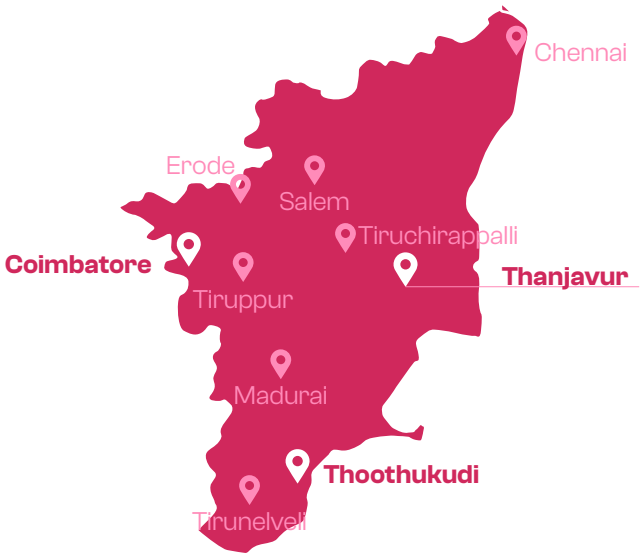
- ICCC - Sustainable Business Model
- Intelligent traffic management system

Indore

- Riverfront Development
- Covid 19 Response
- Value Capture Financing (VCF)
- Gobardhan Bio-CNG Plant
- Air quality improvement
- Ahilya Van along with Vertical Garden
- Saraswati and Kahn Lifeline Project (SANKALP)
- Rainwater Harvesting – "Water Plus to Water Surplus"
- Rejuvenation of Lakes, Wells, and Stepwells of Indore

Pondy Bazaar, Chennai

RANK 2
TAMIL NADU



TOTAL PROJECTS

710

₹ 17,188 Cr.

COMPLETED PROJECTS

594

₹ 14,211 Cr.

Winning Projects

Coimbatore

- Model Roads
- Restoration and Rejuvenation of Lakes

Thanjavur

- Conservation of Ponds – Ayyankulam

Thoothukudi

- Smart Classroom and E-Monitoring

Redevelopment of Old City Junction, Udaipur

JOINT RANK 3
RAJASTHAN

TOTAL PROJECTS

577

₹ 8,626 Cr.

COMPLETED PROJECTS

528

₹ 7,395 Cr.

Winning Projects

Udaipur

- Smart City Application

Micro-skill Development Centre, Agra

JOINT RANK 3
UTTAR PRADESH

TOTAL PROJECTS

878

₹ 20,454 Cr.

COMPLETED PROJECTS

650

₹ 16,758 Cr.

Winning Projects

Agra

- Covid 19 Response Category - Multiple Initiatives
- Revenue generation through ICCC and Carbon emission reduction
- Smart Health Centers
- Provision of Water Supply Using SCADA and Smart Water Meters

Kanpur

- Modernisation and Development of Palika Sports Stadium

Lucknow

- Rojgar Training Centre

Public Bike Sharing System, Chandigarh

RANK 1
CHANDIGARH

TOTAL PROJECTS

96

₹ 3,212 Cr.

COMPLETED PROJECTS

85

₹ 1,729 Cr.

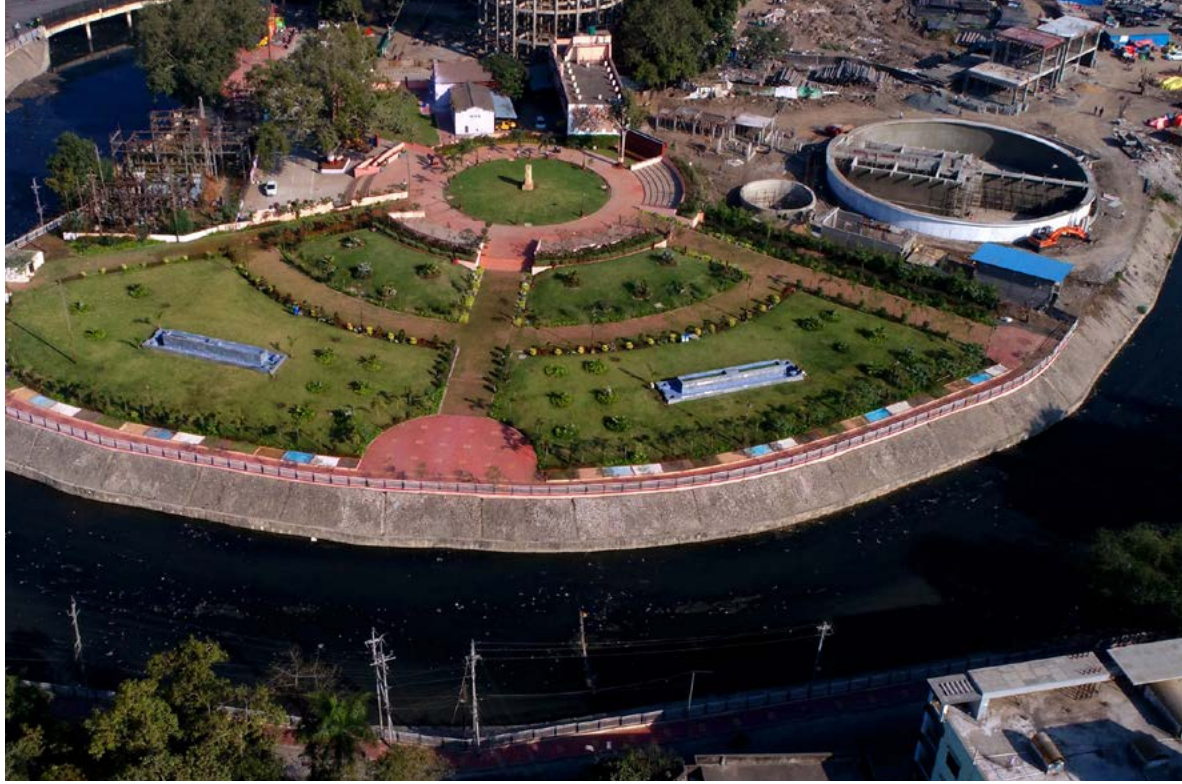
Winning Projects

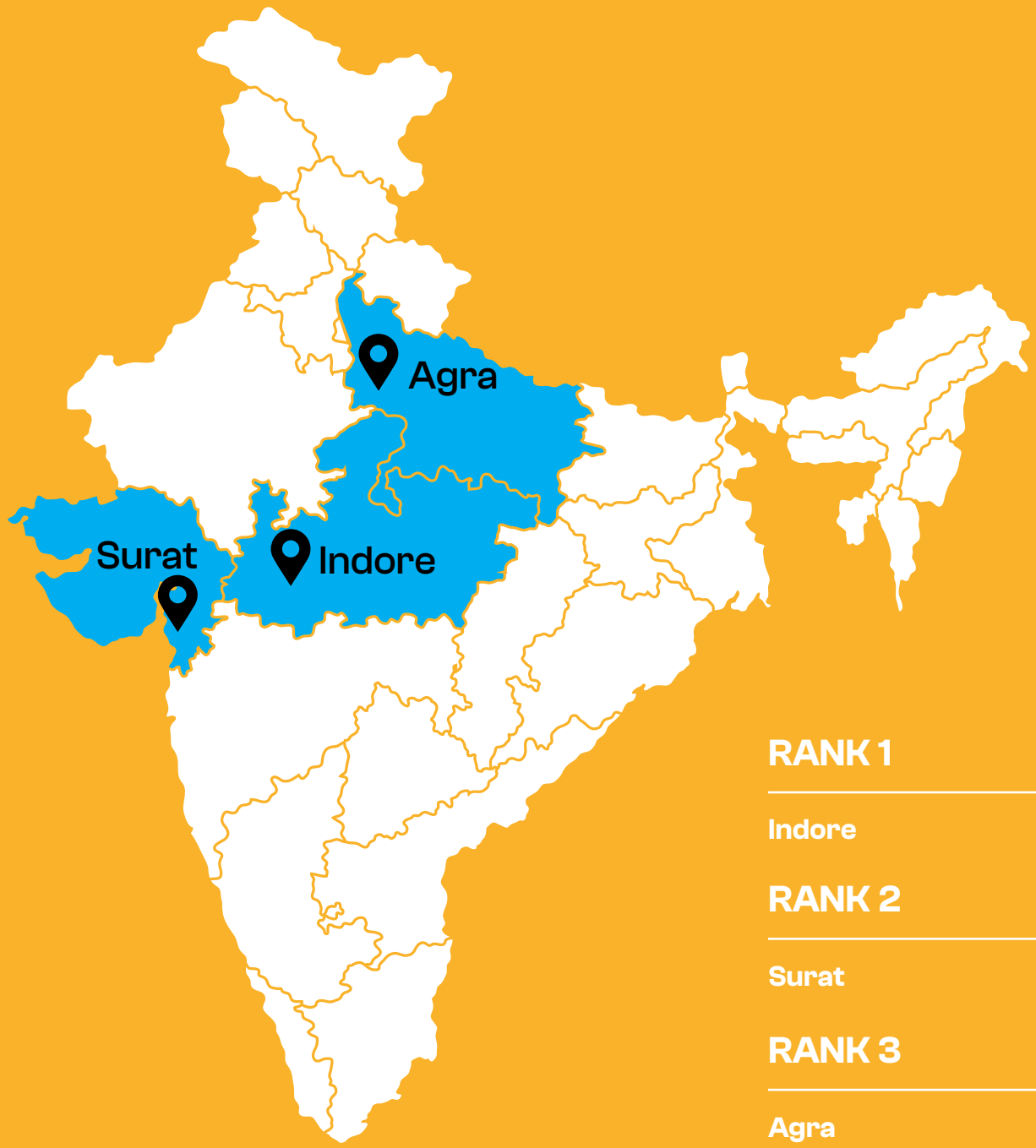
- Public Bike Sharing (PPP) along with cycle tracks
- Provision of SCADA for Solid Waste Management
- E Governance Services for Chandigarh Smart City

02

City Awards

NATIONAL SMART CITY AWARDS





RANK 1

Indore

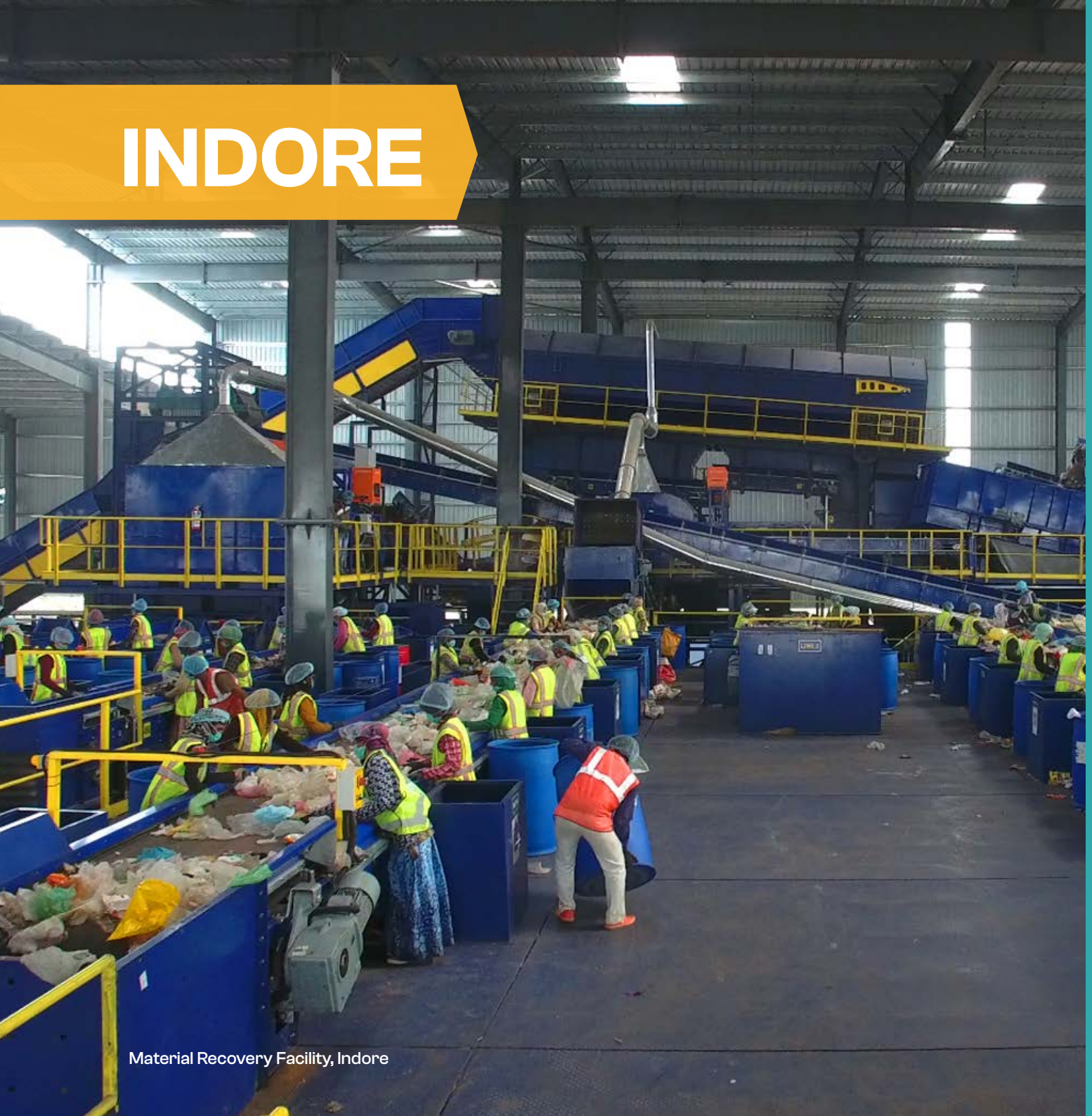
RANK 2

Surat

RANK 3

Agra

INDORE



Material Recovery Facility, Indore

RANK 1

About the City

Indore's Area Based Development Area, centered around the iconic Rajwada Palace, represents a densely populated and congested urban core, serving as a prominent business hub. This area faces challenges due to irregular settlements around rivers, but it also boasts numerous heritage structures. The city's vision and accomplishments for ABD include infrastructural development, such as smart roads, sewer systems, riverfront enhancements, heritage restoration, solid waste management and IT infrastructure development, all aimed at improving resident's quality of life. The key challenges revolve around environmental responsibility, preserving heritage & culture, enhancing living standards and innovatively financing these transformative initiatives. This holistic approach ensures the sustainable growth and preservation of Indore's historic core.

Achievements of Indore Smart City

Indore Smart City has emerged as a paragon of innovation and excellence, earning recognition and accolades in multiple categories at ISAC 2020 (India Smart Cities Awards Contest). These achievements testify to the city's unwavering commitment to holistic development across various domains.

Overall Winner: Indore's holistic approach to urban development catapulted it to the coveted title of Overall Winner at ISAC 2020. This prestigious recognition reflects the city's comprehensive achievements in multiple facets of innovative city initiatives.

Built Environment - Chappan Dukan: The city's Built Environment garnered the top spot with the 1st Award for Chappan Dukan. This recognition underscores Indore's dedication to creating well-planned and aesthetically pleasing urban spaces.

Innovative Idea Award - Carbon Credit Financing Mechanism: Indore Smart City's innovative approach to financing through carbon credits earned it the Innovative Idea Award. This mechanism drives sustainable development and underscores Indore's commitment to reducing its carbon footprint.

Culture - Conservation of Heritage: Indore's efforts in conserving its rich cultural heritage earned it the 1st Award in the Culture category. This recognition highlights the city's commitment to preserving its historical and cultural treasures for future generations.

Sanitation - Municipal Waste Management System: Indore's exemplary Municipal Waste Management System secured the 1st Award in the Sanitation category. This accomplishment reflects the city's dedication to maintaining cleanliness and hygiene, setting a benchmark for others.

Economy - Carbon Credit Financing Mechanism: Indore's Carbon Credit Financing Mechanism also secured the 1st Award in the Economy category. This innovative approach bolsters the city's financial sustainability and positions it as a leader in intelligent urban economics.

Indore Smart City's achievements at ISAC 2020 underscore its commitment to comprehensive urban development, sustainability, culture preservation, sanitation and economic innovation. These accolades recognize its efforts and inspire other cities to emulate its success in becoming more innovative and sustainable urban centers.

Project 1: SANKALP: Saraswati and Kahn Lifeline Project

The project in Indore is a remarkable initiative with several salient features. It includes the cleaning of riverbeds through dredging, nala tapping, slum rehabilitation and riverfront development. The key impacts and outcomes of this project have been transformative. It has eliminated the visibility of black and grey water in water bodies and open lands. Decentralised STPs and diversion of approximately 7000 wastewater outfalls have further improved water quality. The project has rejuvenated marine life, enhanced public health, created additional community spaces in dry stormwater drain and boosted property prices in areas along rivers. Indore's residents take pride in their transformed environment, showcasing the success of the SANKALP initiative.

- diversion of approximately **7,000** wastewater outfalls
- Rejuvenated marine life

Project 2: Rainwater Harvesting - "Water Plus to Water Surplus"

The "Bhu-Jal-Sanrakshan-Abhiyan" in Indore has made significant strides in rainwater harvesting (RWH), aiming to transform "Water Plus to Water Surplus." The installation of over 1 lakh RWH units across the city has led to a remarkable rise in the groundwater table. Approximately 30 percent of previously tanker dependent habitations now have working borewells, ensuring a year round supply of drinking water. This initiative is expected to save around 18,500 million litres of water annually and has reduced water runoff during the rainy season. Moreover, it has enhanced citizen awareness about responsible water management, making Indore a shining example of sustainable water resource utilization.

- **1 lakh** RWH units
- save around **18,500** million litres of water annually

Riverfront Development, Indore

Project 3: Public Bicycle Sharing

Indore's Public Bicycle Sharing (PBS) system, established through a PPP model with a VGF capped at Rs 2 Cr has become a resounding success. With 1,400 bicycles available at 100 locations, it has engaged approximately 10,000 citizens in over 20,000 trips. This initiative has notably reduced carbon emissions, lessened reliance on private automobiles and alleviated traffic congestion, ultimately promoting community health and wellness. Riders have covered around 90,000 km using PBS services, preventing the city by roughly 10 tons of CO2 emissions. Furthermore, it has encouraged greater use of public transport through last-mile connectivity and contributed to a reduction in vehicular pollution, promising long-term improvements in the city's overall health parameters.

- **1,400** bicycles
  available at 100 locations,
- **10,000** citizens
  in over 20,000 trips
- **90,000** km
  using PBS services

Chappan Dukan, Indore

Project 4: Value Capture Financing (VCF) - An Innovative Financing Model

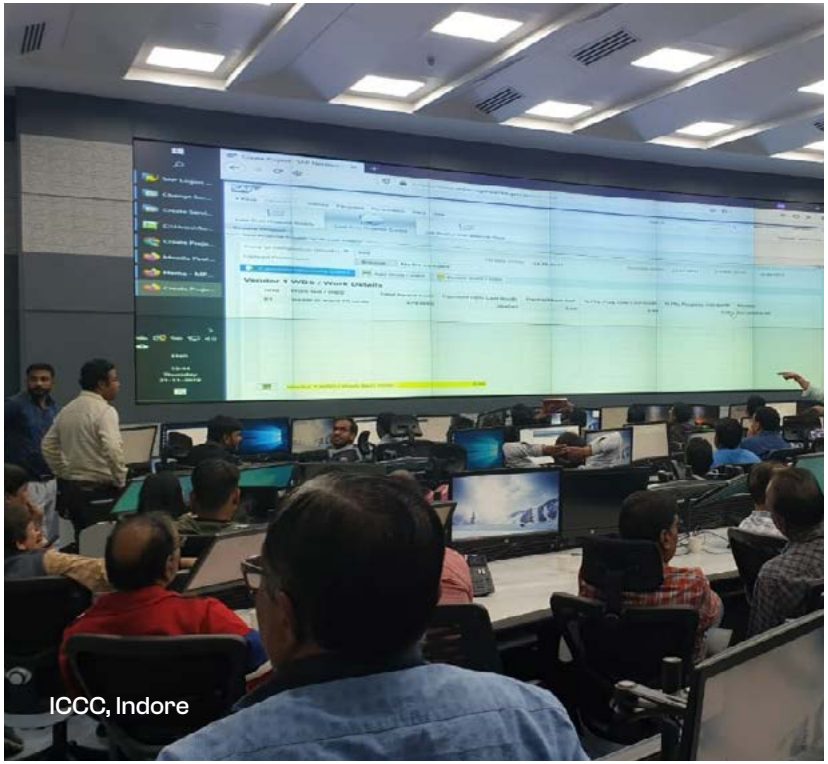
Value Capture Financing (VCF) has emerged as an innovative financing model in Indore, particularly for infrastructure development, notably major roads. This approach not only enhances the city's commercial activities but also uplifts the living standards of its residents. By designating major roads and arteries as receiving zones for transferable development rights and allotting additional FAR, it substantially reduces commuter travel time. The additional revenue generated through this mechanism is reinvested in further facilities, creating a positive feedback loop that continuously enhances property values in those areas. Indore Municipal Corporation (IMC) has also implemented Betterment Charges or Levy and proposed town planning schemes utilizing VCF principles, solidifying its commitment to sustainable urban development and economic growth.

Chappan Dukan, Indore

Project 5: GIS based Property Tax Collection in ICCC

The implementation of GIS based property tax collection in the Integrated Command and Control Center (ICCC) of Indore has yielded significant results. Approximately 1.13 lakhs previously unregistered properties have now been brought into the tax system, eliminating previous instances of hidden properties. Moreover, 28,391 properties have been identified with changes in recorded built-up areas, and 21,475 properties have shown changes in registered property usage. This comprehensive approach has led to a surge in demand, resulting in an impressive increment of ₹ 5.15 Cr in tax collection, marking the highest ever tax collection achieved by IMC. The GIS based system has not only improved transparency but also boosted revenue collection, contributing to the improvement in city's financial health and urban development.

- **28,391** properties have been identified
- **21,475** properties have shown changes in registered property usage
- **₹ 5.15 Cr.** increased in tax collection


ICCC, Indore

Project 6: Rejuvenation of Lakes, Wells & Stepwells of Indore

The rejuvenation of lakes, wells and stepwells in Indore is a testament to the city's commitment to preserving its water bodies and cultural heritage while promoting sustainable development. The approach began with a comprehensive survey, assessing the condition of these water resources and identifying key issues affecting water quality and quantity. Tools like Geo-tagging were employed to map their locations facilitating efficient management. Illegal establishments discharging wastewater into these water bodies were identified and removed, ensuring a clean and revitalized environment. Consultation with local stakeholders provided community involvement and support. The impact of this initiative has been profound, with the restoration and conservation of 455 wells, 25 stepwells and 10 lakes.

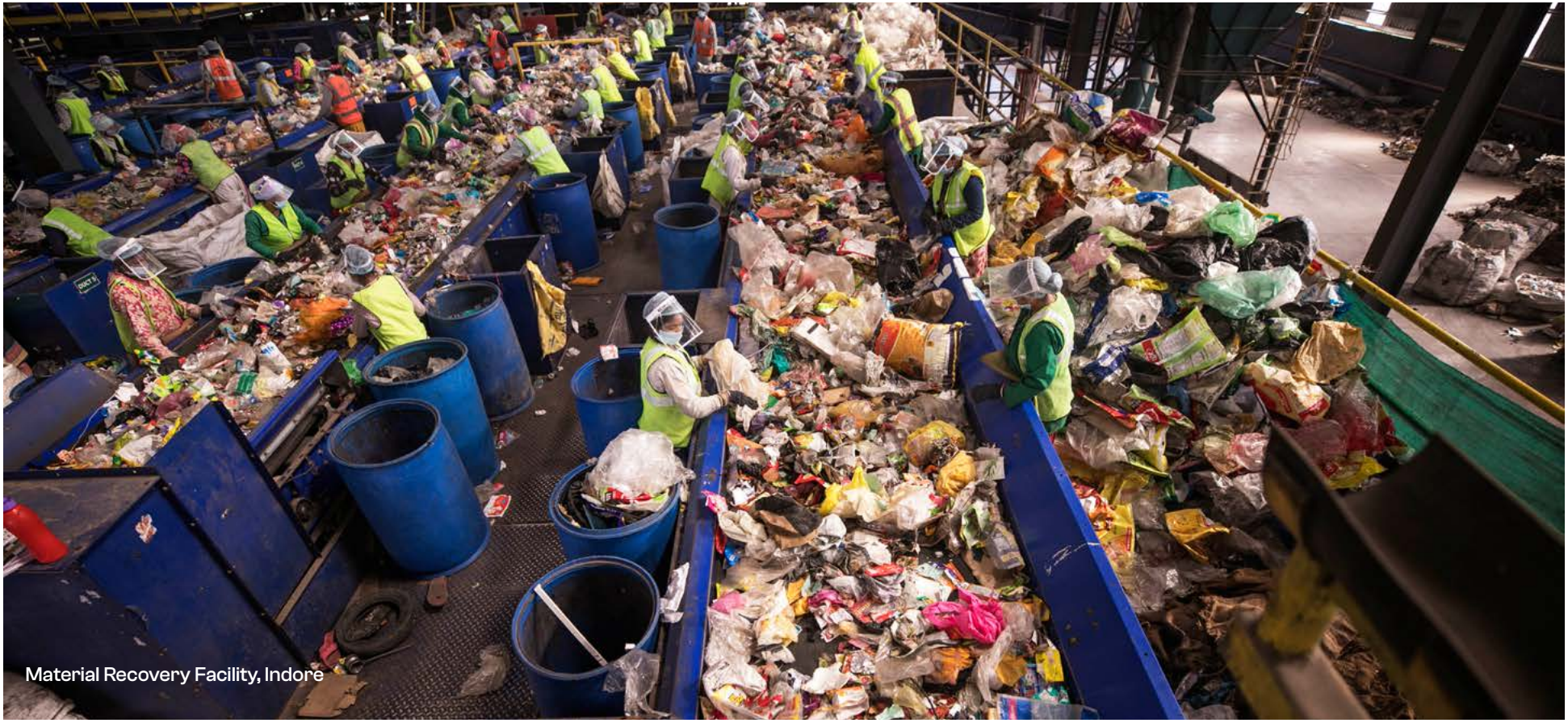
Furthermore, water bodies are being recharged with treated wastewater, contributing to their sustainability and the rejuvenation of Ramsar Sites. Planting over 1 lakh trees near these water bodies enhances the ecosystem and provides shady and convenient walking for morning walkers and joggers, fostering a healthier and more vibrant community. Preserving old stepwells and wells safeguards the city's heritage for future generations, highlighting Indore's harmonious coexistence of tradition and modernity.

- Restoration and conservation of **455** wells, **25** stepwells and **10** lakes.

Riverfront Development, Indore

Project 7: Carbon Credit Monetisation

The 'Carbon Credit Monetization' initiative by ABM (Atal Bihari Vajpayee Institute of Good Governance and Policy Analysis) is a forward-thinking strategy to leverage carbon credits to generate revenue while simultaneously addressing environmental concerns. Carbon credits represent a permit for removing one ton of carbon dioxide from the atmosphere, which companies can purchase to offset their emissions from industrial production. The benefits of earning carbon credits are multifaceted. It serves as a supplementary source of revenue with no additional capital investment, reducing project costs and contributing to foreign exchange earnings for the nation. ABM has signed MoUs with 30 institutions nationwide, making it a profitable revenue stream for ISCDL and partner institutions. This initiative encourages small-scale community-based projects in rural areas, fostering sustainable development. It enhances international recognition and goodwill and has an estimated business value of approximately Rs. 30 Cr; with ISCDL expecting to generate net revenues of around Rs. 10 Cr. through its aggregator business model. 'Carbon Credit Monetization' underscores the potential for innovative solutions that align economic interests with environmental stewardship.



Material Recovery Facility, Indore

Project 7: Adaptive Reuse of Gopal Mandir

The adaptive reuse of Gopal Mandir is a remarkable example of preserving heritage while embracing modernity. Traditional conservation methods employing materials like lime, jaggery, fenu-seeds, bel fruits, jute sal and urad pulses have been used, ensuring the temple's historical integrity. Ingenious techniques like using inverted earth pots to reduce the dead load on the wooden frame, track lights and walkover lights evoke a sense of nostalgia while adding a touch of contemporary aesthetics. Modern technology, such as non-destructive and ultrasound pulse velocity testing, has been harnessed to assess the quality of the existing wooden structure. Fresco paintings have been meticulously restored with stone colors, breathing new life into ancient artwork. Notably, the project has upheld the temple's architectural essence, preserving its cultural and historical significance. This adaptive reuse conserves heritage and stimulates the local economy, showcasing how modernity and tradition can harmoniously coexist in architectural conservation.

Gopal Mandir, Indore

SURAT

VIP, Indore

RANK 2

About the City

Surat, the 8th largest city in India and 2nd largest in Gujarat, is one of the biggest contributors to the GDP of the country, owing to its robust diamond and textile industry. The city has a population of 4.7 million (Census 2011) and covers an area of jurisdiction of approx. 475 sq.km. Consistently ranked among the best performing smart city among the 100 selected smart cities in the country, the Smart City vision of Surat is the "Smart utilisation of Surat's potential to enhance the quality of life of the citizens by providing equal access to the best quality physical infrastructure, social infrastructure, and mobility; thus, making Surat a futuristic global city with a focus on enhancing economy, protecting the ecology and preserving the culture of the city.

Achievements of Surat Smart City

Surat, a shining example of urban transformation and innovative governance, has garnered remarkable achievements under the Smart City Mission. The city has undertaken 82 projects worth ₹ 2,902 Cr., of which it has already completed 98% of the projects (80 projects worth ₹ 2,820 Cr.).

Surat has clinched the title of "Best Performing city" for three consecutive years in the ISAC 2018, ISAC 2019 and ISAC 2020, showcasing its relentless commitment to project implementation and efficient resource utilisation under the Smart City Mission. The city has excelled in data management and transparency, securing highest rank among 100 Smart Cities during the Data Maturity Assessment Framework Cycle 2. It reflects its dedication to harnessing data for better decision-making and service delivery. Surat ranked 2nd among 51 million+ cities in India in the Municipal Performance Index 2020 and ranked Fifth among 49 million+ cities in the Ease of Living Index 2020. This accolades reflects its efficient governance, service delivery, and overall municipal performance highlighting the exceptional quality of life it offers to its residents.

These achievements collectively underscore Surat's commitment to holistic urban development, innovative governance, and improving the overall well-being of its residents. As it continues to shine on various national and international platforms, Surat is a role model for other cities striving for excellence in urban governance and sustainable development. Some of the marquee projects of the city, along with the impact of these projects highlighting outputs and outcomes are as follows:

Project 1: 24x7 Water Supply System with Zero Liquid Discharge Plant

The 24x7 water supply is provided in the area of 8.8 sq.km replacing the intermittent water supply, covering an approximate population of 5 lakhs. The distribution network line stretches over 57,940 running meters where 27,000 Smart Water Meters have been installed to ensure judicious use of water and automated water meter reading and billing. The SCADA system has also been built for effective supervisory control and a Zero Liquid Discharge Plant has been set-up to efficiently treat raw water.

- **57,940** running meters
- **27,000** Smart Water Meters

Project 2: Tertiary Treatment Plant and Sewage Treatment Plant with SCADA

Surat is the first ULB to have a Tertiary Treatment Plant for recycling and reuse of sewage water. It supplies approximately 24,000 MLD water with a revenue of 78 Cr. generation from Dindoli TTP. This treatment plant costs over 125 Cr. and the SMC has already generated revenue of ₹ 140 Cr from all TTPs. The target is to achieve a reuse of 70% TWW by 2030 and 100% by 2035.

The Sewage Treatment Plants (STP) in Surat have also been upgraded to increased capacity with an investment of ₹ 234 Cr.. These enhancements have been particularly impactful in the city, where the STP capacity has surged from 150 MLD to an impressive 289 MLD. Further, implementing a SCADA (Supervisory Control and Data Acquisition) system has automated and streamlined the monitoring and management of these crucial facilities, ensuring more efficient and sustainable wastewater treatment in the city.

Supplies approximately

24,000 MLD water

Revenue of

78 Cr. generation from Dindoli TTP

Project 3: Smart Public Transport

316 BRTS buses and 575 city buses have been deployed and 164 BRTS stations have been created with the cost of ₹ 49 Cr in ITMS and AFCS cost ₹ 84 Cr. Integrated PT system includes five processes of Physical Integration as BRTS stations act as an interchange, Fare Integration which enables faster interchanges between BRTS, city and HMC, Infrastructure Integration incorporating the same route that has been shared by the difficult operators. ITS Integration covers timetables, tariff information, route maps, and lastly Institutional Integration where there are three systems and one agency, helps in making efficient planning decisions. The key outcome of this projects are as follows:

More than 2.7 lakh riders every day travel Hassle-free. There are just "Tap-In" and "Tap-Out" options; paper tickets are not available.

The second ULB in India will connect real-time bus service scheduling with Google Maps through the use of a single ticket for an integrated journey that includes BRTS and City Bus.

Route optimisation resulted in a 3900 km/day (or Rs. 4.9 cr/yr) savings. Dead KM reduction produced savings of Rs. 2.5 Cr. per year.

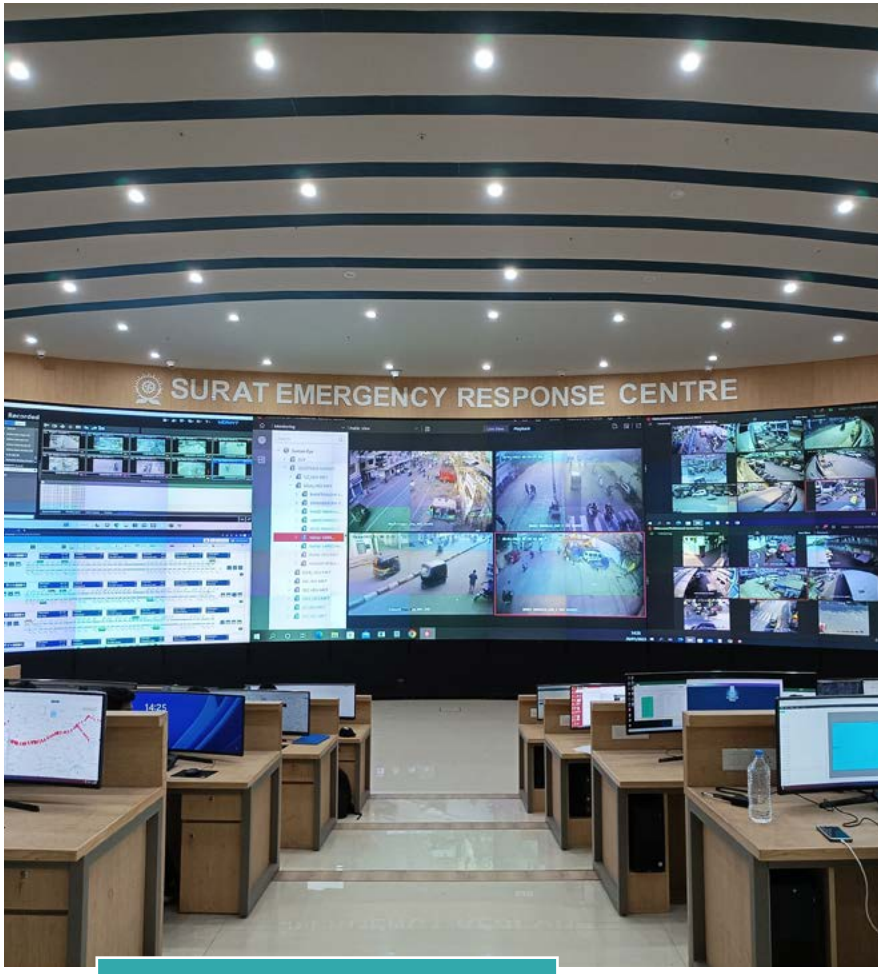
- **316** BRTS & **575** city buses
  have been deployed
- **316** BRTS stations
  have been created
- **2.7** lakh
  riders every day travel Hassle-free
- Route optimisation resulted in a
  3,900 km/day

Project 4: Restoration & Re-development of Surat Fort

The Surat fort is one of the best examples of restoration and rejuvenation of heritage conservation. This fort was constructed during 1540 AD. The authentic restoration and redevelopment has been carried out with the SCM funds. It has become one of the most popular destinations among the citizens and tourists.

Project 5: ICT Projects and Surat Urban Observatory & Emergency Response Center

The "Connected Surat" initiative has transformed the city into a digital hub with a robust infrastructure. With 158 km of its optic fiber network, the city has connected over 800 offices and locations, resulting in remarkable financial sustainability with revenue sharing of approx. ₹16 Cr. over 21 years by the service provider. The "Smart Biometric System" is a testament to modernization, with over 22,000 employees enrolled across 415 locations, featuring 450 biometric devices integrated seamlessly with the payroll system. Similarly, the "Suman Eye" project oversees the city's security with 2,600+ cameras across 700 locations, facilitating centralised monitoring of vital areas like BRTS bus stops, public parks, and waterlogging spots. All these initiatives are being monitored through the Surat Urban Observatory and Emergency Response Center, along with monitoring 110 km BRT Corridor, 404 km City Bus network having 57 routes, which has collectively contributed to technological advancement and urban development.



- **158** km of its optic fiber network
- **800** offices and locations
- **22,000** employees enrolled
- **2,600+** cameras across 700 locations

Project 6: AIC SURAT iLAB Foundation

The co-working space offered by our organization provides a dynamic and collaborative environment for aspiring entrepreneurs and innovative minds. With a capacity of 120 seats, it serves as the nucleus of our entrepreneurial ecosystem. This space is not merely a workplace; it's a breeding ground for creativity, innovation, and networking. Here, startups can thrive, exchange ideas, and forge partnerships. It fosters a sense of community and support, which is essential for the growth of young businesses. Our co-working space is where ideas come to life, startups find their footing, and the future of entrepreneurship takes shape amidst a backdrop of shared resources and endless possibilities.

Project 7: mySurat (Citizen Engagement Project)

Initiating citizen engagement through social media platforms marked a significant milestone in our project's journey. The mySurat portal and mobile app fostered this engagement by offering polls, quizzes, competitions, and more features. These digital tools transformed how citizens interacted with their local government, enabling them to participate in decision-making processes actively. During critical times like the COVID-19 pandemic and flood emergencies, the importance of these platforms became even more evident. With a substantial following of 3.10 lakh followers/subscribers, our social media outreach was vital for disseminating crucial information, updates, and emergency alerts. It empowered citizens with real-time data and a means to communicate their concerns, demonstrating the power of technology in enhancing civic engagement and disaster response.

AGRA

Smart Health Centre, Agra

RANK 3

About the City

Agra, a city steeped in history and nestled on the banks of river Yamuna in northern India, aspires to transform into a modern, Smart City while preserving its rich heritage. The city's identity revolves around five key themes: Preserving History, Pristine Environment, World-class Infrastructure, Plenty of Opportunity and Safety, all encapsulated in its Vision of becoming the "City of Taj." Safety is paramount in Agra's Vision. The city strives to be a safe place to live and visit, ensuring the well-being of its residents and tourists alike. Agra's overarching Vision

> The City of Taj – where history is preserved, the environment is pristine, infrastructure is world-class, and opportunity is plenty – a safe place to live, a great place to tour - encapsulates its ambition.

Achievements of Surat Smart City

Agra Smart City has made significant strides in enhancing its urban landscape and fostering community engagement through various placemaking initiatives. These initiatives have transformed the city's aesthetics and contributed to its overall livability and sustainability:

Yamuna Kinara Makeover: The revitalization of the Yamuna Kinara area has breathed new life into the riverfront, creating a picturesque and vibrant public space. This initiative has improved the city's aesthetics and provided residents and visitors with a serene and enjoyable place to relax and connect with nature.

Bhagwan Talkies Junction and Surroundings Makeover: The transformation of the Bhagwan Talkies junction and its surroundings has not only enhanced the traffic flow but has also beautified a prominent urban space. This makeover has made the area more pedestrian-friendly and aesthetically pleasing, contributing to a better urban experience.

Waste to Wonder Park: The Waste to Wonder Park is a testament to Agra's commitment to sustainability and creative reuse. It has turned scrap materials into artistic wonders, serving as an educational and recreational space for the community.

Eat Smart City Challenge: Agra Smart City's recognition as a finalist in the Eat Smart City Challenge showcases its dedication to promoting healthy and sustainable food practices. This initiative encourages residents to make informed food choices and supports the growth of local, healthy food ecosystems.

Active Participation in Various Challenges: Agra Smart City's active participation in multiple challenges such as Streets4People, Cycle4Change, Nurturing Neighborhoods, and Freedom to Walk, Cycle & Run reflects its commitment to creating pedestrian-friendly, eco-friendly and vibrant urban spaces. These challenges have fostered a sense of community engagement and ownership in shaping the city's future.

Agra Smart City has made remarkable progress in urban transformation, sustainability and community engagement through its placemaking initiatives and active participation in various challenges. These efforts contribute to Agra's emergence as a more livable, vibrant and forward-thinking city for its residents and visitors.

Project 1: Economy: Microskill Development Centres

Agra's Microskill Development Centres initiative, with a project cost of Rs.2 Cr. has emerged as a transformative success story. This project has significantly contributed to the local economy, achieving remarkable online sales of over Rs. 14 lakh and processing 25.98 lakh orders in 2021 and 2022. It has boosted digital literacy, connected 274 Self-Help Group members with the Dell Aarambh initiative, provided Entrepreneurship Training to 1,230 women, and catalyzed the formation of 120 SHGs with bank accounts. The centre's initiative stands as a model for holistic economic growth, women's empowerment and digital literacy promotion, fostering both infrastructure development and skill-building for lasting community well-being.

- remarkable online sales of over **₹ 14** lakh and processing 25.98 lakh orders
- Entrepreneurship Training to **1,230** women

Micro-skill Development Centre, Agra

Project 2: Smart Health Center on PPP

Agra's Smart Health Center initiative, operating under a Public-Private Partnership (PPP) model, has taken significant strides in enhancing healthcare accessibility and affordability. With five centres in operation, these facilities offer an extensive array of services, providing over 180 diagnostic tests at rates aligned with the Central Government Health Scheme (CGHS). In just 15 months, over 1 lakh residents have benefitted from these centres, which played a crucial role during the COVID-19 pandemic, offering telemedicine services and testing facilities, bolstering the city's pandemic response.

- **180** diagnostic tests

- Revenue of

1 lakh residents have benefitted

Project 3: Facade Improvement of Houses along Daresi Road

Agra's Facade Improvement project along Daresi Road, with a cost of Rs. 1 Cr. has not only restored the traditional facades of 14 houses but has also revitalised the historical architectural significance of these residences. This initiative is a significant contribution to preserving Agra's cultural heritage by rekindling the city's fading architectural charm. This project has revived local culture, with citizens using these havelis during functions and festivals, fostering a sense of pride and community spirit. Agra's Facade Improvement project showcases the city's dedication to preserving its rich history and culture, setting an example of blending heritage with future development.

Project 4: Upgradation of Municipal School & Smart Classes

The Upgradation of Municipal School & Smart Classes project has achieved remarkable outcomes. In the new academic year, there was a significant 4.26 per cent increase in admissions, demonstrating improved accessibility and appeal. The initiative has substantially enhanced students' learning skills, resulting in an impressive 18.3 per cent increase in the pass percentage. The inclusion of a kitchen garden has educated students about the importance of the environment and plantation. With a project cost of Rs. 3.6 Cr; this initiative has not only improved education but also fostered environmental awareness and gender equality, benefiting the community holistically.

- **18.3%** in the pass percentage.
- project cost of **₹ 3.6** Cr.

Project 5: 24/7 Water Supply with Water Metres & SCADA

The project has brought about a transformative impact. Operated entirely through SCADA and controlled from the ICCC, it has achieved a remarkable 15 per cent reduction in Non-Revenue Water (NRW). Moreover, it offers consumer-specific water consumption analysis and real-time trends. Integrated billing and metre reading software with SCADA simplifies management. This pioneering initiative, with a project cost of Rs. 151.75 Cr; not only anticipates revenue generation of Rs.5.5 to 7.5 Cr. but also prevents the use of borewells in the Tajganj area, promoting a potential rise in the water table and reducing waterborne diseases, marking a significant leap forward in water supply management.

- Revenue generation of **₹ 5.5** Cr. to **7.5** Cr.

Project 6: Integrated Command & Control Center (ICCC)

The Integrated Command & Control Center (ICCC) has had a profound impact on urban management and citizen services. It received 5022 emergency calls through call boxes, promptly addressing citizens' distress. Over 95 percent of two-wheeler riders now wear helmets due to the implementation of ITMS & E-challan, resulting in the issuance of 4.34 lakh e-challans worth Rs. 39.5 Cr in three years. AI-based analytics aid in cattle control and illegal parking identification, reducing unauthorised vehicles on the roads, including those with expired registrations, PUC, and insurance. The ICCC stands as a remarkable initiative, improving public safety, environmental monitoring and urban management.

- **5,022** emergency calls
- **4.34** lakh e-challans worth **₹ 39.5** Cr.

Project 7: COVID Innovation

The Integrated Command and Control Centre in Agra was the COVID war room for city-wide coordination. It was operated by a team of 25 individuals who responded to citizen grievances. Tele-video consultations were the mode of medical assistance to citizens in need. The Citizen COVID-19 Self Registry platform enables citizens to assess their health risks by creating a PIN code-based early risk assessment matrix for city authorities. These systems broadcast advisory messages 24/7, ensuring citizens are informed and empowered to make safe choices. Through technology, collaboration, data-driven decision-making and public awareness, the city has exhibited its resilience and determination in safeguarding the well-being of its citizens. The 'Agra Model' serves as an inspiration for other regions grappling with similar challenges.

ZONAL CITY AWARDS

NORTH ZONE

- Varanasi
- Udaipur

EAST ZONE

- Bhubaneswar
- Ranchi

WEST ZONE

- Solapur
- Ahmedabad

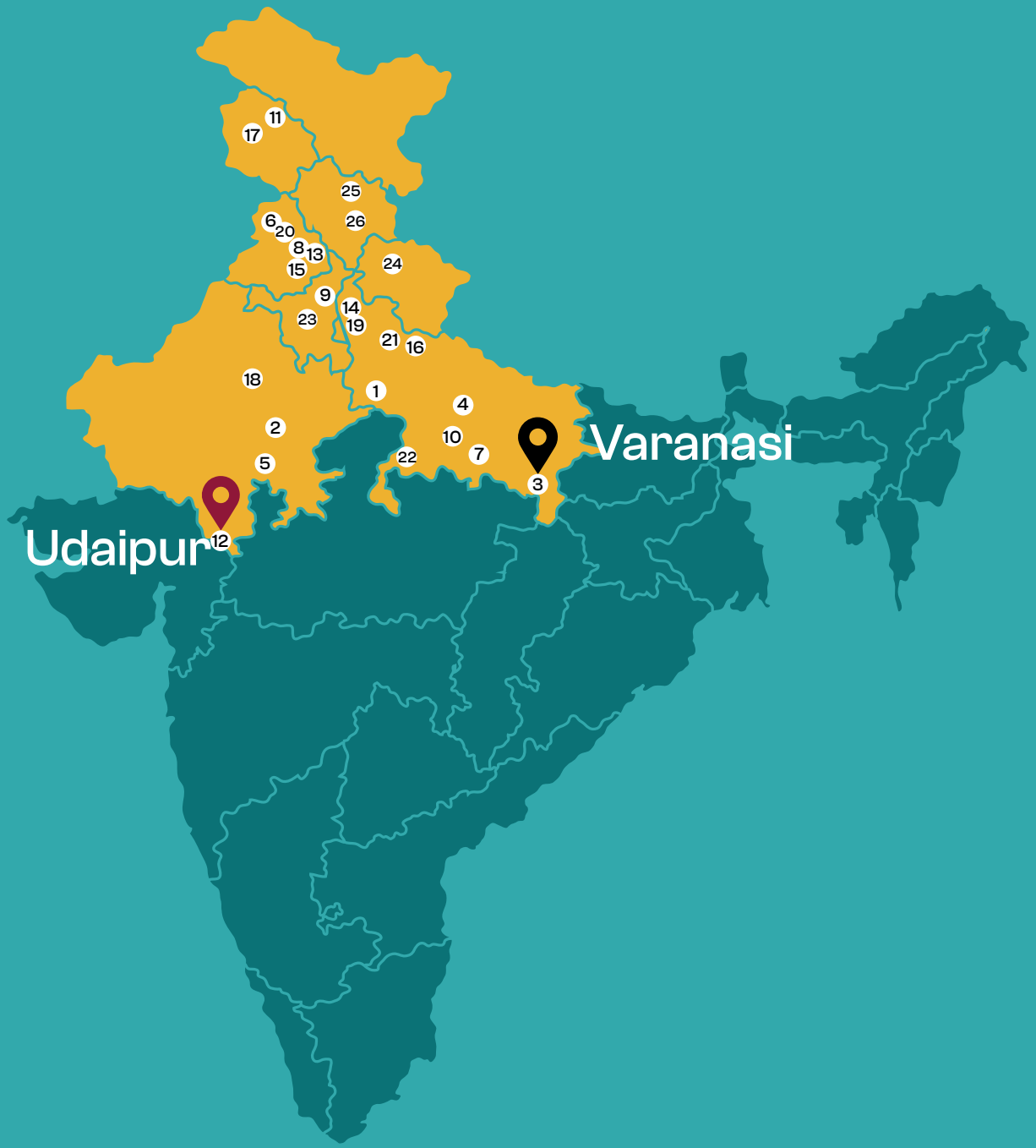
SOUTH ZONE

- Coimbatore
- Belagavi

NORTH EAST ZONE

- Kohima
- Namchi

NORTH ZONE



Population above 10 lakh

1	Agra
2	Jaipur
3	Varanasi
4	Lucknow
5	Kota
6	Amritsar
7	Prayagraj
8	Ludhiana
9	Faridabad
10	Kanpur
11	Srinagar
12	Udaipur
13	Chandigarh

Population below 10 lakh

12	Udaipur
13	Chandigarh
14	Saharanpur
15	Karnal
16	Bareilly
17	Jammu
18	Ajmer
19	Aligarh
20	Jalandhar
21	Moradabad
22	Jhansi
23	NDMC
24	Dehradun
25	Dharamshala
26	Shimla

Old Wards Redevelopment, Varanasi

VARANASI SMART CITY

About the City

Varanasi, one of the oldest continuously inhabited cities on Earth, holds profound cultural significance in India. With a population of 1.2 million (Census 2011) along the banks of the sacred Ganga river, the city is an educational and cultural epicenter consisting of temples, textile and handicraft markets and pioneering academic institutions. Though the city has preserved its identity from the past, it has also been at the forefront of transforming into a modern and sustainable urban hub. The Varanasi Smart City has spearheaded several marquee projects focused on rejuvenating urban planning, infrastructure development, and efficient resource management. The Ganga riverfront has been redeveloped and rejuvenated creating an eco-sensitive water edge. Educational institutions have proliferated, attracting students from across India and the world. Varanasi's entrepreneurial landscape is flourishing, with startups gaining momentum in sectors like technology and handicrafts. Tourism remains a vital component, with more travelers drawn to its historical and religious landmarks. These efforts have not only beautified the city but also enhanced its livability, ensuring that Varanasi remains a harmonious blend of tradition and modernity.

Physical Progress

Varanasi Smart City is implementing 58 projects worth ₹ 933 Cr., of which 95% (55 projects worth ₹ 880 Cr.) are already completed. The completed projects are focused on city surveillance, urban infrastructure, education, skill-development, urban mobility, rejuvenation of waterbodies, beautification of public places, urban placemaking etc. These efforts made by the Smart City have enhanced infrastructure – attracting investment and tourism contributing to the city's economic growth.

Key projects in the Smart City

Project 1: Redevelopment of Old Wards of Kashi

About the project

Recognizing the need to rejuvenate the old lanes, Varanasi smart city has redeveloped the 5 wards of Kameshwar Mahadev, Kalbhairav, Jangambadi, Dashashwamedh and Gadhwasi Tola. The centuries old and outdated sewer and water lines were replaced to provide the citizens with vastly improved living conditions. More than 30 kms of new lanes and pathways were constructed to further ease mobility within the city, addressing a long-standing urban challenge. Traditional chauka stones and thematic wall paintings were artfully installed, paying homage to Varanasi's rich cultural tapestry. The transformation of the historical and culturally significant lanes has breathed a new life into these areas, creating a harmonious blend of history and progress.

Outputs & Outcomes of the Project

01

Revitalization of lanes has significantly eased the mobility in the old quarters of the city.

02

The project has upgraded urban infrastructure and improved living conditions for nearly

50,000 people

living in these old wards of the city.

Manoj Kumar

Local Resident

The Varanasi Smart City project has made a big difference in our lives. I live in one of the old wards near the Shri Kashi Vishwanath Temple, and I've seen amazing changes happen. The project replaced old sewer lines, so we have better water and sewer systems. This means we can live in a healthier and more comfortable environment. Moving around the city is easier now with new lanes and pathways. This makes our lives simpler, and we don't have to struggle with traffic.

Project 2: Redevelopment of Smart Schools & Skill Development Centre

About the project

Varanasi smart city has transformed three government schools at Machodri, Rajghat, and Mahmoorganj turning them into smart schools by integrating technology-enabled education in addition to improved physical infrastructure. Modern facilities, CCTV surveillance, and smart classroom equipment have been provided. The schools' premises also feature a Skill Development Center to provide vocational training to students, empowering them with occupational skills that enhance their employability. The schools have also emphasized universal accessibility benefiting thousands of differently abled children.

Outputs & Outcomes of the Project

01

Since the redevelopment of the 3 schools, over

5,000 students

hailing largely from marginalized and economically weaker sections, have enrolled into these 3 schools. They are benefitting from modern, technology-enabled education.

02

Nearly

10,000 students

have been trained in the Skill Development Centers established in these schools, gaining employable skills.

Puja Singh

Teacher

As a dedicated teacher at Machodari Smart School in Varanasi, I have realized that this initiative has been nothing short of a game-changer in the realm of government education.

Project 3: Advance Surveillance System

About the project

Varanasi smart city has installed over 3,000 surveillance cameras strategically positioned throughout the city to ensure safety and security of the citizens. These high-resolution cameras are integrated with the data center through the 400+ kms length Optical Fiber Cable (OFC) network laid by the smart city throughout the city. The facility is used by the Police Department in solving criminal cases and locating missing persons. The surveillance system has acted as a deterrent, dissuading potential criminals and instilling a sense of security among the residents.

Outputs & Outcomes of the Project

01

More than

2,000 incidents

of thefts, robberies, and assaults have been successfully resolved due to the meticulous coverage provided by the camera network.

02

Nearly

500 cases

of missing people have been solved.

03

The presence of surveillance cameras has also led to a marked improvement in adherence to traffic rules and regulations.

Annapurna Kundu

Tourist

The advanced surveillance system makes us citizens feel safer and makes living much more comfortable. This system really makes a difference in people's lives by solving crimes and maintaining peace in the city.

Redevelopment of Gangaur Ghat, Udaipur

UDAIPUR SMART CITY

About the City

Udaipur, often referred to as the city of lakes, has a rich history dating back to the 6th century. Founded as the new royal capital of the Mewar Kingdom, the city has evolved into a hub for art, culture and education. Spread across 64 sq.km. and having a population of approximately 5 lakhs, the city has a well-earned reputation as a favored tourist destination,Udaipur attracts visitors from around the globe who come to experience its unique beauty and heritage.

Udaipur was selected in the Round 1 of the Smart Cities Mission challenge with a vision to transform Udaipur into a modern, sustainable and culturally rich city that provides a high quality of life for all its residents and visitors, with integrated infrastructure, clean environment, efficient public services, enhanced mobility, strong economic growth, and a sense of community that celebrates its heritage and diversity.

Physical Progress

Udaipur smart city has implemented projects in various sectors like water management, SWM, heritage conservation, smart governance, etc. It has a total of 111 projects worth ₹ 941 Cr. with a physical completion of 97% (108 projects worth ₹808 Cr.). Udaipur smart city has been a top performer in the Mission, often ranking among the top 10 smart cities. The efforts of the Udaipur smart city were also recognized at various national platforms. It won the 1st prize in the prestigious HUDCO Design Awards 2021-22 and consistently rank among the top cities in the SCM challenges of Cycles4Change, Streets4People and Transport4All.

Key projects in the Smart City

Project 1: Integrated Infrastructure project for ABD Area (Walled City)

About the project

The walled city area of 3.4 sq. km. in Udaipur has been transformed with modern infrastructure and upgraded utility support systems. Udaipur smart city initiated an unique concept integrated infrastructure development to avoid multiple times the digging of the streets/ roads for different developmental works and to minimize the citizen inconvenience. The project, build at a cost of ₹ 616 Cr., features 24x7 water supply, rehabilitation of the age-old sewerage pipeline, shifting of overhead power and telecom cables and other cables in underground ducts, utility ducts for power and communication cables, relaying of roads and stormwater drains, and the installation of a SCADA system for water, sewerage, and power distribution, in the old city area of Udaipur.

Outputs

01

96 km

water supply network laid, providing 24x7 water supply to 19,000 households in the old city.

02

The old sewerage system has been rehabilitated, and

82 km long

new lines were laid, along with sewer connections to 25,000 households in the old city area.

03

240 km long

utility ducts were laid, and overhead power cables, internet cables, etc., were shifted to the underground ducts.

04

Installation of

770 km LT cables, 2,000 feeder pillars, 22,000 electrical HSCs, and 17,000 electrical meters

for efficient electricity supply.

Sanjay Parmar

Working professional, Near City Palace, Udaipur

The Udaipur Smart City has done an excellent job by relaying CC roads, as there is no further need to repair roads each year, and the process will also not cause any hindrances for the commute of common people

Project 2: Solid waste management in Udaipur City

About the project

The Udaipur Smart City has implemented a total of 24 projects worth ₹ 50 Cr. for the scientific management of solid waste in the city. Under the Solid Waste Management Initiative, the smart city has installed modern and smart facilities such as Transfer Stations for solid waste, 30 TPD Material Recovery Facilities (MRF), 50 TPD Construction And Demolition Waste Processing Plant, 60 TPD Wet Waste Processing Plant, and 20 TPD Bio-Methanation Plant have been developed.

Outputs

01

49 GPS-enabled Waste Collection vehicles ensure 100% door-to-door waste collection and source segregation, reducing city litter.

02

The 60 TPD Wet Waste Processing Plant generates organic fertilizer, reduces landfill waste, and generates revenue.

03

A 20 TPD Bio-Methanation Plant produces Biogas, adding revenue and reducing waste.

04

Proper waste management lowers disease incidence from unhygienic living conditions.

05

The transfer station decreases waste vehicles, cutting fuel costs, wear and tear, traffic congestion, and improving transport efficiency.

Sandeep Sharma

Hiren Magari, Udaipur

Our surroundings become cleaner and healthier, and the reduced littering has improved the overall aesthetics of our neighborhood. The education and awareness campaigns initiated by Udaipur Smart City have also awesome

Project 3: Heritage and Facade Conservation

About the project

Udaipur smart city has successfully completed 30 projects on conservation and restoration of heritage sites, including buildings, bazaars, ghats, heritage poles, bawris and fortification wall. The city has restored 10 historic gates and revitalized 8 Ghats to their original condition. A 6 km long heritage fort wall that encircles the old city has been restored, serving as a major attraction. Furthermore, restoration efforts have also extended to prominent heritage structures such as the Saraswati Library, Navalakha Mahal, Fateh Memorial Building, Residency Girls School Building, Shepherd Memorial Church Building, Ayurvedic Hospital, Collectorate Building, and Prakratik Chikitsalaya, preserving and reviving their historical significance.

Outputs

01

Conservation and Restoration of heritage sites has increased the tourist footfall in the city, resulting in increased revenue and employment.

02

Saved endangered heritage structures for future generations.

03

Revitalized lost monuments, creating new tourist attractions.

04

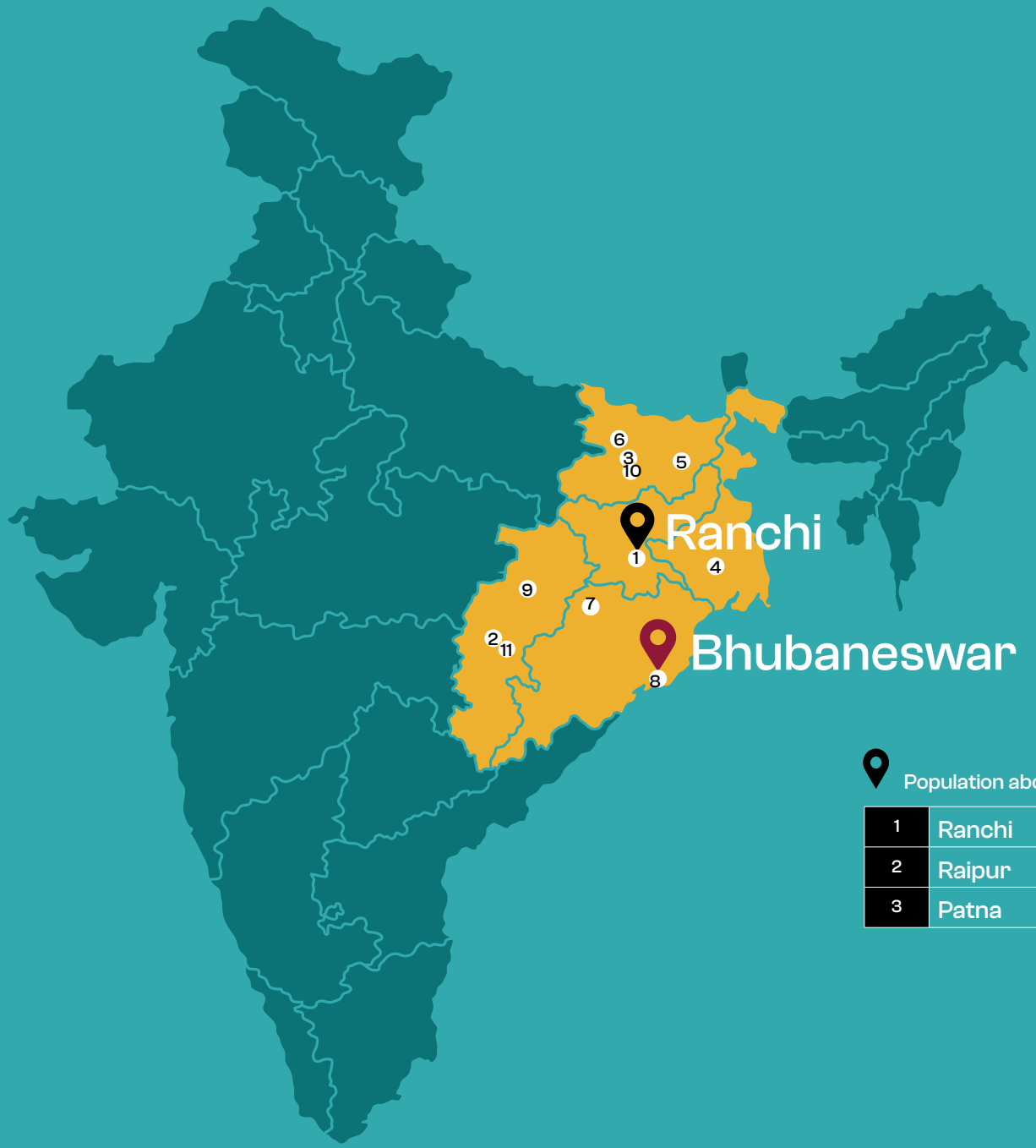
Received national recognition in the "HUDCO Design Award 2022" with a sum of ₹2 lakh for Heritage Conservation.

Digvijay Jagat

President of Udaipur Guide Association

I feel very proud that the culture is being saved and preserved for the coming generations. If it had not come then we would have been the last or our children would have been the last generation, who would have inherited this culture, these mansions, these temples, these doors or the old walls of the city.

EAST ZONE



Population above 10 lakh

1	Ranchi
2	Raipur
3	Patna

Population below 10 lakh

4	New Town Kolkata
5	Bhagalpur
6	Muzaffarpur
7	Rourkela
8	Bhubaneswar
9	Bilaspur
10	Biharsharif
11	Atal Nagar

Sensory Park, Bhubaneswar

BHUBANESWAR SMART CITY

About the City

Bhubaneswar ranked 1st position among the 100 cities selected under the Smart Cities Mission. One of the first planned cities in the country and renowned as a Temple City, Bhubaneswar has implemented many unique projects under the Smart Cities Mission, including the iconic Smart Road at Janpath and the Bhubaneswar Operations Center (ICCC). Further, the Bhubaneswar Smart City has introduced initiatives such as Child-friendly Smart City, Socially Smart Project with United Nations Population Fund (UNFPA), city-wide surveillance for safety, and accessibility to e-Governance services. The Sensory Park in Saheed Nagar for the differently-abled or specially challenged kids and citizens has become yet another feather on its cap with inclusive thinking and decision-making process ensuring citizen participation and responsive planning.

Physical Progress

Bhubaneswar Smart City has undertaken 26 projects, worth ₹ 910 Cr., of which 90% of the projects by value (₹ 809 Cr.) are already completed. These projects focus on themes like water body restoration, model roads, waste management, and energy conservation. They have significantly benefited the local residents and improved the city's infrastructure.

Key projects in the Smart City

Project 1: Smart Janpath

About the project

The 5.8 KM long Smart Janpath is a visionary project, envisaged as the People's Smart Path with a designated pathway for walkers, bicycles, and subsurface utilities. The smart road features active public plazas, correct crossings at intersections, and street furniture, and dedicated vending zones along with the whole duration.

The redevelopment of Janpath Road, worth ₹ 80 Cr., includes streetscape design, beautification, landscaping, intersection redesign, and infrastructure upgrades with construction of new pavement, rehabilitation of existing pavement, construction and/or rehabilitation of major and minor bridges, culverts, road intersections, interchanges, drains, etc. Smart Janpath caters to pedestrians and cyclists with dedicated pathways, public plazas, and improved crossings. The project's success lies in its community-friendly approach, turning the road into a pedestrian and cyclist-friendly haven.

Outputs

01

The Smart Janpath has benefitted

1,000+ business

establishments on one side of the road and 100+ residential plots on the other side.

02

The project has crafted an all-inclusive and vibrant public space with dynamic public plazas, fostering a sense of community and providing spaces for lively gatherings.

Sri Nirmal Kumar Mohapatra

Resident

Smart Janpath has truly transformed the heart of our city, Bhubaneswar. It's not just a road; it's a vision brought to life. The pedestrian and cyclist-friendly pathways, vibrant public spaces, and dedicated vending zones have not only made it more accessible but also more enjoyable. Smart Janpath has quickly become a beloved part of our daily lives, reflecting the forward-thinking spirit of our community and setting a shining example for urban development.

Project 2: Sensory Park

About the project

Bhubaneswar smart city has created an all-inclusive Sensory Park in the city's center at Saheed Nagar, designed for children and adults, specifically those with special needs. Spread across an area of 16,000 sqft, the park features insulated pathways, specialized play equipment, open-air gym facilities. The facility, developed with an investment of ₹ 93 lakh, is a great addition to the already existing green network of over 120 parks in the city and offers an array of rides and amenities, including wheelchair swings, a Braille Wall, and adequate lighting. The park has insulated pathways laid with ethylene propylene diene monomer (EPDM) flooring, playing equipment for physically challenged kids, special open-air gym equipment, ensuring adherence to the Universal Access Guidelines, safety to the users with clean environment and shrubs/ trees planted with theme of child-friendly components.

Outputs

01

The Sensory Park has greatly enhanced recreational opportunities and promoted physical fitness and inclusivity of specially abled children and adults

Sri Amar Kumar Mohanty

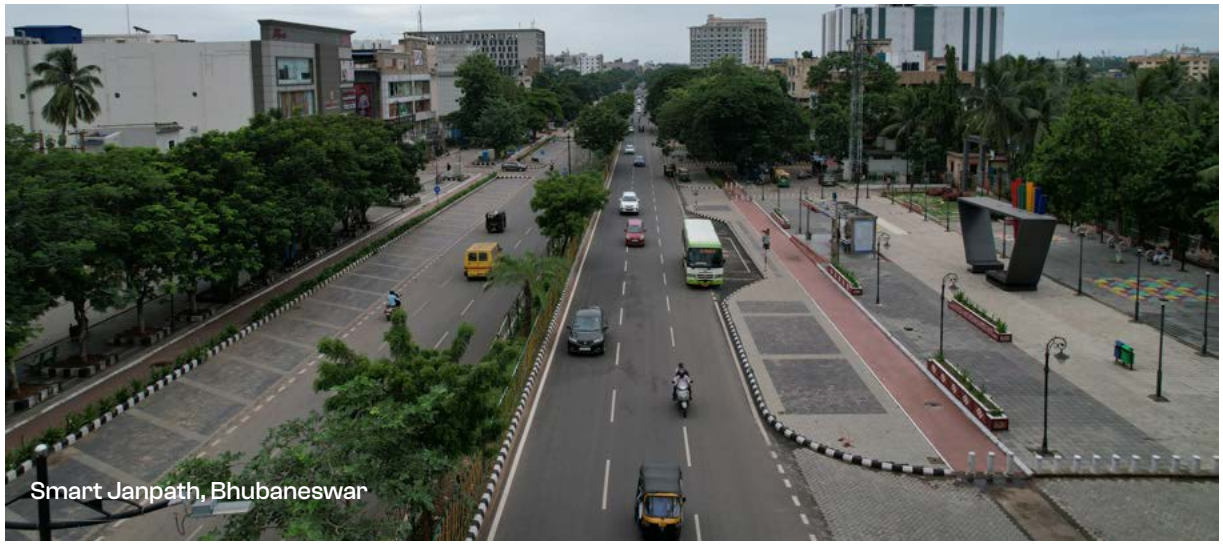
Local Resident

This unique project provides recreational facility at Saheed Nagar area for specially abled people. By providing a park with the special features, it has helped the specially abled children and their kin during early morning and evening hours. Provision of play equipment and open-air gym has also encouraged the special kids and adults to remain fit and smart.

Project 3: The 1929, the 24*7 City Call Centre

About the project

The 1929 City Call Centre in Bhubaneswar operates round the clock, providing essential services and support to the local community. With a dedicated team of professionals, this call centre has successfully addressed various queries, concerns, and requests promptly and efficiently, ranging from big issues like the management of the COVID-19 situation and the tragic Bahanaga train accident to smaller, yet equally important matters like street lights, road maintenance issues, sanitation etc. The centre also facilitates services for bedridden individuals, pregnant women, students, and those with vaccination certificate issues. It has become a vital link between the city's administration and the people it serves, contributing to a smoother and more responsive urban experience for everyone.



Smart Janpath, Bhubaneswar

Outputs

01

More than

10,000 citizens

used the helpline during Covid-19 pandemic to get doctor consultations, vaccine-related guidance, oxygen concentrator delivery, home isolation support, cremation assistance, and more.

02

The facility has been effective in overseeing various functions, including traffic management, emergency services, and disaster management, fostering efficient inter-agency collaboration for improved service delivery.

Smart Janpath, Bhubaneswar

Ms. Prativa Priyadrashini

Citizen

I recently used the 1929 City Call Centre in Bhubaneswar, and I must say it was a great experience. The staff was helpful and patient, guiding me through my queries and concerns. They provided prompt assistance, making it easier for me to get information and resolve issues. It's a valuable resource for the city, and I highly recommend it for anyone seeking assistance in Bhubaneswar.

Integrated Infrastructure development, Ranchi

RANCHI SMART CITY

About the City

Ranchi, the capital city of Jharkhand state, resides on the minerals-rich southern reaches of the Chotanagpur plateau. With a population of 10.7 lakhs (Census 2011) spread across an area of 176 sq. km., the city is a thriving industrial hub and economically promising city. Ranchi was selected in the Round 2 of the Smart Cities Mission challenge in 2017. It is developing an ABD area as a Greenfield project on 656 acres of land at Dhurwa, Ranchi.

Physical Progress

Ranchi Smart City is implementing 13 projects worth ₹ 940 Cr. using the SCM funds, of which 12 projects worth ₹ 937 crores (99%) is complete. The city has focused on excellence in education along with provision of basic amenities like drinking water, sanitation, sewage and solid waste management in an integrated way to address the challenges of urban infrastructure issues posed by Ranchi's rapidly growing urban population.

Key projects in the Smart City

Project 1: Integrated Infrastructure Development Work Project

About the project

The Integrated Infrastructure Development project includes eight sub-projects valued at ₹469.96 Cr., in the ABD area of 656 acres. It encompasses land development, transportation, water supply, wastewater management, stormwater drainage, street lighting, power arrangements, and distribution networks.

Outputs

01

Constructing 20.74 km of roads, 41.2 km of footpaths, bicycle tracks, landscaping, and 39.2 km of stormwater drains with underground infrastructure.

02

Water supply comprises 21.55 km of potable water pipelines and 19.55 km of recycled water pipelines.

03

Implementing a 16 MLD Sewage Treatment Plant (STP) and a 14.44 km sewerage network for wastewater disposal.

04

Reusing 30% of recycled water for non-potable building use and the rest for landscaping and river rejuvenation.

05

Developing a 24x7 water supply network, including two 9 MLD Clear Water Reservoirs (CWR) and a 3 MLD Recycle Water Reservoir (RWR).

06

Building four substations and 151 km of HT & LT underground electrical lines for consistent power distribution in the ABD area.

Ejaj Kha

I applaud the visionaries for the Integrated Infrastructure Development project, reshaping our city with sustainable, modern, and efficient living. The integration of ecological sensitivity with advanced infrastructure shows we're building a lasting legacy.

WEST ZONE

Population above 10 lakh

1	Jabalpur
2	Pimpri-Chinchwad
3	Aurangabad
4	Vadodara
5	Surat
6	Ahmedabad
7	Gwalior
8	Rajkot
9	Nagpur
10	Kalyan-Dombivali
11	Thane
12	Bhopal
13	Nashik

Population below 10 lakh

14	Satna
15	Panaji
16	Dahod
17	Solapur
18	Ujjain
19	Gandhinagar
20	Diu
21	Silvassa

Indra Bhawan, Solapur

SOLAPUR SMART CITY

About the City

Solapur is a prominent city located in the South Western part of Maharashtra. It spans an area of around 100 square kilometers. The name Solapur is called 'Sonalage' from an inscription of Shivaji Sri Siddheshwar of Kalchurishya period which was pronounced as 'Sonalagi'.It holds historical and cultural significance while also being an important industrial and commercial hub. Solapur is an important industrial center in Maharashtra, known for its textile industry, particularly the production of Solapuri Chaddar (traditional cotton blankets) and towels. Solapur boasts several tourist attractions, including the Siddheshwar temple, the Bhuikot fort, built during the 14th century, the Great Indian Bustard Sanctuary, etc.

Under Smart Cities Mission, Solapur was selected in the first round of selection. Aligned to the needs and aspirations of the residents of the city, the smart city has taken projects in solid waste management, improvement of water and sewerage system, rejuvenation of historical buildings, development of roads, development of public spaces, parks etc.

Physical Progress

Solapur Smart City Development Corporation Limited (SCDCL) has successfully completed 94%(i.e 43 projects worth ₹ 646 Cr.) of the total 46 SCM funded projects worth ₹ 938 Cr.. Key projects that have been implemented include improvement in water and sewerage system of ₹ 225 Cr., , development of roads of around ₹150 Cr., rejuvenation of heritage structure buildings, installation of solar panels on government buildings, purchase of 120 Solid waste collection vehicles and installation of SWM transfer stations for improvement in management of solid waste, development of public spaces, etc.

In convergence with NTPC Ltd, SCDCL is implementing a water supply scheme for augmentation of water supply for Solapur.. Under this project, a water pipeline of around 110 Kms with a capacity of 170 MLD is being laid from Ujani dam to Solapur city.

Key projects in the Smart City

Project 1: Improvement of water distribution system & sewerage system in ABD Area of Solapur with a total project cost of ₹ 225 Cr..

About the project

Under this project, SCDCL has replaced 82 kilometers of sewer lines and 80 kilometers of water supply lines. The water supply system has been automated through installation of bulk flow meters, PRV (Pressure Regulating Valves), pressure loggers, and a water quality analyzer.

In addition to that, to ease mobility in the city, SCDCL has restored 65 kilometers of roads.

Outputs

01

Restoration of water supply network and its automation has significantly reduced water leakage by 5-7% and besides ensuring equitable pressure distribution in the water supply network.

Mr Shilesh Gawali

Resident, Solapur

Earlier the water flow & pressure were very low. There were also problems of sewer clogging. Due to this project we get ample clean water with high pressure. There are no sewer problems now. Road quality has also been removed. This has resulted in improved quality of living.

Project 2: Redevelopment of Indra Bhavan Building with a total expenditure of ₹ 6 Cr.

About the project

The construction of Indra Bhavan dates back to 1899, rendering it a heritage building of immense historical significance. The architectural influences on this building are prominently reflective of European styles from the late Baroque and Rococo eras, blended with distinctive Indian elements. Over the years, Indra Bhavan served various purposes, functioning as a residence, a high school (1918-1930, excluding the year 1924-25), a district court (1930), and eventually as the Municipal Corporation since 1960s. This structure holds significant vernacular importance and carries profound commemorative value within the local community. The redevelopment work has restored the glory of the building. The rejuvenation project has improved the shelf life of the building.

Outputs

01

Preservation and restoration of this historically significant monument has allowed the local community to experience shared feeling and a sense of belonging. This arouses a sensation of pride, rootedness, and ownership in individuals.

Mr Somshekhar Nimbale

Resident, Solapur

The heritage building has been restored to its historical glory. The work quality is up to the mark. Thanks to Smart Cities Mission, and Solapur Municipal Corporation for taking up this project. This project has added to the list of attractions of Solapur.

Project 2: Redevelopment of Indira Gandhi Stadium with a total project expenditure ₹ 24 Cr.

About the project

In this project, 2.36 Lakh Sq.ft. of cricket ground with state-of-the-art field, 11 main cricket pitches, 6 practice pitches have been developed for Board of Control for Cricket in India, Maharashtra Cricket Association, Solapur Premier League matches. The ground has a state-of-the -art drainage system that will drain out the field in 30 mins. Redevelopment of pavilion building, umpire room, VIP room and media room has also been done under this project.

Outputs

01

Daily

300 cricket players

practice for National level.

02

Matches of Cooch Behar trophy, state level Ranjii selection, Under-19 women's matches, Ranji practice matches, have been played here post completion of the project.

03

More than

30 cricket matches

have been played on this ground.

Sri Nirmal Kumar Mohapatra

Resident

The facilities developed are so good that Ranji or International Cricket matches can now be organized here. The wickets and outfield is good. Dressing room and other facilities are very nice. We have been practicing here for a couple of days, and we are satisfied with the infrastructure that has been developed.

Smart Cities Mission is a people's movement for urban transformation

Shri. Narendra Modi
Hon'ble Prime Minister of India

ICCC, Ahmedabad

AHMEDABAD SMART CITY

About the City

Ahmedabad, the seventh largest metropolis in India and the largest city in the state of Gujarat, is a major center of trade and commerce in the country. With a population of approximately 5.6 million spread across 469 sq.km., the walled city of Ahmedabad has earned the UNESCO World Heritage City status, making it the first Indian city to attain this coveted recognition.

Ahmedabad was selected in the first round of the Smart Cities Mission challenge, along with 19 other Smart Cities, a testament to its forward-thinking urban planning and development proposal. The key focus of the smart city plan submitted by Ahmedabad was to improve efficiency in municipal services and provide ease of living to citizens, improving urban infrastructure, enhancing public services, and increasing its efficiency in resource management.

Physical Progress

Ahmedabad Smart City has undertaken 31 projects worth ₹ 930 Cr., of which 30 projects worth ₹ 910 Cr. (98%) are already complete. Some of the exceptional projects completed are the Integrated Command and Control Center (ICCC) named "Safe and Secure Ahmedabad (SASA)", Intelligent Transport Management System (ITMS), Citizen Complaints Redressal System (CCRS), Public Bike Sharing (PBS), Augmentation of existing Water SCADA system and Retrofitting of Streetlight into Smart Streetlights.

Key projects in the Smart City

Project 1: E-challan system

About the project

To ensure traffic safety, Ahmedabad smart city has installed a comprehensive traffic surveillance system at 130 junctions across the city. The system is equipped with Red Light Violation Detection (RLVD) and Automatic Number Plate Recognition (ANPR) cameras. This state-of-the-art system diligently monitors all passing vehicles, meticulously capturing instances of traffic rule violations. In cases of rule infringement, it automatically generates E-Challans, promptly delivering them to the registered vehicle owners through integration with the VAHAN portal of RTO. By adopting this proactive approach, not only does the system contribute to immediate rule enforcement, but it also acts as a powerful deterrent, promoting greater compliance with traffic laws and bolstering overall road safety.

Outputs

01

62+ lakh

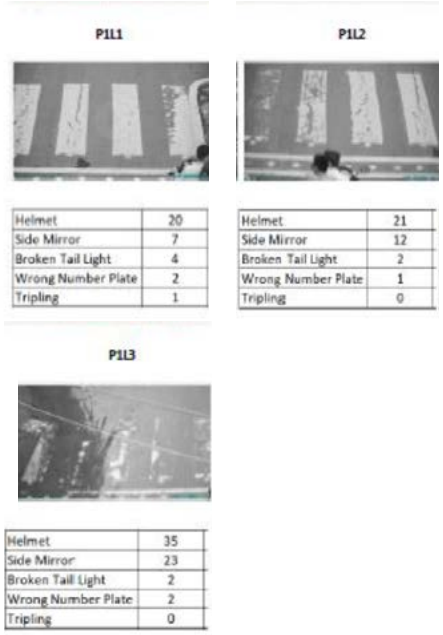
challans issued till date and 72 Cr. recovered in fine.

02

The project has yielded a remarkable reduction in rule violations, signifying a substantial improvement in adherence to traffic regulations since its initiation. Consequently, the frequency of accidents at these junctions, particularly those stemming from light signal violations, has experienced a tremendous decline.

03

Furthermore, an observable shift in behavior is evident, with individuals now consistently halting their vehicles at designated stop lines while awaiting signal changes, contributing to safer and more orderly traffic flow.



Helmet	20
Side Mirror	7
Broken Tail Light	4
Wrong Number Plate	2
Tripling	1

Helmet	21
Side Mirror	12
Broken Tail Light	2
Wrong Number Plate	1
Tripling	0

Helmet	35
Side Mirror	23
Broken Tail Light	2
Wrong Number Plate	2
Tripling	0

CEO

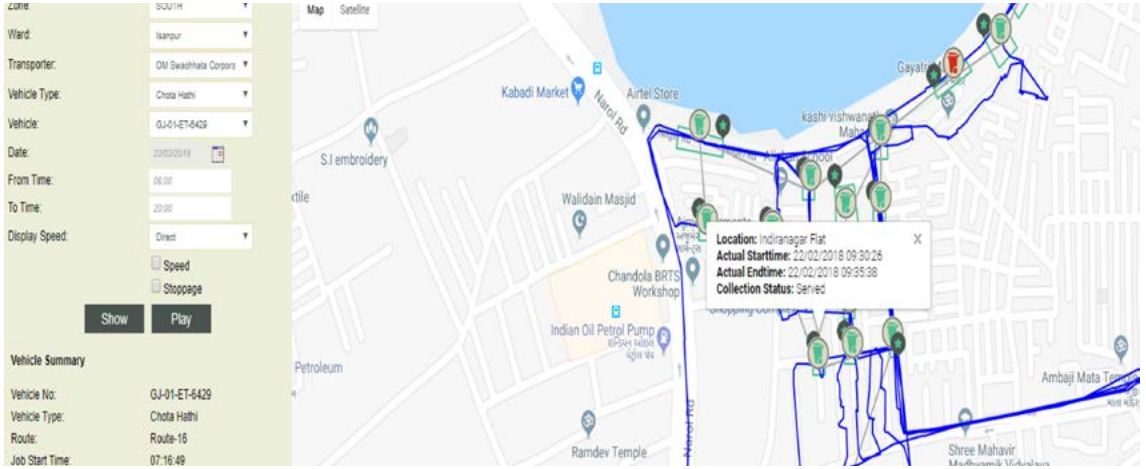
Ahmedabad Smart City

The number of rule violations has significantly decreased since the project's inception. E-Challans not only improved traffic behavior and safety but also boosted revenue for AMC and Ahmedabad city police. Despite some technical issues and fine collection delays, the project has been successful and continues to expand.

Project 2: Intelligent Transit Management System (ITMS)

About the project

The Integrated Transit Management System (ITMS) components have been installed at 158 BRTS stations, 255 BRTS buses and 850 city buses Manage incidents across public transport options. The state-of-the-art facility, with an investment of ₹ 186 Cr., is designed to establish a unified IT infrastructure for real-time monitoring of both the Bus Rapid Transport System (BRTS) and the Ahmedabad Municipal Transport Service (AMTS) fleets. This initiative has created a people-centric, eco-friendly, secure, efficient, and integrated transportation system that aligns with the city's planned developments. The Automated Fare Collection System (AFCS) is an integral part of ITMS, automating fare collection across both BRTS and AMTS. It seamlessly integrates with the Ahmedabad Municipal Corporation's City Card Payment System (CCPS) to facilitate payments.



Outputs

01

Over the span of FY 2018-19 to FY 2021-22, digital payments have surged from a mere 0.01% to an impressive 6%.

02

Passenger ridership increased from

₹ 4.91 Cr. to
₹ 6.39 Cr.

in the last 3 years. Also, the revenue has been increased from ₹ 60 Cr. to ₹ 80 Cr.

03

More than

₹ 60 lakh &
1+ lakh kms

saving per month, and shortening the journey time for commuters. Cumulative saving of the ITMS AFCS System is ₹ 15 Cr. till date.

CEO

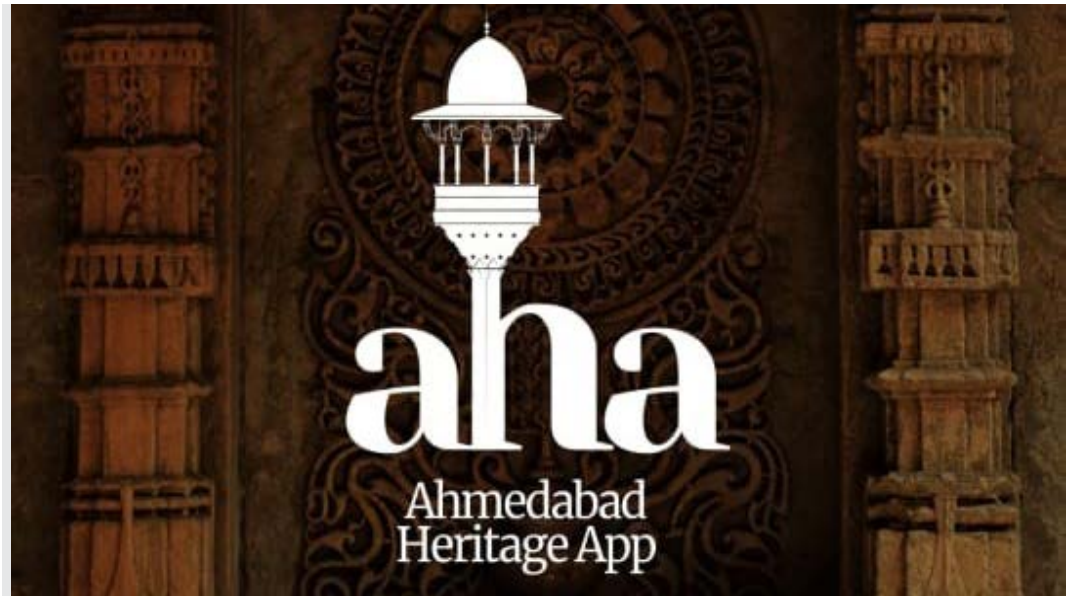
Smart City

As the safety of Ahmedabad's citizens is our paramount concern, the implementation of ITMS has been undertaken in response to the increasing number of accidents within the city. Prior to the introduction of ITMS, we encountered specific challenges related to incident reporting and management. However, this system has proven instrumental in our ability to comprehensively monitor, track, and assess our public transportation network.

Project 3: Heritage Tourism

About the project

Ahmedabad smart city has embraced the responsibility of safeguarding its rich cultural and historical heritage, which is interwoven into the evolving urban landscape. Tourists from all around the world visit various heritage sites across the city because of their architectural and historical value and look out for digital tools to plan their tours, help with translation, 360-degree view, etc. Recognizing this need to create an immersive experience, Ahmedabad smart city deployed touchscreen information kiosks and bluetooth beacons. Features include creative content cataloguing, customised tour planning, audio guides, automatic memory lane generation of videos, integration with social media and map based services. Through the use of Bluetooth beacons and QR code scanning, the application demonstrates an innovative approach to disseminating information to the public, eliminating the need for physical signage near cultural sites.



Outputs

01

The application has contributed to a significant increase in visitor footfalls approximating to 25,000+ per year at cultural sites.

02

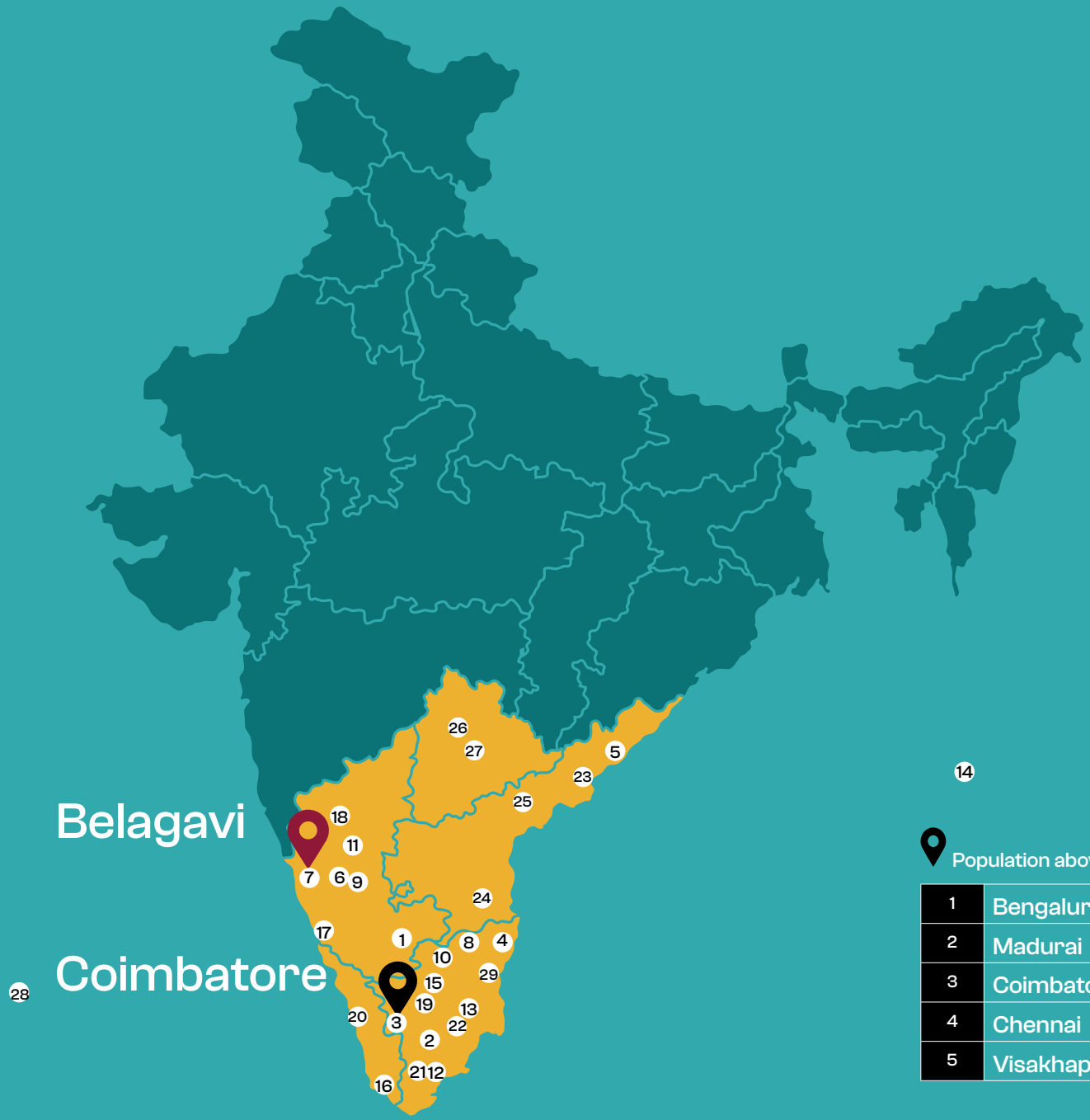
The application is a treasure trove of fascinating facts and insights about 100 heritage sites, enhancing Ahmedabad's rich cultural heritage.

Raj Kapoor

Resident

In an era of rapid digitization and technological advancements, the preservation of heritage sites is paramount for cities like Ahmedabad. Recognizing the significance of our cultural roots, we devised a strategy to harmonize technology with our rich heritage, creating a more accessible and captivating experience for tourists. While initially facing marketing challenges, our efforts yielded positive results, with increased foot traffic from both tourists and locals alike.

SOUTH ZONE



Population above 10 lakh

1	Bengaluru
2	Madurai
3	Coimbatore
4	Chennai
5	Visakhapatnam

Population below 10 lakh

6	Shivamogga
7	Belagavi
8	Vellore
9	Tumakuru
10	Erode
11	Davanagere
12	Thoothukudi
13	Thanjavur
14	Port Blair
15	Salem
16	Thiruvananthapuram
17	Mangaluru
18	Hubballi-Dharwad
19	Tiruppur
20	Kochi
21	Tirunelveli
22	Tiruchirappalli
23	Kakinada
24	Tirupati
25	Amaravati
26	Greater Warangal
27	Karimnagar
28	Kavaratti
29	Puducherry

Model Road, Coimbatore

COIMBATORE SMART CITY

About the City

"Manchester of South India" or the "Textile City", Coimbatore- a vibrant and bustling city located in the Indian state of Tamil Nadu. It's a thriving hub for textile mills, small-scale engineering and software industries. It is one of the major urban centers in the state and serves as an important industrial, educational, and cultural hub in South India. Coimbatore is the second largest city in Tamil Nadu after Chennai in terms of population and features among top 20 largest urban agglomerations in India as per the census 2011. The ancient water management practice of Coimbatore still serves as a reference for the Urban planners. Starting as early as 8th century, the Chola kings and farmers in the region masterfully developed an interconnected system of Anaicuts (check dams), canals and natural and manmade lakes to ensure that the river water was managed efficiently. 30 man-made tanks were created historically, serving as flood buffers and vital irrigation sources in a region facing water shortages.

Physical Progress

Coimbatore Smart City has successfully completed 87% of the total 69 SCM funded projects, worth ₹ 965 Cr. i.e 60 projects worth ₹ 825 Cr.. These projects focus on themes like water body restoration, model roads, waste management, and energy conservation. They have significantly benefited local residents and enhanced the city's infrastructure and sustainability.

Key projects in the Smart City

Project 1: Revitalization of 7 lake system

About the project

Within the framework of the Smart City Mission, Coimbatore Smart City Limited (CSCL) has undertaken a significant initiative to revitalize its historical seven lakes that have served as an integral component of the water supply system. Prior to this project, the lakes located in the core city were used for dumping garbage and debris. Wastewater from domestic and commercial establishments was being discharged into the lakes, severely polluting the water. The lake bunds were also encroached by a large number of homeless poor living in unsanitary conditions. Coimbatore smart city took up the task of rejuvenation of the seven lakes under the Smart City Mission. This cascading system of lakes that acts as efficient flood buffers was restored to its pristine state and the lakefronts were turned to public arena. As a result, there are currently 5 amphitheaters, 3 food courts, numerous food kiosks, a learning center, a smart city experience center, sound and light show, boating and water sports, etc. on the waterfront. An art and craft bazaar promotes sales of locally made products such as handicrafts, handloom products, etc.

North Lakes - Ecological Lakes:
- Krishnampathy Lake
- Selvampathy Lake
- Kumaraswamy Lake

Central Lake - Urban Lakes:
- Selvachinthamani Lake
- Periyakulam Lake
- Valankulam Lake

South Lake
- Kurichikulam Lake

Outputs

01

Smart City Lake Projects increased public space availability from 2.17 sq.m to 4.9 sq.m per capita.

02

Removal of 20,389 illegal dwellings on 7 lakefronts reclaimed nearly 28 acres of land for public use.

03

7,680 households were rehabilitated with secure tenements.

04

2,000 daily visitors for activities like walking, jogging, cycling, yoga, and sports.

05

10,000+ people visit these lakefronts on weekends for leisure, water sports, boating, and bird watching.

06

10 MLD wastewater treatment plants improved lake water quality.

07

Regular events - including festivals, shopping, food festivals, and cyclothons.

08

Dedicated cycling paths, footpaths, and utility ducts.

09

Improved tourism due to boating, water sports, sound & light shows, food courts, and bird watching.

Abdul Khadar

Railway Canteen worker

I used to live at the Valankulam lakeside. There is adequate water supply now, which was a massive problem for us earlier.

Project 2: Affordable Clean Energy

About the project

Coimbatore prioritizes affordable and reliable electricity, particularly for urban poor, offering free electricity up to 100 Kwh and renewable energy adoption. The city aims to cut emissions, benefiting both the environment and public health. By 2030, Coimbatore plans to boost renewable energy in its mix, focusing on solar power after harnessing hydro and wind power. This sustainable approach ensures a greener energy future. In line with this, Coimbatore smart city has installed solar generation capacity of more than 8 MW.

Outputs

01

The Solar Power Plant at Ukkadam Sewage Farm Premises saves 15,33,000 KWH/ year, resulting in annual savings of ₹. 1.10 Cr..

02

The 3.6 MW Solar Power Plant at Ukkadam generates 45,75,000 KWH/ year, leading to savings of ₹ 3.20 Cr. annually.

03

Replacing existing conventional street lights with 97,234 Smart LED Energy-Efficient Lamps yields energy savings of 1,48,36,943 KWH/ year.

04

Reduced electricity charges from ₹ 24.50 Cr./year to ₹ 14.83 Cr./year, resulting in savings of ₹ 9.67 Cr./year.

05

The Solar Power Plant (1MW) at Kavundampalayam generates 15,33,000 KWH/year, saving ₹ 1.10 Cr./year.

06

Roof-top solar installations on municipal buildings produce 12,38,781 KWH/year, leading to annual savings of ₹ 98,94,680.

Ravi Kumar

Climate change expert

Solar power plants that have come up in the city may considerably reduce global warming and climate change. I think it is a good initiative.

Project 3: Solid Waste Management

About the project

Nearly 1,100 tons of solid waste is generated daily in the city of Coimbatore. Over the years, huge amounts of solid waste accumulated at the Vellalore landfill. Among the negative impacts of solid waste accumulation is the emission of methane from the waste, which has often led to fires at the landfill. This also resulted in air pollution and health risks for citizens living in the neighborhood. Therefore, to reduce waste accumulation, the Smart Cities Mission established the Bio-Mining Project and micro-composting centers.

Outputs

01

Bio-mining project has so far processed 9,40,044 Cu.m of old municipal solid waste and converted it into Refuse-derived fuel (RDF) for cement factories.

02

47 acres of land has been reclaimed that is available for social forestry and water harvesting beds, creating a positive impact on public health, safety, and environment.

03

Established 36 micro compost centers (MCC) with a 165 MT capacity, producing 10 tons of manure per day that is being distributed to farmers, urban parks and community gardens.

Elvira

Urban infrastructure Architect

Earlier the waste collected was just dumped on landfill sites. Now through the bio-mining process, the solid waste that was dumped has been processed and the land has been recovered. This has also led to reduction in pollution.

Kids Zone at Mahatma Phule Garden, Belagavi

BELAGAVI SMART CITY

About the City

Belagavi, lying in the zone of cultural transition between Karnataka, Maharashtra and Goa, has acquired the cultural flavor of these states and blended it with the local 'Kannada' culture to create a rich heritage, which is unique in its manifestation.

Belagavi is popularly known as 'The Hydraulic Capital of the Nation'. It houses small and medium scale hydraulic enterprises that play a vital role in building the Country's economy. India's first Aerospace Special Economic Zone (SEZ) has also been set up in the city to cater to the precision engineering requirements of the global value chains of aerospace and automotive sectors. Belagavi is also one of the major defense hubs. With the change in times, the city has emerged in various sectors like education, healthcare, defense, hospitality, etc.

Belagavi Smart City Limited (BSCL) has planned and executed all its projects with a vision of easing the urban life with best possible urban solutions and services to the citizens of Belagavi. Some of these flagship projects are development of Digital library & Kids zone, development of Mahatma Phule garden, rejuvenation of Kanabargi lake, Integrated Command & Control Centre, Mahila Market and NMT Hawker's zone – Khau Katta, health sector projects such as Modular OT and Medical ICU works at Belagavi Institute of Medical SciencesBIMS, and many more.

Physical Progress

BSCL has taken up 102 projects worth ₹ 930 Cr. covering various sectors such as Healthcare, Education, Environment & Wellbeing, Social infrastructure projects, Information & Technology, Road infrastructure, etc. that has improved the quality of life of its citizens. A total of 96 projects worth ₹ 775 Cr. have been completed achieving an overall physical progress of about 90%. Several projects taken up by BSCL have won multiple laurels including United Nations Smart Solutions and Inclusive Cities Award 2022, Smart & Successful Inclusive City Award, Smart & Successful Tech Implementation Award, and Smart & Successful Citizen Engagement Award.

Key projects in the Smart City

Project 1: Mahatma Phule Garden

About the project

Mahatma Phule Garden aims to provide comprehensive facilities for uplifting specially abled children. The dedicated park is designed with inclusiveness as the main feature and aims to ease the life of children by providing them with both indoor and outdoor facilities for therapy and recreation utilizing various sensory modalities like touch, smell, sound, sight, and taste. More than 8,000 specially-abled children have visited the park.

Outputs

01

20,000+
therapies

have been conducted free of charge.

> **Sneha Suhas Mohire**
> Specially-abled Child Parent
>
> No city cares about its specially-abled, especially autistic people. Both parents cannot work as someone has to take care of the child. Therapies are expensive. But thanks to the Smart city, all the parents of 'special' children can live a normal life and are very happy.

Project 2: Integrated Command and Control Centre

About the project

The Integrated Command and Control Centre (ICCC) is an integral part of the Smart City Project. In addition to handling exceptions and handling disasters, ICCC is envisioned as the brain of city operations. Various utilities such as water, waste management, energy, mobility, education, healthcare, and safety, can be monitored and analyzed using sensors and edge devices. Services such as Solid Waste Management (SWM), Emergency Services (Ambulance & Fire Engine), Intelligent Transport System (ITS), Intelligent Traffic Management System (ITMS), Intelligent poles, Smart water, Mobile application, LED Street Lights (Future integration), SCADA system for water supply are being operated and managed efficiently using ICCC.

Outputs

01

Over
27 Entrepreneurs
have come forward in 8 sectors to create a ₹ 200 Cr.+ economy and 2000+ new jobs.

01

Over
1.5 Lakh
houses have been fitted with RFID tags. 5 tons of garbage is collected daily.

01

Around
200+
traffic tickets have been issued.

01

Traffic jams have been reduced by over
70%
using smart cameras

> **Mr. Rajat Hardi**
> Entrepreneur
>
> Smartness-as-a-service is a great way to bootstrap companies like ours. Non-IT companies need not have expensive IT experts. Advanced technologies like Geo-Tagging, Machine Learning, Artificial Intelligence, and Analytics are not easy to handle and maintain. At Belagavi ICCC,I can use them on demand.

Project 3: Khau Katta - Mahila Market

About the project

The Mahila Market–Khau Katta is a must visit spot in the city of Belagavi to enjoy street food with the best hygiene. Women are running a whole new economy of ₹ 58 Cr. The project now popularly named as Khau Katta has mini food stalls serving a variety of Indian delicacies. The market features unique shops, each offering distinct goods or food, making it a top attraction for both locals and tourists. Every food stall is run by a young entrepreneur.

Praneet Ramagounda

Student

The Mahila Market's location is superb, offering ample parking, comfortable seating, modern lighting, and roofing. With over 30 unique cuisines to choose from, the experience is outstanding. I genuinely enjoy spending my money here because I always feel that I'm getting excellent value for it.

Outputs

01

A total of

52 shops

with daily earnings exceeding ₹ 2,000 each.

02

The project boosts the local economy with weekend revenue often exceeding

₹ 2.5 lakh.

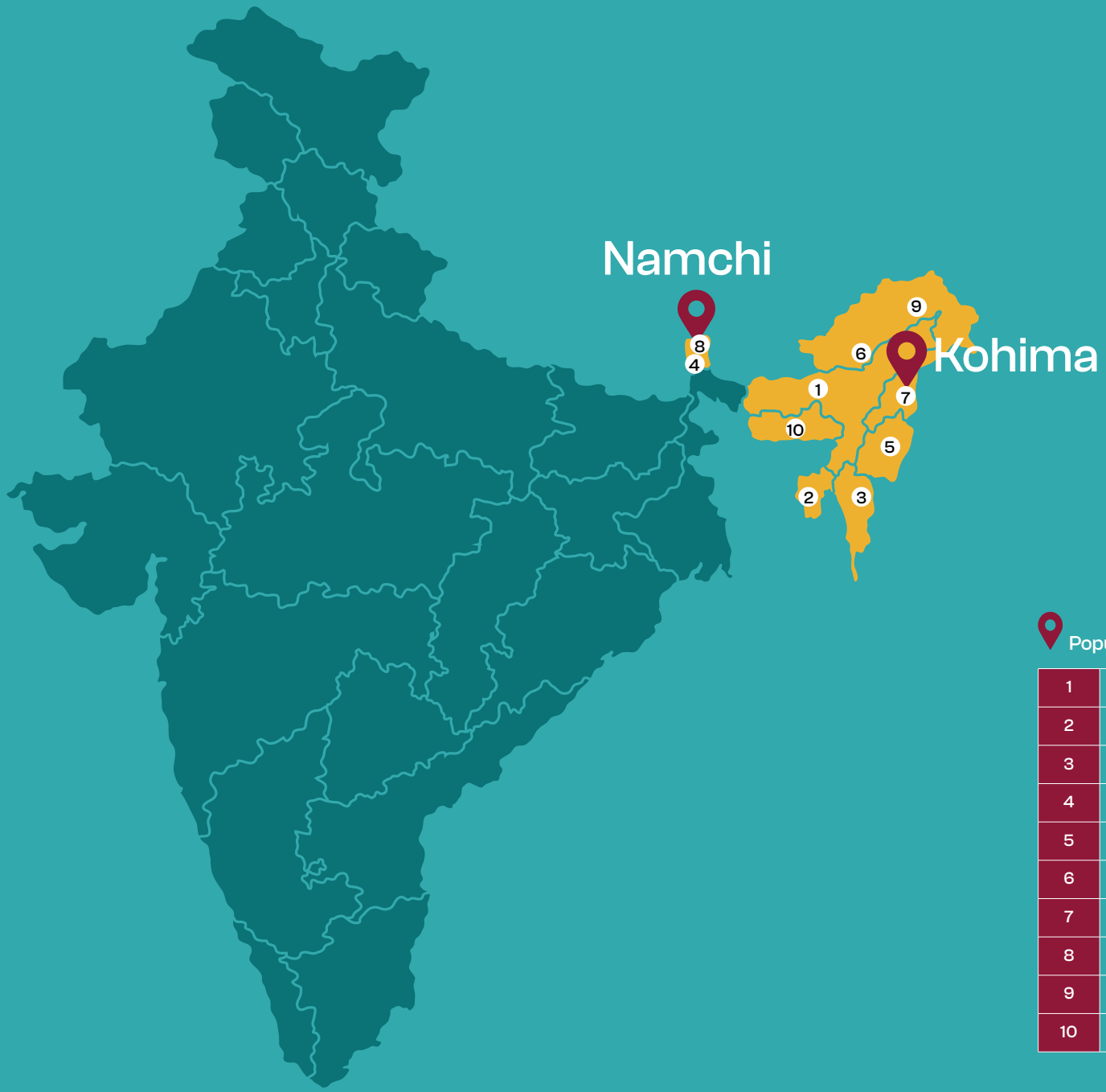
03

Oriented towards women empowerment and entrepreneurship, the majority of which are first-generation entrepreneurs.

Smart Cities Mission aims to define 21st Century Indian Cities. Transformation without disturbing the inherent characteristics of individual cities.

Shri. Narendra Modi
Hon'ble Prime Minister of India

NORTH EAST ZONE



Population below 10 lakh

1	Guwahati
2	Agartala
3	Aizawl
4	Gangtok
5	Imphal
6	Itanagar
7	Kohima
8	Namchi
9	Pasighat
10	Shillong

ICCC, Kohima

KOHIMA SMART CITY

About the City

Kohima occupies pride of place as the capital city of Nagaland. With a resident population of around 1,00,000, it is the second largest city in the state. The name 'Kohima' is derived from "KEWHIRA" which is the name of the village where Kohima town is located. Kohima village , also called 'Bara Basti' is the second largest village in Asia and forms the North-Eastern part of Kohima Urban area today. It stands out as one of the three cities in Nagaland with Municipal council status and is an integral part of the broader Kohima District. Kohima's historical significance is underscored by the fierceful battle also known as "Stalingrad of the East" that played a pivotal role during World War II. Beyond its historical legacy, Kohima serves as a vital junction facilitating connectivity with ASEAN nations making it a key hub in the region.

Overall Physical Progress

Kohima Smart City has already completed 75% of 32 SCM funded projects, worth ₹ 512 Cr.. These projects inter alia focus on urban transportation, sanitation, water supply management etc. They have significantly contributed in achieving the objectives of Smart Cities Mission through fulfillment of needs and aspirations of the residents.

Key projects in the Smart City

Project 1: Capital Cultural Hall

About the project

The project 'Capital cultural hall' has been taken up to enhance the Heritage & Tourism sector of Kohima Smart City. It has been built over an area of 2,151 Sq.m. The space is designed for conferences, concerts and exhibitions besides religious meetings and conventions. The three major purposes served through the project are:

Promotion of Culture:
It supports preservation and promotion of local culture and traditions through events focussed on traditional music, dance, art, and crafts.

Artistic Expression:
It provides a platform for local artists and performers to showcase their talents encouraging creativity within the community.

Community Gathering:
It fosters a sense of community and social cohesion through community gathering for various events, concerts, theater performances, workshops and exhibitions.

Outputs

01

46 Events

have so far been organized that include conferences such as G20 Summit; concerts such as Urban Music & Hip Hop concert, Reviving Angami folk songs; contests such as Miss Nagaland & Miss North East beauty contests; traditional events such as 1st time held Nagaland Catholic choral fiesta, Angami tribe reunion etc

Mr. Vibalie Jack Ado

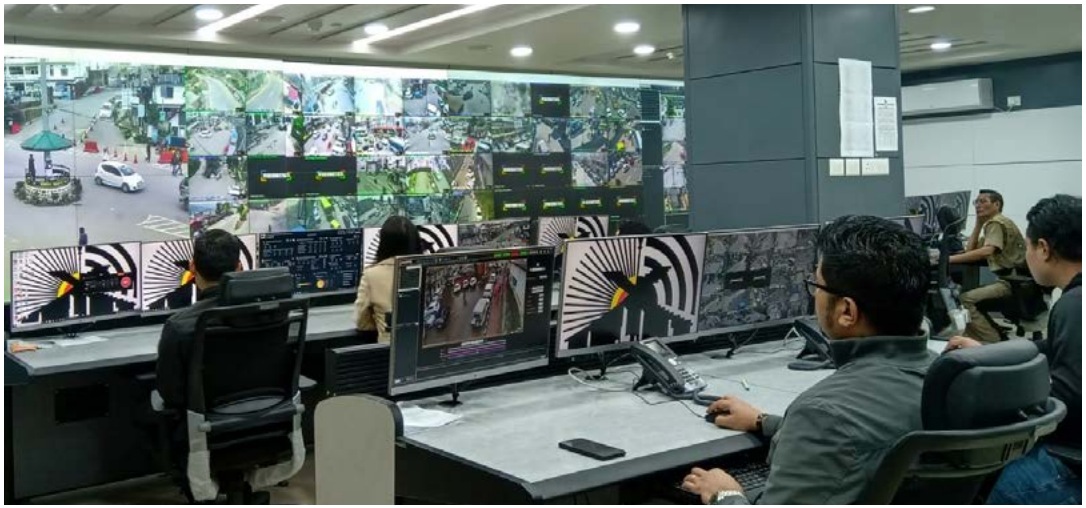
Senior citizen, Kohima

The projects undertaken by Kohima Smart City Mission have contributed immensely in upliftment of the living standards of the citizens in multiple spheres of life. The development of the world class Capital Cultural Hall has created an avenue for the citizens to showcase their talents and creativity. The Capital Cultural Hall will immensely benefit the youth as it will pave ways and means to the youth to become self-reliant citizens.

Project 2: Integrated Command And Control Center -ICCC

About the project

The heralded rise of "Smart Cities" has pervaded in bringing data-centric solutions to urban challenges. The use of Integrated Command and Control Centers (ICCCs) have been encouraged to improvise urban challenges and improve municipal service delivery. ICCC in Kohima encompasses various applications designed to enhance various aspects of urban management. These include 800 smart street lights, 110 CCTV locations for safety, eKMC for digitizing municipal registration, 51 WiFi hotspots, intelligent poles with digital displays and speakers, and live monitoring of adaptive traffic management. This initiative aims to improve energy efficiency, safety, digital governance, internet access, and communication within the city. The strategic deployment of these applications have enabled creation of a smarter and interconnected urban environment that enhances residents' quality of life, attracts businesses, and improves overall city functionality through technology-driven urban development.



Outputs

01

Improved Quality of Life in the city

02

Improved Situational Awareness: With access to real-time data and monitoring capabilities.

03

Increased Safety and Security: By facilitating rapid responses and better decision-making.

> **Mr.Temjen Traffic**
>
> Traffic Police Department
>
> Traffic used to be a nightmare, but the ICC's traffic management system has made my daily commute so much smoother. It's a game-changer.

Project 3: Pedestrian Space/Footpath

About the project

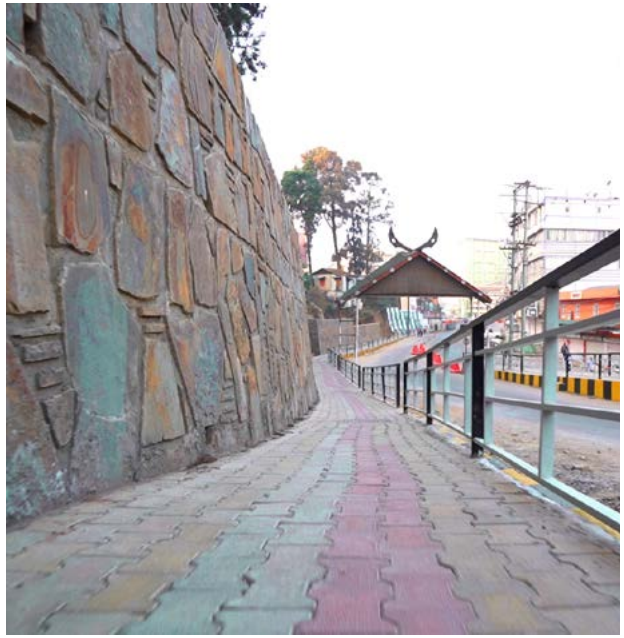
This Urban Mobility project is dedicated to enhancing pedestrian movement within the city, with a paramount focus on inclusivity and sustainability. Its core objectives encompass inclusive infrastructure in which the project aims to establish infrastructure that caters to all sections of society, with particular attention to people with disabilities, the elderly, and young children, ensuring equitable access for everyone. Another key feature of the initiative is to encourage non-motorized modes of transportation, fostering a healthier lifestyle while contributing to a cleaner and more environmentally-friendly urban environment.

Outputs

01

1.5 Km

raised footpath paved with interlocking blocks and handrails.



> **Mr. Sazo Ltu**
>
> Our new footpaths are now very helpful to us; this is a very big development which has safety aspects for all pedestrians. Thank you, Kohima Smart City.

Capital Cultural Hall, Kohima

NAMCHI SMART CITY

About the City

Namchi- Nam(sky) & Chi(high)- is a town located in the South Sikkim district of the Indian state of Sikkim. It is the district headquarter of South Sikkim district and serves as an important administrative and tourist center in the region. It spans an area of 7.14 square kilometers. Namchi has gained popularity as a tourist destination due to its natural beauty, scenic landscapes, and cultural attractions. It is known for its Buddhist monasteries and pilgrimage sites. It houses the world's largest statue of Buddhist Padmasambhava, also known as Guru Rinpoche, the patron saint of Sikkim and one of the founding fathers of Tibetan Buddhism. In addition to that, Siddheswara Dham, featuring a 27m high Shiva statue along with replicas of Chaar Dham and Jyotirlinga promotes religious tourism. The city also provides breathtaking views of Mount Kanchenjunga. The city has oriented itself towards modern and sustainable urban development under the Smart Cities Mission. Established in 2008, Namchi Municipal Council (NMC) presides over 7 wards, making(SCM) it Sikkim's second most significant urban center after Gangtok.

Overall Physical Progress

Namchi Smart City has already completed 11 projects worth ₹235 Cr. i.e around 50% of the total SCM funded projects-23 projects worth ₹ 512 Cr.. The projects of Namchi Smart City cover varied expectations and needs of the residents reflected in the diversity of areas of projects i.e. like solar power generation, roads, solid waste management, water supply management, housing, etc.

Key projects in the Smart City

Project 1: LED Street lights and its integration with PV based Solar installation-On-Grid

About the project

Namchi Smart City (NSCL) has implemented this project to illuminate existing roads, streets, and pedestrian walkways. 4,000 street lights and an on-grid PV-based solar energy generation system have been installed under the project. The project faced a major challenge of encroachments that was effectively dealt with for its successful completion. The project has enhanced safety for pedestrians, motorists, entrepreneurs, and women. The illuminated streets have become safer, more pedestrian-friendly, and have expanded gender equity avenues, thus allowing housewives and women to use them for evening/night time leisure walks.

Outputs & Outcomes of the Project

01

4,200 LED

street lights have been installed along 42 Kms of roads and 3 Kms of the pedestrian pathways.

02

The On-grid PV Solar system has an installed capacity of 200 Kwp with a performance ratio above

70 %.

Sunita

Housewife, Tharpu, Namchi

Earlier, due to dark streets, I could never imagine going out from my home to the street for a night stroll because of safety concerns and uneasiness while walking in the dark. Now the streets are well illuminated, safer to walk and offer a very safe environment. It gives me additional mental peace

Project 2: Non Motorized Transport & Walkability
Pedestrian Subway / Foot over bridges (FOBs) and Construction of Smart Pedestrian Walkways

About the project

Urban mobility infrastructure, particularly non-motorized transport, plays a pivotal role in achieving sustainability in cities, especially in hilly areas like Namchi. Heavy reliance on personal motorized transport contributes to air pollution, traffic congestion, and increased carbon emissions. Therefore, stakeholders expressed a pressing need for a safe, interconnected pedestrian walkway network during citizen engagement that was done for preparing Namchi's Smart City Proposal (SCP). Overcoming land disputes and technical challenges in the hilly terrain, Namchi Smart City Limited (NSCL) has successfully constructed over 6 kilometers of well-designed pedestrian walkways, featuring safety measures, LED lighting, and rest areas.

Outputs

01

6 Km

of well-designed
pedestrian walkways,
featuring safety measures,
LED lighting, and rest areas.

Govind

Local porter, Namchi

This newly built pedestrian walkway is safe and well networked. Nowadays it has become much easier to carry heavy loads and I am able to work till late as the walkways are well illuminated. This has also supported in increasing my income

Project 3: Integrated Smart Public Utilities Below Central Park, Namchi Municipal Council

About the project

Namchi Smart City has constructed an integrated public utility building. This structure accommodates cobblers and tailors with gender-sensitive toilets and bathrooms. To maximize land use, a well-designed multistorey building has been constructed that has 18 shops, accessible restrooms, and a cafeteria on the top floor. Even though it was challenging to gain support of local authority and stakeholders due to the unconventional design, Namchi Smart City with its strenuous and focussed efforts completed the project. The project has proved highly effective in terms of achievement of the core objectives. It offers larger, safer spaces and instills a sense of permanence for local businesses, bringing smiles on their faces. Today, these spaces are fully occupied, benefiting both the end-users and the community

Harka Bdr

Tailor, Namchi

Earlier my business was just repair and alteration, now I have a bigger and safer space where I have expanded my business to retail. Now my wife also assists me in the shop. I am more than happy

Outputs

01

There are
18 shops
fully occupied by local tailors and cobblers.

02

Bathing provision in gender-based restrooms is witnessing wide accessibility.

03

The local tailors and cobblers have expanded their business from repairing to retailing of their products.

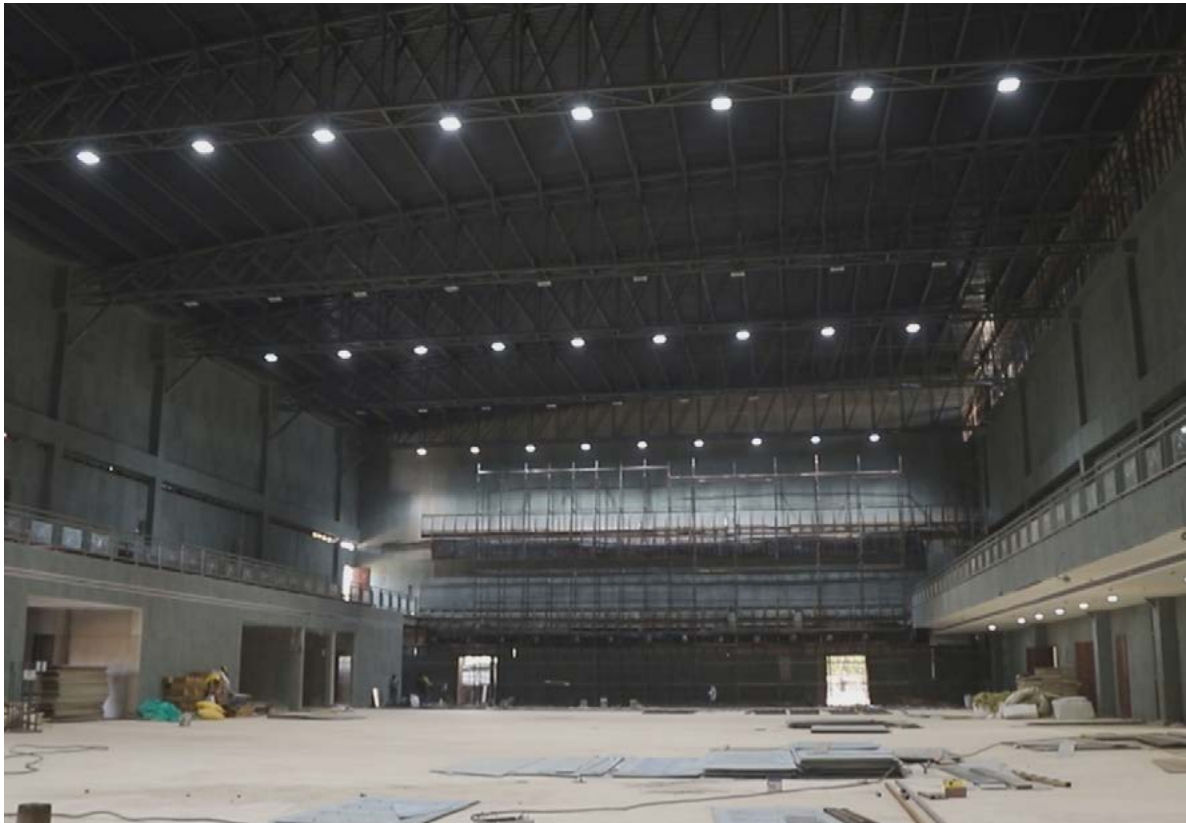
Smart Cities is a platform for learning across cities, by letting other cities know about technological advancements in one city.

Shri. Narendra Modi
Hon'ble Prime Minister of India

03

Project Awards

BUILT ENVIRONMENT



Journey of ISAC

2018

Placemaking
Pune

VISAKHAPATNAM
2019

Riverfront Development
Indore

SURAT
2020

Chappan Dukan
Indore

INDORE
2022

RANK 1

Model Roads, Restoration and Rejuvenation of Lakes
Coimbatore

RANK 2

Riverfront Development (Stretch 1 from Rambagh bridge to Krishnapura Chhatri)
Indore

JOINT RANK 3

Landscape Redevelopment of Neem Banani Park and other Green Open Spaces
New Town Kolkata

Modernisation and Development of Palika Sports Stadium
Kanpur

RANK 1

7 Lake Rejuvenation System

Coimbatore, Tamil Nadu

https://youtu.be/rQDcnrJNIXo

About the Project

Implementation of the 7 Lake Rejuvenation System project accomplished by Coimbatore Smart City has greatly enhanced local outreach of public spaces, overall climate resilience, inclusiveness, and improvement in the local environment of the city. The identified lakefronts were carved out from the natural watersheds and green spaces of the city, that includes freshwater lakes, parks, open spaces, spill-over areas, etc. These precious waterbodies in the core city area were used as garbage dumping grounds, debris disposal and wastewater discharge from local domestic and commercial establishments. The transformation has resulted in complete makeover and bringing vital placemaking concepts on ground thereby augmenting 28 acres of the city's land asset and improving the overall local environs. The project ensured installation of technical features like Water Treatment plants to ensure clean water in the lake thus sustenance of aquatic life and livelihood of the fishermen residing in the neighborhood.

Rejuvenation of 7 Lakes under Smart Cities Mission also acts as natural flood buffers catering to the disaster resilient feature of the city. Special elements of the project include vast amphitheaters, food courts, food kiosks, a learning center, a smart city experience center, sound, and light show, boating and water sports, etc. Further, socio-economic features like art and craft bazaar promoting sales of locally made products like handicrafts, handloom products, etc. were also taken up. The lake also features Non-Motorized Transport (NMT) corridors built around the lakes. Families of underprivileged societies living in unsanitary surroundings in the past on banks of these water bodies were rehabilitated with security of tenure in tenaments having facilities like schools, hospitals, markets etc. Flocks of migratory birds visit these lakes in their respective seasons of the year and the same could be watched by citizens from newly added bird watch towers.

Key Outputs

19.5 km

NMT corridor built around the lakes

28 acres

Total encroached area retrieved for public use in the lake neighborhood

The solar power generated

5.6 MW

The total number of

7,680

houses provided to squatters

Per capita availability of public space increased from

2.17 sq.m.

to

4.9 sq.m.

Innovative Features

- The Smart Tree at Model Road provides free Wi-Fi and a charging station to the citizens.
- Tree produces power from solar leaves.
- A giant floating pier at Periyakulam lake and floating jetty at Valankulam lake.
- Smart City Experience Center imparts training on themes related to water management, urban planning, heritage, and culture using futuristic technologies such as holograms and augmented reality /virtual reality.

Source: Coimbatore smart city

Major Impacts

Generated solar energy meets all the required power demand for facilities like local lighting of model roads, wastewater treatment plants etc.

All illegal encroachment on lakefronts has been removed by rehabilitating 6,394 tenements having 30,902 beneficiaries.

Apart from cyclists, around 2,000 residents in lakes neighborhoods and model roads use it for morning walks.

Alignment to SDGs

3 Good health and well-being

6 Clean water and sanitation

7 Affordable and Clean Energy

10 Reduced Inequalities

11 Sustainable cities and communities

13 Climate Action

P Robert Anthony Raj

Member of Western valley cycling, Coimbatore Smart City

We organized a cycling event starting from Racecourse, passing through all the lake promenades, and ending near RS Puram. The scenic beauty while cycling really enriched our cycling experience. Many of us cycle along the dedicated cycling lane at the lakes and are happy.

Megha Subodh

Student, Coimbatore Smart City

Valankulam lake promenade has become my regular hangout spot along with friends. Especially, the Valankulam lakeside under the flyover developed recently is very peaceful during daytime and the seating provided is suitable to work with my laptop.

RANK 2

Riverfront Development

Indore, Madhya Pradesh

https://youtu.be/9XDEjpv7LOI

About the Project

The story of Indore's transformation exemplifies the critical balance between industrialization and environmental stewardship. Situated along the banks of the Saraswati River, the city's exponential growth had strained its natural resources and threatened its inhabitants' well-being. Despite having commendable waste management systems, road networks, and public facilities, the river's central core had become victim to pollution and encroachments. Recognizing the importance of a cleaner river for the adjacent communities, Indore embarked on a holistic riverfront revitalization. This project combined engineered retaining walls and turf paver pathways along with landscaped gardens and rock stone pitching.

Once-polluted riverfront now stands as a testament to sustainable urban development. Post efforts, made towards sustainable urban development, the river currently has unobstructed water flow, and picturesque pedestrian walkways. Beyond its practical advantages, this transformation has endowed the city with an invaluable public space, fostering relaxation and mental well-being.

The project extends an invitation to tourism, driving economic growth and generating prospects for employment. Over the period of time the riverfront development has showcased how strategic urban planning can elevate unique city's identity while safeguarding its ecological heritage.

Key Outputs

Retaining walls & dredging of riverbed along

3.9 km

of riverfront.

Created

4.3+ lakh sq. m.

of green spaces along the riverbank.

Around

500

encroached structures were removed, and more than

1,000 slum

dwellers were provided improved housing under various Housing Schemes (PMAY, RAY, BSUP etc.).

Innovative Features

- Development of **City-level recreational space.**
- Construction of Check **Dams** to regulate the water flow for improved water quality.
- Development of **adequate parking areas.**
- Development of **Fruits & Vegetables Market** to accommodate shops/ hawkers in the area.

Major Impacts

Rehabilitated around 1200 slum dwellers, enhancing their standards of living.

Enhanced prospects for flora and fauna to flourish around the riverfront.

Enhanced flora provides better climate resilience and helps in creation of an improved eco-system.

Old fruit market on the river bank have been revived and their businesses have increased multifold.

Water quality has improved due to the tapping of sewer lines.

Alignment to SDGs

3 Good health and well-being

13 Climate Action

14 Life Below Water

Pratik Joshi

Student, Indore Smart City

IMC has worked really hard to revive the river and it is exciting to experience the river and green spaces developed along the river. It is a great space to study as well as to experience fun activities towards the evenings. It would give Indore a global identity.

Manu Sharma

Professor

We have been residing here for about 60 years. With time, the river got converted to a Nalla, a hazard to health. We are delighted to see the riverfront project. We are grateful to ISCDL for giving the city back its heritage and creating a great recreational space at the city center.

JOINT RANK 3

Landscape Redevelopment of Neem Banani Park

New Town Kolkata, West Bengal

https://youtu.be/iNCBAeNvgXc

About the Project

The New Town Kolkata Development Authority has been creating a lush urban environment centered around parks and green open spaces. The city has evolved into a haven for communal engagement and leisure through its unwavering focus on these areas.

The iconic Eco Park, sprawling across 480 acres with a serene 102-acre waterbody, epitomizes New Town's reverence for nature. With 18 parks and 48 green verges seamlessly integrated throughout the city, these sanctuaries cater to local communities, offering a harmonious blend of active and passive recreational options. The Neem Banani urban park, spanning 3.44 acres, is a true gem adorned with a hundred neem trees and a tranquil water body. It boasts diverse attractions, from a jogger's track and children's play area to an amphitheater, tree courts, and reflexology zones. Thematic parks like Professor Sanku Park and Apur Sansar Park, each spanning four acres, pay homage to cultural luminaries while providing vital respite from the urban hustle.

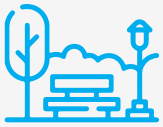
The 2.95 acre Activity Park offers myriad opportunities for all ages, featuring kids' play zones, adventurous playgrounds, fishing decks and multipurpose grounds. Additionally, Smart Sensory Park champions inclusivity by catering to children with special needs and differently abled individuals. Overall, New Kolkata has created several green pockets within the existing city fabric.

Key Outputs

New Town Kolkata maintains approximately

30%

of its area as green spaces.



More than

10,000 saplings,

were planted in these green spaces, in a year.

These open areas serve as natural carbon sinks, mitigating impact of climate change by

carbon absorption.

Tree planting in the area leads to net reduction of

18 kg

CO_2 per tree annually.

A recent tree census reveals New Town's urban greens could lower atmospheric CO_2 by up to

900 tons annually.

Innovative Features

- It preserves existing trees and native vegetation, blending seamlessly with the surroundings and promoting ecological benefits.
- Creating multiple thematic parks based on Satyajit Ray's characters thereby preserving Bengal's living heritage.
- Smart Sensory Park addresses the needs of children with special needs, providing outdoor play zones that engage multiple senses and enhance motor, language and social skills.

Major Impacts

Introducing new green spaces has led to rise in footfall by 32% in open areas.

After inaugurating projects like Neem Banani, Activity Park, and Prof. Shanku Park, inquiries about New Town's attractions surged by 49% at the New Town 24X7 Helpline.

Citizen feedback surveys conducted in these spaces reveal a satisfaction rate of 95%

Over the last five years, average carbon offset grew by about 8% due to the city Authority's plantation drives.

Alignment to SDGs

11 Sustainable cities and communities

13 Climate Action

Mr. Dhiraj Kumar Das

Member of Western valley cycling, Coimbatore Smart City

Shanku Park is an amazing example of public green space where one can take his / her children for recreation as well as learning. Along with green zones it has beautiful illustrations on Professor Shanku, the legendary character created by Satyajit Ray. The depictions fill us with nostalgia.

Ms. Jayanti Danrh

HouseHelp, New Town Smart City

The Activity Park in Action Area II is located close to my house. My children regularly go to this park to play. Rides are safe and well-guarded, making them appropriate for children of all ages. The Park is also well lit and guarded by security personnel.

JOINT RANK 3

Modernization and Development of Palika Sports Stadium

Kanpur, Uttar Pradesh

https://www.youtube.com/watch?v=6893E5Cunm8&feature=youtu.be&ab_channel=KanpurSmartCityLimited

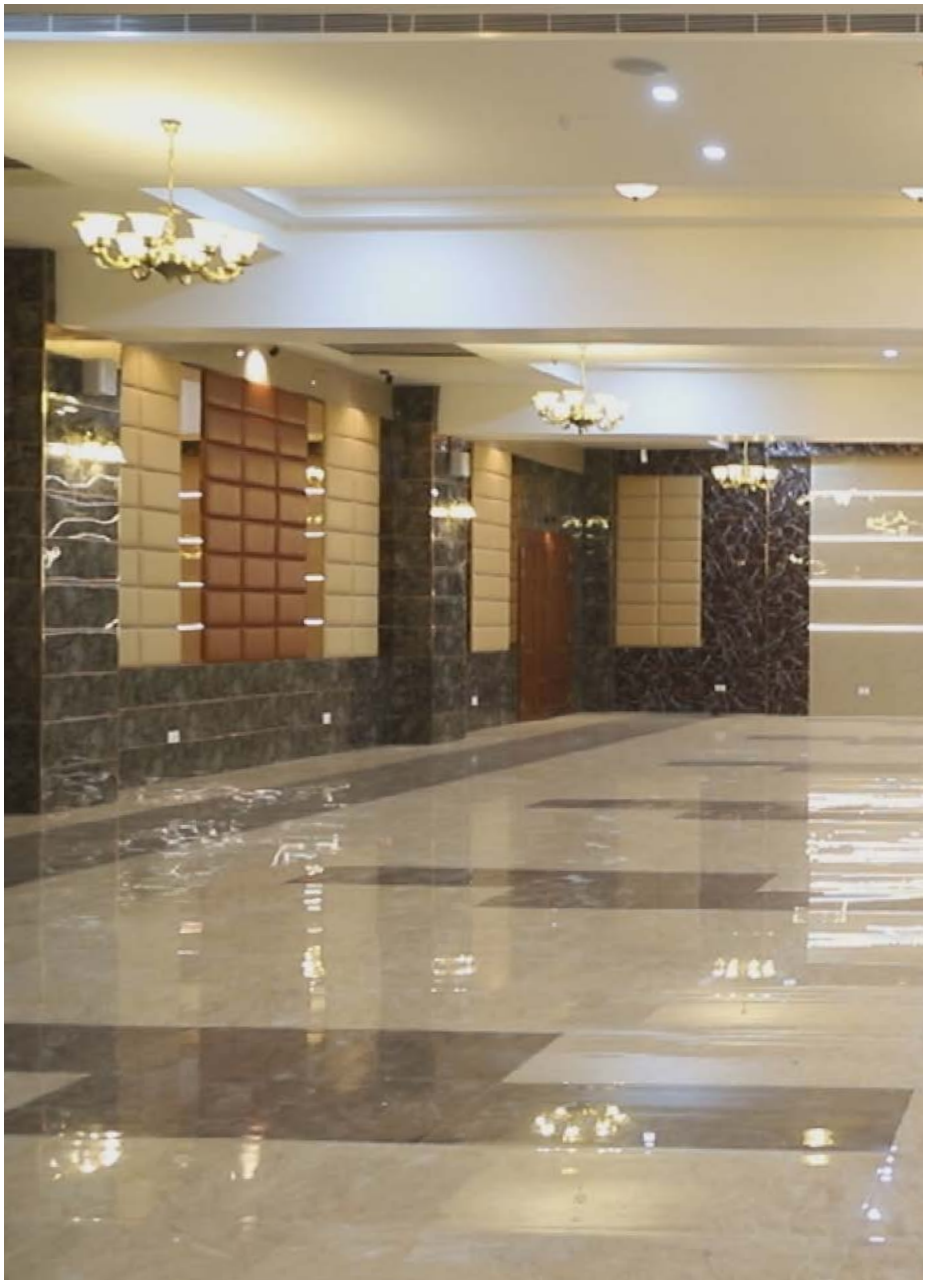
About the Project

Kanpur Smart City has created an extensive and innovative indoor sports infrastructure. Designed to accommodate 22 out of the 28 Olympic games, it caters to all segments of society. Envisioned for community recreational games, coaching, and training for aspiring athletes to excel at city, state and national levels, this compact multilevel structure optimizes land use. The facility adheres rigorously to national and international sports standards, boasting a spectator gallery that hosts over 700 individuals. The facility includes a semi-Olympic-covered swimming pool with a water conservation plant. A separate Combat Hall on the upper floors facilitates simultaneous practice for various disciplines alongside features like squash courts, a shooting range, a billiards room, a sports academy, and a vast gymnasium with wellness amenities.

The project includes:

- a sports convention center,
- a delicate dining area,
- satellite cafes, and
- revenue-generating shops.

The rooftop is built for outdoor sports like six-a-side cricket, lawn tennis and an open-air gym. Dedicated spaces for yoga, table tennis, air hockey and board games further engage the community. Green initiatives such as sewage treatment, rainwater harvesting, solar panels, water recycling, and zero waste discharge are being practiced to achieve sustainability. With operations and maintenance guided by the insights given by IIM Indore, the project is poised to foster athleticism and serve as a sustainable revenue source for Kanpur Smart City Limited.



Key Outputs

Cultural platform will be there for

50,000

beneficiaries annually.

50 Competitions

will be organized annually.

In contrast to the 3 or 4 sports played here previously, there are currently

22 other sports

that can be played

Envisaged to have at least

200

National level players and

25

International players initially each year in different disciplines of games.

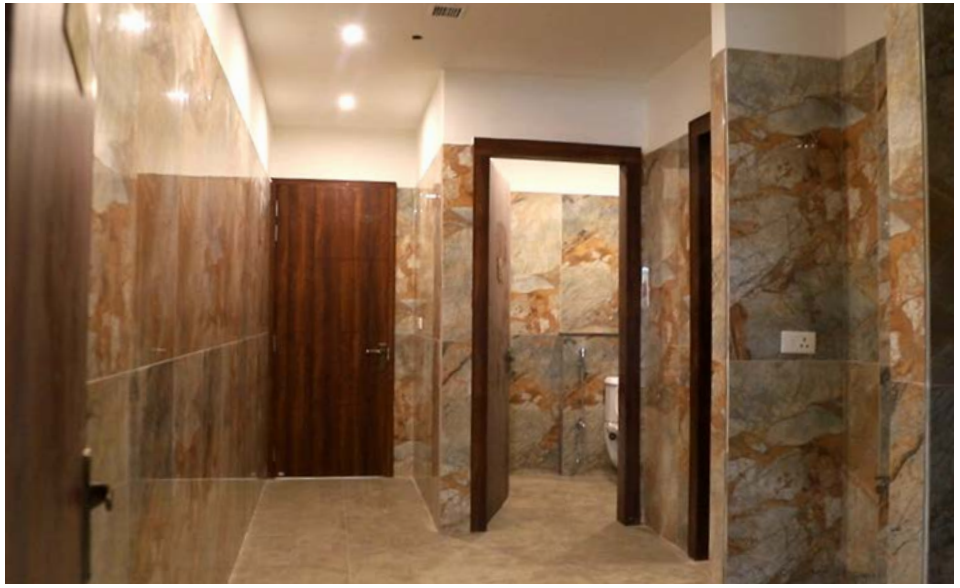
An average of 800 to 1,000 people will benefit from the project every day. Annual figure would be around

3.6 lakh

footfall and sports play days.

Innovative Features

- Steel composite eco-friendly building design and construction for seeking best scrap value post its envisaged life.u
- Ground was fully operational during construction.
- Self-financing revenue generating infrastructure model.
- Comprehensive sports facility under one roof.
- Universally accessible building.
- Energy efficiency designed & maintained with solar panels of 300 KW, having insulated roof and wall system. AAC Blocks and Gyp-plaster were used for minimal water usage during construction.
- Modern Surveillance and Access Control Systems used for better security of users.



Major Impacts

This land was under utilized and misused by encroachers. 100% reduction in unlawful activities.

Being in the heart of the city at a walking distance travel time for sports aspirants is reduced to 98%. It is 4.5 km from Kanpur railway station and 5.1 km from Intercity Bus Terminal.

Installation of 300 KW solar panel usage will allow almost zero power consumption in a day. The total installed load is 750 KW with diversity. It is presumed to be used 50% at any given time. 75% of the energy consumption has reduced.

Alignment to SDGs

3 Good health and well-being

8 Decent Work and Economic Growth

9 Industry, Innovation and Infrastructure

“

Harshit Patel

Student, Kanpur Smart City

As an inspiring lawn tennis player, I always wanted a proper sports infrastructure. So, playing lawn tennis at Palika Stadium keeps me fit and improves my skills.

”

“

Abhay Kumar

Student, Kanpur Smart City

This stadium will also help the localities in increasing their revenues as it attracts lots of foot fall. So, in this way, it will boost the economy of this area which will help the local vendors to a great extent.

”

CULTURE

Journey of ISAC

2018

Conservation of Rajasthan School of Arts
Jaipur

VISAKHAPATNAM
2019

Restoration, Re-use and Redevelopment of Surat Castle under Development of City Heritage Square at
Surat

SURAT
2020

Conservation of Heritage
Indore

INDORE
2022

RANK 1

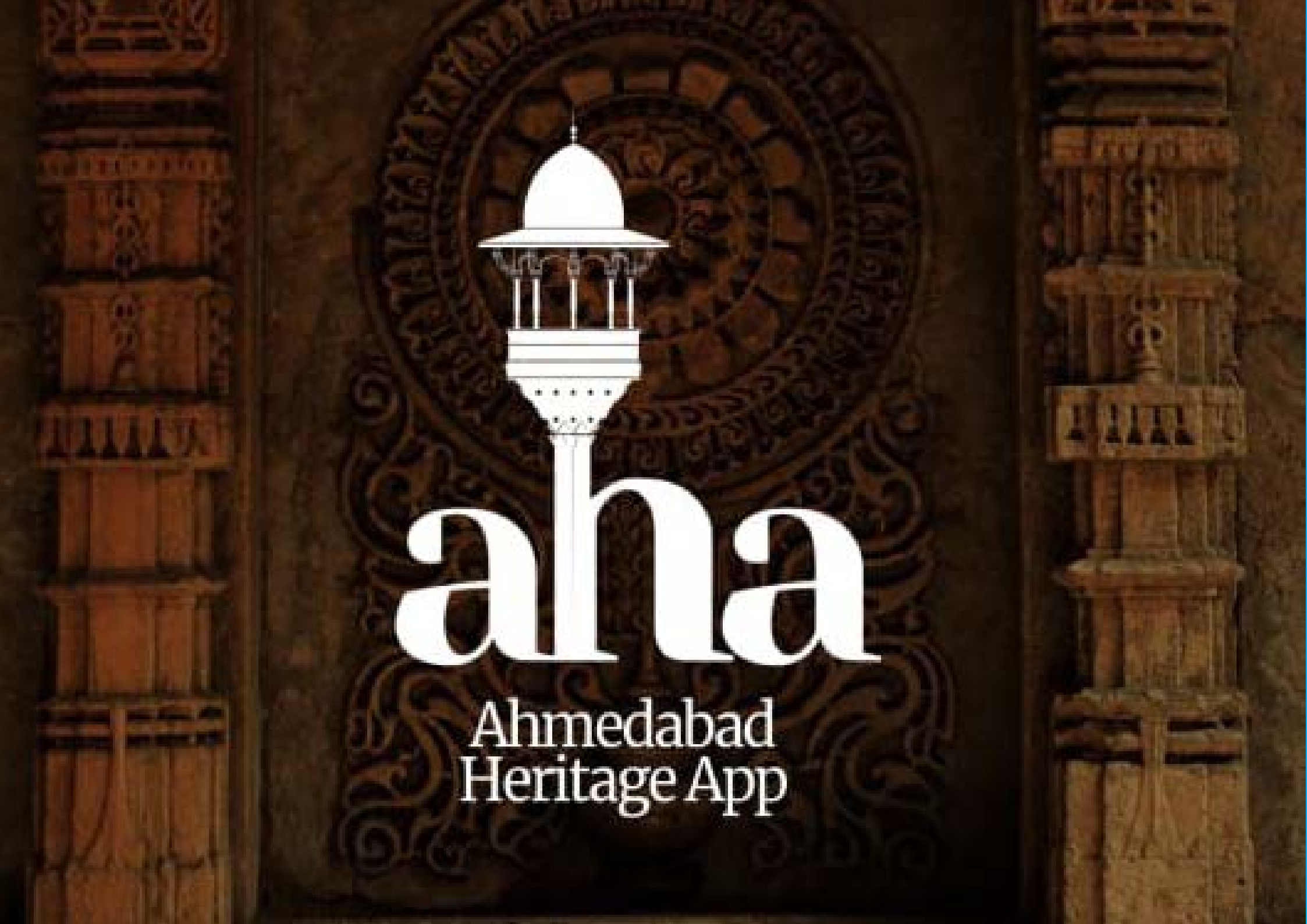
Revamping and up keep of heritage structure and development of the heritage tourism using technology
Ahmedabad

RANK 2

Restoration of heritage buildings near Sadar Manzil precinct under Heritage Walk Project
Bhopal

RANK 3

Conservation of Ponds – Ayyankulam
Thanjavur


aha
Ahmedabad
Heritage App

RANK 1

Revamping and up Keeping of Heritage Tourism Structure

Ahmedabad, Gujrat

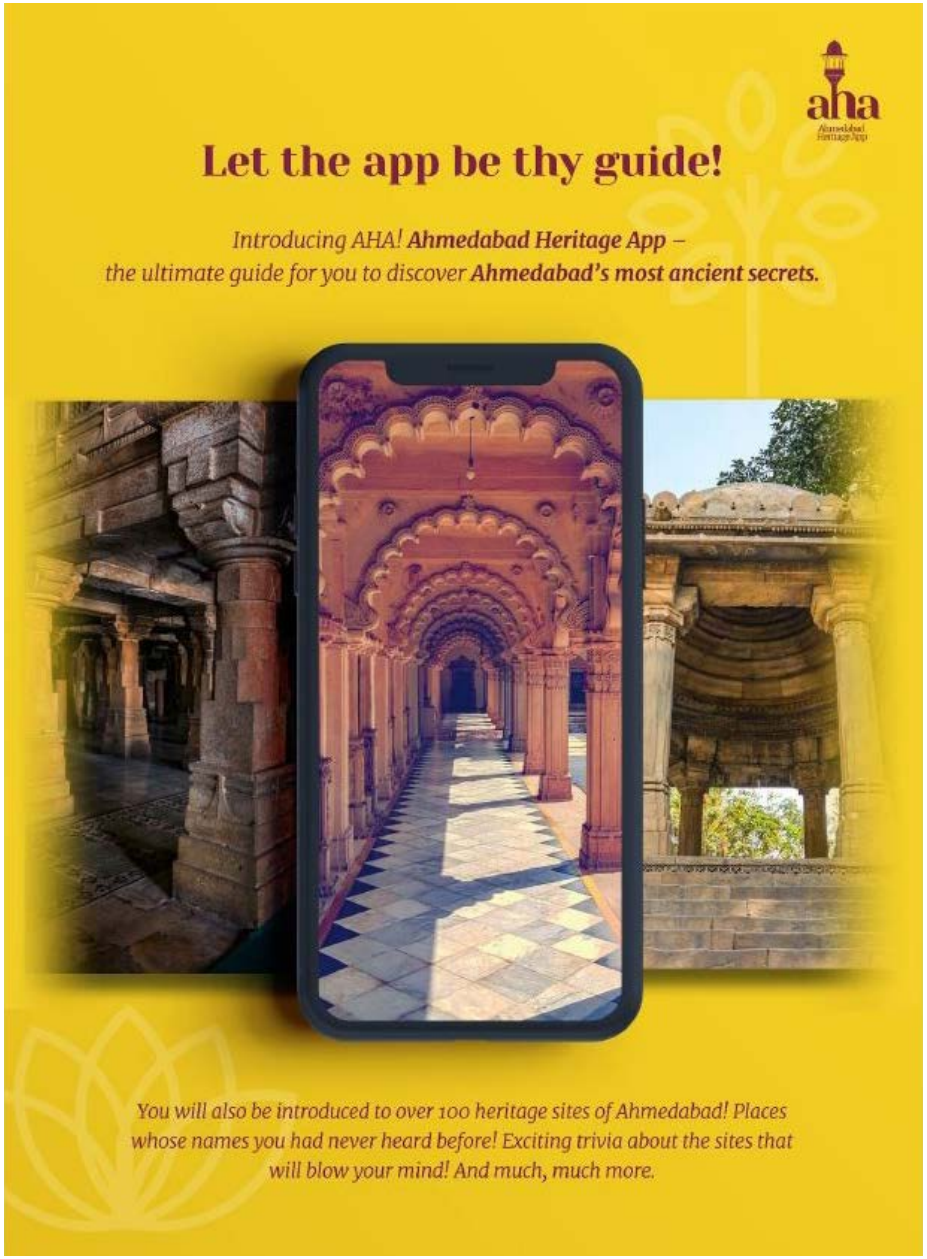
https://youtu.be/x5TlVnolnUc

About the Project

The project has focused on implementing smart city initiatives for urban development by adding meaningful value to the heritage sites of Ahmedabad. The project aimed at designing, developing, implementing and maintaining ICT solutions and relevant services. Project's key objectives include enhancing tourist engagement and satisfaction, increase footfall and build brand name, ease of use and better accessibility to the citizens.

Several elements of user friendliness have been added for the tourists, such as navigating the heritage walk path, audio tour guide for the tourists anytime - anywhere heritage tour experience and automated audio tours on mobile applications.

The advantages of these elements from a tourist perspective on mobile applications include blue-tooth beacons, QR code scanning, interactive kiosks, and a backend content management system. It has several options, like creative content cataloging, customizing tour plans to the citizens, availability of audio guides, automated memory lane generation of videos, augmented reality features integration with social media and map-based services.



Key Outputs

Research, script & storyboard has been done for

100 sites.

Storyline videos for

20 sites

sites have been recorded.

Cataloguing of heritage components has been accomplished , including text and image content for

100 sites.

Audio guide tours have been recorded in different languages like Hindi, English, Gujarati, French, and Japanese for

50

heritage sites.

360

virtual tours for

10 sites

are completed.

Innovative Features

- Utilization of ICT solutions.
- Automated audio tour guides as State of Art tourist experience.

Major Impacts

An exponential increase of 70% heritage oriented tourist footfall.

The tourists have experienced the uniqueness of digital solutions and mobile applications in heritage tours.

Alignment to SDGs

8 Decent work and economic growth

11 Sustainable cities and communities

> **Disha Gajjar**
>
> Student, Ahmedabad Smart City
>
> The application is very helpful. The user interface of the application is very interactive and easy to use, one can use it smoothly. Great work on the design part as well. Very well designed. I would recommend the locals to install and experience it.

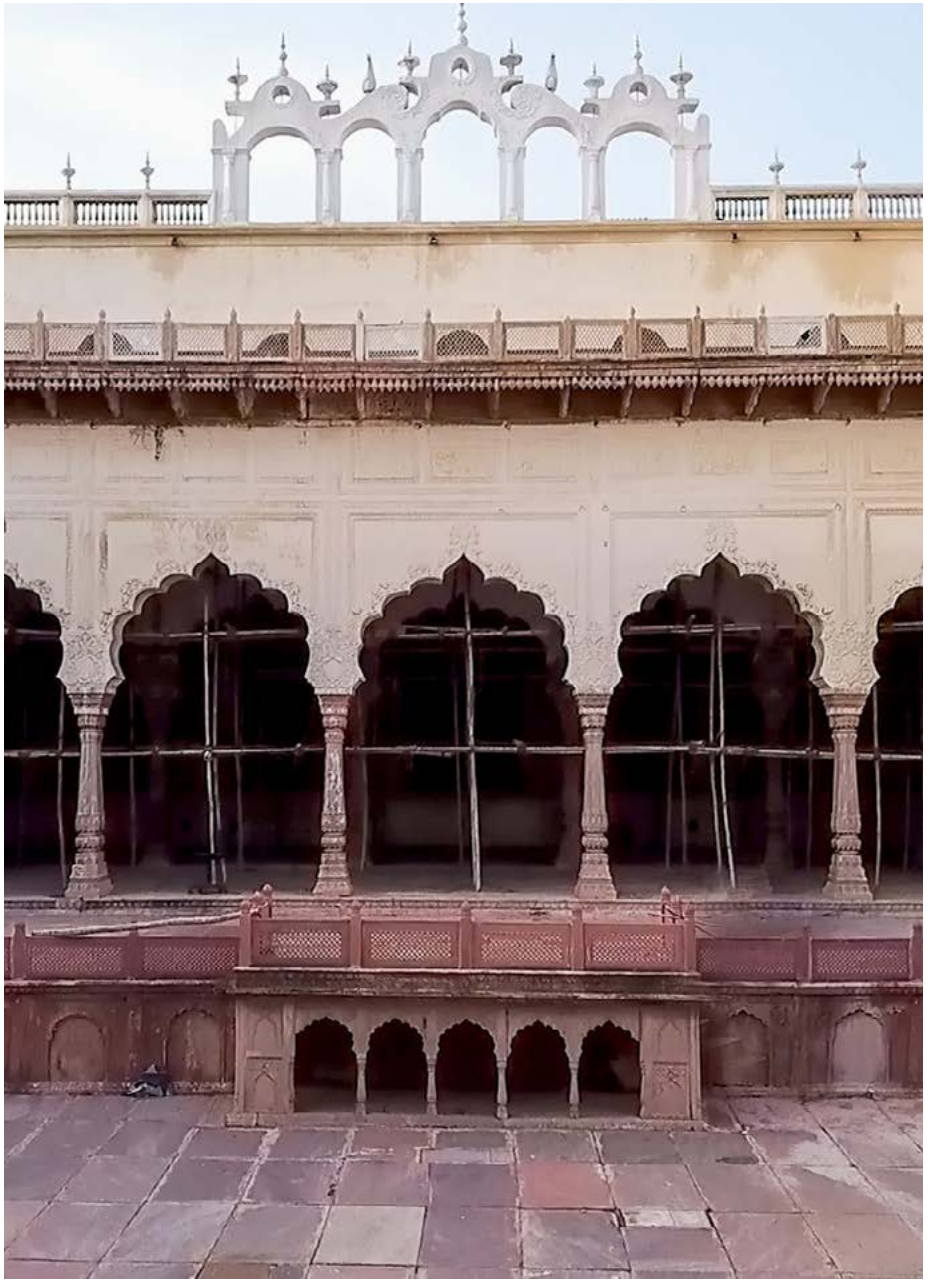
> **Manthan Narendra Grover**
>
> Professional, Ahmedabad Smart City
>
> It is a tourist pocket guide. you can easily tour historical places with the help of this app.

RANK 2

Restoration of Heritage Buildings Near Sadar Manzil

Bhopal, Madhya Pradesh

https://www.youtube.com/watch?v=wqhf4DOG43w



About the Project

This project is the first of its kind, where a heritage building has been restored for adaptive reuse by BSCDCL. The building under this project is also being monetized to become a revenue generating source for the city, completed as PPP project. Sadar Manzil building is among Bhopal's famous historical heritage buildings, popular for its Indo-European combination style of architecture. This building has been renovated and envisioned to become one of the city's significant tourist hotspots.

Earlier, Bhopal Municipal Corporation used the building as an office, but the building deteriorated with time, concerns were raised that germinated idea of refurbishing entire building. Project objectives were set to promote sustainable tourism of heritage sites to keep the cultural and historic buildings and their values intact. Currently, BSDCL generates an annual revenue of ₹ 80 Lakhs from the heritage building thereby assisting recovery of the cost incurred on its refurbishment.

Key Outputs

Conservation of a significant heritage site of Bhopal.

It is generating a revenue of

₹ 80 lakhs

annually.

An example of multipurpose adaptive reuse of the building.

Innovative Features

- Adaptive reuse of historical buildings.
- Utilizing the PPP model to promote sustainable development and operations.

Major Impacts

This project has not only restored the structure, but monetization of the restored structure is also being achieved without affecting its heritage value.

Concessionairestarted paying an annual premium of Rs 80 lakhs which will increase by 10% every third year.

Alignment to SDGs

8 Decent work and economic growth

11 Sustainable cities and communities

Tanmay Sharma

Student, Bhopal Smart City

Sadar Manzil restoration has strengthened the cultural identity of the city. This will improve the popularity of the city, and tourism will improve. This is a good initiative to promote cultural identity.

Sudesh Morey

Educator, Bhopal Smart City

Sadar Manzil is one of the heritage landmarks in the city, and the restoration of the building is a pride affair. Now Bhopal will be featured in more cities and tv shows.

RANK 3

Conservation of Pond - Ayyankulam

Thanjavur, Tamil Nadu

https://youtu.be/_DuRGIb-S-U

About the Project

The ponds conserved and restored under this project are significant from a historical perspective. These ponds were the main source of water supply to the entire city of Thanjavur earlier and were called the "Jal Sutra" system. In due course of urbanization, only two ponds could survive and still exist i.e. 'Ayyankulam' and 'Samantha Kulam'. These ponds are now in the center of the Smart City ABD Area.

These ponds are protected by side walls constructed in brick masonry with lime mortar. The size of the Ayyankulam pond is 85x85m, having storage depth is 5.5m. During the execution of the project, the ancient water supply system from the Sivaganga pond was identified with the help of old survey plans. Moreover, the channel was identified without any damage followed by desilting excercise that was undertaken manually to avoid any further damage by using the machinery. It ensured proper channelization.

Levels of the channels are also maintained and water flows through the entire channel unhindered having adequate manholes at regular intervals. Through this project 500 years old water supply connectivity was identified and successfully rejuvenated.Old channels in the pond area were restored, reviving the level of the water table in the surrounding area. The ponds have features like walkways on four sides, elevated platforms to connect the central light pillar, landscaping, painting, seating, overall illuminaton, CCTV cameras and dustbins at appropriate intervals.

Key Outputs

Conservation of water resources and heritage sites.

A significant increase in the water table by a minimum of

2m to **3**m

has been witnessed.

This project has increased the bearing capacity of the soil in the nearby habitations due to improved water tables.

Walking path along with the ponds.

Innovative Features

- The project has revived 500 year old Jal Sutra system of the city.
- Creation of elevated platforms to connect the central light pillar.
- Waterfront development creating a public realm in the city.

Major Impacts

The Rejuvenation of the pond has significantly restored the water table levels.

Walking path provided along the pond has helped in the overall health and social well-being of the citizens.

Garbage dumping has been completely stopped along the water edges. This has resulted in curbing foul odour in the surrounding areas.

Alignment to SDGs

6 Clean water and sanitation

8 Decent work and economic growth

11 Sustainable cities and communities

Akshya

Private firm Employee, Thanjavur Smart City

It allows nearby residents to come together for social interaction. It helps them to become familiar with the people and culture around them, like golden age times. Especially for older people, it gives them a suitable platform to share memories with family.

Vignesh

Student, Thanjuvar Smart City

The carvings along the pond indicated the cultural value of the Tamilians. The upcoming generation can see and learn from wall paintings and hoardings. Each hoarding or painting provides the value of ancient culture & art. Coming to the vicinity provided peace and refreshment. All ponds in the city should be rejuvenated.

ECONOMY

Journey of ISAC

2018

B-Nest Incubation Center
Bhopal

VISAKHAPATNAM
2019

SURAT
2020

Carbon Credit Financing Mechanism
Indore

INDORE
2022

RANK 1

Incubation Centre
Jabalpur

RANK 2

Value Capture Financing (VCF)
Indore

RANK 3

Rojgar Training Centre under City Branding (Paint & Sculpture Work , Facade Lighting) With IEC activities
Lucknow


Dream

RANK 1

Jabalpur Incubation Center

Jabalpur, Madhya Pradesh

https://youtu.be/lt4owfXrX3I

About the Project

Entrepreneurship education is essential for building human capital in the upcoming society. To establish this, the project is designed and operated by Jabalpur Smart City Limited that envisioned to build a booming start-up ecosystem. The incubation center is at the intersection of the start-up community, government, corporate, academic and research sectors. The objective of the project was focused towards not only to cater to local entrepreneurs, but also to strive becoming a gateway for tech business in Central India.

The Smart City of Jabalpur launched its first sector agnostic Incubation Center of Central India, Jabalpur Incubation Center, on 8th of November 2017, post detailed research and risk-reward analysis. A State-of-the-Art 8000 sq ft building is entirely dedicated to the Jabalpur startup ecosystem. Activities and programs organized at the incubation center include the Startup Pathshala, Entrepreneurship Bootcamp, Startup Summits, sessions on IPR, mentoring sessions on business plan development, funding pitches and various technical sessions as per the individual needs of the incubates.

Jabalpur incubation center is in a constant process of strengthening the entrepreneurship ecosystem. Several agencies have signed agreements and offered services to Jabalpur Incubation Centre, such as companies like AWS, Google, NASCOM 10,000 start-ups, IAN, t-hub, 50K ventures, Artha ventures, MSME Madhya Pradesh, LNCT, Government of Canada etc. Along with such big firms, JIC has signed MoU with more than 30+ educational institutions for nurturing innovative ideas and providing a platform to evolve entrepreneurial skills.

Key Outputs

A range of services in an

8,000 sq.ft.

premises

Domestic & international tie-ups through agreements signed with top tech companies.

Partnership with more than

30+

educational institutions.

Innovative Features

- Incubation center for budding startups.
- Technical sessions for startups.
- Signed agreements with various private and educational organizations.

Major Impacts

More than 500 direct and indirect jobs have been created in the city for and by the startups originated and supported by the Incubation Center in Jabalpur.

50,000 ventures have started operation in Jabalpur due to various events and workshops being conducted.

More than 80 startups have already graduated from the center.

39 startups are being incubated at Jabalpur Incubation Center from different thematic thrust areas like Renewable Energy, Mechanical, Healthcare, Information Technology etc.

Alignment to SDGs

8 Decent work and economic growth

11 Sustainable cities and communities

Vedant Mishra

Entrepreneur

I am a co-founder and CEO of a company. We are incubated at JIC. At JIC, we got immense support regarding mentorship, office space, free high-speed Wi-Fi, well-conditioned labs, and areas for meeting clients. We get support for mentor connect, startup connects, and funding support prizes in different competitions.

Aman Dubey

Entrepreneur

Before coming to JIC, we were utterly unprepared and disillusioned. The first investor summit was a bitter reality check, a wake-up call. JIC not only provided us with a workspace but also paved the way for us to become who we always wanted to be.

RANK 2

Value Capturing Financing

Indore, Madhya Pradesh

https://youtu.be/pj_NmADthkY

About the Project

Value Capture Financing is an innovative financing model aiming to improve public infrastructure making it self-sustainable and financially independent from State and Central Government. This financial model produces a virtuous cycle where value is created, realized, captured then further reused for investing in other projects. Globally, several kinds of value capture finance models are adopted, majority of those include land value added tax, fees for changing land-use, betterment levy, development charges, transfer of development rights and premium on relaxation of rules or additional FSI or FAR.

Indore smart city generates revenue using these set of philosophy of majorly used models. It includes mastering model guidelines for Value Appreciation Fund, Amalgamation Charges, Commercial use Charges, Premium on additional FAR, Parking Cess etc. The idea of this project has been taken forward by Indore Municipal Corporation (IMC), and started generating revenue using a similar philosophy which is given in Madhya Pradesh Nagar Nigam Act. Along with this, IMC has also proposed 5 town planning schemes worth approximately Rs. 175 Cr. .

The unique feature of this project includes generating revenue from landowners or beneficiaries which are directly connected to service Infrastructure. Further the Municipal Corporation has targeted revenue for the next 10 financial years using Value capturing financing. This move would also ensures adequate benefits reach its citizens, without burdening each one of them.

Key Outputs

Total received revenue is

230+ Cr.

Targeted revenue is

₹ 1,185 Cr.

in 10 years from VCF, if achieved.

Innovative Features

- Use of finance modeling techniques.

Major Impacts

Infrastructure creation especially major roads is financed through VCF mechanisms.

Additional FAR allotted to such areas would significantly reduce the commuter travel time.

Enhancement in Standards of Living.

Additional revenue leading to more facilities in the area, thereby further enhancing the property values.

Alignment to SDGs

1 Decent work and economic growth

8 Decent work and economic growth

9 Industry, Innovation and Infrastructure

11 Sustainable cities and communities

Gunjan Sharma

President of 56 Dukan association

It's a matter of pride that in our Indore, officers from other states come to visit and learn especially '56 Dukaan' which got developed as a model street-food hub. ISCDL has done brilliant job which have increased our footfall due to which we happily pay the betterment charges.

Habib Sekh

Shopkeeper

Indore Smart City has done tremendous work on Mhownaka to Tori Corner Road project. The footfall as well as the value of the shops have increased three to four times. Previously not even a single four-wheeler could pass the market, now even two buses can comfortably cross each other.

RANK 3

Rojgar Training Centre under City Branding

Lucknow, Uttar Pradesh

https://youtu.be/IMKsDT_fLE8

About the Project

Rojgar Training Center project is a joint initiative of Lucknow Smart City Limited and the Institute of Entrepreneurship Development Uttar Pradesh. The project aims to train 5,000 migrants, youth and urban poor. It creates livelihood opportunities for them through skilled training as well as self-employment and development of micro-enterprises.

The project's objectives has been to strengthen the high performing skill development and sound entrepreneurship ecosystem aligned with national and international standards. There has been significant industry involvement and development of necessary frameworks for standards, curriculum, and quality assurance.

After this training, individuals have been benefited greatly, through gaining competent pay scales. The training provided under this project makes the person ready to meet future needs of jobs by receiving necessary knowledge, skills and competency in emerging technologies and business models. Further under this training the opportunity of incubating and growing sustainable businesses is also provided.

Key Outputs

Regular **mobilization of activities** to mobilize the targeted section of the society through public meetings, awareness camps and IEC distribution at slum areas, marketplaces

Facilitated various **classroom training programs** and onsite job training for **youths and women** to skilling and entrepreneurship development.

Organized **onsite job placement training programs** with various industries.

Conducted **Micro-Enterprise Development Programme** to train the potential entrepreneurs enabling to join in the economic mainstream.

Innovative Features

- Establishment of Smart Saloon, Women Drivers, GST & Tally, Retail, E-Commerce and Logistics.
- Creation of elevated platforms to connect the central light pillar.

Major Impacts

328 persons trained in different trades: 30 Lathe Operator, 30 Store Operator, 30 Cleaner cum Office Assistant, 50 Domestic Data Entry, 50 Construction, 103 on-job training in Retail & E-commerce and 25 in Logistics.

280 out of 328 people have been successfully placed in various jobs.

19 trained people have been linked with the PMEGP scheme from different trades.

Training certificates have been issued to all applicants for availing loan amount & subsidy benefits.

Rs. 2.11 Cr loan with approved subsidy has been transferred to their respective bank accounts.

Alignment to SDGs

4 Quality Education

8 Decent work and economic growth

11 Sustainable cities and communities

Seema Wati

Driver

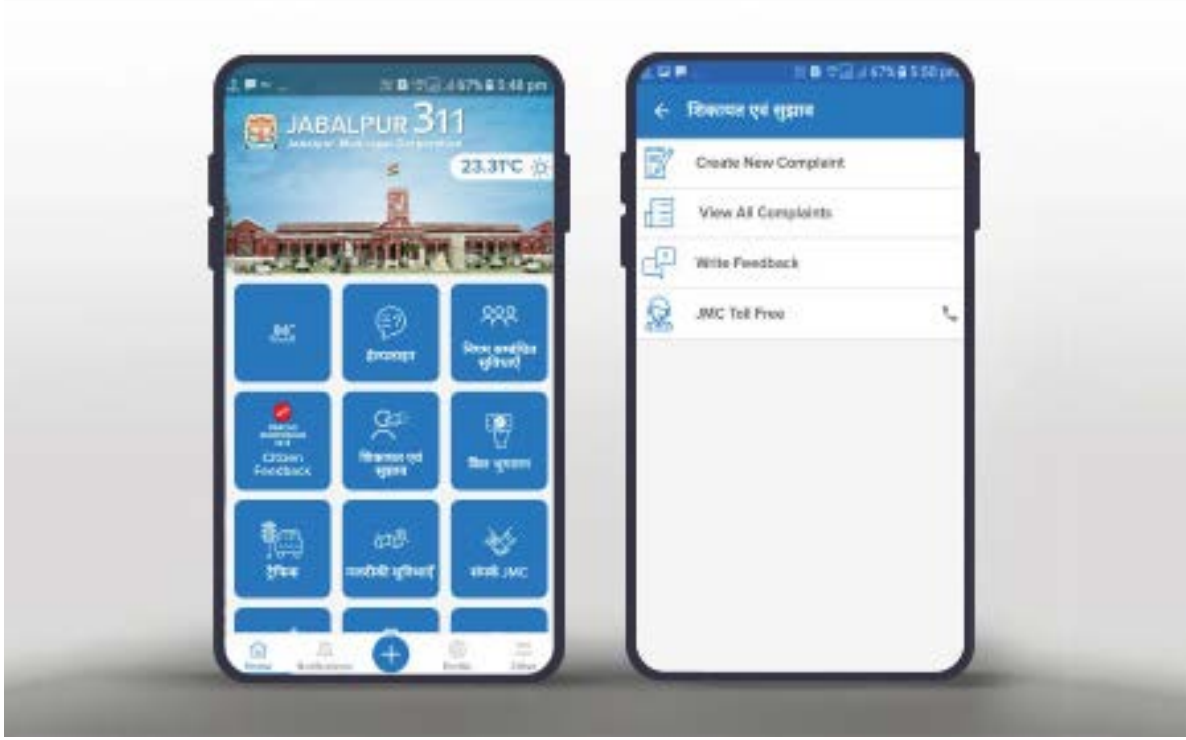
Skill is the most important chapter in the curriculum of employment. I am glad to be a part of the Rojgar Training Centre project which contributes to providing life-changing opportunities to youths like us which help us in living a dignified life.

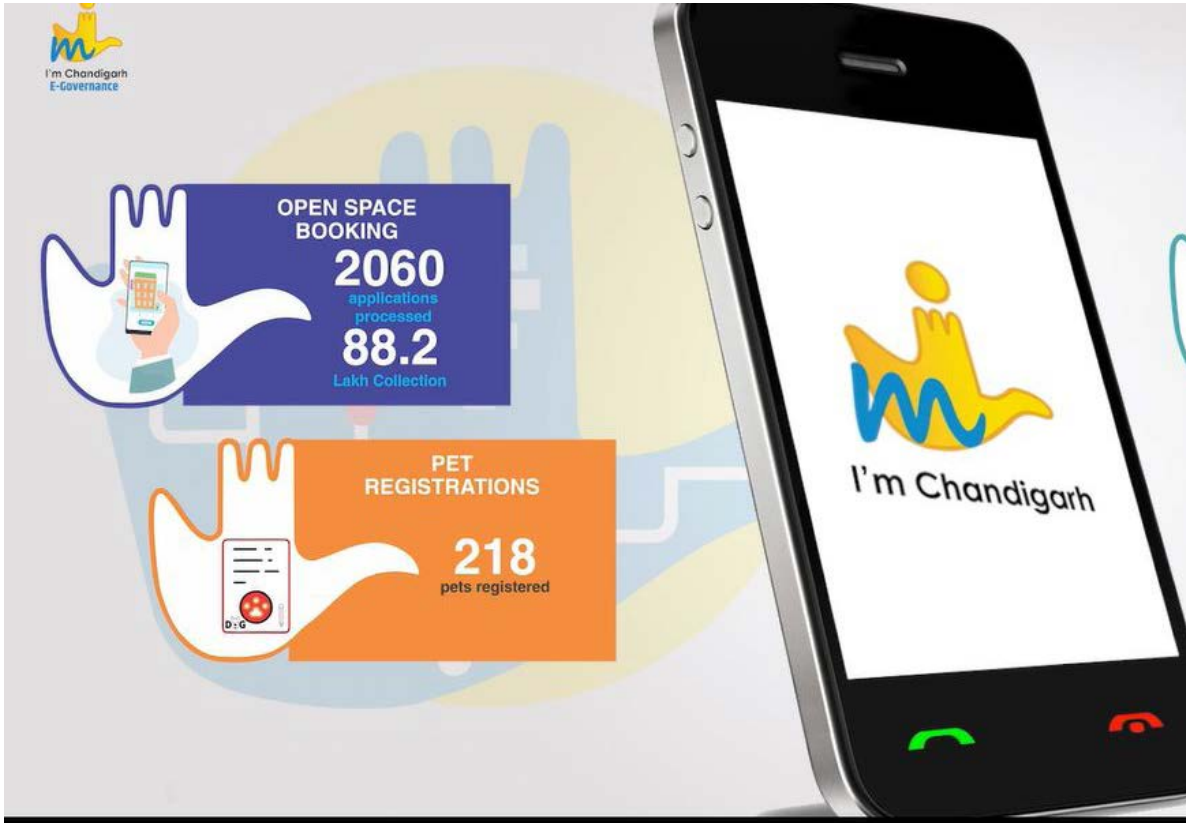
Anchal Vimal

Driver

I feel fortunate to be a part of the driving course that helped me gain and enhance my knowledge. Apart from this the course also helped me improve my driving skills. I am thankful to my trainer and the team of Rojgar Training Centre for their help and guidance.

GOVERNANCE


JABALPUR 311
23.31°C
Create New Complaint
View All Complaints
Write Feedback
JMC Toll Free


I'm Chandigarh
E-Governance
OPEN SPACE
BOOKING
2060
applications
processed
88.2
Lakh Collection
PET
REGISTRATIONS
218
pets registered
I'm Chandigarh

Journey of ISAC

2018

PMC Care
Pune

VISAKHAPATNAM
2019

ICCC
Vadodara

SURAT
2020

GIS
Vadodara

INDORE
2022

RANK 1

Selection of System Integrator for implementation of E Governance Services for Chandigarh Smart City
Chandigarh

RANK 2

Municipal e-Classrooms and School Learning & Resource Improvement Program (SLRIP) at 123 PCMC Municipal Schools
Pimpri Chinchwad

JOINT RANK 3

311 App
Jabalpur

Smart City App
Udaipur


Complaint Submission
I'M CHANDIGARH
MOBILE APP
94209
registered citizens
1024
registered employees

RANK 1

Selection of System Integrator for implementation of E-Governance Services

Chandigarh

https://youtu.be/6TybzAFg640

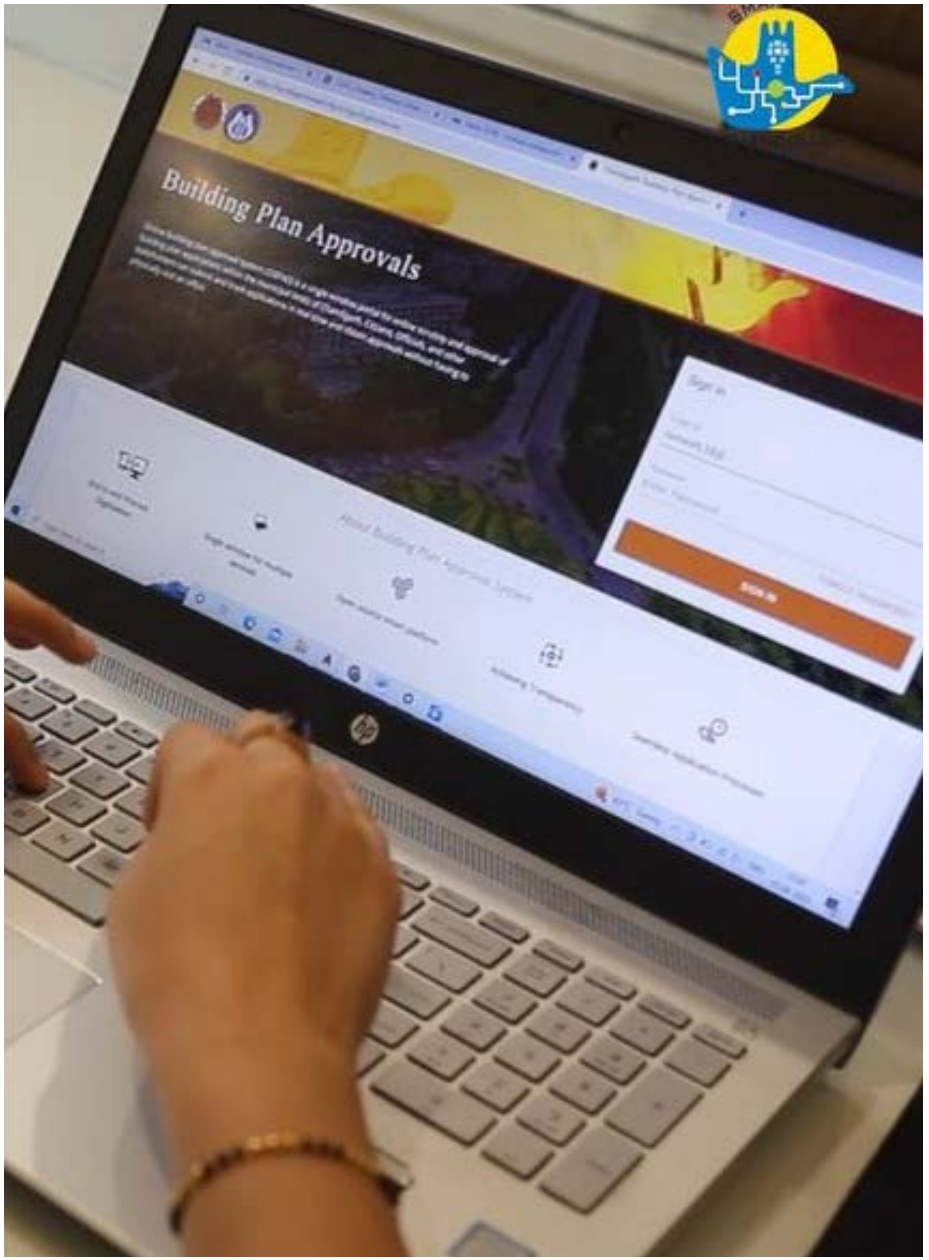
About the Project

Prior to implementation of the project in Chandigarh, more than 80 services listed in Citizen Charter of Municipal Corporation of Chandigarh (MCC) were being provided offline through either NIC or SPIC. During preliminary assessment, it was found that in many cases citizens would have to visit citizen facilitation centers like E-Samparks Centers, Office of the MCC to seek the required services.

The overall objective of this project was to improve interaction between the city administration and residents and other city dwellers, with an overarching objective of making urban services more accessible for all providing access through multiple channels e.g., web platform, citizen facilitation centers, mobile based application etc. The project targeted to establish a digital platform for Government and citizen with minimal manual intervention based on the principles of 'Minimum Government - Maximum Governance'.

Before implementation of this project the citizens of Chandigarh werevisiting citizen facilitation centers like E-Samparks Centers, Office of MCC to seek required citizen services. There was lack of single window from where the citizen could apply for all the services. However, post implementation more than 90 citizen centric services of MCC have been taken to online platform.

The implementation of these internal services has enhanced speed of internal processes of the MCC, thereby reducing time in service delivery for its citizens. The E-Governance solution was developed on open-source technologies, therefore no licensing cost is involved. One just needs the cloud or On-Premises data center to host the application. These services have been integrated with exisiting ICCC platform, as per the requirements of various departments.



Key Outputs

91 MCC Citizen Charter Services are provided on a single window system.

7,053
e-challans issued till date and fee collected is approx.
₹ 1 Cr.

140+
Pet NOCs
are issued through the system

454
drawings approved online and collected
₹ 7.5+ Cr.

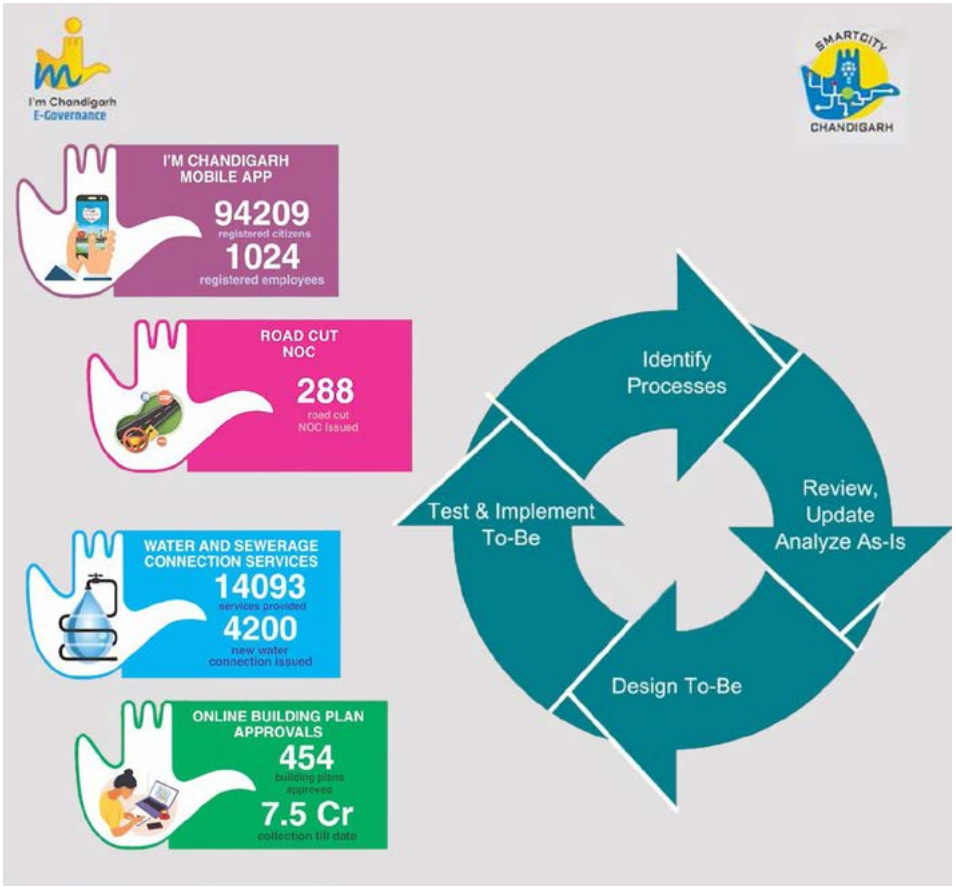
198
Road cut permissions issued online.

455
online water booking requests received and online payments of
₹ 4.75 Lakh
received.

TMore than 48,900 citizen's complaints have been resolved.

Innovative Features

- All services at one platform.
- Utilization of e-governance solutions and open-source technologies.
- Integration into ICCC platforms.



Major Impacts

Currently citizens are availing 91 MCC services from the comfort of their homes resulting in significant reduction in travel time. There is 24x7 access to online citizen services.

More than 94 thousand downloads of the "I'm Chandigarh" app.

Faster application submission, tracking, monitoring, online fee payments than earlier have been witnessed.

More than ₹ 7.5 Cr. have been collected through only OBPAS application.

Timely resolution of issues, increased transparency, status tracking, greater accountability and faster decision making.

Greater public convenience by eliminating the need to visit or queue at Government offices.

Alignment to SDGs

6 Clean water and sanitation

8 Decent work and economic growth

10 Reduced Inequalities

11 Sustainable cities and communities

16 Peace, Justice, and Strong Institutions

Ankit

Employee

I have applied online for water and sewerage connection for my new house using the "I'm Chandigarh" app. It was a very easy & good experience as I do not have to stand in the queue in any office. It is a good initiative by CSCL and very useful for resident

Ar. Maansi Sood

Earlier for the architects, approval of building plans used was a tedious task. With the introduction of OBPAS service, the whole process has become simple. The plans are submitted online with one click & the status of the application can be tracked. This has helped architectural community of the city.

Utility Updates:

The platform tracks, monitors and understands metadata of each citizen including demography & transaction preferences. Equipped with this metadata, the platform can be utilized for sending push notifications, e-mails & SMS based on demographics, geographic location or preferences of the people. This helps the municipal corporation to anticipate the needs of its citizens and thereby become Intelligently Active. Social media platforms such as Facebook, Twitter, YouTube, Instagram are being utilized for smooth sharing of updates, benefits, events and many more by the PCMC Smart Sarathi.

RANK 2

City Mobile App and Social Media Analytics

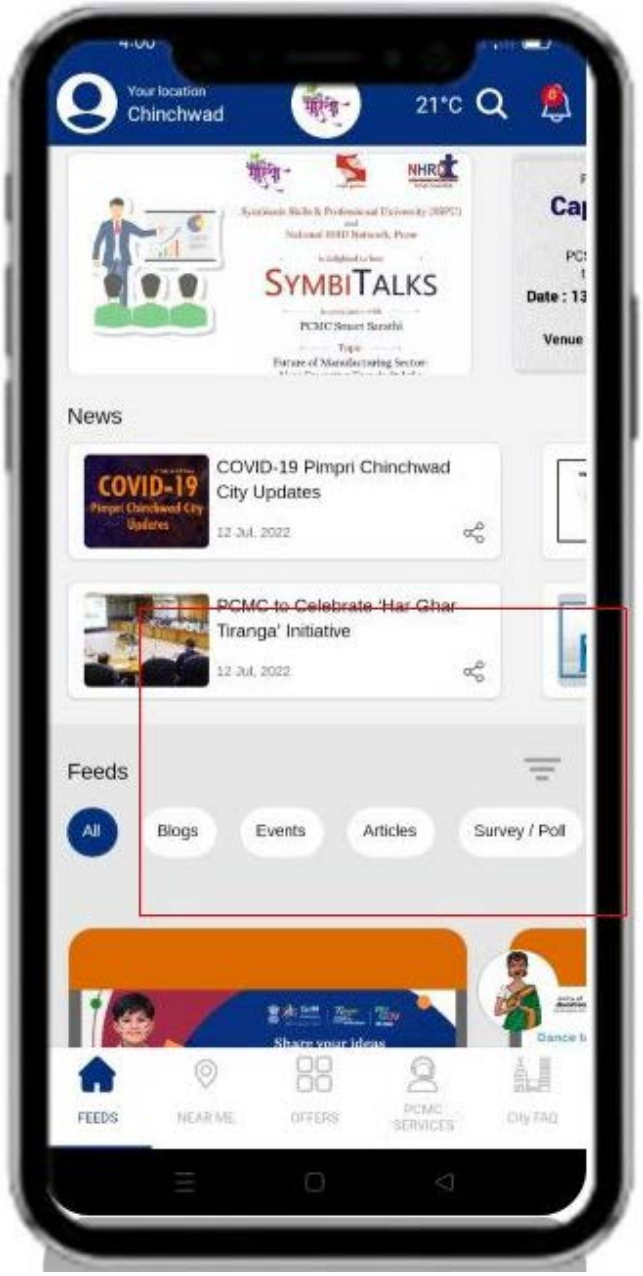
Pimpri-Chinchwad, Maharashtra

https://youtu.be/aJU0hUONl3c

About the Project

The application under this project is Pimpri Chinchwad Municipal Corporation's (PCMC) Smart Sarathi app. It is an initiative of Pimpri Chinchwad Smart City Ltd. in collaboration with PCMC, to create a sustainable two-way Citizen engagement platform. The city of Pimpri Chinchwad needed a concrete, full-fledged, integrated e-governance system that could efficiently manage and deliver a two-way communication between the PCMC and its citizens. It aimed at transforming the conventional methods of the PCMC from reactive to proactive thus enabling the Corporation an intelligent & active citizen service provider.

The introduction of this initiative has led to enhancing citizens standard of living in terms of its processes and governance. ULBs unique and proactive approach has helped to bridge gap between the Corporation and its citizens. Citizen engagement program under the ambit of PCMC's Smart Sarathi has garnered attention from all e-governance related organizations for its exemplary performance in engaging with the citizens via diverse communication challenges and making the entire ecosystem inclusive by involving them in overall decision-making process. Being a pioneer in the field of data backed e-governance, this citizen engagement model is being replicated in its sister city Pune.



Source: Coimbatore smart city

Key Outputs

2+ Lakh
Total Application Downloads

7.5+ Cr.
Two Way Reach through social media

460
times City News published.

11
Citizen Community groups

33,000+
Total Calls (Inbound Calls -2,507 No.s, Outbound Calls-30,536 No.s)

335
Webinars and Videos

128
Surveys published for citizen's feedback.

10+ Cr.
One Way Reach through social media

65
City events published through PSS Platform

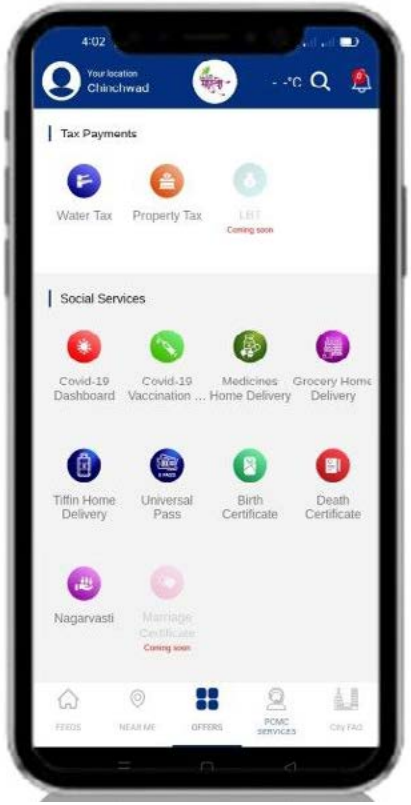
31
'Near Me' Public Facilities.

50
Department information in eFAQ format

15+
PCMC e-services

Innovative Features

- Integration of Municipal Utility Services and personalized City Updates on a single platform.
- Two-way engagement for citizen's needs and fulfilling them effectively through participatory governance.
- Collaborative platform for citizens.



Source: Coimbatore smart city

Major Impacts

With PSS platform citizen focused surveys rolled out to targeted population with graphical and statistical analysis for efficient decision making.

PSS integration with multiple departments makes it possible to uniquely link the departmental databases with every transaction through this platform along with a unified citizen database.

The online platform has made it possible to touch base with young citizens between the age group of 18-25 years and specially curated engaging activities are organized to associate and onboarding youth.

Alignment to SDGs

8 Decent work and economic growth

9 Industry, Innovation and Infrastructure

11 Sustainable cities and communities

16 Peace, Justice, and Strong Institutions

Rachna Jain

Software Engineer, Teleperformance

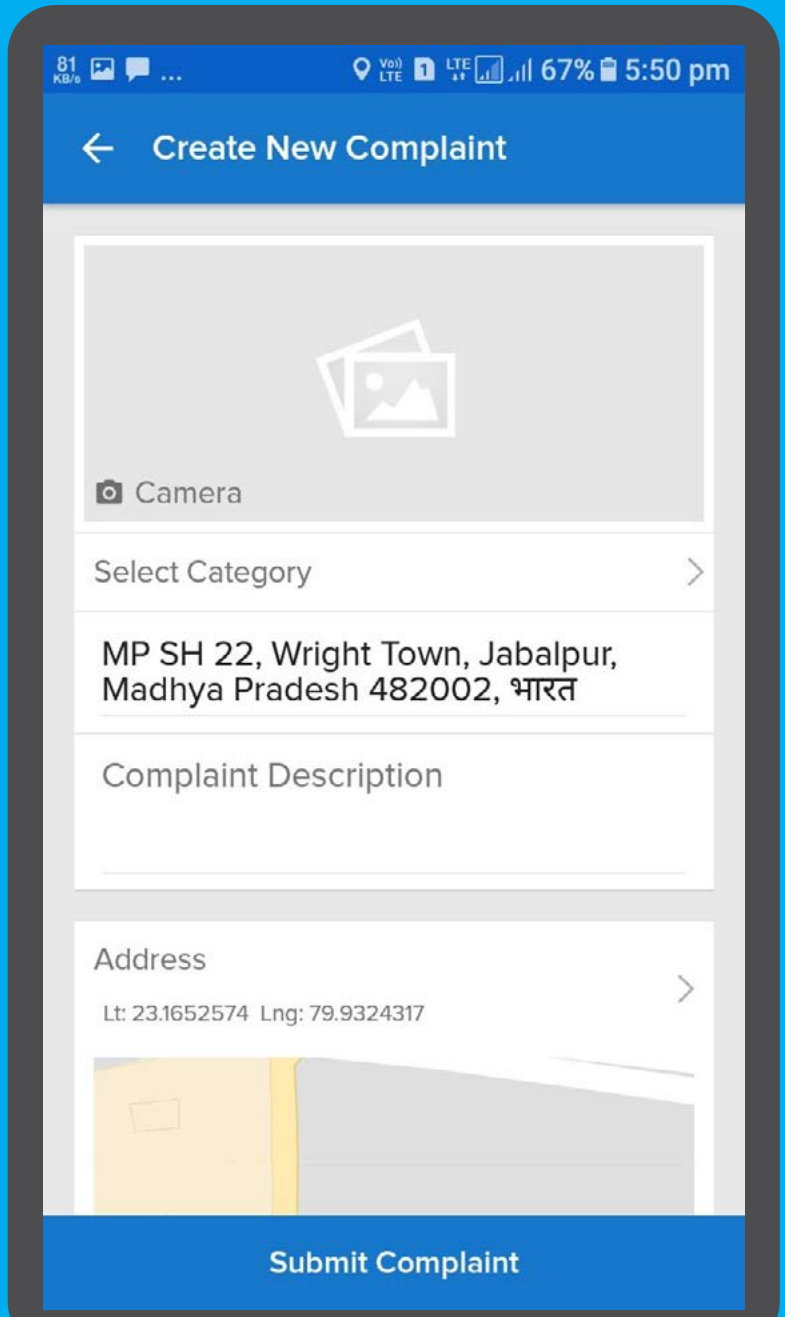
I used Smart City's 311 Application to get my child's Birth Certificate. I was pleasantly surprised to see that within 24 hours I got my digitally signed birth certificate on the application itself. There are many services on Indore 311 like Complaint Redressal, which I regularly use. Kudos Smart City.

Ajay Pawar

Medical Representative

My family members and myself have used most of the modules of Indore-311 application made by Smart City. It is very informative, and there is a quick response from Municipal Corporation, whether you have filed a complaint or any other request, it is resolved very quickly. What a wonderful app!


0 KB/s
67% 5:48 pm
JABALPUR 311
Jabalpur Municipal Corporation
23.31°C
JMC
हेल्पलाइन
निगम सम्बंधित सुविधाएँ
NEW
SWACHH SURVEKSHAN 2018
Citizen Feedback
शिकायत एवं सुझाव
बिल भुगतान
ट्रैफिक
नजदीकी सुविधाएँ
संपर्क JMC
Home
Notifications
Profile
Other

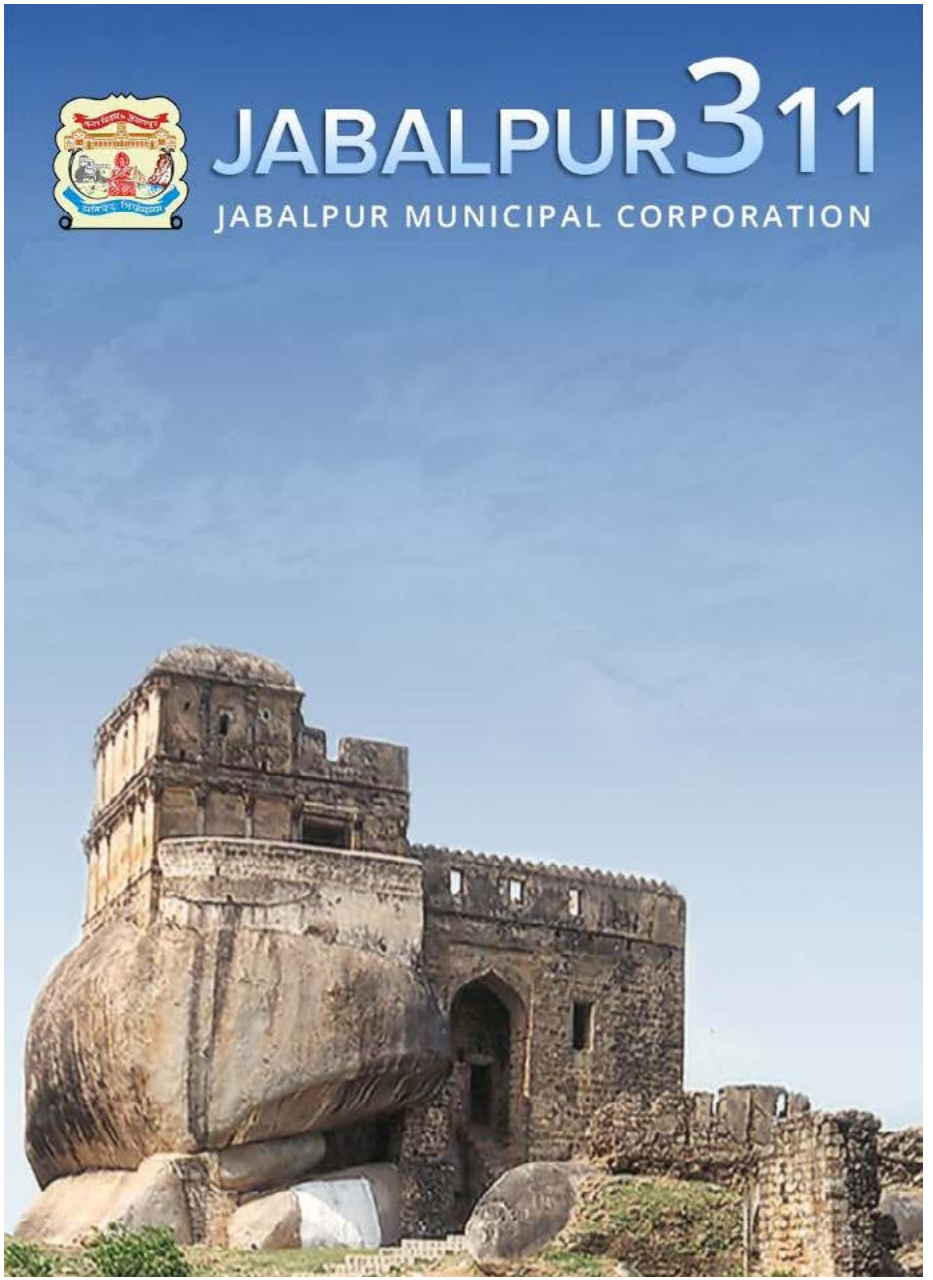

81 KB/s
67% 5:50 pm
Create New Complaint
Camera
Select Category
MP SH 22, Wright Town, Jabalpur, Madhya Pradesh 482002, भारत
Complaint Description
Address
Lt: 23.1652574 Lng: 79.9324317
Submit Complaint

JOINT RANK 3

311 APP

Jabalpur, Madhya Pradesh

https://youtu.be/suT_8tBPiNo



About the Project

The application under this project portrays the idea of one city one app. With this project Jabalpur Municipal Corporation is extending citizen services for promoting positive and productive civic practices using modern technology innovatively and building systems & solutions around it. The application built under the project is developed as an m-governance system for administrative monitoring of various tasks and resources of JMC.

This application has been a one stop solution to manage, supervise and regularize cities using smartphones. The application is designed for the convenience of citizens as well as the officers of the corporation to enhance various day-to-day activities. With the usage of Jabalpur 311 app citizens can directly access the facilities and services of the corporation through their respective smart phones. The app contains an administrative module namely Smart City 311 for the Government officials. This feature has been added to help them track and monitor the status of various ongoing projects.

Key Outputs

The project application has been widely used for swachata survekshan.

There has been a drastic reduction of time in resolution of public grievances.

44,500+

Citizen Issues Fixed.

47,900+

No. of Citizen Downloads.

45,900+

Issues registered through JMC.

Innovative Features

- Use of modern technology innovatively and build systems & solutions.
- All services on a single platform.
- Separate portal for officials to track and monitor activities.

Source: Coimbatore smart city

Major Impacts

Manages attendance and regularity of 70 Officers & 250 Field Officers.

Handles more than 300 vehicles in Jabalpur city covering various city zones and wards by conducting live vehicle tracking & monitoring garbage collection vehicles.

Monitored 109 buses through GPS tracker.

Alignment to SDGs

8 Decent work and economic growth

9 Industry, Innovation and Infrastructure

11 Sustainable cities and communities

Shivani Sahu

Shopkeeper

Good services and options are provided by this app. I registered a complain regarding streetlight which was not working in my residential colony.

Jitendra Rajak

Student

Good application. Good work by Jabalpur 311 team. I had raised an issue regarding water choking near my office. Issue was immediately addressed.


HEADLINES
This year monsoon has broken the highest rainfall
HOTEL
TICKET
P

JOINT RANK 3

Smart City App

Udaipur, Rajasthan

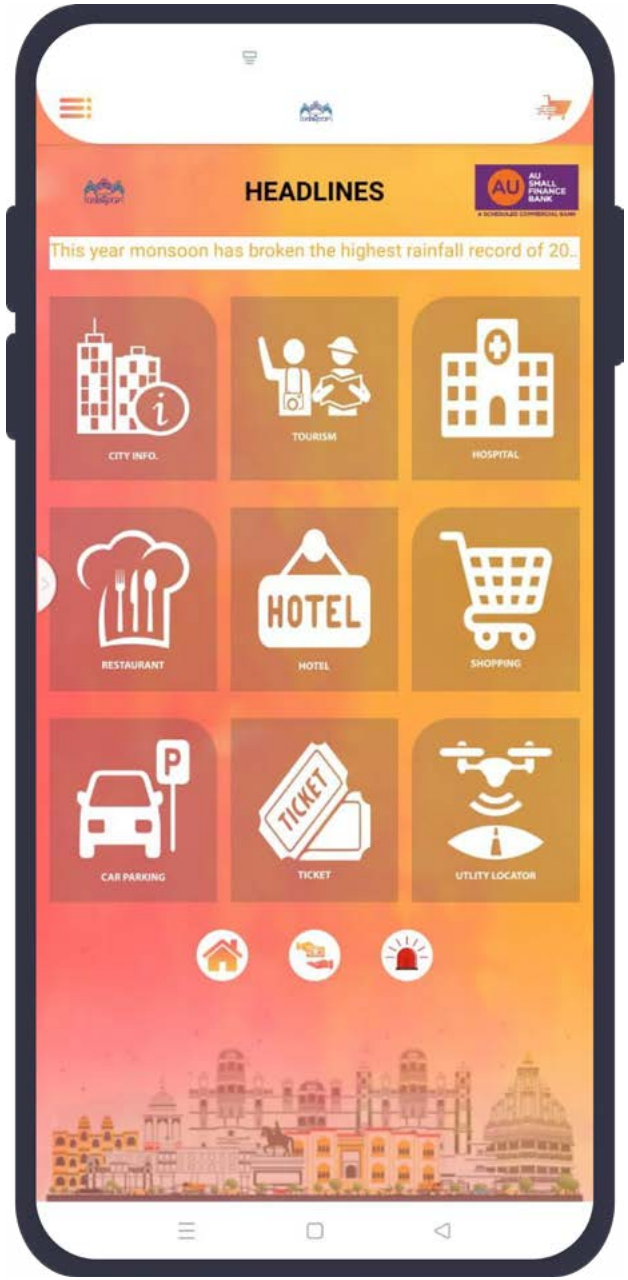
https://youtu.be/60_vAyi_Vc0

About the Project

The project is based on an android & IOS based mobile application created by Udaipur Smart City Limited in response to the increasing demand for ease of doing things with technology. The citizens or users can seek city level information about services like police stations, fuel stations, ATMs, banks, marriage halls, public toilets, money exchange services, major hospitals, restaurants, hotels, shopping malls, public parking, etc. on their smart phones. The app also facilitates citizens to book tickets anytime or anywhere with ease at almost all tourist point. This has led to business growth related to the city tourism.

It also provides information about locations of bus stops, bus routes and Public Bike Sharing (PBS) stations. The city's open data provides valuable information to the citizens and saves time spent in long queues for entrance tickets. . It has helped the city of lakes in improvement in the quality of life of its citizens including floating tourist population and overall city wealth generation.

Overall the project is educating and bringing awareness to citizens about the rich history & culture through the city information feature in developed mobile based app.



Source: Coimbatore smart city

Key Outputs

The application shows information of almost

50

tourist spots

across the city including lakes and water bodies, monuments, forts, gardens, wildlife sanctuaries, museum, ropeways, aquarium, etc.

10

major hospitals, restaurants, hotels and shopping centers can be located on the app.

The app shows almost

9

parking locations

across the city.

The app shows locations of

10

public utility sites

such as fuel stations, ATMs, Banks, marriage halls, public toilets, money exchange, police stations, public transportation, etc.

Innovative Features

- City information on utilities and services are available.
- Geo-tagged locations of buses, routes, PBS stations and others can be accessed.
- Tourism friendly information is available on the application.

Major Impacts

The project educates and brings awareness to citizens about the rich history & culture through the city information feature.

This app can help in any unpredictable or mishap situation.

Alignment to SDGs

8 Decent work and economic growth

9 Industry, Innovation and Infrastructure

11 Sustainable cities and communities

Dr. Rohan Sharma

General Physician

This is a great App for the users to provide information of all the tourist attractions with just one tap. It also shows the locations of local fuel stations and ATMs, which is helpful for many tourists.

Divyanshu Bhandari

Businessman

We are new to this place, but this App helped a lot in finding various utilities in the town. Also, it saved us from standing in a long queue for ticketing.

ICCC – SUSTAINABLE BUSINESS MODEL

Journey of ISAC

2018

VISAKHAPATNAM
2019

SURAT
2020

ICCC
Agartala

INDORE
2022

RANK 1

Command & Control Centre - Variable Messaging Display
Ahmedabad

RANK 2

Revenue Generation from different sources through the use of technology
Surat

JOINT RANK 3

Integrated Command and Control Centre
Agra

Intelligent traffic management system
Gwalior


Safe & Secure
Amdavad

RANK 1

Integrated Command and Control Centre

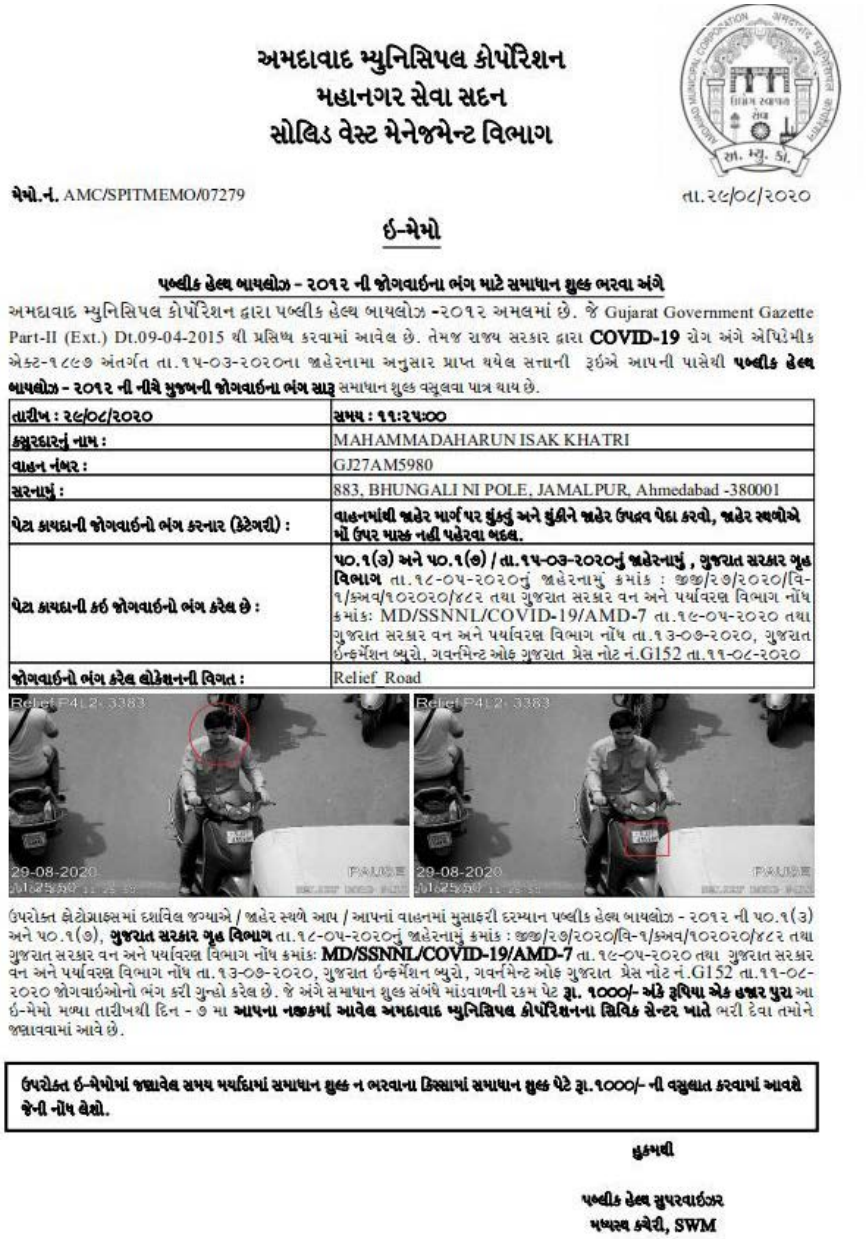
Ahmedabad, Gujrat

https://www.youtube.com/watch?v=1R5VrhronA8

About the Project

Ahmedabad is the first smart city to implement automatic e-challan at 130 intersections of zero tolerance, and it has a unique combination of Government in which the city police and municipality work together. Better traffic flow is ensured through Automatic Number Plate Recognition (ANPR) and Red-Light Violation Detection (RLVD). The zero tolerance junctions automatically issue e-challans to traffic rule offenders, crowd control, criminal activities and chaotic scenario footage in the city. These are filmed and instantly relayed to the command & control center for prompt response by security personnels.

Due to the utilization of pre-existing technology, the implementation was rapid to provide results. Since July 2018, over 29.79 lakhs of e-challans for red-light violation at 130 junctions of zero-tolerance have been issued with over ₹.17.74 Cr. collected. More than 2,700 challans were issued for BRTS lane infringement at 32 active stations and more than 2,400 incidents of spitting have been recorded. Offenders have been identified and categorized by mode of transport such as two-wheeler, auto, truck, and four-wheeler. As the stop-spitting-movement gains traction, so does the sanitation and hygiene levels in the city.



અમદાવાદ મ્યુનિસિપલ કોર્પોરેશન
મહાનગર સેવા સદન
સોલિડ વેસ્ટ મેનેજમેન્ટ વિભાગ

મેમો.નં. AMC/SPITMEMO/07279 તા.૨૯/૦૮/૨૦૨૦

ઈ-મેમો

પબ્લીક હેલ્થ બાયલોઝ - ૨૦૧૨ ની જોગવાઈના ભંગ માટે સમાધાન શુલ્ક ભરવા અંગે

અમદાવાદ મ્યુનિસિપલ કોર્પોરેશન દ્વારા પબ્લીક હેલ્થ બાયલોઝ -૨૦૧૨ અમલમાં છે. જે Gujarat Government Gazette Part-II (Ext.) Dt.09-04-2015 થી પ્રસિધ્ધ કરવામાં આવેલ છે. તેમજ રાજય સરકાર દ્વારા **COVID-19** રોગ અંગે એપિડેમીક એક્ટ-૧૮૯૭ અંતર્ગત તા.૧૫-૦૩-૨૦૨૦ના જાહેરનામા અનુસાર પ્રાપ્ત થયેલ સત્તાની રૂઈએ આપની પાસેથી **પબ્લીક હેલ્થ બાયલોઝ - ૨૦૧૨ ની નીચે મુજબની જોગવાઈના ભંગ સારૂ** સમાધાન શુલ્ક વસુલવા પાત્ર થાય છે.

તારીખ : ૨૯/૦૮/૨૦૨૦	**સમય : ૧૧:૨૫:૦૦**
કસૂરદારનું નામ :	MAHAMMADAHARUN ISAK KHATRI
વાહન નંબર :	GJ27AM5980
સરનામું :	883, BHUNGALI NI POLE, JAMALPUR, Ahmedabad -380001
પેટા કાયદાની જોગવાઈનો ભંગ કરનાર (કેટેગરી) :	**વાહનમાંથી જાહેર માર્ગ પર થુંકવું અને થુંકીને જાહેર ઉપદ્રવ પેદા કરવો, જાહેર સ્થળોએ મોં ઉપર માસ્ક નહી પહેરવા બદલ.**
પેટા કાયદાની કઈ જોગવાઈનો ભંગ કરેલ છે :	**૫૦.૧(૩) અને ૫૦.૧(૭) / તા.૧૫-૦૩-૨૦૨૦નું જાહેરનામું , ગુજરાત સરકાર ગૃહ વિભાગ** તા.૧૮-૦૫-૨૦૨૦નું જાહેરનામું ક્રમાંક : જીજી/૨૭/૨૦૨૦/વિ-૧/ક્રમવ/૧૦૨૦૨૦/૪૮૨ તથા ગુજરાત સરકાર વન અને પર્યાવરણ વિભાગ નોંધ ક્રમાંક: MD/SSNNL/COVID-19/AMD-7 તા.૧૯-૦૫-૨૦૨૦ તથા ગુજરાત સરકાર વન અને પર્યાવરણ વિભાગ નોંધ તા.૧૩-૦૭-૨૦૨૦, ગુજરાત ઈન્ફર્મેશન બ્યુરો, ગવર્નમેન્ટ ઓફ ગુજરાત પ્રેસ નોટ નં.G152 તા.૧૧-૦૮-૨૦૨૦
જોગવાઈનો ભંગ કરેલ લોકેશન-ની વિગત :	Relief Road

ઉપરોક્ત ફોટોગ્રાફ્સમાં દર્શાવેલ જગ્યાએ / જાહેર સ્થળે આપ / આપનાં વાહનમાં મુસાફરી દરમ્યાન પબ્લીક હેલ્થ બાયલોઝ - ૨૦૧૨ ની ૫૦.૧(૩) અને ૫૦.૧(૭), **ગુજરાત સરકાર ગૃહ વિભાગ** તા.૧૮-૦૫-૨૦૨૦નું જાહેરનામું ક્રમાંક : જીજી/૨૭/૨૦૨૦/વિ-૧/ક્રમવ/૧૦૨૦૨૦/૪૮૨ તથા ગુજરાત સરકાર વન અને પર્યાવરણ વિભાગ નોંધ ક્રમાંક: **MD/SSNNL/COVID-19/AMD-7** તા.૧૯-૦૫-૨૦૨૦ તથા ગુજરાત સરકાર વન અને પર્યાવરણ વિભાગ નોંધ તા.૧૩-૦૭-૨૦૨૦, ગુજરાત ઈન્ફર્મેશન બ્યુરો, ગવર્નમેન્ટ ઓફ ગુજરાત પ્રેસ નોટ નં.G152 તા.૧૧-૦૮-૨૦૨૦ જોગવાઈઓનો ભંગ કરી ગુન્હો કરેલ છે. જે અંગે સમાધાન શુલ્ક સંબંધે માંડવાળની રકમ પેટે **રૂા. ૧૦૦૦/- અંકે રૂપિયા એક હજાર પુરા** આ ઈ-મેમો મળ્યા તારીખથી દિન - ૭ મા **આપના નજીકમાં આવેલ અમદાવાદ મ્યુનિસિપલ કોર્પોરેશનના સિવિક સેન્ટર ખાતે** ભરી દેવા તમોને જણાવવામાં આવે છે.

ઉપરોક્ત ઈ-મેમોમાં જણાવેલ સમય મર્યાદામાં સમાધાન શુલ્ક ન ભરવાના કિસ્સામાં સમાધાન શુલ્ક પેટે રૂા.૧૦૦૦/- ની વસુલાત કરવામાં આવશે જે-ની નોંધ લેશો.

હુકમથી

પબ્લીક હેલ્થ સુપરવાઈઝર
મધ્યસ્થ કચેરી, SWM

Key Outputs

Over

29.79 lakhs

E-Challans have been issued for Red-Light Violation (130 zero-tolerance junctions).

₹17.74 Cr.

has been collected against the same.

For BRTS lane violations (32 active stations), total of

2,756

challans were generated.

Innovative Features

- **Issuing e-challans.**
- **Detection of vehicle number** and generation of **online challans**.
- **Monitoring road activities** from command-and-control center.

Major Impacts

More than 6500 surveillance cameras equipped with Automatic Number Plate Recognition and Red-Light Violation Detection.

Under the same initiative, 130 zero tolerance crossings are being developed to improve traffic discipline and penalize violators using its computerized e-Challan system.

Alignment to SDGs

8 Decent work and economic growth

11 Sustainable cities and communities

Thakor Pratimaben Parimalbha

Home maker

Better service to check traffic violations. This has greatly improved discipline in the traffic.

Kantibhai Chauhan

Businessman

Through online portals and e-challans, ease of payment has been established in addition to the adherence of traffic rules.

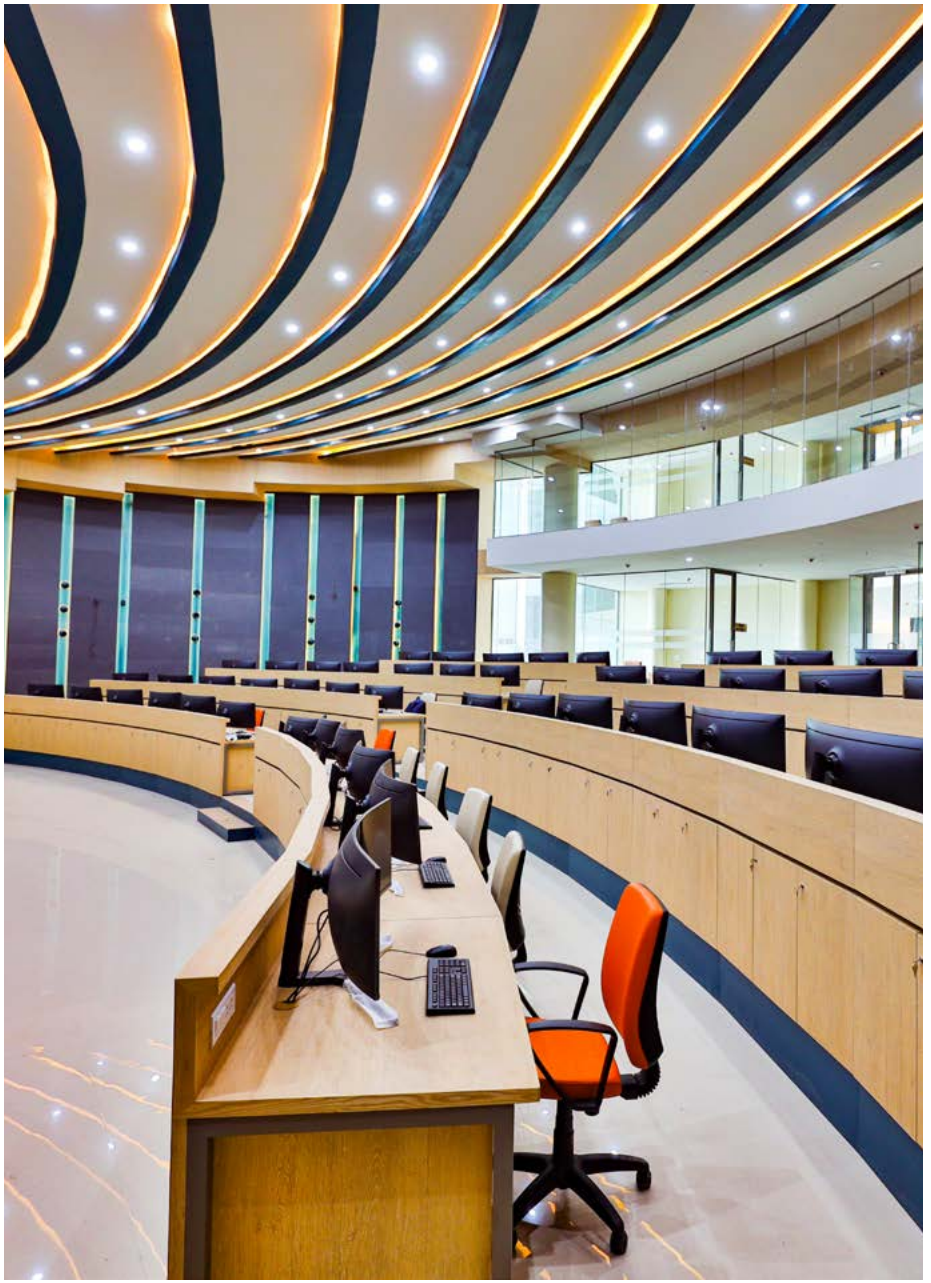

SURAT MUNICIPAL CORPORATION
SMART CITY CENTRE
Smart City
Smart City

RANK 2

ICCC: Sustainable Business Model

Surat, Gujrat

https://www.youtube.com/watch?v=-B3H80Cn7s0&t=57s



About the Project

ICCC monitors various services of Surat Smart City, such as monitoring of city buses and BRT operations utilizing Intelligent Transit Management System (ITMS) & Automatic Fare Collection System (AFCS). The control center also monitors solid waste operations running across in the city and caters to the Complaint Management System by receiving calls from the citizens. All the operations in the city are monitored through the network of CCTV cameras.

The systems of ICCC are integrated with the Geographical Information System. The major objective of this project has been to generate revenue from different sources especially by providing all the services to citizens in an easy and affordable manner maintaining the overall quality of life and public safety. This project includes property tax collection, littering challans and spitting on roads, etc.

Smart City Center is an administrative control center for SMC. It is aimed to improve service delivery, optimal utilization of municipal assets and bring in synergies between different departmental activities by effective monitoring of city operations. It collaborates data from various domain systemsthus enabling monitoring of the critical urban parameters for various activities. The Center has aimed to leverage IT systems and edge devices to generate real-time information and help initiate corrective actions. It identifies abnormal events and helps officials to take timely actions. Cross department collaboration and early identification of issues has helped in improvement of the quality of service.

Key Outputs

Monitoring of

110 km

BRT Corridor & 404 km City Bus network having 57 routes, 943 bus stations having over 725 buses and 2.7 lakh ridership.

Monitoring of over

₹ 1,600 Cr.

property tax demand from 22 lakh tenements.

Monitoring of

600

Door to Door vehicles

2,800 trips

and over 10,000 points of interests to collect garbage from 16 lakh households.

Monitoring of

1,430

Electronic Ticketing Machines,

206

Point of Sale Terminals

1,300

Pole Validators

414

Turnstiles with Fare Gate Validators.

Monitoring of

2,650 CCTV camera

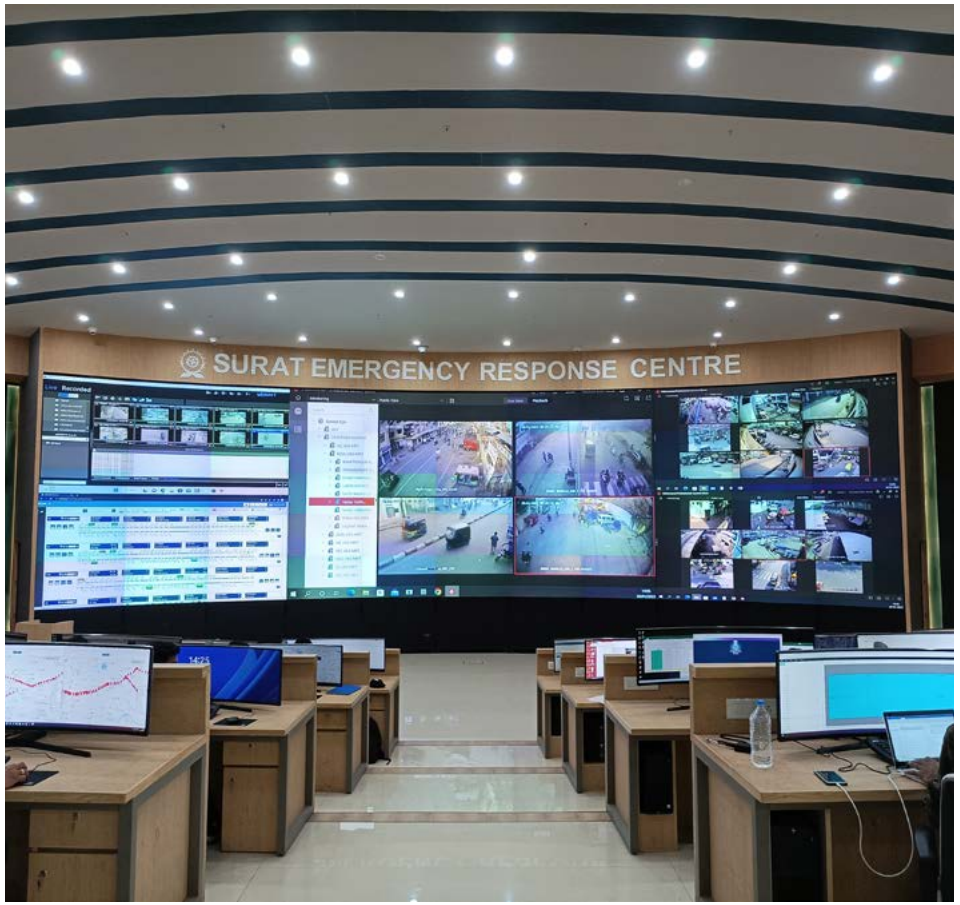
under SUMAN Eye Project &

600 CCTV camera

under Safe City project.

Innovative Features

- Utilization of Intelligent Transit Management System (ITMS) & Automatic Fare Collection System (AFCS).
- Use of Vehicle Planning & Scheduling for efficient and effective Public Transport Service.
- Use of Route Optimization for Door-to-Door Waste Collection.



Major Impacts

- Routes optimization has been done leading to saving of 3,900 km/ day which is ₹ 4.9 Cr./ year.
- Dead km reduction leading to savings of ₹ 2.5 Cr./ year.
- Efficient bus operations shifted private users to public transport resulting in 28% GHG emission.
- Missed locations for waste collection reduced from 1000+ to less than 10/ day.
- 8000+ civic issues resolved proactively using CCTVs.
- Average compliance time reduced from 82 Hrs. to 42 Hrs. and resolution within SLAs went up from 51% to 85%.
- Efficient Property Tax collection from 22+ lakh houses.

Alignment to SDGs

8 Decent work and economic growth

9 Industry, Innovation and Infrastructure

11 Sustainable cities and communities

> **Kamlesh Yagnik**
>
> Past President Southern Gujarat Chamber of Commerce, Past Chairman
>
> It was a great experience to witness how SMAC Center created under Smart Cities Mission utilizes Smart Solutions is aiding the city administration in optimum utilization of resources, ensure better services and reduce operational cost. It helps create synergy between departmental works and proactive monitoring and resolve civic issues.

> **Richa Agrawal**
>
> Academician
>
> Monitoring of municipal services through command & control center is the need of the hour and it was indeed great to witness it in practice at SMAC Center. The role of SMAC Center as a war room during COVID pandemic is also appreciable.


400 से ज्यादा शिविरों में हैं मजदूर

JOINT RANK 3

Integrated Command and Control Centre

Agra, Uttar Pradesh

https://youtu.be/bJTdTg_5Kok

About the Project

Agra Smart City ICCC is the critical convergence of technology that enables all technology implementations in the city to be monitored, managed and optimized to improve the quality-of-service delivery in the city. Agra ICCC Command Centre application is seamlessly integrated to manage traffic management system, safe city cameras feed, emergency response and disaster management, solid waste management services, intelligent transport management system and city GIS platform.

It is further integrated with additional city systems such as Municipal Corporations Call Center, Municipal Corporation's services portal, City application, Water Management System, Fire Brigade Control System, Smart Parking and Public Bike Sharing.

Agra ICCC is scalable and replicable. The platform is currently connecting 12 city departments and functions. Collectively, these solutions provide for actionable intelligence with in-depth insights on city operations and as-is scenarios. PMS Suite presents real time video data to address real world challenges, facilitating monitoring of last mile systems, processes, equipment and staff. Especially with respect to health services management it helps monitor social distancing, queue & crowd management, detects masks, PPE and identifies vehicles of interest.

Key Outputs

1,216 cameras have been installed for surveillance.

Adaptive Traffic Control System (ATCS) at **63** Junctions.

3,50,000+ RFID tags for monitoring of SWM

AI based vehicle detection for RTO on a real time basis, face recognition system connected to UP police.

Full-fledged GIS portal with **12** departments on board.

ECB (Emergency Call Box) at **43** locations,

environment sensors at **39** locations measuring real time hourly air quality index.

Full-fledged integrated command and control sensors integrated with water and sewer SCADA systems.

Vehicle management system to track real time location of SWM vehicles and ITMS connected to VAHAN and SARATHI database generating e-challans.

Innovative Features

- **GIS system linked with 12 departments**.
- The project has showcased **business process innovation** by leveraging the command center technology, systems and platforms as a tool to combat pandemic with an integrated response.

Major Impacts

More than 2.6 lakhs of e-challans issued worth ₹ 25.54 Cr. have been generated thereby collecting ₹ 1.19 Cr.

Due to ATCS waiting time at junctions has reduced significantly which has led to saving of 49 MT carbon emission from one junction i.e., 3,087 MT per year and 200 units per day of electricity because of the solar systems installed in signals.

15,000 liters per month of fuel saving has been witnessed with the use of the vehicle tracking and the fuel management system.

Agra police have solved approx. 250 cases and the crime rate has dropped by 7.2%.

Alignment to SDGs

8 Decent work and economic growth

9 Industry, Innovation and Infrastructure

10 Reduced Inequalities

11 Sustainable cities and communities

Abid Abbas Ali

Meat Vendo

The ECB system is very useful, once I was pickpocketed and using this ECB system, I could call the police immediately and catch the miscreants.

Drasthi

Computer Operator

CCTV surveillance of the smart city helped in finding my father who was missing, thanks to Agra smart city for this wonderful initiative.


MAYUR_VIHAR_TO_THATIPUR
RLVD_THATIPUR_TO_GOVINDPURI
3_PADAV_TO_LAXMIBAI
RLVD_BRIGADIER_TO_KALPI
GUDIGUDA_TO_KASTURBA
RLVD_MELA_GROUND_TO_AKASHVANI
Infrastructure Health
Infrastructure Availability

JOINT RANK 3

Intelligent Traffic Management System

Gwalior, Madhya Pradesh

https://www.youtube.com/watch?v=Ee1laD_VvPc

About the Project

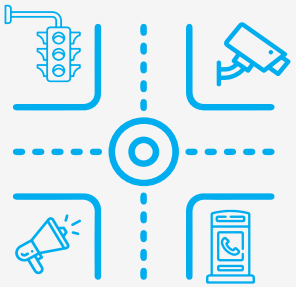
One of the primary objectives of Gwalior Smart city has been to enhance safety and security, improve efficiency of city administration and promote a better quality of life for its residents. To achieve these objectives, Gwalior Smart city has developed a robust ICT infrastructure that supports digital applications and ensures seamless steady state operations, traffic management, emergency response mechanisms and real time tracking of services and vital city metrics throughout the city.

Gwalior Smart City has appointed a Master System Integrator (MSI) to set up an Integrated Traffic Management System for the city . Integrated Traffic Management system (ITMS) monitors the real time traffic of major strategic arterial/urban road networks across the city and allows real time traffic monitoring. In addition, the ITMS solution provides live traffic status, average speed, gap, headway & occupancy, counting and classification of data.

The data does not only provide real time information of traffic information but also helps in planning resource allocations based on traffic status and possible forecast. The data is collected and stored which is available to traffic police, authorities or Command & Control Room (CCR). The ITMS system in Gwalior provides services like forecasting of traffic, provisioning of Green Corridor for Emergency vehicle and VIP movements.

Key Outputs

The busiest major arterial and sub-arterial roads of the Gwalior city have been identified under this ITMS project.



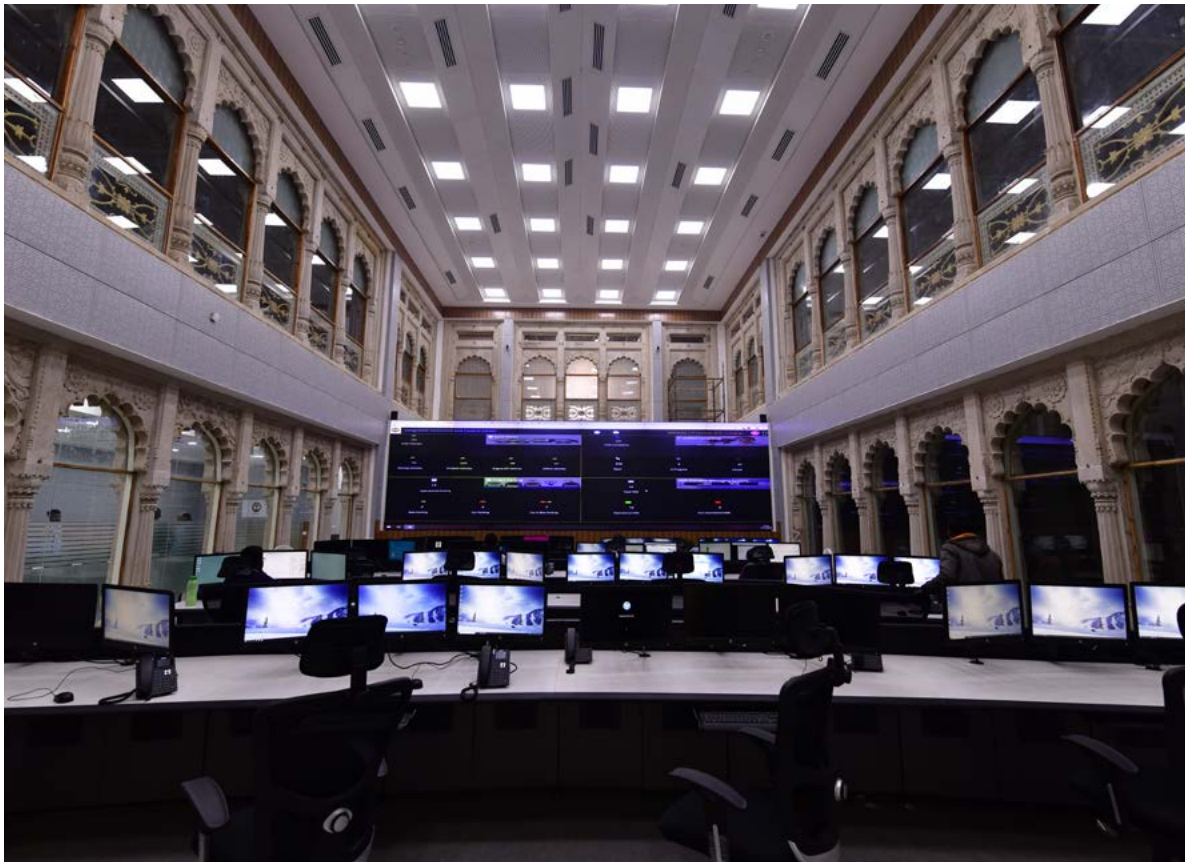
LVD (Red Light Violation Detection), ANPR (Automatic Number Plate Recognition), cameras, an emergency call box, and a public address system have been installed at

29 major junctions

of the city.

Innovative Features

- ITMS is an advanced technology that provides innovative services relating to different modes of transport and traffic management and enables users to be better informed and makes safer, more coordinated and 'smarter' use of transport networks.
- Gwalior Smart City has installed an Adaptive Traffic Control System at major locations in the city, were traffic signals work according to real-time traffic data.



Major Impacts

Gwalior Smart City has collected over ₹ 2 Cr. of revenue which is highest among all Smart cities in Madhya Pradesh till date which is much higher than the operational cost.

Gwalior city which has also improved Smart City image in public.

The major impact of ITMS is reduction in delay and congestion leads to free flow of traffic, information of travel time & congestion through VMS.

Through ITMS, the Police department had success in resolving over 50 crimes to date.

Alignment to SDGs

9 Industry, Innovation and Infrastructure

10 Reduced Inequalities

11 Sustainable cities and communities

Vibhasini Singh Chauhan

Student

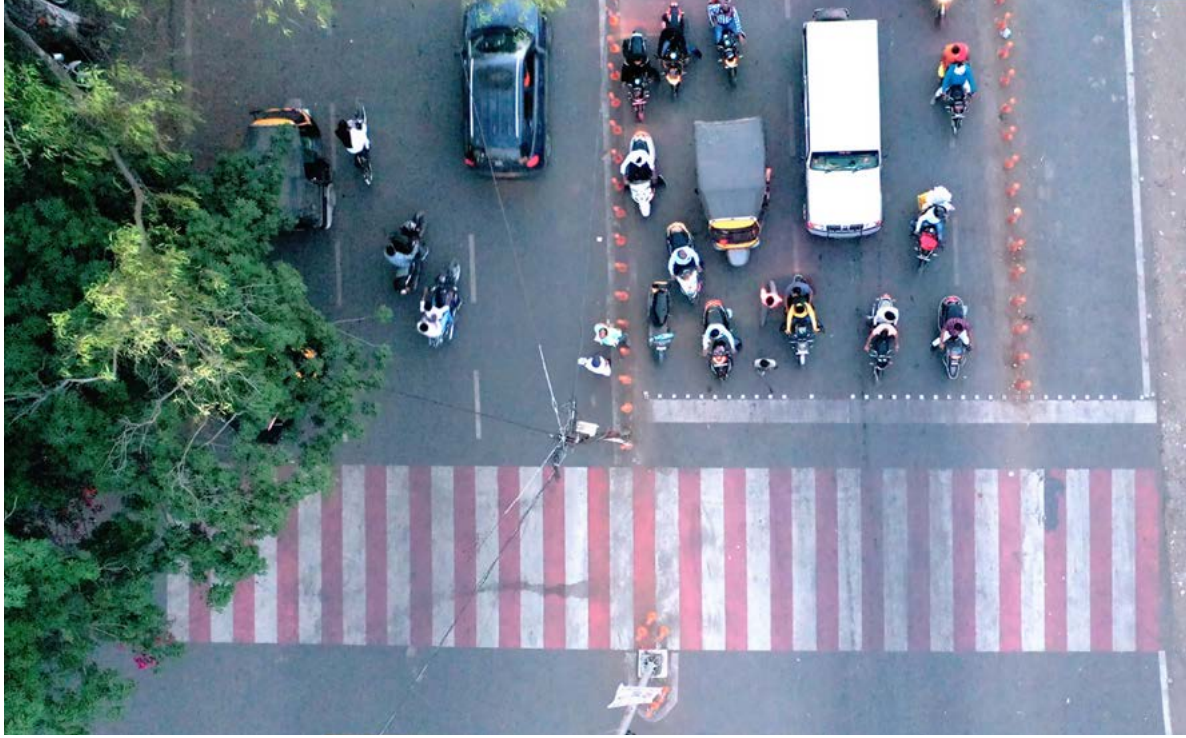
ITMS has brought about a change in the city. Through the system people are becoming aware of the positivity of traffic rules by wearing Helmets, getting stopped during Red Lights, doing control in over-speeding etc. Through the ITMS system accidental cases are also getting reduced day by day.

Kuldeep Singh Tomar

Businessman

ITMS Project is immensely an advanced project, through its advanced technology for VIP movement Green Corridor, for saving people's time Traffic synchronization, etc. are being used. Other than this E-Challan is being posted to the violator's address due to which the public is getting aware of Traffic rules.

MOBILITY



Journey of ISAC

2018

ITMS
Ahmedabad

VISAKHAPATNAM
2019

One City One Card
Surat

SURAT
2020

Majhi Smart Bus
Aurangabad

INDORE
2022

RANK 1

Engagement of Agency for DBOFT of Public Bike Sharing System along with cycle tracks and procurement of electric buses
Chandigarh

RANK 2

Promoting Non-Motorized Transport in New Town Kolkata
New Town Kolkata

RANK 3

Intelligent Traffic Management System for Sagar City
Sagar


SmartBike
SmartBike

RANK 1

Engagement of Agency for DBOFT of Public Bike Sharing System

Chandigarh

https://youtu.be/heKMVPxhZGQ

About the Project

The city is home to India's largest & densest pan-city Public Bike Sharing System with 2,500 bicycles and 310 docking stations located strategically, which shall further be expanded to 617 stations and 5,000 cycles. Under this project, it has been endeavoured to revive the already existing V7 roads as intended for bicycles in the master plan of Chandigarh. The existing cycle tracks along with V3 roads have been improved and provided with proper integration along with zebra crossings near the intersection.

Longitudinal green belts are in the process of being developed as green corridors both for pedestrians and cyclists. The tracks are well-planned and segregated with the provision of LED lighting, thus ensuring the safety of daily commuters. Chandigarh has a fleet of 40 electric buses with 40 more in the pipeline. The buses are equipped with air conditioning system, seating capacity of 35 passengers and 20 standees, passenger information screens at front, rear, side and inside saloon area, pneumatically controlled doors, panic button in case of emergency and mobile charging points.

This facility is acting as an NMT mode for last-mile connectivity. The project is being widely appreciated & utilized by the citizens as it has witnessed more than 4 lakh rides by 2 lakh plus registered users in the last 17 months of operations.

Key Outputs

200 kms

of dedicated cycle tracks connect the city & its periphery.

310

docking stations having more than

2,500

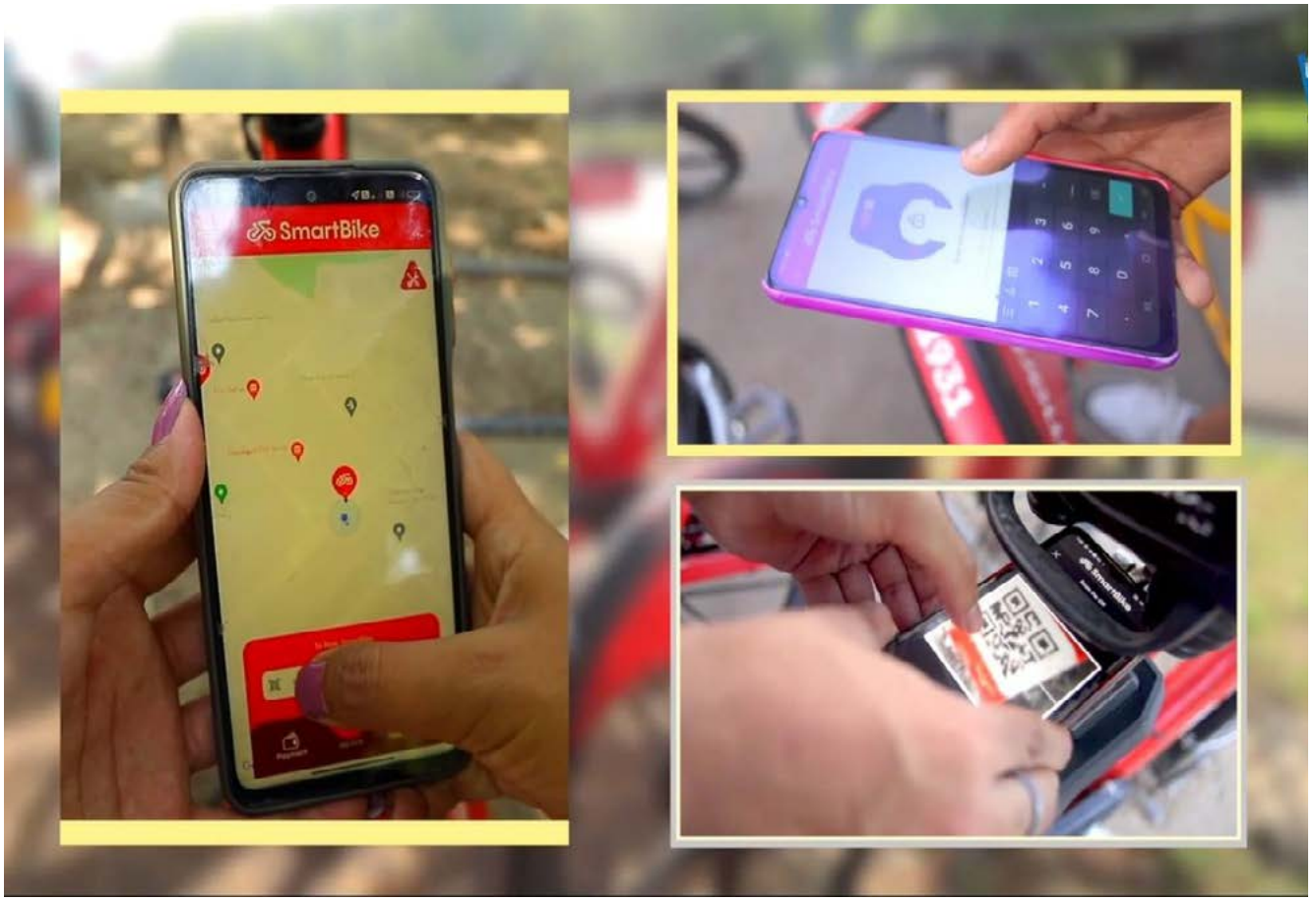
bicycles strategically located in at pan city level.

1,800

e-bikes at normal bicycle rates are available for citizens.

Innovative Features

- **GPS enabled tracking of bicycles**
- **Integration with ICCC** to ensure monitoring of KPIs & help in future planning.
- **Most modern GPS enabled electric buses** equipped with safety features like panic button.



Major Impacts

2+ Lakh registered users.

4+ lakh rides in 17 months.

1,500 average daily rides

350 tonnes of CO_2 saving

24% women users

16+ lakh km covered by electric buses till date.

Alignment to SDGs

3 Good health and well-being

7 Affordable and Clean Energy

11 Sustainable cities and communities

13 Climate Action

Hema Rawat

Private Employee

I used to face issues with my daily commute earlier for my job, but after the launch of PBS it has become so easy for me to travel to work, markets & leisure. Great Initiative taken by Chandigarh Smart City.

Jagtar Khan

Lift Operator

I am a daily wage laborer and my cycle is my only mode of travel. I can easily travel across the city for work without fear of accidents as there are dedicated cycle tracks. Thank you for making my commute safe!


Cycle Track
• Graded and segregated cycle track for safe cycling
Foot Path
• Barrier-free path
• Tactile pavement for specially-abled
Street no.
Street Ma
You are here

RANK 2

Promoting Non-Motorized Transport

New Town Kolkata, West Bengal

https://youtu.be/y893R3cyHFg

About the Project

NMT initiatives in any of the city, greatly assists in reduction of overall carbon generation enabling a step closer to becoming climate resilient. Under this project, multiple initiatives have been introduced towards promoting non-motorized transport in the city. Implementation of the project has facilitated seamless network of dedicated cycle tracks. Cycle tracks are segregated and well-lit, earmarked cycle crossovers, adequate cycle signages and cycle signalshave made the tracks rider-friendly and easy to navigate.

CCTVs have been installed all along making the tracks safe and trackable. This has resulted in inclusive cycling in the city with a steady increase in the number of cyclists especially women cyclists. The city planned to scale up the cycling network for the rest of the city with another 50 km of dedicated cycle track being planned.

Along with the cycle tracks, New Town has developed a smart cycle stand wherein people can park their cycles free of cost. The smart cycle stand has become very useful for people who commute regularly to New Town for their livelihood. Initiatives to institutionalize cycling campaigns have included the constitution of an Apex Committee for Cycling and a Non-Motorized Transport cell. New Town Kolkata has collaborated with NGOs to raise awareness among corporates and institutionalize 'cycle to work'.

In addition to the cycling infrastructure, New Town Kolkata has developed a huge network of barrier-free pedestrian-friendly footpaths. To make the city more walkable, multiple pedestrian-friendly community zones have also been developed wherein cycle track and footpath are the only means of communication.

Key Outputs

New town Kolkata has developed

35 km

of dedicated cycle track with cycle crossovers and cycle signals at around

30 major junctions.

The public bicycle system in New Town comprises of

21 docking stations

and

400 cycles

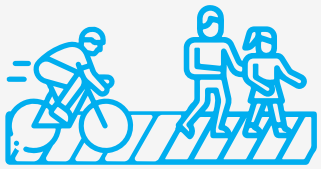
More than

1,000 streetlights

make the cycle tracks well lit and safe. More than 80 cycle events have been organized in the city with around 50 participants enrolling for cycle training.

100 km

of barrier-free pedestrian friendly footpath has been developed with 421 smart signages and 565 CCTVs to ensure easy and safe navigation for the cyclists and pedestrian.



Innovative Features

- Dedicated network of segregated cycle track with earmarked cycle signals, crossovers and signages.
- Policy wherein cycles parking has been made mandatory for Government offices.
- Advisory regarding mandatory cycle parking in buildings having more than 6 kottah area.
- Devices counting the number of cycles on the road are being installed.
- Use of tactile paver blocks and ramps to make the footpaths, barrier- free.
- Smart directional signages with panic button and CCTV.

Major Impacts

The main activity area, which caters to 55% of total population, is 100% covered by pedestrian-friendly footpath, smart signages and CCTV.

100% of the major arterial roads are covered by cycle track and bicycle docking stations.

A citizen feedback survey indicates 67% increase in pedestrian-hour and 83% increase in the cycling-hour in the city on an average per month.

Public bicycle system has registered around 2 lakh rides covering 44,000 km distance, corresponding to a carbon offset of around 100 Ton.

New Town has emerged among top 11 cities in India Cycles for Challenge and 25 international cycling cities.

Alignment to SDGs

3 Good health and well-being

7 Affordable and Clean Energy

11 Sustainable cities and communities

13 Climate Action

> Network of well-lit dedicated cycle tracks has made cycling a lot safer and faster in New Town. With connecting tracks to important destinations cycling is becoming my preferred mode of commute. I depend on cycle for commuting to the local markets, banks, and all other regular household works.

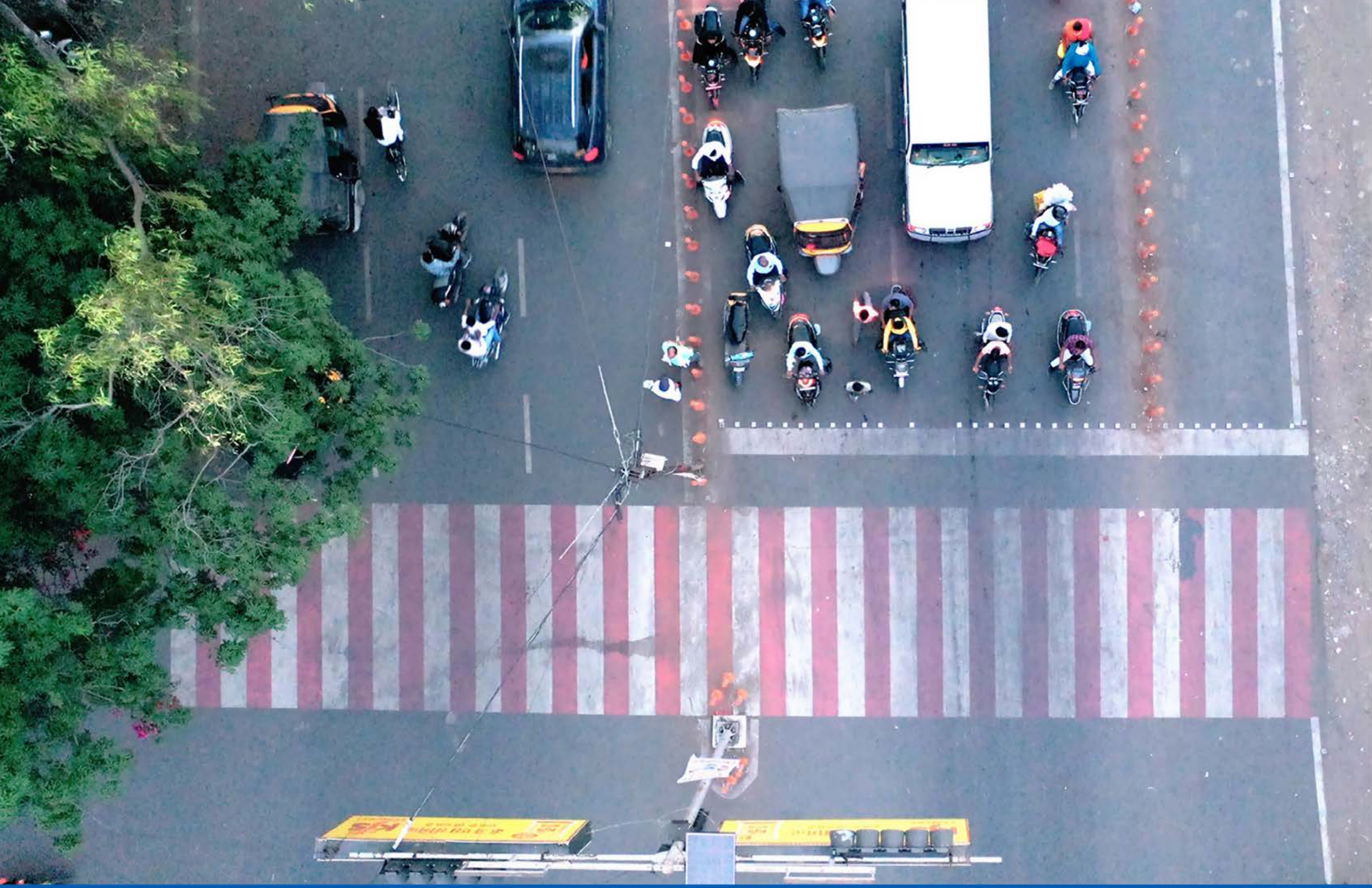
Ms. Deepa Aditya

Government Service & Resident of New Town

> New Town Kolkata suits best for beginner level cycle enthusiast like us. Dedicated cycle crossovers, signals and signages make it easy for newbies like us and help us build confidence in adapting to cycling. Cycle training camps organized by Smart City has also helped us to step into cycling.

Ms. Gouri Ghosh

Sweet Shop Owner



The citizens who are now aware of the traffic rules because of ITMS,
stop their vehicles before the stop line at the crossroads

RANK 3

Traffic Management System for Sagar City

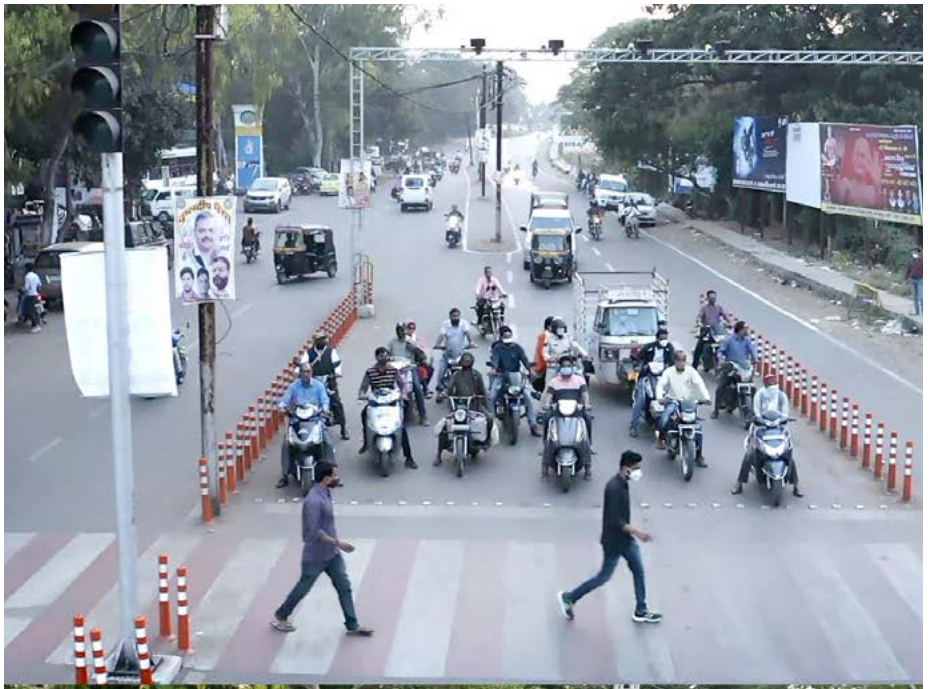
Sagar, Madhya Pradesh

https://youtu.be/VUrVQibliaE

About the Project

Earlier in Sagar City there were no traffic signals at junctions and due to this there was no traffic discipline and public safety on road. Lack of information on current traffic conditions, resulted in extra efforts by the Traffic Police on public facing functions. Therefore, Sagar Smart City Limited, utilized information technology to modernize Traffic Management, Traffic Control, Traffic Law Enforcement and Traffic Information Dissemination in the city and enabled the city traffic police to ensure smooth traffic flow.

Sagar Smart City developed an Intelligent Traffic Management System (ITMS), aimed at improving efficiency and effectiveness of traffic on roads. Under this project 12 junctions, 6 Entry Exit Points and 2 Speed Violation Detection System (SVDS) locations have been brought under ITMS covering 80% of the city area. The primary objective to achieve strategic improvement of the overall traffic movement to reduce congestion in mobility has been achieved through this project.



Key Outputs

ANPR Camera reads license plates of Vehicles, which helps in identifying the suspicious/ violator's vehicles. It reduces the theft of vehicles by approx.

40% to **60**%

and reduces the crime rate in the city.

ITMS System installed at

12 Junctions,

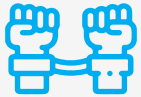
6 Entry Exit

Points 2 SVDS location.

ATCS System reduces the travel time by

30% to **40**%

adjusting the signal timing based on the actual traffic.



ITMS System helps the Police department to solve accidental, theft and other criminal cases with evidence.

ITMS System covers

80%

of the area of Sagar city

Innovative Features

- **ATCS** - Adaptive Traffic Control System (ATCS), automatically adapts the timings of traffic lights to optimize the flow of traffic.
- **RLVD** – Red Light Violation Detection System identifying vehicles jumping after the red light mark.
- **ANPR** - Automatic Number Plate Recognition System helps in identifying the suspicious/ violator's vehicles..
- **SVDS** - Speed Violation Detection System
- **ECB** – Emergency Call box system installed at junctions.
- **PAS** – Public Announcement System passes information at all junctions

Major Impacts

- A total of 40,122 number of violations captured and Challan generated through ITMS system and collected more than Rs. 53.54 lakh.
- 59 number of evidence were shared with the police department and 12 crimes detected and solved.
- 63 accidental cases with vehicle numbers identified.
- 53 stolen vehicles captured.
- 15 vehicles with duplicate numbers identified.
- Earlier 800-900 monthly challans were generated per junction for violating traffic rules, however as on date it has been reduced to 100-200 per month which clearly shows that people are now aware and are following the traffic rules.

Alignment to SDGs

9 Industry, Innovation and Infrastructure

11 Sustainable cities and communities

Nitin Pandey

Private Firm Employee

Earlier, people used to break traffic rules easily and chances of getting caught were also less. But, after the implementation of ITMS, as soon as someone violates any traffic rule, immediately an E-challan of the concerned violation is produced which has proven to be a good initiative

Rakesh Jain

Doctor

After the installation of traffic signals in our city, the whole traffic is being monitored under 24-hour surveillance. Also, there are hardly any chances of traffic violations as people are aware that, if they break any rule, strict action will be taken against them by producing and sending E-challan.

SANITATION

Journey of ISAC

2018

VISAKHAPATNAM
2019

De-centralized Micro Composting Centre
Vellore

SURAT
2020

Bioremediation & Bio-Mining
Tirupati

INDORE
2022

RANK 1

Gobardhan Bio-CNG Plant
Indore

RANK 2

System Integrator to implement Smart City solutions Solid Waste Management System
Kakinada

JOINT RANK 3

Provision of SCADA for Solid Waste Management for Route Management, Efficiency of Collection, Mobile Application, Daily Manageme
Chandigarh

Command and Control Centre- Door-to-door waste collection monitoring
Ahmedabad


BELT CONVEYE

RANK 1

GO-Bardhan Bio CNG

Indore, Madhya Pradesh

https://youtu.be/kV-x51MlPSo

About the Project

Post achieving 100% efficient and quality segregation of waste at source, Indore Smart City undertook a unique initiative of establishing 2 Bio-Methanation plants under the PPP model with 15 TPD and 20 TPD capacity for Rs 6.5 and 9 Cr under the Viability Gap Funding (VGF) of Rs 10 Cr. The purpose of operationalizing these plants was to promote cleaner fuels in public transport and curb air pollution. Indore Smart City also plans to capture, pressurize, and sell the CO_2 gas produced at the plant to FMCG drinks manufacturers.

The pre and post processing inert is sent to a landfill. ISCDL plans to further screen and reroute inert waste in the processing stream. It manifests city' commitment to make it a zero-waste discharge model. In Indore, 430 city transport buses ply on around 17,400 kg of bio CNG per day. The innovative model of bio-methanation plants provides green and affordable energy and the much-needed organic fertilizer, which is an ideal example of a circular economy in action.

The plant has been registered under the VCS mechanism to realize Carbon credit trading in the international market for 10 years. Indore Smart City has accumulated more than Rupees Nine Cr. till now through Carbon Credits. This initiative is scalable and can be replicated in cities with 100% at-source segregation. Sustainable biogas systems include processes for treating waste, protecting the environment, converting low-value materials into high-value materials, and producing electricity, heat and advanced gaseous biofuels.


BIO CNG

CNG PLANT TO START IN 15-20 DAYS

INDORE PREPARES TO PROMOTE

BIO CNG PLANT AT NATIONAL LEVEL

SBM MISSION DIRECTOR OF ALL THE STATES WILL BE COMING TO INDORE TO UNDERSTAND AND LEARN HOW TO MAKE CNG GAS FROM WET WASTE

PRESENTATION FOR PMO

TRENCHING GROUND AND UNDERPASS FOUNTAINS SET UP

THE CNG PETROLEUM FUEL DERIVED FROM WET WASTE IN INDORE WILL BE THE NEW ALTERNATIVE

STATE SBM DIRECTORS TO VISIT INDORE ON PMO DIRECTIVES

A NEW WAY FOR REDUCED DEPENDENCE ON PETROL AND DIESEL

5 साल पहले जहां की बदबू 1 किमी दूर करती थी परेशान, वहां आधे घंटे गुजारे राज्यपाल ने

खुद की CNG बना 500 बसें चलाकर 2 करोड़ बचाएगा इंदौर निगम

Source: Indore smart city

Key Outputs

Total municipal earnings of approximately

₹ 9 Cr.

in the first two years of Carbon credit trading.

Approximately 77,400 running kilometers/ day of equivalent transport fuel are produced for

430 buses

100 TPD

of compost is sold to farmers and fertilizer companies.

1,30,000

tons of CO_2 equivalent saved/ year.

18,000 kg

of clean fuel Bio-CNG will be produced daily from this plant for fuel.

Innovative Features

- Largest Bio-CNG plant in Asia of 550 TPD.
- Zero capital investment and Rs.2.52 Cr. premium earned by IMC annually.
- Innovation provides green and affordable energy and the much-needed organic fertilizer, an ideal example of a circular economy.
- IMC will procure a minimum of 50% CNG buses at Rs. 5 kg cheaper than the market rate.
- This initiative is scalable & can be replicated in other cities having 100% at-source segregation.
- Sustainable biogas systems include processes for the treatment of waste, protecting the environment, converting low-value materials into high-value materials and producing electricity, heat and advanced gaseous biofuels.

Source: Indore smart city

Major Impacts

- Total municipal earnings of approximately ₹ 9 Cr. in the first two years of Carbon credit trading.
- Approximately 77,400 running kilometers/day of equivalent transport fuel are produced for 430 buses.
- With this project, 21 direct local jobs and 30 indirect jobs are created.
- 13,0,000 tons of CO_2 equivalent saved/ year.
- Low cost of sustainable waste treatment and waste transportation.
- Avoids discharge of Nitrogen (2.39 tons/year) and Phosphorus (0.85 tons/year) in the aquatic environment helps in moderation of BOD of water bodies
- 280.3 tons/ year of organic carbon replenishment.

Alignment to SDGs

7 Affordable and Clean Energy

9 Industry, Innovation and Infrastructure

11 Sustainable cities and communities

12 Responsible Consumption and Production

13 Climate Action

> Bio-CNG that we receive from this plant for our city buses is having around 95% methane content without impurities. As a result, our Bio-CNG busses' average has increased and per kilometers running costs have come down. We are taking around 9000 Kgs of CNG from this plant daily.

Mr. Sandeep Tiwari

Manager Operations, Indore Smart City

> Design of the project was definitely challenging but due to good quality of waste and fantastic segregation level, the operation of plant has been smooth. We have imported a unique hammer mill to crush wet waste before process of digester which is the USP of the project.

Mr. Nitesh Kumar Tripathi

Project Head, Indore Smart City

RANK 2

Smart City Solutions Solid Waste Management System

Kakinada, Andhra Pradesh

About the Project

Keeping pace with the speed of urban development, under Smart Cities Mission, Kakinada Smart City Corporation Limited has taken steps to strengthen the digital infrastructure and enabled System integration for ICT solutions Command and Communication Centre (CCC). CCC is envisaged to be the brain of city governance to monitor and connect with various municipal services and receive real-time data. The data is getting integrated and processed at the CCC platform for city administration for better situational awareness and to act for the betterment of the Citizens in given situations. CCC has three significant components: a command center, an analytic section and an alert generation mechanism for Municipal Services.

To manage, maintain, and monitor the door-to-door collection of waste and a holistic view of integrated SWM from source to end is one of the significant challenges for the departments. So, it is decided to take an innovative approach to integrate solid waste management based on the collection and transportation of municipal solid waste using ICT components and integrate them into one system. Added features like Intelligent bins, RFID, and GIS solutions optimize processes along the entire value chain of solid waste management. Finally, data on all operations are transmitted to the Command and Control center to take necessary action and keep the SWM functioning effectively and efficiently.

Source: Kakinada Smart City

Key Outputs

Around
103
metric tonnes of wet waste,
68
metric tonnes of dry waste, and two metric tonnes of hazardous waste collected.

The system includes the collection of wastes from households, commercial establishments, transportation, movement of garbage collection vehicles andtime taken to lift garbage in a city ward etc.

The system had already included the integration of Command and Communication and garbage collection vehicles around
110
Vehicles.

The project has led to real-time monitoring of garbage vehicle movement, ensuring tracking collection routes and improving solid waste handling and operational efficiency.

Source: Coimbatore smart city

Innovative Features

- 24x7 Citizen Helpdesk with toll-free number and business WhatsApp for resolution of public grievances.
- 350 CCTV Cameras for General Surveillance.
- 10 Face recognition systems for Police Surveillance.
- 30 Public Announcement systems for public awareness.
- 5 Variable Message Displays for showing public awareness content.
- 50 GPS Vehicles for improvement in Waste Management Works.
- 640 Smart Street Lights for public safety and energy savings.

Major Impacts

- Specialized Vehicle Tracking System for Solid Waste Management.
- Real-time monitoring of Entry and Exit of vehicles in each Lane.
- Route Digitization to ensure 100% Route coverage.
- Rule-based Alert generation system.
- Customizable Geo-fencing based on various levels such as Area, Route or Lane, Provide Scheduled Time of Arrival (STA) and Estimated Time of Arrival (ETA).
- Improved and dedicated medium of communication with drivers.
- Real-time alerts and notifications to manage to refuse to pick routes for SWM.
- Monitoring and tracking of all KMC vehicles under the SWM department.

Alignment to SDGs

6 Clean water and sanitation

11 Sustainable cities and communities

M. Vishveshwar Rao

Lions District Governo, Kakinada Smart City

Establishment of CCC, excellent services are given to the Public by monitoring road constructions, drainage systems, public announcement systems, and weather monitoring systems. After installing CCTV Cameras, the Crime rate has significantly reduced, and thefts have also been reduced. CCC services are beneficial for the Citizens.

R. Siva Rama Krishna

Medical Shop Owner, Kakinada Smart City

The services are excellent. Twenty-four hours they are monitoring through CCTV during the Covid time. Through Public addressing systems, their alert work to the Public is awe-inspiring. They observe and identify water stagnation and tree-falling places during heavy rains and cyclones.


SWACCH CHANDIGARH
नगर निगम
गीला कचरा
MUNICIPAL CORPORATION
CHANDIGARH
सूखा कचरा
नगर निगम चण्डीगढ़
GoSwacch

JOINT RANK 3

Provision of SCADA for Solid Waste Management

Chandigarh

https://youtu.be/44k5CvyDsK8

About the Project

The broad objective of the proposed system is to improve the efficiency of collection, transportation, and disposal of solid waste from Chandigarh by implementing reliable Smart digital solutions to monitor, track, and manage various SWM tasks through citizen empowerment and Door collection, thereby reducing/ resolve the customer complaints with a positive feedback mechanism.

To achieve this objective, ICT and analytical tools for enabling automated decision-making have been introduced to help effectively monitor solid waste management operations. It is also envisaged that the solution proposed under this project will integrate with the Integrated Command and Control Centre of Chandigarh Smart City. The introduction of ICT has improved Solid waste collection and data. Collation related to the SWM, this project has integrated ICT with door-to-door collection functions, material recovery cum Garbage transfer stations and fuel stations, enabling efficient SWM operations in MCC.

Under the project, optimal routes of waste collection vehicles are created to reduce the operation cost of door-to-door waste collection. Every six months, the roads are re-created to achieve optimization thatleads to complete coverage of households with a reduction in fuel cost. The project is easy to replicate as the significant technology involved is related to GPS devices, which is currently not a proprietary technology and multiple technology vendors are available in the market.

Source: Coimbatore smart city

Key Outputs

All the vehicles (638 No.s) involved in the management of municipal solid waste management are made GPS enabled covering all zones benefitting the million+ population of city

35

small garbage collection vehicles deployed to cover 13 villages and narrow lanes.

Integrated with ICCC platforms and call centre to run analytics as well as e-Gov app for SWM related grievances

Weigh bridges (9 No.s) and Material recovery stations are integrated with the SCADA system which captures the total waste (dry & wet) collected in the city.

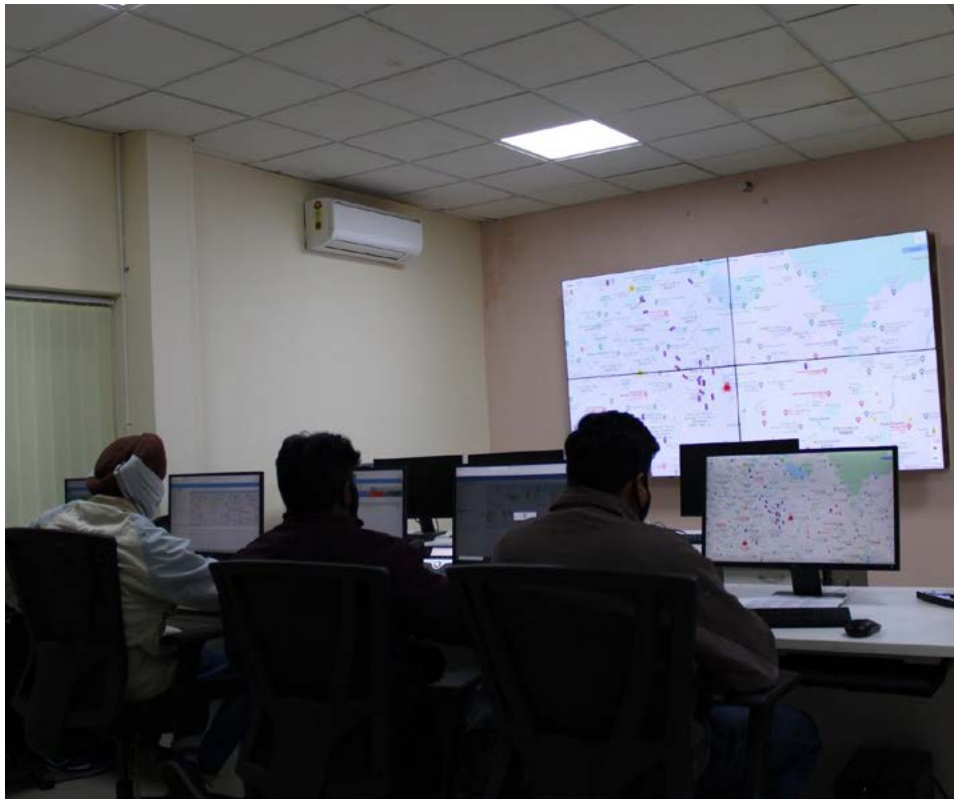
Reduction in missed points of collection from more than

4,200 to below 192

post implementation

Innovative Features

- Project integrates all D2D related information at single platform, Installation of GPS devices in 638 No.s of SWM vehicles, Data preparation for SWM routes, capture location of transfer stations, drivers, vehicles, tracking vehicles, drivers, office locations of all departments Geofence creation as per requirement. Deployment of SWM application to support Door-to-Door Collection System, User Management, Integrated GIS map of the area of operations, Citizen App, Citizen Complaint Management System Fuel Management, Department Driver App Web Dashboard. Under the project more than 11,000 Point of Interaction have been created that covers the complete residential properties in 114 Square kilometer area.



Source: Coimbatore smart city

Major Impacts

100% Collection of segregated waste from households and sorted into 8 streams. Segregated wastes transported to recycling units and compost units for further processing. Waste to landfill also minimized. A single platform developed where all activities related to door to door waste collection and processing is monitored. The system provides the reports, alerts on rash driving, over speeding and vehicle crossing geo fenced area which makes it easy to monitor the day to day activities of field staff deployed on door to door waste collection vehicles. System is capable enough to predict operational expenditure and timely maintenance of vehicles.

Alignment to SDGs

7 Affordable and Clean Energy

9 Industry, Innovation and Infrastructure

11 Sustainable cities and communities

12 Responsible Consumption and Production

13 Climate Action

Neha Shahi

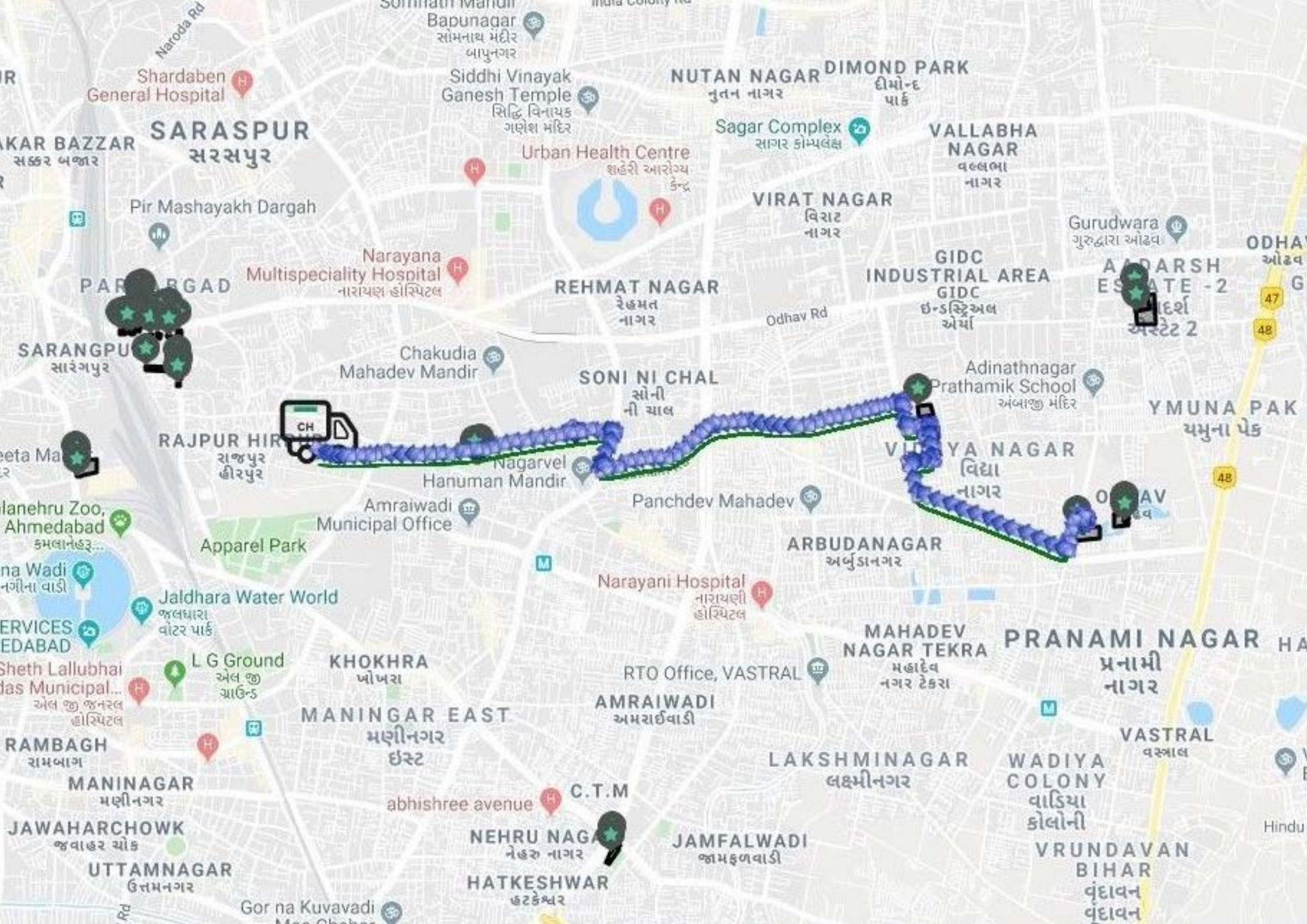
Housewife, Chandigarh Smart City

Door to Door Waste Collection system is launched in Chandigarh by Smart City. I have learned how to segregate my waste for a more organized disposal. Garbage collected regularly from the doorstep has made having an organized and cleaner household more accessible.

Meenakshi Sharma

Banker, Chandigarh Smart City

Chandigarh Smart City has done a fantastic job by introducing Door to Door Collection Vehicles which collect Segregated waste, which helped me and my kids to understand the importance of segregating waste. My family's health is also improved. Thank you, Chandigarh Smart City, for Door-to-Door Collection.


Naroda Rd
Somnath Mandir
Bapunagar
સોમનાથ મંદિર
બાપુનગર
Shardaben
General Hospital
Siddhi Vinayak
Ganesh Temple
સિદ્ધિ વિનાયક
ગણેશ મંદિર
NUTAN NAGAR
નુતન નગર
DIMOND PARK
ડીમોન્ડ
પાર્ક
SARASPUR
સરસપુર
Sagar Complex
સાગર કોમ્પ્લેક્ષ
VALLABHA
NAGAR
વલ્લભા
નગર
Urban Health Centre
શહેરી આરોગ્ય
કેન્દ્ર
VIRAT NAGAR
વિરાટ
નગર
Pir Mashayakh Dargah
Gurudwara
ગુરુદ્વારા
Narayana
Multispeciality Hospital
નારાયણ હોસ્પિટલ
REHMAT NAGAR
રેહમત
નગર
GIDC
INDUSTRIAL AREA
GIDC
ઇન્ડસ્ટ્રિઅલ
એર્યા
Odhav Rd
SARANGPUR
સારંગપુર
Chakudia
Mahadev Mandir
SONI NI CHAL
સોની
ની ચાલ
Adinathnagar
Prathamik School
અંબાજી મંદિર
RAJPUR HIRAPUR
રાજપુર
હીરપુર
Nagarvel
Hanuman Mandir
Amraiwadi
Municipal Office
Panchdev Mahadev
Apparel Park
ARBUDANAGAR
અર્બુડાનગર
Jaldhara Water World
જલધારા
વોટર પાર્ક
Narayani Hospital
નારાયણી
હોસ્પિટલ
MAHADEV
NAGAR TEKRA
મહાદેવ
નગર ટેકરા
PRANAMI NAGAR
પ્રનામી
નગર
L G Ground
એલ જી
ગ્રાઉન્ડ
KHOKHRA
ખોખરા
RTO Office, VASTRAL
AMRAIWADI
અમરાઈવાડી
MANINGAR EAST
મણીનગર
ઇસ્ટ
VASTRAL
વસ્ત્રાલ
RAMBAGH
રામબાગ
LAKSHMINAGAR
લક્ષ્મીનગર
WADIYA
COLONY
વાડિયા
કોલોની
MANINAGAR
મણીનગર
abhishree avenue
C.T.M
JAWAHARCHOWK
જવાહર ચોક
NEHRU NAGAR
નેહરુ નગર
JAMFALWADI
જામફળવાડી
VRUNDAVAN
BIHAR
વૃંદાવન
વૃંદાવન
UTTAMNAGAR
ઉત્તમનગર
HATKESHWAR
હટકેશ્વર
Gor na Kuvavadi
47
48

JOINT RANK 3

Command & Control Centre-Door-To-Door Waste Collection Monitoring

Ahmedabad, Gujrat

https://www.youtube.com/watch?v=PhLAmQOf5Pc

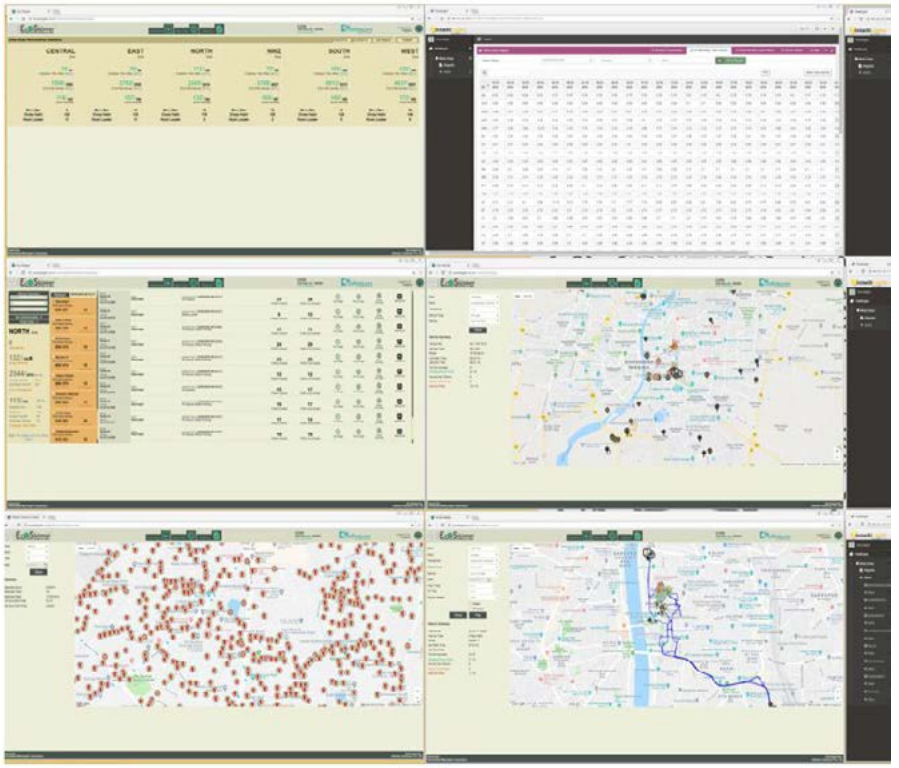
About the Project

The city stands amidst a robust wave of construction and infrastructure development, paralleled by a consistent rise in population. Addressing these evolving needs, Ahmedabad Municipal Corporation (AMC) plays a pivotal role by provisioning indispensable services to its citizens. AMC encompasses a broad spectrum of vital functions from water supply and sewage collection to solid waste management, road construction, transportation facilitation, street lighting, and healthcare and education provisions.

AMC has divided its responsibilities into 7 zones and 48 wards to ensure efficient administration and service delivery. In the past, Ahmedabad grappled with garbage collection issues from neighborhood level dumpsites. This challenge persisted due to a lack of monitoring and visualization service delivery.

The advent of the Smart Cities Mission prompted transformative change. By capitalizing on this opportunity, AMC worked towards refining door-to-door waste collection services. Garbage collection vehicles adhered to specific schedules and designated collection points. Should any deviations occur, citizens were empowered to register complaints through AMC's Online Complaint Registration platform. This feedback loop and real-time monitoring of garbage collection vehicles opened avenues for systemic enhancement.

As a result, Ahmedabad achieved a remarkable feat i.e.100 percent door-to-door garbage collection, maintained every single day of the year. This feat involves the collection of over 2100 metric tons of waste from more than 16 lakh residences and 6 lakh commercial units. This commendable success underscores the power of strategic implementation, citizen engagement, and data-driven decision-making in transforming urban services.



Source: Ahmedabad smart city

Key Outputs

Due to the geo-tagging of the garbage collection vehicles, the city has achieved

100%
collection

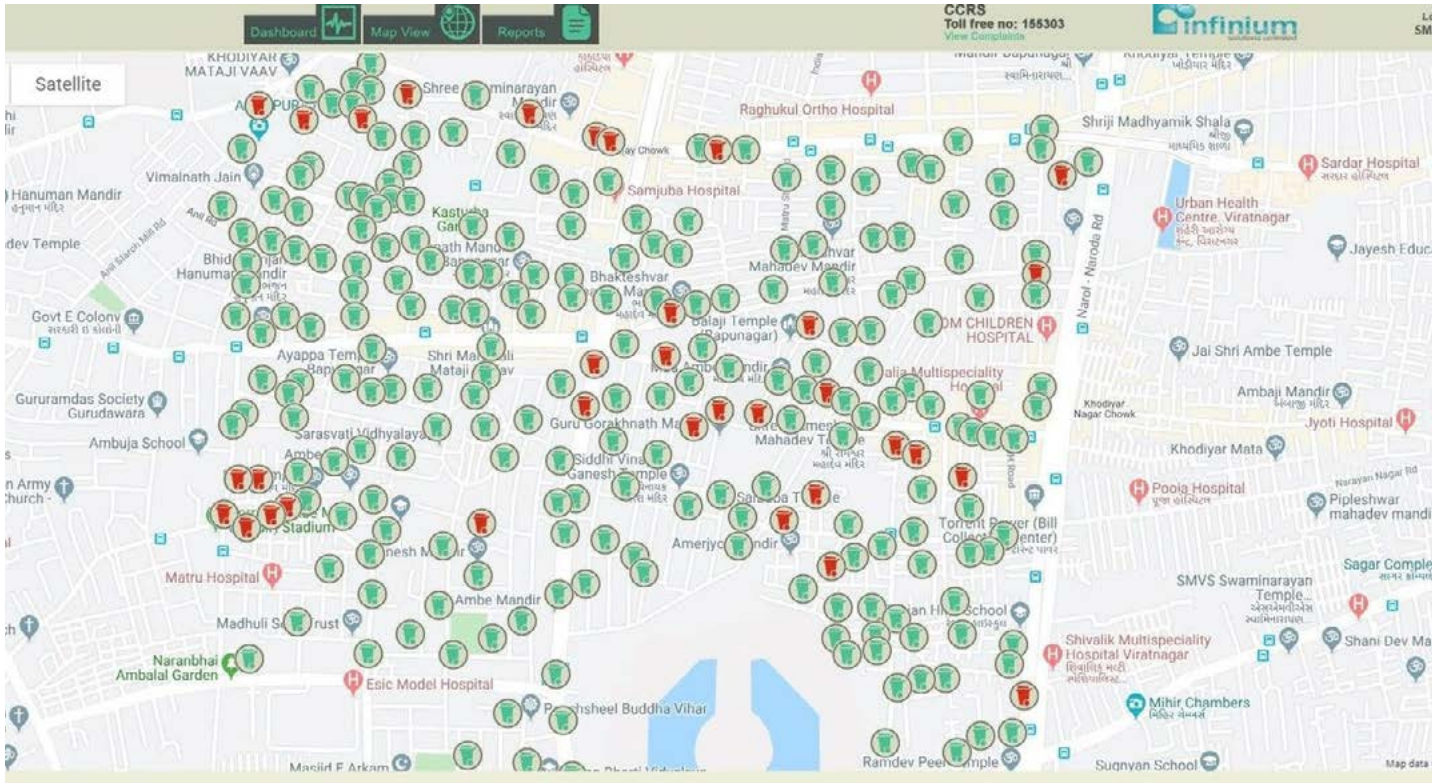
coverage of waste collection.

2,100
metric tons

of waste are being collected from 16.09 lakh households and 6 lakh commercial units.

Innovative Features

- Geo-tagging of all garbage collection vehicles.
- Establishment of a robust mechanism wherein the garbage collection vehicles have to collect garbage from a designated location at a pre-specified time.
- Since the complaint redressal portal and the garbage collection system work in tandem, any grievances filed by the citizens are resolved quickly and therefore yield satisfaction to the citizens.
- One hundred percent coverage of service within the city.



Source: Coimbatore smart city

Major Impacts

With the achievement of 100 percent door-to-door waste collection in the city, the corporation could able to effectively perform secondary waste disposal.

Alignment to SDGs

6 Clean water and sanitation

11 Sustainable cities and communities

> **Harshit Patel**
>
> Student, Kanpur Smart City
>
> As an inspiring lawn tennis player, I always wanted a proper sports infrastructure. So, playing lawn tennis at Palika Stadium keeps me fit and improves my skills.

> **Abhay Kumar**
>
> Student, Kanpur Smart City
>
> This stadium will also help the localities in increasing their revenues as it attracts lots of foot fall. So, in this way, it will boost the economy of this area which will help the local vendors to a great extent.

SOCIAL ASPECTS

Journey of ISAC

2018

Transforming Schools
NDMC

VISAKHAPATNAM
2019

Smart Clinic
Pune

SURAT
2020

Health Benchmark for Municipal Schools
Tirupati

INDORE
2022

RANK 1

Implementation of Hospital Management Information System (HMIS)
Vadodara, Gujarat

JOINT RANK 2

Establishment of Smart Health Centres on PPP basis
Agra, Uttar Pradesh

Upgradation of Muncipal schools
Agra, Uttar Pradesh

JOINT RANK 3

B.P Pujari School – Upgradation of Hindi Medium Schools to School of Excellence in English Medium
Raipur, Chattisgarh

Smart Classroom and E-monitoring
Thoothukudi, Tamil Nadu

RANK 1

Implementation of Hospital Management Information System (HMIS)

Vadodara, Gujarat

HMIS project video: https://www.youtube.com/watch?v=itD_cGKoXn4
HMIS citizen Feedback video: https://youtu.be/xyVMX_yPvbc

About the Project

As a part of its Smart City initiatives, the Vadodara Municipal Corporation has successfully implemented an Integrated Hospital Management Information System (HMIS) across the city. This comprehensive system covers 34 Urban Primary Health Centres (UPHCs), involves over 1000 health workers and staff, and established individual health accounts for each of citizen of Vadodara. Noteworthy features of the project include:

A. Citywide Coverage

- Encompassing 34 UPHCs and 1000+ health workers/staff.
- - Extending benefits to each citizen of Vadodara (approximately 22 lakh persons).

B. Innovative Accessibility:

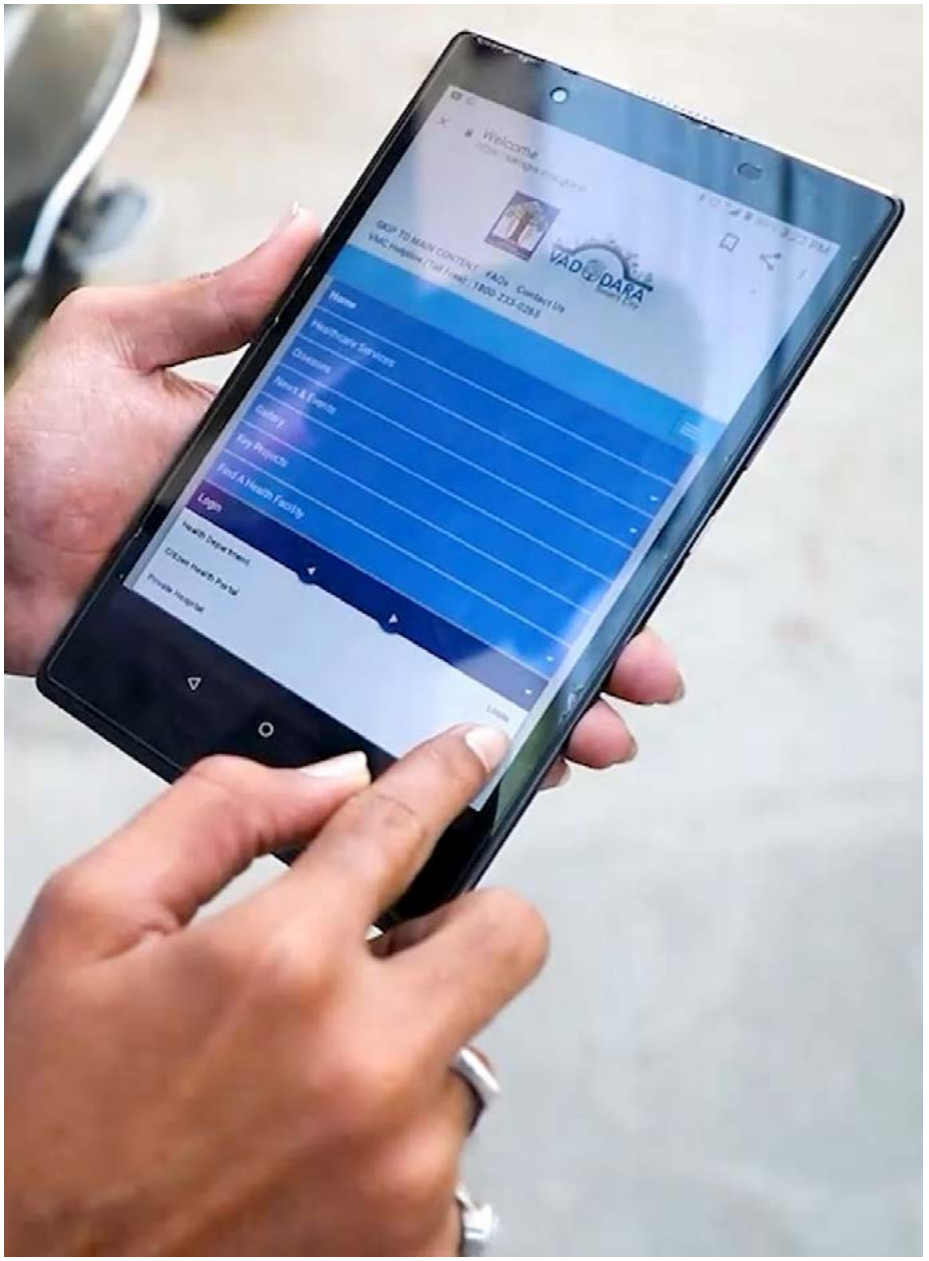
- Citizens can swiftly obtain a Unique Health ID number through nearby UPHCs, ANM/Asha workers, or self-uploading on the "Citizen portal."
- Individuals access family health records on their personal "Citizen wallet" anytime, anywhere.
- Bilingual application (Gujarati & English) for user-friendliness.

C. Unified Dashboard:

- Unique integration of various applications (CMS web portal, ANM/ Asha portal, UPHC HMIS application, Citizen Portal, Private Hospital portal) for seamless data visualization.
- Integration of National and Dtate Health Schemes for direct benefit to its citizens.
- Tracking, monitoring and controlling disease outbreaks through a unified dashboard.

D. Security & Compliance:

- Data secured on Microsoft Azure cloud, audited by a Third-party CERT-IN empaneled security auditor.
- Compliance with health-related guidelines, WCAG & GIGW standards and health certifications.



Source: Indore smart city

Key Outputs

The project has digitized

34 urban primary health centers

by providing dedicated MPLS links, IT equipment, and an online HMIS portal. The count of health centers is still increasing.

Health data of

18 lakh citizens

is digitized within four months by assigning a Unique Health ID (UHID) number.

More than

1,000 Health workers

have been given digital platforms to implement, monitor, and track.

More than

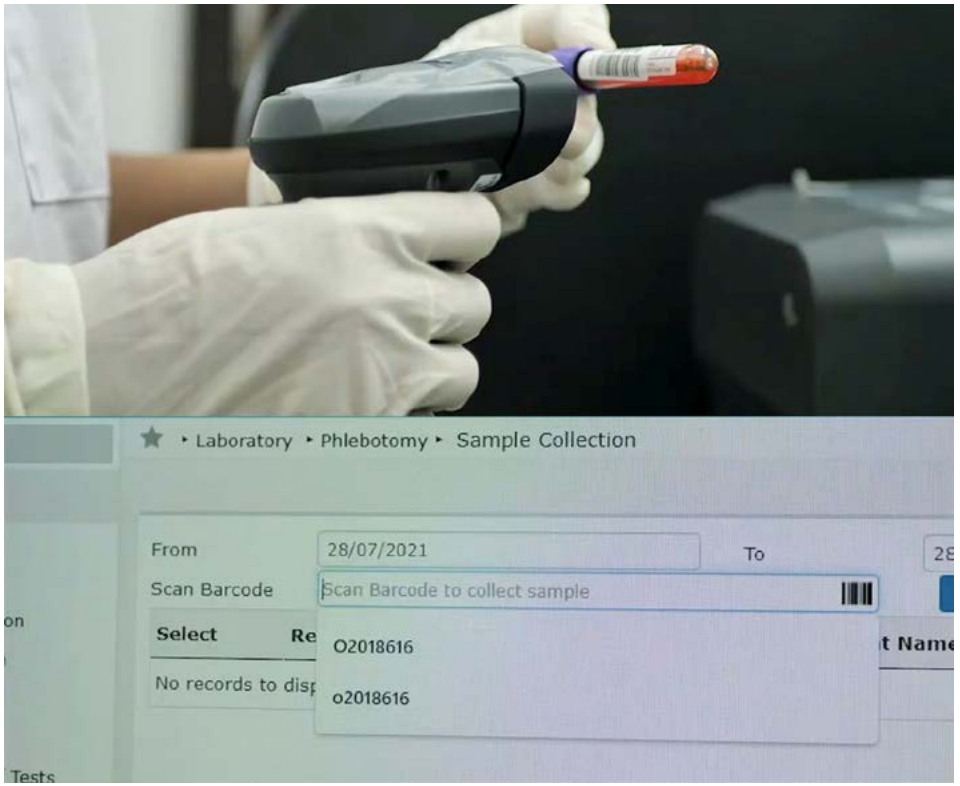
4 lakh families

have been registered and their health data is digitized OPD management, pharmacy department, reception, doctor desk, and Lab, have been integrated digitally at

34 urban health centers

Innovative Features

- Citywide coverage covering 34 UPHCs 1000+ Health workers/ staff for every citizen of Vadodara (Approximately 22 lakh persons)
- Much more than traditional HMIS implemented in other cities, citizen of Vadodara can get their Unique Health ID number at their convenience by visiting nearby UPHC or submitting details to ANM/ Asha of their respective area or uploading necessary documents on the 'Citizen portal' by themselves. Citizen's are having access to all past health records of their family on their individual 'Citizen wallet' which can be accessed anywhere anytime. Application is available in bilingual format (Gujarati & English) for user-friendly use of each citizen.



Source: Indore smart city

Major Impacts

Creating UHIDs for 22 lakh Citizen's of Vadodara. After the Go-Live, approximately 18 lakh citizens got their Unique Health ID within four months, 82% of coverage in a short time. Hence, approximately 4.25 lakh citizens use the service monthly, meaning more than 14,000 citizen health data is digitized daily.

Digitalized UPHCs

Reduced Turnaround time for the patient cycle in UPHC by 50-60% from 35-40 mins to 15-20 mins in consultation.

Reduce the wastage of Medicines by 10 %.

JOINT RANK 2

Establishment of Smart Health Centres on PPP basis

Agra, Uttar Pradesh

https://youtu.be/N7wJSNt1yuY

About the Project

Agra's pioneering Smart Health Centres (SHCs) mark a milestone as India's first PPP-based healthcare initiative. The project's vision aims to address the gap between healthcare demand and supply while providing accessible and affordable quality diagnostics and healthcare services to Agra's citizens. Recognizing that a city's health depends on its residents' well-being, the initiative focuses on enhancing the quality of life through better health. The challenge of meeting public healthcare needs amidst limited government resources necessitates sustainable solutions, prompting the adoption of a Public-Private Partnership (PPP) model.

The SHC model leverages technology to automate services and cater to primary healthcare needs, with a focus on prevention. The objectives of the project encompass bridging healthcare gaps, promoting preventive healthcare, providing affordable diagnostics, electronic record management and efficient information dissemination. Information technology is harnessed to ensure quality service delivery, manage centers effectively and facilitate timely decision-making. Additionally, the project raises awareness about healthcare schemes and preventive care, simplifies payment solutions and facilitates access to generic medicines.

Five SHCs have been deployed, benefiting approximately 74,500 patients in their first year of operation. These centers offer a range of essential services:

Affordable doctor consultations, including telemedicine and app-based options.

Diagnostics at subsidized rates, adhering to CGHS rates for tests like ECG (Rs. 40) and blood tests (Rs. 13) and dental treatments like root canal (Rs. 250 per tooth).

Subsidized pharmacy services offering generic drugs, some even cheaper than Jan Aushadhi kendras.

Dental care, optical services, physiotherapy and more all available at affordable rates.

Information dissemination on healthcare schemes and awareness campaigns.

During the COVID-19 pandemic, these SHCs introduced telemedicine services titled "e-doctor seva," benefiting citizens with accessible healthcare even during challenging times.

Source: Kakinada Smart City

Key Outputs

5 bright health centers

are operational and already 85,950 citizens have availed benefits from these, more than 10,000 citizens have availed accessible eye testing facilities and pharmacy facilities have been utilized by more than 25,000 citizens, dental facilities have seen almost

100% occupancy

for all days and waiting time of more than a day in some cases due to the quality and rate of facilities provided at these centers.

The pharmacy sells more than

1,000 types

of drugs with 40% generic in nature; doctor consultation at Rs50 is also provided, which has been availed by more than 2,500 citizens.

Innovative Features

- Smart Health Center is a holistic solution for affordable healthcare to local masses of Smart Cities.
- Smart Health Center is designed so that Pan City will have 10 health centers.
- Each center will have some joint facilities and some unique facilities.
- Entire health details are stored digitally in smart health cards, which can be assessed by users anywhere and anytime.
- Many health drives, such as blood donation and organ donation are also carried out through these centers and help propagate generic drugs and improve preventive healthcare among the urban poor.

Source: Coimbatore smart city

Major Impacts

- Digitalized health care services right at the grassroots level.
- At par service delivery, economical healthcare rates will motivate private players to reconsider their rates.
- Authentic diagnostics facilities for local masses at the most economical rates shall encourage regular tests among patients.
- It will help them manage lifestyle-related health conditions like diabetes and hypertension.
- The sustainability of the PPP model will encourage many private players to take risks and support the government.
- Lower-income groups often ignore Dental and Optical needs and will get more coverage.
- Act as a support system for reducing at least 5% OPDs in Government Hospitals.

Alignment to SDGs

3 Good health and well-being

11 Sustainable cities and communities


NEVER
GIVEUP

JOINT RANK 2

Upgradation of Muncipal schools

Agra, Uttar Pradesh

https://youtu.be/PysQRJfcjH0

About the Project

The design and features of the school have been created in such a way that it can significantly influence holistic learning. Rebranding these schools so that they are at par or exceed standards set by private schoolwas one of the objectives achieved through façade improvements adding color and vibrancy to the interior/ exterior of the schools. The project emphasized the optimum use of underutilized land by creating functional spaces and reduced paved areas in schools by adding play grounds/ sports courts, thus decreasing the number of islands. The overall design can be implemented in other Nagar Nigam schools and Government schools with due customization per the site layout.

Source: Coimbatore smart city

Key Outputs

There are two municipal schools in the ABD area under Agra Smart City Limited. The project benefited more than

1,500
students

in that area, and the infrastructure of the building will be improved & creating a learning environment for the student.

The key result areas envisaged out of this project are

- They increased the number of admission by 4.26% in the new academic year.
- Enhanced the learning skills of the students.
- Increased green cover by 300% by new trees plantation drives
- Kitchen garden for students to understand and learn about the importance of the environment and plantation.

Innovative Features

- Increased functional open space cover from 50% to 100% from 50% (through efficient use of under-utilized space).
- Preservation of all existing trees in Schools.
- Provision of parking area for 126 bicycles and two-wheelers
- The proposal focuses on a nature-based new learning zone and educative wall art.
- Improved active three outdoor spaces (redesigned volleyball, badminton & basketball court).
- The project's highlight is the development of a kitchen garden for students to understand and learn about the importance of the environment and plantation.

Source: Coimbatore smart city

Major Impacts

- Redesigning both the entrance gate complex for the school campus.
- Designing a new boundary wall with sandstone cladding similar to the entrance gate complex.
- Redevelopment of the toilets and drinking water facility.
- Proposing new Doors and windows with mosquito mats fixed on them for all the classrooms & labs.
- Proposing Biology lab & reconstructing all other labs.
- Pin up boards for displaying the works of the student.
- Ample parking space for Bi-Cycles two-wheeler with adequate Car parking.
- Storing the rainwater & its usage.

Alignment to SDGs

3 Good health and well-being

11 Sustainable cities and communities

Ambika

Teacher, Agra Smart City

Dental care facility provides high-quality services at meager rates when compared to private dental clinics and have very efficient doctors who provide high-end quality consultations. Dental care is equipped with the most modern facilities.

Rathish Babu

Software Engineer, Agra Smart City

My entire family and relatives buy spectacles from these health centers; phenomena are of very high quality and affordable. I can provide good eye care facilities to my family due to this center.


A B C D E F
G H I J K L
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1

JOINT RANK 3

B.P Pujari School – Upgradation of Hindi Medium Schools to School of Excellence in English Medium

Raipur, Chattisgarh

https://youtu.be/pGZVMu9-xYE

About the Project

Built environment refers to human-made surroundings that provide the setting for human activity. Raipur smart cities understand this very well and have extended their efforts for a better-built environment from where it all begins. Raipur initiated its journey to redevelop the three primary schools, viz.,, B.P. Pujari School, R.D. Tiwari School and Shaheed Smarak School. Before the concept of transforming Government Hindi medium school into Smart English school there was not even a single English medium Government school in the entire state of Chhattisgarh. Government decided to transform some of the oldest Government schools into intelligent schools and gave the responsibility to Raipur Smart City to renovate the buildings and provide modern school infrastructure.

Renovation of the BP Pujari school revolves around the design requirements of its users. Previously, the school had inadequate seating capacity for students, there were no boundary walls, toilets, or playing areas. Improved infrastructure at the school has upgraded to match the international standards for better learning through engaging effective learning systems tools. Raipur Smart City has revived these school and made it inclusive by opening the doors of education to children of low income families and implementation of Universal Accessibility principles at all levels. It provides free education in English to all sections of till 8th standard and had built in feature like rainwater harvesting and other sustainability elements.

Source: Ahmedabad smart city

Key Outputs

Redevelopment of infrastructure has been done for a total of

1,400sq.m.

90sq.m.

library area has been developed within the school premises with the latest academic books.

7 smart classrooms

developed in the School.

4 advanced laboratories

with modern equipment and computer facilities.

1 basketball court

developed as per international standards.

Innovative Features

- Hi-tech infrastructure is provided in brilliant classrooms, having PA systems and CCTV cameras in every classroom and common space.
- Laboratories are redeveloped with modern equipment.
- An inclusive design approach followed as per Universal Design guidelines. Toilet facilities are provided separately for staff and children according to the anthropocentric standards and procedures as per age, gender and physical abilities.
- The drinking water facility is provided with RO technology and a dining area for mid-day meals for 320 students.
- School buildings are built in one premise, which includes primary and middle and higher secondary and administrative building.

Source: Coimbatore smart city

Major Impacts

Improved digital literacy (approx. 720 students) by reducing digital divides and promoting inclusive education.

The project generates employment opportunities for teachers to cater to the advanced academic curriculum.

It ensures access to affordable education for children from different economic backgrounds and genders, at par with any private school in the state, thereby becoming exemplary in advocating social inclusion.

The project gained popularity, ensuring an increased rate of admission (more than 35 times) of students, thus paving way for 12 similar English Medium school upgradation projects in the district.

Alignment to SDGs

4 Quality Education

5 Gender Equality

10 Reduced Inequalities

Ms. Anju Sood

Principal, Raipur Smart City

The project contributes to Quality Education (SDG 4) through infrastructure provisions for engaging and practical education. The project also promotes Gender Equality (SDG 5) and Reduced Inequalities (SDG 10) by providing free education till the 8th standard and preference to children from EWS.

Komal Choutangya

Student, Raipur Smart City

Our school comes under the Swami Aatmanad Government English School Scheme. Our school has all the facilities like Hi-tech laboratories, a library, and excellent teaching staff. This school is beneficial for every student who wants to enhance their future.

JOINT RANK 3

Smart Classroom and E-monitoring

Thoothukudi, Tamil Nadu

https://www.youtube.com/watch?v=DArlBNU04gQ

About the Project

There was shortage of adequate infrastructure in Corporation schools of Thoothukudi.

Thoothukudi Smart City had taken up the challenge of transforming 5 Corporation Schools for revival.The project involved construction of smart classrooms with intelligent features to provide a better learning environment for the students. Restrooms were also constructed as per norms according to the student's strengths. In line with the idea of innovative city projects the classrooms were provided with intelligent features like smart boards, projectors, biometric attendance system and audiovisual displays to enhance students' learning experience.

The project also involved construction of science labs and computer labs for the higher secondary students. They needed access to intelligent digital infrastructure in their home as well, so as to ensure unhindered studies by children. Hence, another project of free distribution of learning tabs to students was converged. Secondary and higher secondary class students can now access seamless digital content at their fingertips throughout the day, irrespective of their location. The project has become a success story of the convergence of two government programs This multi-sectoral convergence has enabled the schools to become fully equipped to meet the educational requirements of the Corporationschool students. The project has resulted in provision of smart digital infrastructure accessible to all students irrespective of their socio-economic backgrounds.

Source: Ahmedabad smart city

Key Outputs

37
Smart classrooms built

6
Laboratories built

2
Dining areas built

CSR funding obtained for furniture purchase

₹ 30 lakh

16
Restrooms built

3
Libraries built

1
Kitchen built

1,000
Tabs distributed

3
Auditoriums made

Innovative Features

- Classrooms contain intelligent components such as projectors, audiovisual displays and smart boards.
- Biometric attendance is being taken.
- Convergence with other Government schemes and the private sector has been roped in to ensure 360-degree performance.
- The project provides students with much-needed access to information and communication technology through free tabs distribution.

Source: Coimbatore smart city

Major Impacts

The Number of students enrolled in the four innovative schools increased by 207% from 862 students in 2019 to 1,785 students in 2022.

As a result of improved sanitation facilities, the female student enrolment has almost doubled.

Also, the learning outcomes have improved for higher secondary is cent percent.

Both teacher and student attendance has increased, signaling a higher level of motivation among the school community.

Alignment to SDGs

4 Quality Education

6 Clean water and sanitation

9 Industry, Innovation and Infrastructure

B. Radha

Teacher, Samuelpuram, Thoothukudi Smart City

Innovative components have increased students' attention and motivation levels in the class. They look excited to learn through these intelligent components. The furniture provided is fantastic and makes the classroom look perfect. It was unimaginable a year back. Biometric attendance is such a relief.

V. Kalidass

Animator, Thoothukudi Smart City

Smart schools have become like model schools for the future. They are complete in all aspects, as they care for physical infrastructure and student requirements. The distribution of free tabs to students has increased their motivation levels for learning.

URBAN ENVIRONMENT

Journey of ISAC

2018

Waste to Energy plant
Jabalpur

VISAKHAPATNAM
2019

1 MW Solar Power Plant at Ukkadam Sewage Treatment Farm
Coimbatore

SURAT
2020

Clean energy
Bhopal

INDORE
2022

JOINT RANK 1

Air quality improvement in Indore
Indore

Ahilya van along with vertical gardens in indore city
Indore

RANK 2

Development of Conservancies in Package-2
Shivamogga

RANK 3

E-auto for old city
Jammu


सबका भारत...
निखरता भारत...
"सात वर्ष का हर्ष"

JOINT RANK 1

Ahilya Van Along with Vertical Gardens in Indore City

Indore, Madhya Pradesh

https://youtu.be/-PCiarXwwql

About the Project

Indore Smart City started the initiative of identifying unutilized spaces within the city, that were likely to be encroached in times to come. The idea was to develop such spaces as dense green pockets. A list of around 400 such spots was prepared.

In first phase, 100 such locations were taken up for plantation. It was envisaged that these forests, when fully grown shalll also act as carbon sinks and would drastically improve the microclimatic conditions in Indore. Biggest challenge in such plantations was to ensure survival of these plants by ascertaining accountability for its maintenance, availability of regular water and minimizing interference by humans/ cattle. This was taken care by engaging local RWA, public representatives and civil bodies, Smart City began the process of mapping the responsibilities of plantation and maintenance of these mini forests.

In the implementation phase, a decentralized community ownership model was adopted whereby several RWAs, NGOs and community driven groups like EFI, Science Eco-tech foundation also came forward to contribute and adopt these dense forest areas for plantation and maintenance, morphed this project into a mass movement. Indore is among the top cities globally working for Nurturing Neighborhoods under the umbrella of Urban-95 Program. Ahilya Vans is planned to be converged with this program as the plantation thrives. Also, to transparently monitor the progress of the program, each tree is being geotagged through Ankur App of Madhya Pradesh Environment Department.

Source: Indore smart city

Key Outputs

More than

1 lakh

trees have been planted on 104 sites identified in the first phase.

A total of

21 sites

have been given under CSR.

15 NGOs

and Community groups have adopted around 40 Ahilya Vans

5,000 bags

of enriched sludge fertilizer have been utilized.

On an average every zone of the city has

5 Ahilya Vans developed

Approximately

1.5 lakh sq.ft.

of Area has been converted to green buffer zone in the city.

Innovative Features

- Most of the Ahilya Vans are developed using "Miyawaki" Technique – in which the forests require low maintenance for the first 3-4 years and subsequently become self-sustainable
- The trees planted are also being Geo-Tagged by using Ankur Application ICT initiative to monitor the growth.
- Fertilizer was procured from the Sludge hygenization plant of ISCDL.
- Convergence with Nurturing Neighbourhood.

Major Impacts

- Meaningful green land reclamation is the biggest achievement of the project with land parcels that were either encroached or beginning to get encroached.
- Around 1 lakh trees planted in the core city area which is expected to improve the micro-climatic conditions of the city.
- A sense of belongingness has been incepted amongst the residents and some have even deployed their own caretakers.
- Indigenous variety of trees planted shall ensure sustainability of plantations.
- Training of Garden teams for Ahilya Van has led to long term gains in the form of capacity building.

Alignment to SDGs

3 Good health and well-being

11 Sustainable cities and communities

13 Climate Action

> Ahilya Van creates an urban forest within a few years. I think the concept is beneficial to the city as it improves the environment by providing more oxygen and improving air quality. Hats off to Smart City for implementing this concept in a very short span of time

Ravindra Bargale

Freelance Linguist

> Today due to the increasing number of trees in Indore city, we will never have a shortage of clean air and drinking water in future making this city more livable. Now we are assured that our children will be able to stay healthy in this city

Banwari Rekwar

Business


RED
LIGHT
ON,
GAADI
आदतों में करें
शुमार

JOINT RANK 1

Air quality improvement in Indore

Indore, Madhya Pradesh

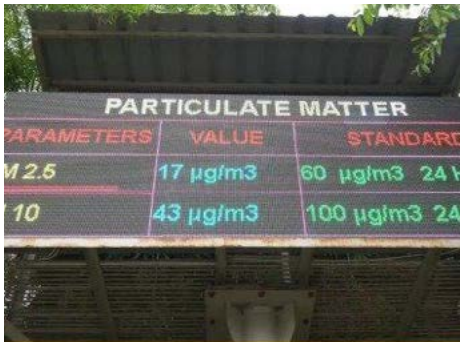
https://youtu.be/6nKNvYYKMzk

About the Project

After achieving success in Waste Management & Sustainable Sanitation, Indore is now taking steps to improve the city's air quality based upon a concrete actionable Indore Clean Air Action Plan. ISCDL is working closely with USAID, WRI and CII to effectively implement strategic interventions at the sources of air pollution along with conducting IEC initiatives in the form of health impact awareness drives.
Sectoral initiatives taken up by ISCDL in coordination with IMC, includes monitoring of air quality. Along with 3 CAAQMS, 50 low-cost air quality sensors have been installed in coordination with Jon Snow India, CII, WRI and their output is regularly being monitored and analyzed at Integrated Control and Command Centre. Certified clean air warriors are deployed to educate the community and analyze emissions. Emission inventory has been developed to map emission sources with exhaustive listing of suitable interventions.

Road dust has been reduced significantly due to the development of more than 100 decentralized city lungs plantations in the form of Ahilya Vans. Green belts with more than 500,000 trees have been grown and are flourishing . There are now vertical gardens along all bridges. Plantation drives like 'Har Ghar Ek Ped' promoting citizen participation have also been included under the project.

There has been an observed promotion in CNG and electric vehicles - having around 430 CNG city buses, 120 EV buses, 140 private CNG gas filling and EV charging stations. An element of inclusive gender balance has been implemented by empowering women folks by providing hand holding support to procure e-Rickshaws.



Source: Kakinada Smart City

Key Outputs

50
low-cost air quality monitoring sensors are operational in the city.

Around
10 lakh
plantations have taken place in the city.

Despite heavy construction and demolition work like metro, IT infra development, major road projects, AMRUT projects, presence of high emission industry, Indore is sustaining annual AQI lower than
100

A total number of
448
restaurants, bakeries and hotels were targeted for cleaner fuel conversion out of which
100%
converted their fire based chulhas into cleaner fuel.

Procurement of
80
more electric buses in pipeline.

CO_2 emission reduction and revenue of around
9+ Cr.
earned through carbon credit.

Innovative Features

- Ensured promotion and use of cleaner fuel instead of coal fired chullahs or fire woods in hotels and open spaces.
- Development of CNG and EV infrastructure.
- Promoting waste processing plants with cumulative CNG production of 19,400 Kg/ day
- Transition of public transport vehicles from Diesel to CNG & EV mode
- Framed and implemented policy for segregation, collection & processing of C&D waste.
- Replacement of coal based boilers to emission free PNG boilers.
- Engaging citizens & partnership that encourage innovative, collaborative solutions from various stakeholders.
- 50 AQI sensors installed along major AQI hotspots.

AQI

Drug companies to contribute in making city pollution-free

To use PNG in boilers instead of bio-coal and diesel

OUR STAFF REPORTER
Indore

The small scale drug manufactures will now contribute towards improving the air quality of the city by using piped natural gas (PNG) in their boiler in place of bio-coal or diesel. A consensus in this regard was reached between the drug makers and Indore Smart City Limited.

A meeting between the members of the MP Small Scale Drug Manufacturers Association with CEO of Indore Smart City Limited Rishabh Gupta, alongwith SK Jain, scientist Pollution Control Board, officials of Indore Municipal Corporation (IMC) and Avantika Gas Limited was held here on Tuesday in this regard.

At the meeting, the Association members assured that they would convert their boilers so that they can use PNG and Gupta assured his support in getting new PNG connections or any other administrative support.

Gupta also assured that he would present the view of the members before the State government asking for a reduction of VAT on PNG.

Amit Chawla, secretary of the Association, informed that there are about 30 small scale drug manufacturing units in the city, mainly located in Pologround, Sanwer Road Industrial area and in Palda area. While about 10 MSME drug units are located in Rau and Pithampur industrial area. Currently these units are running the boiler through either bio-coal or diesel. These fuels emit carbon dominated smoke in the atmosphere.

At present both IMC and Indore Smart City Limited are working towards improving the air quality of the city by controlling the emission of carbon gases from industrial units.

ON THIS OCCASION PRESIDENT OF THE

Association's Himanshu Shah, senior industrialist Rajesh Ajmera chairman Subash Rijwani, Gaurav Ajmera were also present.

Source: Coimbatore smart city

Major Impacts

The Air Quality Index has been improved.

Despite having high emission industries and ongoing construction work such as metro, major Road projects, AMRUT projects, IT industry development and so on, sustaining air quality index under 100 is a remarkable achievement for Indore.

Greenery in Indore has visibly increased.

Health parameters of the city have considerably improved after sustained efforts of countering all types of pollution.

Public transport has been promoted as an indirect result of promoting CNG and e-buses.

Behavioral change initiatives like 'Red Light on to Engine Off' have promoted public participation making them own this mission.

Alignment to SDGs

3 Good health and well-being

11 Sustainable cities and communities

13 Climate Action

Nilesh Hadmatiya

Shopkeeper

Red Light On, Engine Off was a successful drive of ISCDL to minimize the effect of AQI. After this, I developed a habit of turning off my vehicle engine at every traffic signal. Really this campaign has brought positive changes to both resources and quality of air. Thanks, ISCDL.

Pooja Amravanshi

Housewife

The campaign "Red Light On, Engine Off" was a much-needed action that aims to end idling which is again commendable effort by Indore Smart City. The positive effects of this campaign will lead to gradual improvement in AQI as well as health of people by controlling air pollution.

RANK 2

Development of Conservancies in Package-2

Shivamogga, Karnataka

https://youtu.be/0pqHC5BivBM

About the Project

The urbanization rate of Shivamogga city has picked up pace in the past few decades and the city has grown at a considerably good pace. The city managers have tried to ensure that provision of city infrastructure is at par with its growth. The conservancy lanes were in dilapidated condition and therefore it was identified as one of the key projects to be taken up for development as part of Smart city intervention in Shivamogga. These lanes were also used as solid waste dumping zones and waste disposal areas. All these had led the growth of rodents and stray animals making the entire area unfavorable for human living.

Conservancy lanes were used as service corridors in the past where each individual house was connected to its own septic tank or common septic tanks. The objective of this project has been to find out effective means of utilization of conservancy lanes to raise the standard of living in Shivamogga and to make the city smart in true sense.

Under this project 108 conservancy lanes located in prime residential and commercial areas with a total length of 7 km were surveyed and based on design parameters and standards, specific activities were defined for these lanes. Out of these 108 Conservancies, only 23 are earmarked for revenue yielding activities.

Source: Coimbatore smart city

Key Outputs

These conservancy lanes take a drain length of

1,240 m

pavers of

2,005 sq.m.

sewage line of

160 m.

UGD house connections of

650

children playing equipment

6

gym equipment.

4

Innovative Features

- Many of these conservancy lanes can be converted into parking areas at a nominal fee to reduce the tendencies of on street parking.

Source: Coimbatore smart city

Major Impacts

This project has a major positive impact on the living conditions of the city and improves the overall look and feel of the neighborhoods.

The project fosters a cleaner, more hygienic environment for the citizens and commuters.

The facilities encouraged the use of public sanitation facilities and hence discouraged people from the practice of open urination and defecation.

Littering and dumping of garbage have been reduced.

Alignment to SDGs

6 Clean water and sanitation

11 Sustainable cities and communities

Rudresh

Worker

Initially these conservancy lanes were used to dispose of the waste and garbage of the residents. after the development works it was completely avoided because of all house service connections were diverted to underground pipelines to avoid the nuisance of the residents.

Ramu,

Employee

In this city life it was difficult to find the children recreation facilities near houses. but smart city projects like these are providing good play equipment and recreation facilities at rear side of our houses only. Hence, we are thankful to smart city.


JAMMU SMART CITY
JK02D
C2818

RANK 3

E-Auto for Old City

Jammu, Jammu & Kashmir

https://www.youtube.com/watch?v=gK1M1BVmp_c&t=9s

About the Project

This project has been introduced to increase the last mile connectivity in the old city of Jammu. Under this project the use of e-rickshaws has been promoted and rickshaw drivers have been provided with incentives to go for the e- rickshaws. For this creation of Green Corridor has taken place. This project aims on selection of fleet operators for procurement and management of EV Passenger 3-wheelers ecosystem in Jammu and operationalizing a fleet of at least 700 vehicles along with planning, designing, installation, operation and maintenance of charging and parking infrastructure. Transition to e-mobility is one of the key priorities for the Government of India, with this transition the government aims to reduce dependency on imported fuel to meet the country's growing energy requirements, thereby supporting reduction in the import bill.

The loading capacity of an e-rikshaws is 630 kg having a minimum range of 85 km/ charging cycles. Jammu Smart City Ltd. incentivized the end buyers/ beneficiaries by giving subsidy under Direct-Benefit-Transfer to beneficiary's Bank Loan Account on submission of relevant documents such as electric vehicle registration certificate and Bank loan documents.

Jammu Smart City Ltd. also facilitated in obtaining regulatory approvals as a facilitator to successful bidder and beneficiaries of the project. The objective was to seek temporary permits, if required for running EV Passenger 3-Wheelers in municipal limits from the concerned competent authority. This project also planned to create EV-only zones based on the proposals received from successful bidders and prohibit petrol/ diesel vehicles in these areas.

Source: Ahmedabad smart city

Key Outputs

7
Agreements for Empanelment with Fleet Operators/OEMs

35
routes for E-Autos/Rickshaws have been identified in Jammu Municipal limits

Total Length of routes Provided with Passenger E-Autos/E-Rickshaws are approximately
100 km

A total of
8
End Users were benefitted with subsidy.

Innovative Features

- Utilization of electric vehicles for reducing pollution and environmental degradation.
- Built green corridors.

Source: Coimbatore smart city

Major Impacts

30-32% reduction on the net effective cost price of E-Autos / E-Rickshaws were passed on to the beneficiary by providing the credit linked subsidy by Jammu Smart City Ltd.

This credit linked subsidy scheme has enabled the urban poor households to earn livelihood through self-employment who otherwise were not able to buy the same.

By rationalizing the rates of E-Autos/ rickshaws per stoppage/ route, commuters now prefers hiring the E-Autos/ rickshaws rather than using his personal vehicle, particularly in high traffic routes thus enabling reduction in fuel consumption.

Alignment to SDGs

7 Affordable and Clean Energy

8 Decent Work and Economic Growth

11 Sustainable cities and communities

13 Climate Action

> **Gurmeet Kour**
>
> Rickshaw Owner
>
> E-autos have emerged as a potent solution to noise and air pollution caused by conventional mode of autos, despite ferrying scores of passengers on daily basis. E-autos are significantly less noisy and don't cause air pollution as they have zero emissions and nearly noiseless operation

> **Gurjeet Singh**
>
> Shopkeeper
>
> I, appreciate Jammu Smart City limited for providing subsidized e-rickshaws to people, which have ultimately given income option to many people. Many people have avails benefit of scheme and started journey for releasing the dream of Prime Minister Narendra Modi to become self-reliant

WATER

Journey of ISAC

2018

Water Supply SCADA
Ahmedabad

VISAKHAPATNAM
2019

SURAT
2020

Smart Water Metering
Water ATM
Dehradun

INDORE
2022

JOINT RANK 1

Saraswati and Kahn Lifeline Project (SANKALP)
Indore

Rainwater Harvesting – "WATER PLUS TO WATER SURPLUS"
Indore

Rejuvenation of Lakes, Wells and Stepwells of Indore
Indore

RANK 2

Proving 24/7 water supply to ABD area along with smart water meters and SCADA systems
Agra

RANK 3

Atal Sarovar (Lake-1)
Rajkot, Madhya Pardesh


SANKALP
FELINE PROJECT

JOINT RANK 1

Saraswati and Kahn Lifeline Project (SANKALP)

Indore, Madhya Pradesh

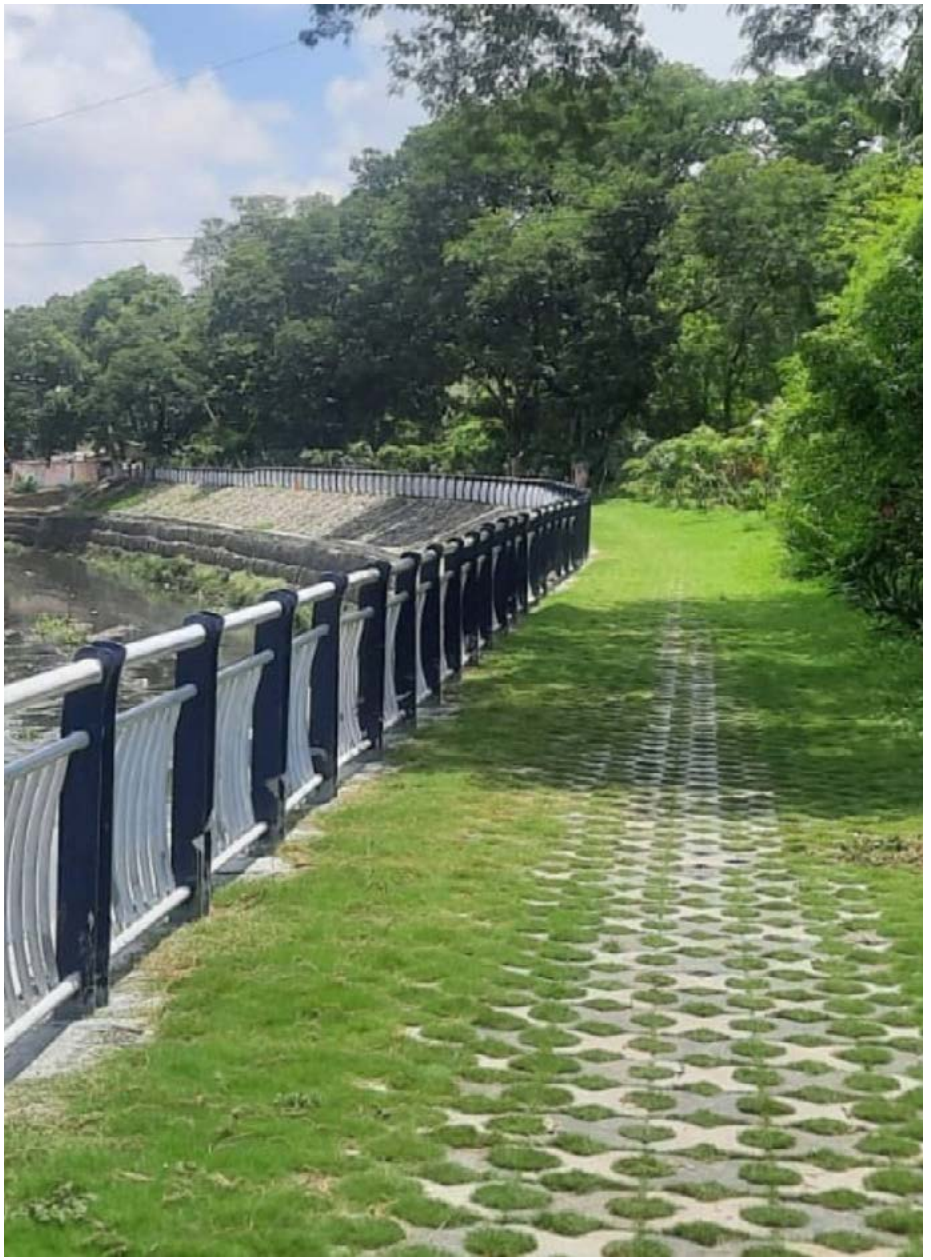
https://youtu.be/GMJOkjKSqx0

About the Project

Today, Indore City is entirely Open Ddefecation (OD) free with 100 percent of households having individual toilets, the city's dependence on community toilets has ceased. Public restrooms and standalone urinals are available at all public places in the city. All these public facilities including 99.98 percent of the city's toilets are connected to the sewer network. Balance 0.02% have provision of Septic tanks with soak pit or twin pit facilities. In this mass movement, many low-income families, at their own expense of even forty to fifty thousand rupees had excavated their entire house diverted the toilets, and connected them to the front sewer line. To make this doable, they formed 'Nadi Swachhata Samitis' with the help of NGOs empaneled by IMC. Local residents made this initiative of Indore as popular Jan Andolan (Mass Movement).

Project Highlights:

- Gurudwara, located in Amitesh Nagar, was responsible for maintaining and cleaning the Saraswati river in front of it.
- Around 150 contractors, 6 CSR partners and 600 NGO volunteers were involved in this project.
- The project was funded in convergence mode through ISCDL-SCM, AMRUT, JNNURM, Sinhasth and IMC's fund.
- Indore has clean and dry stormwater drains in non-monsoon months.
- 30% of treated wastewater is utilized and sold for construction, cleanliness, and agriculture related activities. The remaining 70% is used to rejuvenate our rivers.
- 1700 households along water bodies, including 1400 at CP Shekhar Nagar slum were rehabilitated under PMAY and RAY and were given alternate livelihood opportunities.



Source: Indore smart city

Key Outputs

7

decentralized STPs were established under a zero-pumping gravity-based mechanism.

7,000

black and grey water outfalls are trapped and diverted to the municipal sewerage network.

Biological Oxygen Demand (BOD) in Kanh and Saraswati rivers in Indore city has reached 5 Units from its level of 120 Units, and Chemical Oxygen Demand (COD), which used to be above 300 Units, has now reached below 50 Units.

The dissolved oxygen level has increased from zero to 4 mg/litre, reviving aquatic life.

Innovative Features

- At their own expense, amounting to Rupeses 20 Cr, more than 5500 households have diverted sewage discharge, hitherto used to release behind their homes in the past to the sewer line running in front of the house.
- 7,000 black and grey water outfalls were then trapped and diverted to a closed conduit network of 2,000 km in length.
- GIS-based terrain modeling was done, and 7 decentralised STPs based on zero pumping mechanisms were strategically constructed in low-lying areas to ensure 100% spatial coverage of the city.
- 70% of treated wastewater is released in rivers Kahn and Saraswati, converting them into perennial rivers.

Source: Indore smart city

Major Impacts

As per testimony of locals, after almost 100 years, fish have come back and are thriving in rivers of Indore.

Community activities like marriage anniversaries, dangal, cricket matches, medical camps, etc., are being organized in dry months.

Property prices of areas along rivers and stormwater drains have shot-up.

The project has given a fillip to public health.

Alignment to SDGs

6 Clean water and sanitation

9 Industry, Innovation and Infrastructure

10 Reduced Inequalities

11 Sustainable cities and communities

14 Life Below Water

Alok Mehta

Grocer, Indore Smart City

The dirty, stinking nallah that ran near my house and shop used to embarrass me earlier as my relatives used to call me 'nallah kinare wale bhaisaab.' It was not easy to attract tenants. After drying of 'nallah,' our area is one of the most sought-after in the city.

Preeti Shukla

Housewife, Indore Smart City

Discharge of my toilet used to go into ChandanNagar nallah. Due to this, we could never even open our windows since it attracted foul odors, flies, and mosquitoes, especially during rain. After nallah has dried, we proudly keep our windows open for fresh air. Thanks, ISCDL.

JOINT RANK 1

Rainwater Harvesting – "Water Plus to Water Surplus"

Indore, Madhya Pradesh

https://youtu.be/4BXDACk9DAA

About the Project

After the Hon'ble Prime Minister recent encouragement to citizens to adopt rainwater harvesting, Indore Smart City (ISCDL) has maximized efforts towards 'Catching the Rain' initiative by establishing rainwater harvesting (RWH) structures in more than 1 lakh establishments in Indore on a mission mode. Having a Vision to make Indore "clean, green and water surplus," Indore Water Vision Document 2025 was launched. To make this vision legally enforceable, Rainwater Harvesting Bylaws were notified by IMC, making it mandatory for private establishments with a roof area of more than 1500 sq ft. to install RWH units. An effective enforcement mechanism to implement these bylaws was set in place by making it mandatory before seeking building permissions from IMC To make Bhu-Jal Sanrakshan Abhiyan a mass movement, Jal Anthem was launched as part of a mega IEC drive to spread awareness about the judicious utilization of water and the derived benefits of rainwater harvesting. A door-to-door survey was conducted to identify locations for RWH units. For handholding and technical support to citizens, Indore 311 mobile application and call center at Indore Smart City's ICCC were integrated as regardsservices related to rainwater harvesting. The average groundwater level in Indore, is currently at 180 m and is expected to rise to 60 m in the years to come. Outcomeof this Mission are coming out to be very positive, with many hitherto water-scarce housing societies equipped with rainwater harvesting structures now reported to have evaded water scarcity during last few summers.

Source: Kakinada Smart City

Key Outputs

Over
1 lakh
RWH units were installed across the city after launch of the Mission.

25,000+
requests were received in 311 Application.

1,500+
IEC events like Jal Sabha, Jal March, Jal Mohatsav and Jal Samwad organized in which 6 lakhs+ peoples have joined.

The amount of water saved in 1 year with the help of newly installed rain water harvesting units is expected to be around
18,500
Million Liters of water.

Around
30%
of habitations of Indore, hitherto dependent upon water tankers in summers, had working bore-wells this year.

Innovative Features

- Gazette notification of Rainwater Harvesting By-Laws making the mission legally enforceable.
- Mega IEC drives in the form of Water Vision Document, 2025 and Jal Anthem.
- Facilitation of requests by citizens through 311 Citizen App for installation of Rainwater Harvesting units.
- Empanelment of 178 local contractors to ensure installation of RWH unit in 7 days.
- Ward-wise 'Jal Bharan Samitis' to involve public representatives and City-level Rainwater Harvesting Cell and Zone- level 'Jal Shakti Kendras' established to provide necessary technical assistance.
- Geo-tagging of RWH Structures with photographs through 'Jal Shakti Abhiyan' Application.
- CSR support for installing RWH Units in slum areas.

Source: Coimbatore smart city

Major Impacts

- Enhanced awareness in citizens regarding judicious utilization of water and benefits of rainwater harvesting.
- Societies equipped with RWH now have water in their bore wells throughout the summer season.
- Reduced water runs-off in the rainy season due to decentralized storage units in the form of RWH would prevent urban flooding in the rainy season.
- Supply of drinking water through bore wells is now expected to be present all over the year thereby reducing wastage of municipal funds spent annually on supply of water tankers.
- Rejuvenation of aquifers would help in balancing the delicate urban ecosystems

Alignment to SDGs

3 Good health and well-being

6 Clean water and sanitation

11 Sustainable cities and communities

12 Responsible Consumption and Production

13 Climate Action

Gopal SIngh Chouhan

Student, Indore Smart City

We attended the Jal march today. Indore Smart City's Rainwater Harvesting program is changing the mindset of youngsters in our area. Now, we are very interested in rainwater harvesting. We have also come up with new ideas for saving and reusing rainwater.

Atul Tiwari

Government Teacher, Indore Smart City

Earlier, Water used to accumulate on our school grounds during rainy seasons. Sometimes, access to school was also tricky. Rainwater harvesting was done at our school campus by ISCDL. As a result, there is no water logging in the area, even after heavy rains.

JOINT RANK 1

Rejuvenation of Lakes, Wells and Stepwells of Indore

Indore, Madhya Pradesh

https://youtu.be/QhFSISuHCRQ

About the Project

Indore has 455 wells, 25 stepwells, and 29 lakes across the city. Water Bodies Rejuvenation Project began with the cleaning and beautification of Harirao Holkar Chhatri Stepwell under the heritage conservation efforts of Indore Smart City. Indori Citizens responded to the call of Smart City to clean our wells and step wells enthusiastically, and multiple social groups joined hands to re-invigorate them. Smart City started IEC drives, including chalking out activities like weekend cleaning events. Finally, rejuvenated wells and step wells were covered with green nets and water connections were made to nearby gardens, dividersand green belts, which would further reduce the expenditure of the Municipal Corporation on water tankers. Additionally, a reuse network has been laid to maintain the water level and aquatic ecosystem throughout the year. Treated water from existing STPs are drained into ponds like Pipliyapala, Pipliyahana, and Pathar Mundla. Smart City has taken up multi-dimensional activities like constructing cascaded Stop Dams across major rivers of Indore using treated water from STPs to make the channels perennial and completing multiple stretches of Riverfronts. Water quality in these water bodies is regularly tested using portable testing kits. Following the Government of India's footsteps, the city has also banned single-use plastic, thereby preventing plastic bottles and polybags from clogging our precious water resources.

Source: Coimbatore smart city

Key Outputs

Construction of Stop Dams on the Kahn and Saraswati Rivers.

More than
1 lakh
planted near water bodies.

100%
wells and step wells covered with a green net so that dry waste is not dumped.

Reuse water from STPs, wells, and step-wells through hydrants, reducing dependence on water tankers and saving revenue annually.

Construction of Stop Dams on the Kahn and Saraswati Rivers.

Innovative Features

- Involvement of RWAs, Social groups and NGOs in rejuvenation of their water bodies.
- Aerial Survey of water bodies through Drone for mapping of their Catchment channels.
- To monitor and provide maintenance support, geo-tagging for water bodies with photographs is done through the ICT application.
- Installing fountains to maintain Dissolved Oxygen in water bodies.
- Construction of cascaded stop dams to increase the percolation of water and reduce runoff.
- Construction of in-house de-weeding machine at around 10 % of the market cost.
- Reuse of STP water and use of water from wells, stepwells in gardens, dividers, and green belts.

Source: Coimbatore smart city

Major Impacts

- Increase in citizen participation in the conservation of water bodies.
- Providing better living standards to people residing near nullahs and rivers.
- Clean river water throughout the year and afforestation improve the city's climate.
- Planned reuse of treated water helps in the judicial use of water.
- Preserving old stepwells, wells preserve the heritage value of our city in younger generations.
- Treated water of STP is drained into water bodies like Pipliyapala, Pipliyahana, and Pathar Mundla Lake, which maintains Ground Water Table in the nearby area.
- Cleaning of lakes has led to an increase in morning walkers and joggers.

Alignment to SDGs

3 Good health and well-being

6 Clean water and sanitation

11 Sustainable cities and communities

12 Responsible Consumption and Production

13 Climate Action

Ashish Rathore

Student, Indore Smart City

Smart City's team worked on cleaning, desilting, and recharging our temple's old step-well, which has helped preserve our cultural and religious heritage. Also, access to the step-well's clean potable water saves precious water resources—an excellent initiative by Indore Smart City.

Deepak Meena

Private Indore, Indore Smart City

I used to buy tankers of water for daily use, which cost me a decent amount. With the cleansing of my neighborhood well, I no longer buy water. Investing in good rejuvenation is way better than buying tankers of water. I am thankful to the Smart City team.

RANK 2

Providing 24/7 Water Supply to ABD Area along with Smart Water Meters and SCADA System

Agra, Uttar Pradesh

https://youtu.be/PXUSOBdG1oA

About the Project

The project is aimed at supplying 24/7 water supply to more than 17,200 consumers in the ABD (Tajganj) area, along with SCADA monitoring systems and ultrasonic water meters. There were several deficiencies observed in the existing system like:

- OHTs are required to ensure equitable supply with adequate consumer pressure.
- The existing distribution system is age-old and has served its lifetime. The material is AC & PVC.
- The house service connections are crossing roadside drains and are age-old. There are no water meters available in the project area. This project will give a roadmap for updating the water supply system for the entire city.

Project components:

- Construction of 2 pumping stations at Jeonimandi and Fatehabad road.
- Construction of CWR of 1 lakh litre capacity.
- The main transmission line of 1,200mm diameter of 6.5 km length.
- 146 km of feeder mains and distribution line.
- More than 17200 water meters along with a functional SCADA systems

Initially, 15 mld of water is being supplied to households and commercial establishments, leading to a rise in people's standard of living and direct and indirect economic benefits. The volumetric-based tariff will also help in the economical use of water, and the project is self-sustainable by meeting O&M expenses through taxes.

Source: Ahmedabad smart city

Key Outputs

Supply of 15 mld, which can be enhanced to

37 MLD

2 pumping stations

at Jeonimandi and Fatehabad road.

CWR of

1 lakh

litre capacity.

6

Overhead tanks of a total of 2,500 KL (2 no.), 2,000 KL (2 no.), 4,200 kl (1 no.), and 300 KL (1 no.).

Main transmission line of

1,200 mm

diameter of 6.5 km length.

146 km

of feeder mains and distribution line.

17,000+

Water meters installed

Innovative Features

- 100% through SCADA and operated from ICCC.
- Reduction of NRW by 15%.
- Volumetric-based tariff and 100% water metering both for residential and commercial.
- Flow detection and leakage detection as per DMA zones.
- Real-time water quality measurement, pH value, and other parameters from Ion Chromatography.
- Consumer-wise water consumption analysis and water consumption trend on a real-time basis.
- Billing and meter reading software integrated with the SCADA system.
- It is a project supplying 24/7 potable water and smart water meters.

Source: Coimbatore smart city

Major Impacts

The project has helped reduce the NRW by 15%, and it has helped reduce the number of borewells in the area, especially in commercial establishments, which has helped arrest the water table.

The availability of good quality potable water has decrease the spread of waterborne diseases by 10% in this monsoon season.

A self-sustainable system of 24/7 water supply system has been established with O&M expenses being met from the volumetric tariff system, and also, for the first time in the state, a metering system for water supply among residential households is introduced.

Alignment to SDGs

6 Clean water and sanitation

11 Sustainable cities and communities

RANK 3

Atal Sarovar (Lake-1)

Rajkot, Madhya Pradesh

https://youtu.be/ObRF5J4ZzEw

About the Project

In Rajkot there were only 2 lake area for people to rely on. In past people had to carry water by train in the city. Even today, more than 50% of the water comes from sources located more than 50 km outside the city area. At present, our average cost of water is approximately 12.79 Rs. per K.L. Considering the necessity and need for water reservoirs in the city in the small area of Rajkot Smart City rejuvenated and deepened 3 lakes, which will not only increase ground water table area of the area but would also act as a recreational space. The existing water body is on the north side (Atal Sarovar, also termed Lake 1) of the site and is developed as a public space with recreational activities. Surrounded by a 40m wide TP road to the east and a 45m wide DP road to the west, this lake is well connected to the green field area and the city. The race course is located on its southern side and connected through a pedestrian link. A public park is developed as an important node/public attraction point and a prime recreational location of the Smart City with a variety of activities, including musical fountains, amphitheaters, peripheral toy trains, retail shops, gram haat, party plots, 60m tall Ferris wheel, theme parks like Labyrinth garden, Botanical Garden, Flower Garden, recreational boating, waterfront trail, open gymnasium, senior city park, etc. The main objective of the project was to protect the lake's ecosystem with all its genetic diversity, and preservation of the natural lake ecosystem is of the utmost importance since many birds and microorganisms native to the area depend on the lake for their living and growth. This initiative also provides a recreational space for the denizens to spend leisure time.

Creating parks and public spaces is essential to reclaim and develop land parcels into parks for a better quality of life. The provision of socio-cultural amenities for the city is where social events, concerts, street shows, etc., can take place. These activities help to create social awareness as well as provide a platform for budding artists to display their skills.

Source: Coimbatore smart city

Key Outputs

The project will provide better infrastructural, recreational, social, and healthy environment to the people of the township with a water storage capacity of up to

4,77,000+

cubic meters

it has the following quantifiable outputs:

- **Employ many inhabitants and youth of the city**
- **Promote tourism**
- **Protect the lake ecosystem**
- **Source of revenue for the government**
- **Provide green areas within a city.**

Innovative Features

- 100% through SCADA and operated from ICCC.
- Reduction of NRW by 15%.
- Volumetric-based tariff and 100% water metering both for residential and commercial.
- Flow detection and leakage detection as per DMA zones.
- Real-time water quality measurement, pH value, and other parameters from IC.
- Consumer-wise water consumption analysis and water consumption trend on a real-time basis.
- Billing and meter reading software integrated with the SCADA system.
- It is a project supplying 24/7 potable water and smart water meters.

Source: Coimbatore smart city

Major Impacts

- Social facilities
- Pedestrian-friendly
- Sustainable environment
- Cycling-friendly
- Public safety
- Underground utilities

Alignment to SDGs

6 Clean water and sanitation

11 Sustainable cities and communities

Sudama Saitha

Field Staff

The design and work practice of this project is very good and speedy. The climatic condition in Rajkot is generally hot, and thereby rejuvenating a lake is important.

Suni Baitha

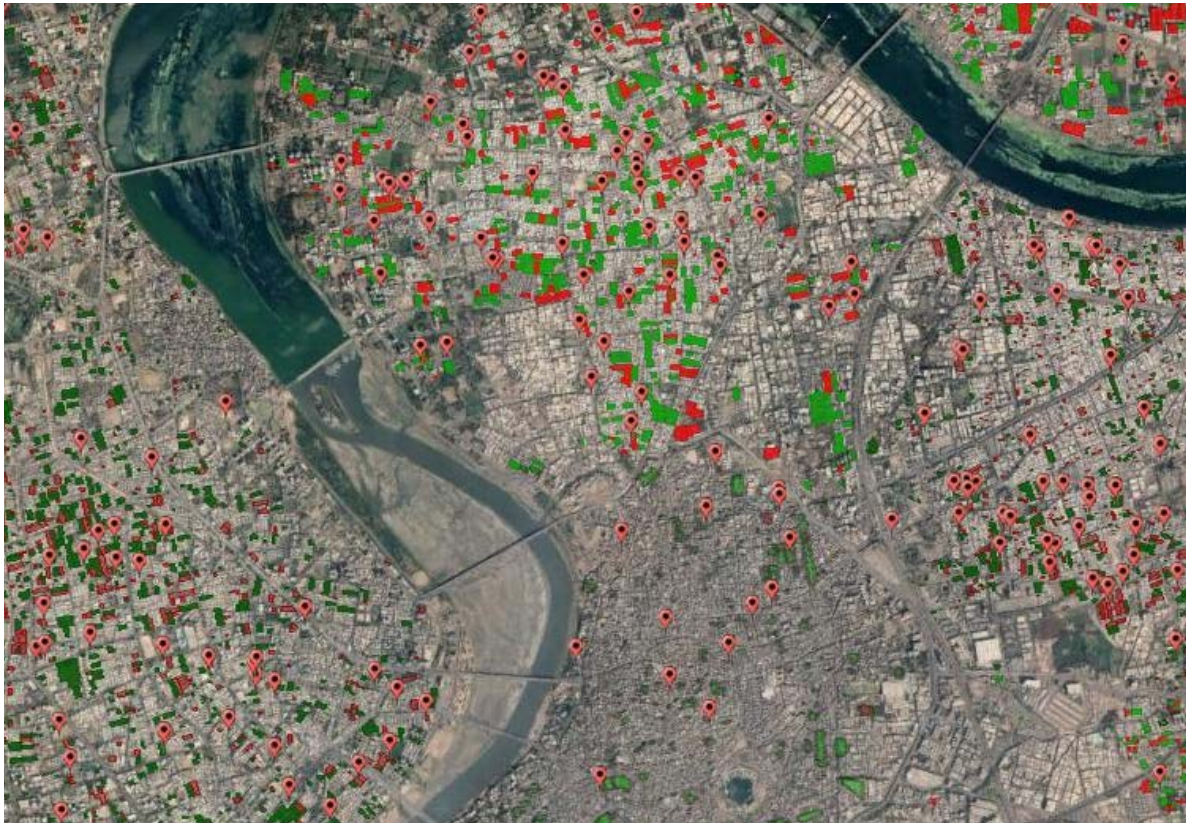
Field Staff

The work proficiency and different types of equipment used for various works is very good. The water collection at Lake Area is geographically and technically practically applied. It is a good project to work on."

04

Innovation Awards

COVID INNOVATION



Journey of ISAC

SURAT
2020

JOINT RANK 1

Kalyan-Dombivali
Varanasi

INDORE
2022

RANK 1

Surat

RANK 2

Agra

RANK 3

Indore

RANK 1

SURAT

Gujarat

https://www.youtube.com/watch?v=uklX21l2Rh0

Overview of Activities During Covid-19

Surat, India's eighth-largest city has evolved into a hub of rapid growth and development, fueled by its thriving textile and diamond industries. Despite its progress, the emergence of the COVID-19 pandemic in March 2020 compelled Surat Municipal Corporation (SMC) to initiate innovative actions to safeguard its residents swiftly. Rooted in community participation and technology, these initiatives have played a pivotal role in combating the pandemic's impact on the city. Central to SMC's response is the TTT IQ Strategy. This approach underpins the city's battle against the virus. Pioneering initiatives like the SMC COVID tracker have enabled real-time monitoring and surveillance. Leveraging technology, the APX-R Strategy and Jaimini app facilitated active and passive surveillance, aiding rapid identification of potential cases. SMC's strategy extends to managing co-morbidities and tailoring care for vulnerable groups. Decentralized management and inter-sectoral coordination underpin the city's approach. Public-Private Partnerships enhance resource pooling and crisis management capacity. Projects like Samras COVID Care Center have bolstered healthcare infrastructure. The SMC's efficient medical supply management ensures frontline workers' protection. The holistic response integrates psycho-social treatment, plasma therapy and immunity boosting. The COVID vaccination drive and Sitilink's role in sample collection and transportation stand as cornerstones of recovery. Surat's resilience and unity shine through its humanitarian actions, long-term preparedness, IEC campaigns and remarkable infection control.

Collection & Dissemination of Information

To efficiently manage information, Surat Smart City designed a mobile application for the citizens. This app was pivotal in monitoring the movements of suspected and positive patients and international travelers during the pandemic. This innovative measure allowed for better tracking and containment of the virus and demonstrated Surat's commitment to staying ahead in managing the crisis. Recognizing the need for comprehensive surveillance, SMC developed the Jaimini software - a passive surveillance system tailored explicitly for Acute Respiratory Infection (ARI) cases. Dhanvantari Rath emerged as a beacon of hope and convenience for Surat's citizens. Another remarkable effort came in the form of Sanjivani Rath. This initiative focused on the follow-up and monitoring of patients isolating at home, ensuring they received the necessary care and support. Through technology-driven solutions, community engagement, the city has tackled the challenges posed by the pandemic.

Measures To Combat Covid-19

Converting a Multi-Level Parking into a specialized COVID-19 Hospital.

01

More than

33 messes

were established to offer 2 meals daily

04

5.5 lakh

individuals were provided with meals daily.

02

SMC allocated separate dedicated vehicles for disposal of biomedical waste (BMW).

03

Continuation of essential services by designating an open plot to distribute vegetables and fruits.

05

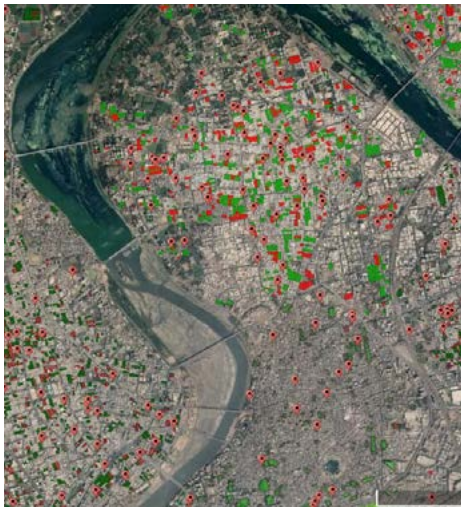
In containment and micro-containment zones, SMC collaborated with the Police Department to deploy CCTV and drone cameras.

06

Establishment of Two-Way Communication

For efficient communication during the pandemic, Surat adopted methodologies which maintained transparency between the Government and the citizens

- Standard Operating Procedures (SOPs) for diamond and textile units and migrant workers.
- For IEC Activities - Bulk SMS, dedicated vehicles equipped with Public Address Systems (PAC) have been deployed within containment zones.
- The 104 Helpline was staffed by doctors and paramedics, providing medical assistance to the infected people.



Initiatives on Multi-Stakeholder Partnership & Civic Collaboration

Surat Municipal Corporation adopted decentralized management with multi-stakeholder approach to bring different bodies, agencies, departments working on different aspects of COVID management:

CEO SUDA
Facilitated - Bed availability/ management.

RTO
Monitored - all checkposts, airports and railways for testing/ screening.

The Police department & Zonal Chiefs
Responsible for restricting Containment Zone activities.

Town planning department
In charge of the co-ordination between Labour Department and Diamond workers, textile workers and construction workers.

Education department
Assigned responsibility of telephonic follow-ups for vaccination

PSM department
NCH and SMIMER held Data analysis and Daily forecasting activities.

Interns of SMIMER
Managed the mobile hospitals - Sanjivani Raths

Fire and Emergency department
Managed Ambulance facilities.

Central Medical store
Facilitated timely procurement of drugs and consumables.

Accounts department
Facilitated the timely disbursement of all account and related queries

HCW & FLW
Channelised covid vaccination in private hospital

Preparedness For Future Exigencies

The city's proactive strategies have set a benchmark for effective crisis management. Surat formulates a detailed annual Disaster Management Plan (DMP) that outlines a comprehensive course of action. Regular engagements with NGOs ensure that preparedness efforts are communicated effectively and that cooperation is well-coordinated in times of crisis. A few steps taken up for preparedness are:

- Surat has adopted non-conventional testing methods by conducting genomic sequencing of cases with atypical presentations.
- In response to the escalating need for testing, Surat scaled up its RT-PCR testing capacity from 1,500 tests per day to an impressive 12,000 tests per day in Government labs.
- Infrastructure like the ICCC, Citizen Engagement Platform, VBDC Field Survey App and strong IT support have been crucial in formulating intelligent responses.
- A real-time Hospital Bed Management system has been created which provides essential information about bed availability in private and Government hospitals.

RANK 2

AGRA

Uttar Pradesh

https://youtu.be/TnG2oohCQW0

Overview of Activities During Covid-19

The Integrated Command and Control Centre in Agra served as the covid war room for city wide coordination. It was operated by a team of 25 individuals who responded to citizen grievances. To increase accessibility to resources, a web-portal for online delivery of essentials was created. Tele-video consultations, was the mode of medical assistance to citizens in need. The Citizen COVID-19 Self Registry Platform enables citizens to assess their health risks by creating a PIN code-based early risk assessment matrix for city authorities. These systems broadcast advisory messages 24x7 ensuring citizens are informed and empowered to make safe choices. Through technology, collaboration, data-driven decision-making and public awareness, the city has exhibited its resilience and determination in safeguarding the well-being of its citizens. The 'Agra Model' serves as an inspiration for other regions grappling with similar challenges.

Collection & Dissemination of Information

With collaborative efforts of the COVID-19 War Room and the Police Department, the city has established 115 Cooked Food Banks and Community Kitchens. To supply food to the citizens during the lockdown, more than 35.60 lakh packets had been distributed during the pandemic. Recognizing the importance of stable supply chains for essential items, Agra launched a user-friendly web portal. This portal empowers the public to locate nearby vendors offering groceries, fruits and vegetables. The city administration ensured fixed rates for 23 essential commodities to keep the prices under control in the market. This responsive model in Agra Smart City channelised a smooth transmission of information.

Measures To Combat Covid-19

01 Agra Lock Down Monitoring App was launched to monitor the situation of pandemic in the city.

02 Sarvam Setu, an Artificial Intelligence (AI) driven Hyper Local SOS and Emergency Response Management platform mobilised citizen requests.

03 Geo-tagged emergency help across nine categories including food, medicine, etc.

04 A video surveillance tool had been strategically deployed to monitor various locations within Agra.

Establishment of Two-Way Communication

Agra's response to the COVID-19 pandemic has been characterised by community engagement and innovative strategies. Nigrani Samitis, established within the city, were crucial in monitoring activities and ensuring interventions in sensitive areas. A third-party monitoring mechanism has been developed to supervise actions like sanitization drives, medical aid provision, and imposing necessary restrictions. A Geographic Information System (GIS) based dashboard was developed to disseminate information effectively. Through the Agra COVID Tracker, citizens were to stay updated on the evolving situation, making informed decisions for their well-being. Through the Smart Health Center, Agra distributed more than 900 masks increasing awareness and safety.

Initiatives on Multi-Stakeholder Partnership & Civic Collaboration

Health, Nagar nigam, City administration, Police and Drug department
Operated from the Integrated Command and Control Centre.

ICCC
Centralized bed allocation and oxygen allocation portal for 2500 citizens.

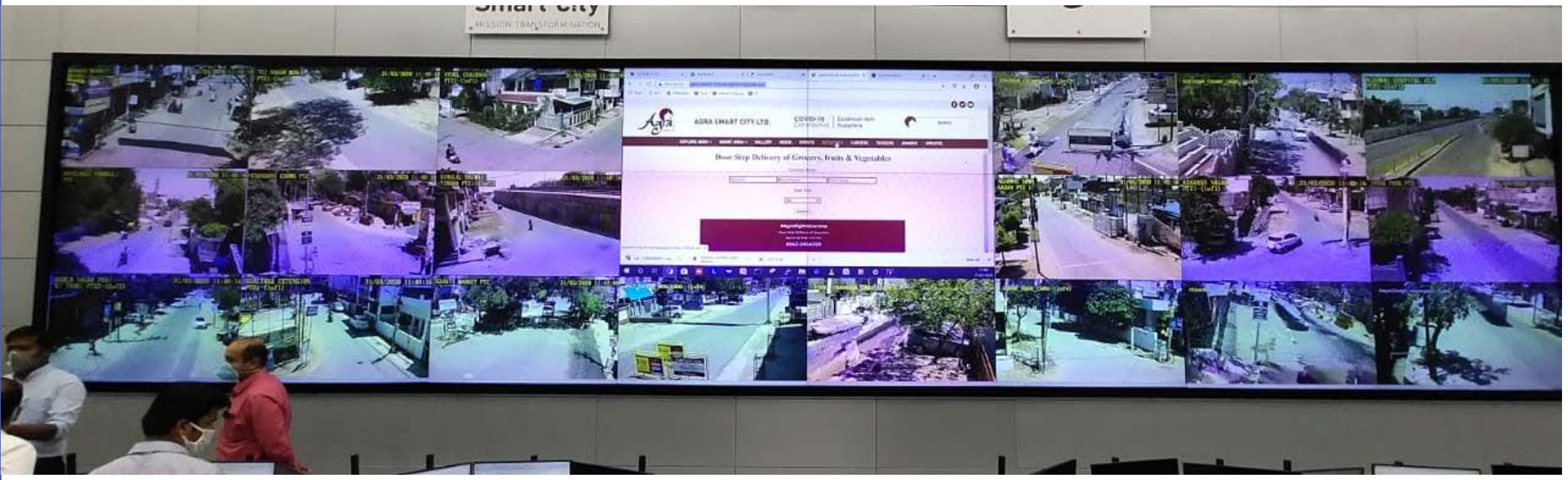
Police Department
Monitored more than 3,500 lock down violations.

Medical Institutions
E-doctor seva was availed by more than 850 citizens.

Preparedness For Future Exigencies

Agra Smart City has carried out multiple initiatives which empower the city to deal with future emergencies and outbreaks of similar nature:

- **Time series analysis**- A regular case by case update is analysed to understand trends and get insights for targeted intervention. Based on this, the sensitive areas are identified, sanitation measures are implemented and BMW strategies are improvised in those areas.
- **GIS dashboard**- To visually perceive information such as hotspots, heat maps, positive cases and recovered cases etc. a geo-spatial dashboard was created.
- **Citizens self-registry platform**- This platform is created for citizens to assess their health risk and create PIN code based early risk assessment matrix for authorities.



RANK 3

INDORE

Madhya Pradesh

https://youtu.be/TnG2oohCQW0

Overview of Activities During Covid-19

To combat Covid-19, Indore employed the 'Covid-19' App and the 'Indore 311' App as powerful tools to track cases and manage requests for sanitization, home quarantine, home isolation, containment zones, and contact tracing. These applications, played pivotal roles in Indore's pandemic response. With a 24x7 Call Centre staffed by over 200 covid trained operators and 100 doctors, Indore provided timely responses to requests and grievances through audio and video calls. The city had been evolving its guidelines with the changing phase of the pandemic. Utilising Geographic Information System (GIS) base maps, the application effectively demarcated containment zones, contributing to the disruption of the COVID-19 transmission chain.

Indore became the first city in India to introduce mobile app based Home Isolation facilities. ICCC emerged as the Central Data Collection Centre, overseeing the daily status of the outbreak and monitoring citizen health. Vaccination drives were also carried out with the help of the command and control centre. Indore mobilised its Information, Education, and Communication (IEC) through partner NGOs. Variable Messaging Boards were utilized to disseminate information about changing Standard Operating Procedures (SOPs) across the city.

Collection & Dissemination of Information

The utilisation of the 'Covid-19' App and 'Indore 311' App has played a pivotal role in tracking cases, analysing trends, and implementing effective measures. The 'Covid-19' App conducted a comprehensive door-to-door health survey of the entire district, encompassing 4 million individuals. Innovative monitoring strategies were employed, identifying more than 30,000 suspects through passenger monitoring, fever checks and engagement with private clinics and medical stores. Establishing a Covid Task Force bolstered the district administration's capacity to manage Covid hospitals. A network of 85 ward level committees with appointed Mohalla volunteers was built to provide updated information across the city. The 'Indore 311' App enabled separate collection of garbage from infected households to prevent virus transmission. These applications have been instrumental in tracking cases, conducting surveys and facilitating essential services. Indore's use of technology, community engagement and dynamic strategies has helped control the virus and enhance safety in the city.

Measures To Combat Covid-19

Geo-Tagging and Geo-Fencing of Covid-19 positive cases enabled the administration to create precise containment zones and strategically plan healthcare centers.

01

A population of **4 million** were regularly surveyed through the surveillance strategy using the'Covid-19 Control application.

02

More than **40,000 calls** were received on telemedicine lines.

03

Regular disinfection activities, conducted in collaboration with ward-level teams and utilising drones in dense containment zones, to maintain public health and hygiene.

04

"Ruko Toko" campaign emphasised the importance of vaccination.

05

Variable Messaging Boards have been harnessed to disseminate pandemic guidelines.

06

The Integrated Control and Command Centre (ICCC) transformed into a Covid-19 War Room.

07

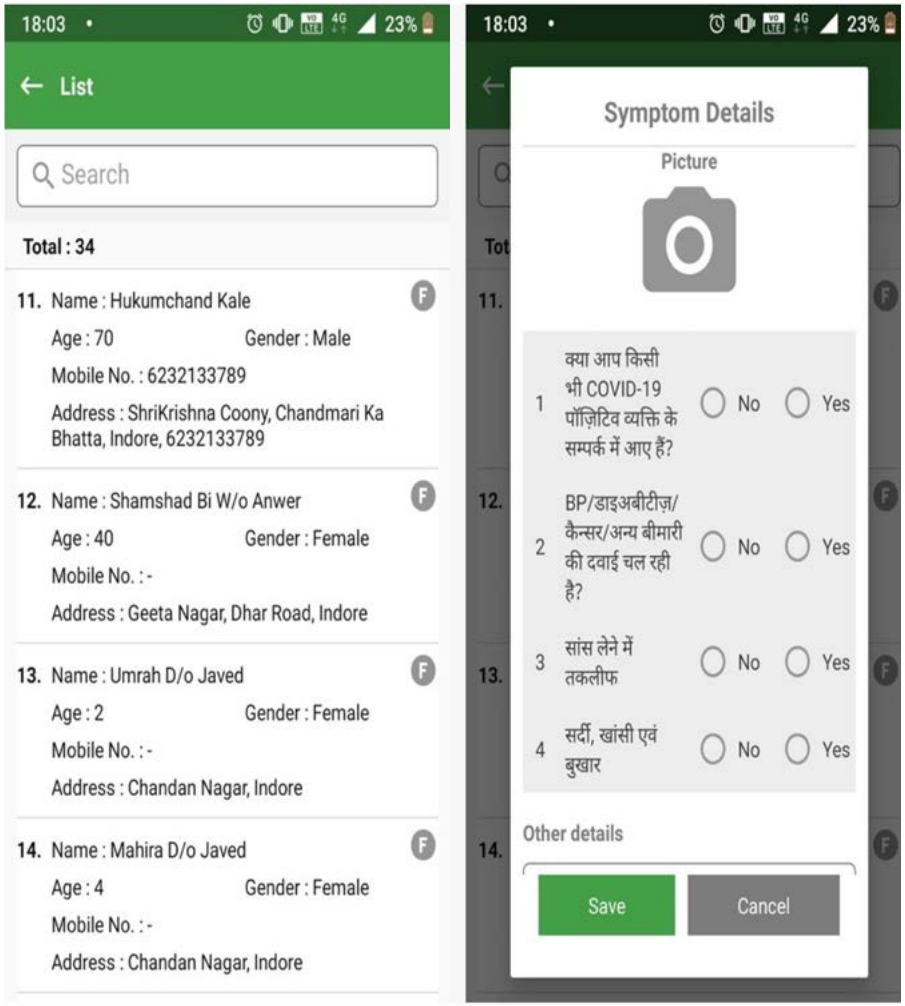
ICCC's were used as an inventory to manage critical supplies like Remdesivir tablets and Oxygen Cylinders.

08

Establishment of Two-Way Communication

Indore Smart City's innovative approach to pandemic management is based on the use of technology to empower citizens and healthcare professionals. Through the 'Indore Covid-19 Control' application and 'Indore 311' application,

- The city has established a direct line of communication that enhances access to medical guidance and support.
- Bridged the gap between citizens and medical experts by allowing more than 4 lakh calls on telemedicine lines during the pandemic.
- Patients in Home Isolation monitored their own health status through a predesigned checklist in application and discussed issues with doctors.
- Home quarantined and home isolated patients received warnings and phone calls.
- Domestic travelers were instructed to submit their health status in application, failing which they received phone calls from the control room.



Initiatives on Multi-Stakeholder Partnership & Civic Collaboration

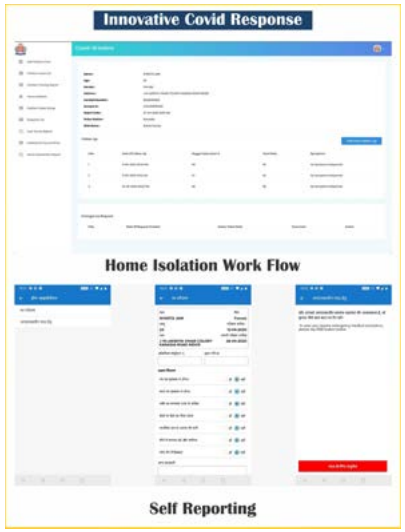
Senior Officers like Additional District Magistrate; Deputy Inspectors General of Police; Commissioner, Indore Municipal Corporation; Indore Development Authority, Chief Medical Health Officer and WHO nodal person have controlled the spread of Covid -19 virus

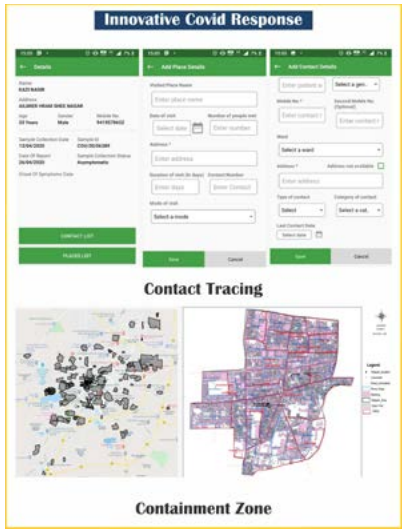
Local leaders, religious institutions, market association and local vendors - ensured the supply of essential commodities to the citizens.

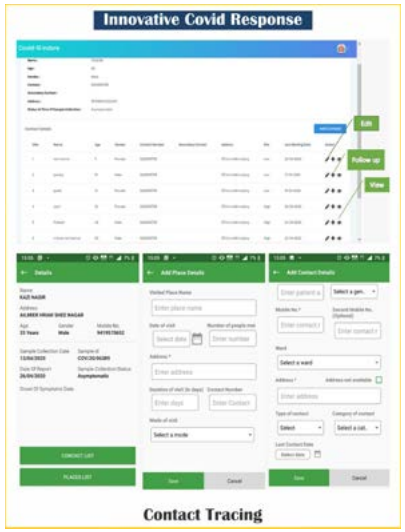
Preparedness For Future Exigencies

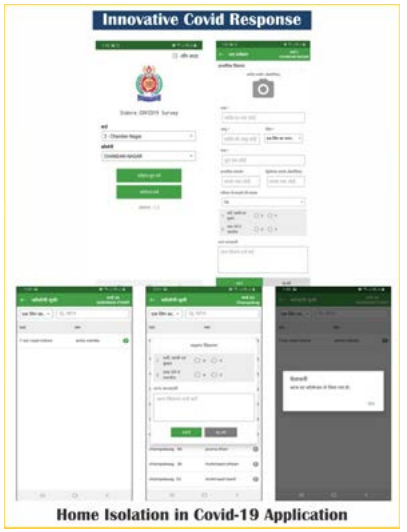
Indore Smart City is planning to create an HMIS system to improve the quality, efficiency & effectiveness of healthcare services provided to the patients, support continuity, consistency, planning and informed decision making for all stakeholders. Apart from this, the existing interventions in the city are:

- **Covid-19 Application:** Data analysis of patients, demographic and predictive analytics undertaken through Covid-19 Control Application. Hotspots are already identified which shall reduce the time taken for implementation of protective measures in case need arises.
- **Public Participation:** Indore has prepared Ward Level Committees which consist of Zonal Officers (President), Sub-Engineer (Secretary), local political representatives, NGO members and Self Help Groups. The ward level committees in partnership with industries, market associations etc. had declared 550 Containment Zones and unanimously decided for a neighborhood lockdown.
- The mohalla volunteers in the ward level committees helped to identify ILI patients. The ward level committees have been successful in bringing down the positivity rate due to strict monitoring of the Janta curfew imposed by the District Administration.

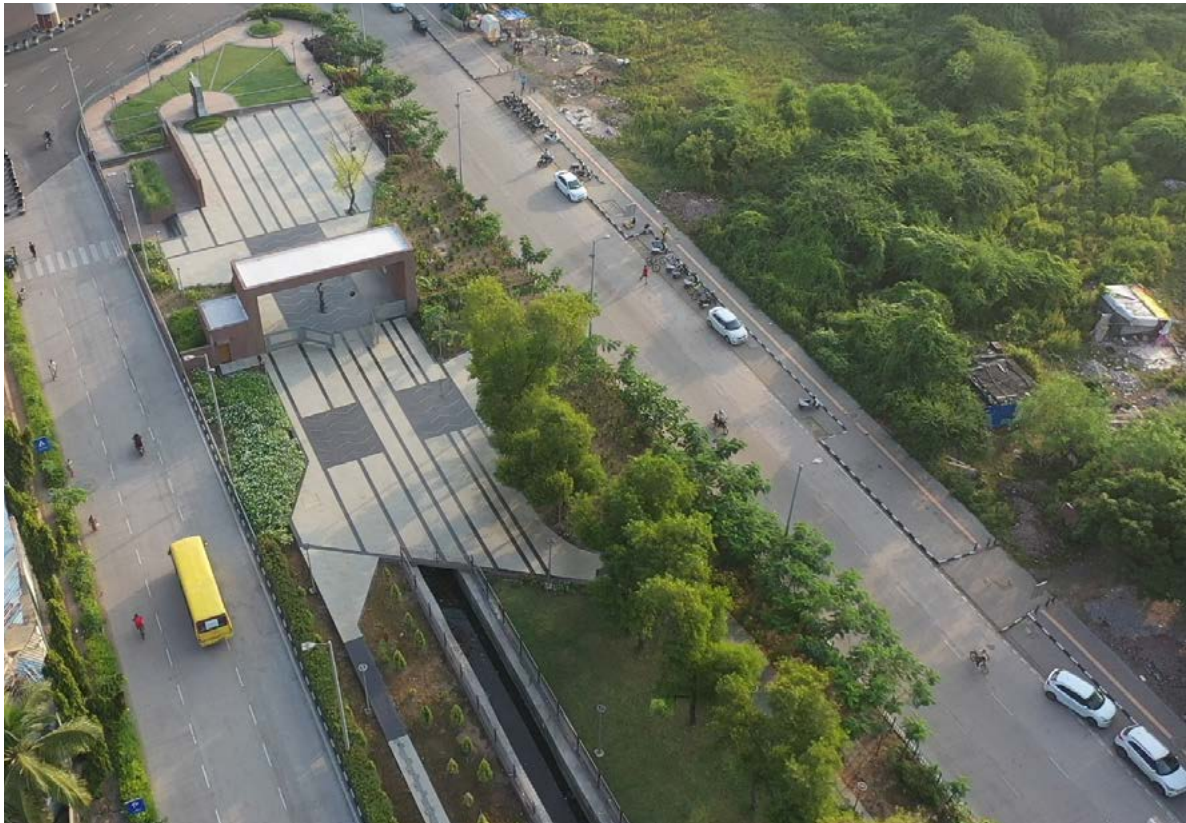








INNOVATIVE IDEA



Journey of ISAC

2018

Safe and Secure
Ahmedabad

VISAKHAPATNAM
2019

Floating Solar Farm
Visakhapatnam

SURAT
2020

Carbon Credit Financing Mechanism
Indore

INDORE
2022

RANK 1

Open Space Upgradation 2 - Nalla Renovation and Green Corridor
Hubbali Dharwad

RANK 2

Self Sustaining of Public gardening Canal Pathway (Corridor)
Surat

RANK 3

Nalanda Parisar (Oxy Reading Zone Library)
Raipur

RANK 1

Open Space Upgradation 2 – Nalla Renovation and Green Corridor

Hubbali-Dharwad, Karnataka

https://www.youtube.com/watch?v=uklX21l2Rh0

About the Project

CITIIS, which stands for City Investments to Innovate, Integrate, and Sustain, is a pioneering program launched by the Ministry of Housing and Urban Affairs (MoHUA) in July 2018. Designed to fund Smart City projects through a competitive challenge process, CITIIS aims to drive innovation and sustainability in urban development. Hubballi Dharwad Smart City Limited enthusiastically participated in the CITIIS challenge competition, focusing on the Green Mobility Corridor sector. The vision behind this project is to revitalize unused spaces, converting them into vibrant public areas while promoting non-motorized transport along the 9.25 km stretch of Unkal Nala. The project's comprehensive scope spans three distinct phases:

PHASE 1: This pilot project, with a budget of Rs. 8 Cr, serves as a quick-win initiative, focusing on the initial 640 meter stretch. The aim is to showcase the envisioned transformation, providing tangible benefits to the community.

PHASE 2: The heart of the project involves the allocation of Rs.122 Cr for a 5 km corridor. This ambitious phase intends to bring the Green Mobility Corridor concept to life, significantly impacting urban mobility, environmental sustainability and public engagement.

PHASE 3: Should additional funds be secured, the project's vision extends to the remaining 4.25 km stretch, completing the holistic transformation of the Unkal Nala into a thriving Green Mobility Corridor.

The envisioned transformation of Unkal Nala into a Green Mobility Corridor underlines the city's commitment to create vibrant, eco-friendly and community-centric environments. Through the infusion of substantial grants and strategic partnerships, this project exemplifies the transformative potential of CITIIS in shaping the future of urban development in India.

Key Outputs

Gabion Wall
630 m
01

Hardscape
340
sq.m.
03

Fencing
600 m
06

CCTV Cameras
8 no.
09

Retaining Wall/Transition Wall
105 m
02

Landscape
1,000
sq.m.
04

Sewage Treatment Plant
0.5 Million Litres
per Day
(MLD)
07

PBS (Public Bicycle Sharing) Station
10

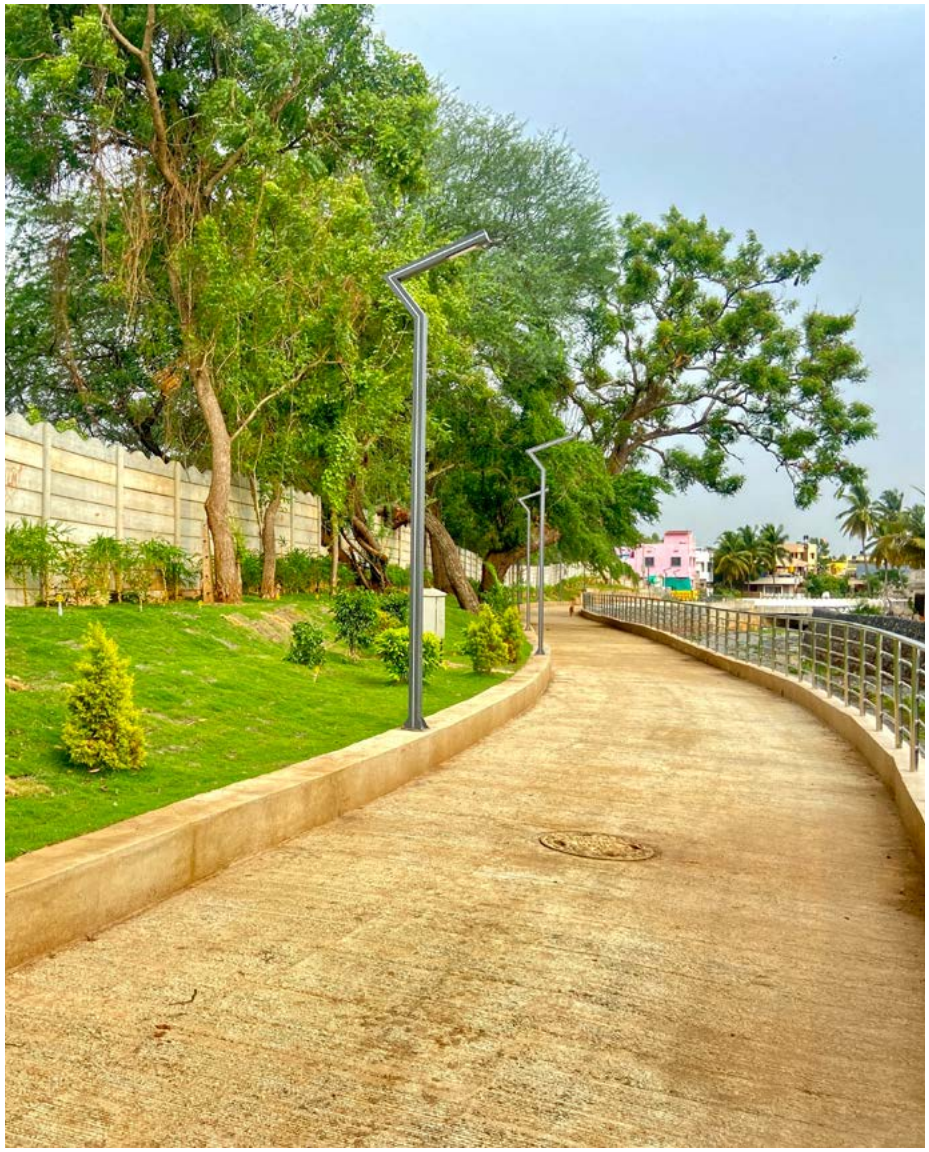
Cycle Track/Walking Track
340 m
05

Sewer Network
1,170 m
08

Light Poles
39 no.
11

Innovative Features

The Unkal Nala, flowing downstream from Unkal Lake, spans approximately 9.25 km and is a vital lifeline for Hubballi. This waterway is a crucial conduit that traverses through the heart of Hubballi, playing a pivotal role in the city's ecosystem. The Green Mobility Corridor project's visionary concept seeks to harness Unkal Nala's potential to transform it into a vibrant and sustainable urban space. At its core, the project aims to create a comprehensive Non-Motorized Transport corridor that spans the entire 9.25 km stretch of the Unkal Nala. This transformative endeavor seeks to promote the continuous development of a dedicated space for non-motorized modes of transportation along the length of the nala. This holistic approach enhances the city's mobility infrastructure and fosters a more sustainable and eco-friendly means of commuting. Innovative solutions are employed to ensure the project's environmental sustainability and resilience. The Green Mobility Corridor project's vision for the Unkal Nala encapsulates a transformative initiative that leverages the city's natural resources for the betterment of its residents. The project envisions a future where urban infrastructure seamlessly integrates with nature by creating a continuous Non-Motorized Transport corridor, incorporating resilient flood protection and adopting eco-friendly water treatment methods. The Unkal Nala's metamorphosis into a sustainable and vibrant corridor underscores Hubballi's commitment to urban development that respects its residents' needs and the environment.



Major Impacts

Flood Water Management
The project has achieved full-scale flood water management ensuring that the flow of water in Nala's is effectively regulated and mitigating flooding risks during heavy rains.

Promotion of Non-Motorized Transport
A remarkable 9.25 km stretch of the Non-Motorized Transport corridor has been established alongside the nala.

Sewage Water Treatment
Through the innovative use of Natural-based Hybrid technology, the project successfully treats 3 MLD of sewage water.

Solid Waste Management
The project plays a crucial role in solid waste management by preventing approximately 16 tonnes of waste from being discarded into the nala daily.

Sewage Water Diversion
The project effectively arrests around 28 MLD of untreated sewage water from entering the nala.

Green Cover Expansion
A substantial addition of 22 acres of green cover, including six parks, has enhanced the city's green spaces.

Flood Mitigation
The project's holistic approach extends to flood mitigation in 18 flood-prone areas.

RANK 2

Self-Sustaining Public Gardening Canal Pathway (Corridor)

Surat, Gujarat

https://youtu.be/AgxJYKJnvW4

About the Project

The Canal Pathway Development project undertaken by the Surat Municipal Corporation (SMC) is a visionary initiative to transform the existing canal space into a vibrant, eco-friendly corridor for the city's residents. Spanning a length of 3 km and stretching from Anuvrat Dwar junction to Jamnaba Park in the South-West Zone, this project holds multiple dimensions that enhance mobility and cultivate a harmonious environment for the citizens. At its core, the project focuses on two primary aspects: improving transportation mobility and creating a sustainable green haven. By widening the canal space to a 60 m width, the pathway ensures smooth transportation mobility while preserving space for both sides' captivating and self-sustaining garden environment. Key features and activities integrated into the project encompass a range of categories to address diverse needs:

- Self-Sustainability and Attractive Environment: The canal pathway is designed to be a self-sustaining and attractive destination.
- Thoughtful Landscape Design: The landscape design considers the unique needs of pedestrians and greenery. Columnar trees and flowering shrubs are strategically placed along the road's edge, allowing pedestrians to utilize the footpath without obstruction.
- Accessibility and Inclusivity: Special provisions for differently abled citizens have been made.
- Biodiversity and Habitat Enhancement: The project contributes to the city's biodiversity by creating spaces attracting insects, birds and animals.
- Recreational and Active Spaces: The canal pathway doubles as a recreational space for all age groups.
- Environmental Benefits: Integrating green and blue infrastructure enhances living conditions and aids climate adaptation.

Key Outputs

Comprehensive Infrastructure
The project's successful execution has led to a comprehensive infrastructure comprising a spacious and durable cement concrete road spanning 3 km.

01

Walkways and Parking
To cater to the needs of pedestrians and motorists alike, the Canal Pathway project encompasses meticulously planned footpaths and parking provisions on both sides of the canal.

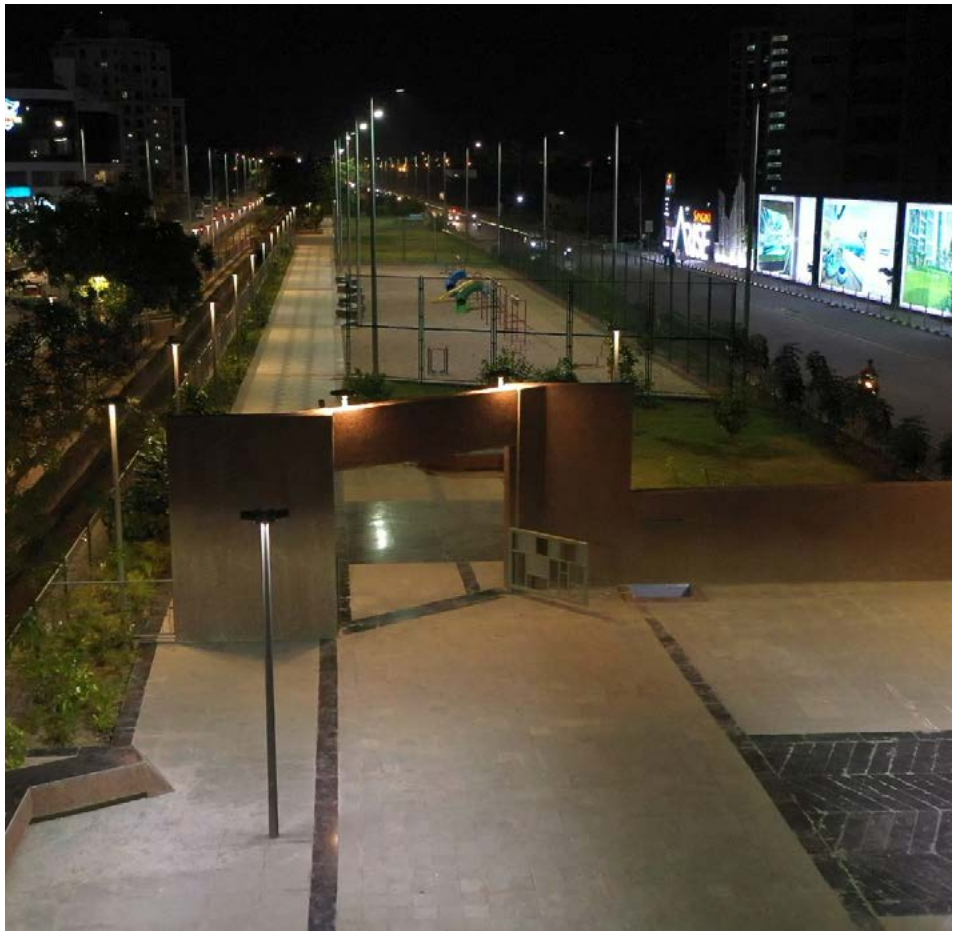
02

Environmental Enhancement
One of the most remarkable outcomes of the project is the establishment of a sustainable garden within the Canal Pathway area.

03

Community Impact
The tangible benefits of the Canal Pathway project extend to the community at large impacting approximately 2 lakhresidents of Surat.

04

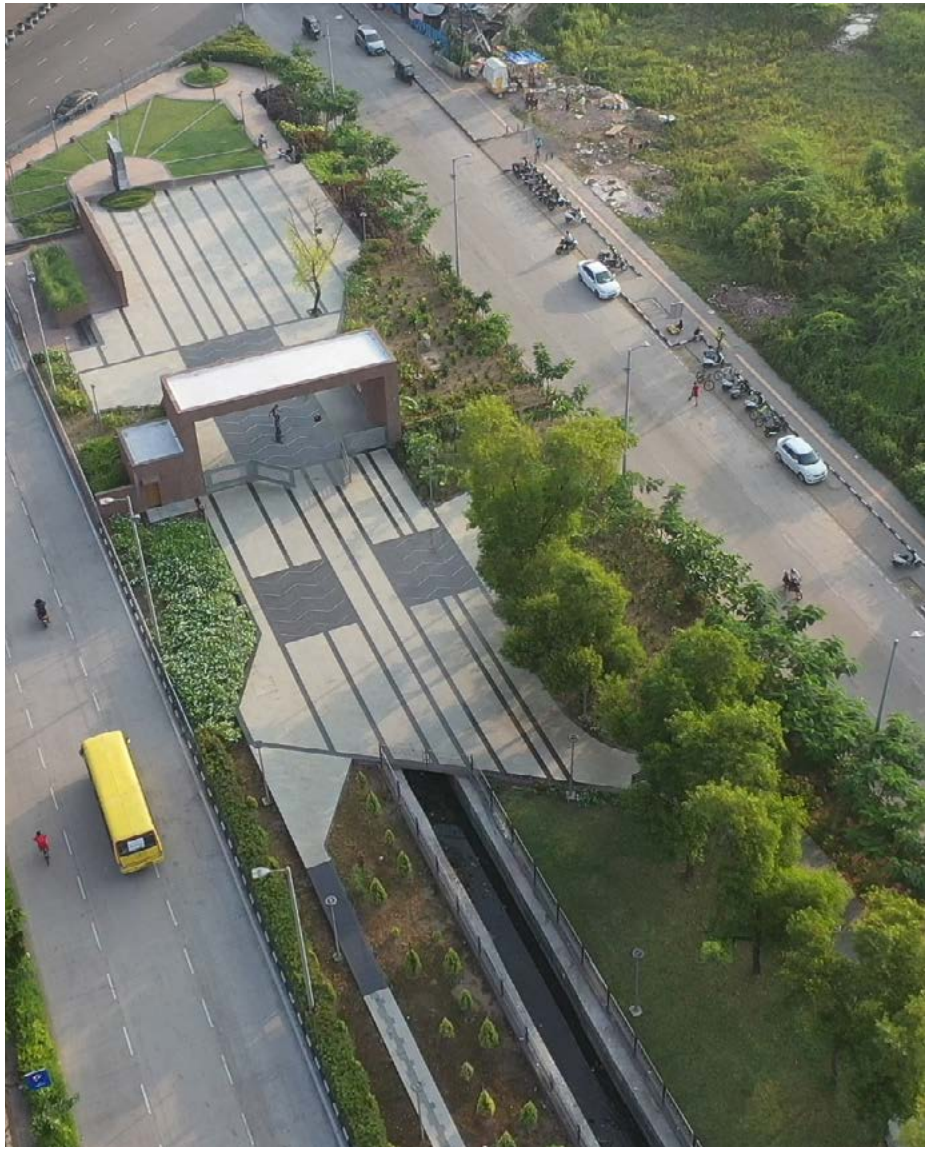


Shared Well-being
The Canal Pathway goes beyond its infrastructural role and provides a shared space for citizens to enjoy the manifold benefits of a healthy environment.

05

Innovative Features

- Green Belt and Recreational Zone: A central element of the project is the creation of a spacious and verdant green belt that runs parallel to the canal road.
- Diverse Facilities: The recreational zone is thoughtfully designed to cater to diverse needs and preferences.
- Aesthetic Enhancements: The canal pathway project showcases an aesthetically pleasing environment with captivating elements.
- Environmental Benefits: Integrating lush green cover within the pathway contributes significantly to environmental sustainability.
- Self-Sustainability and Revenue Generation: To ensure the long-term viability of the Canal Pathway, SMC has taken a proactive step by entrusting the operation and maintenance of the entire area to an agency.
- The Canal Pathway project represents a holistic approach to urban development, blending transportation needs with aesthetic enhancement and ecological benefits.



Major Impacts

Improved Quality of Life
Infusing abundant greenery and a harmonious environment has led to an unequivocal enhancement in the overall quality of life for the city's residents.

Cultural Significance
The amalgamation of greenery, recreational facilities and a tranquil ambiance has led to the Canal Pathway acquiring a symbolic cultural value for the city.

Strengthened Human-Environment Connection
The project has facilitated a profound connection between humans and their natural surroundings.

Economic Opportunities
A well-designed green corridor presents economic prospects for the city.

Well-being and Healthy Lives
As an avenue for leisure activities, exercise and social interaction, the Canal Pathway actively promotes healthy lifestyles and well-being for citizens of all ages.

Environmental Stewardship
The Canal Pathway project is pivotal in environmental preservation and sustainability.

Increased Land Values
Integrating green infrastructure within the Canal Pathway has positively impacted property values in the surrounding areas.

Revenue Generation
Beyond its intrinsic benefits, the Canal Pathway project also contributes to revenue generation. By offering a well-maintained and attractive public space, the city can explore avenues for generating revenue through events, activities and partnerships.

Promotion of Social Interactions
The Canal Pathway has become a hub for social interactions, providing a space for community gatherings, events and leisure activities.

RANK 3

Nalanda Parisar (Oxy Reading Zone Library)

Raipur, Chattisgarh

https://youtu.be/AgxJYKJnvW4

About the Project

Nestled in the heart of Raipur, a city renowned for its lakes and natural splendour, the Nalanda Parisar Library project stands as a testament to Raipur Smart City Limited's (RSCL) dedication to nurturing an environment that fosters education, growth and well-being among the city's youth. Recognizing the needs and aspirations of the student community, RSCL embarked on a visionary project that brings together the essence of serene learning, interactive environments and recreational spaces - the Nalanda Parisar Library.

1. **The Nalanda Parisar Library:** A Hub of Learning and Inspiration: The Nalanda Parisar Library embodies a unique concept that transcends the conventional idea of a library.

2. **A Sanctuary for Learning and Growth:** The library's architecture is designed to create a harmonious connection between its interior and the natural world outside.

3. **A Haven of Biodiversity and Sustainability:** The visionary approach doesn't end at the library's walls. The open spaces surrounding the library have been meticulously designed with gazebos and canopies that offer shelter to students as they delve into their studies. LED lights ensure efficient energy management, contributing to the city's sustainability goals.

4. **Nurturing a Knowledge Society and Youth Empowerment:** The Nalanda Parisar library encapsulates RSCL's vision of enabling a knowledge society and empowering its youth.

The success of the Nalanda Parisar library project is evident in its daily footfall of 800 to 1000 students and the impressive achievements of its patrons. Over three years, more than 150 students who have been part of the library have gone on to excel in competitive exams, a testament to the empowering environment it provides. This groundbreaking endeavour is a precursor to similar projects planned across the city.

Key Outputs

Architectural Brilliance and Reading Sanctuaries
Within the expanse of Nalanda Parisar lies a treasure trove of knowledge, with a sprawling 2000 sq.m. of meticulously developed reading zones housed within the iconic Youth Tower.

01

Fostering a Collaborative Ecosystem
The library complex encompasses a commercial zone spanning 1000 sq.m., providing a dynamic space where intellectual and entrepreneurial pursuits converge.

02

An Oasis of Biodiversity:
Over 17,000 sq.m. of land has been beautifully landscaped into a unique bio-diversified zone.

03

A Vast Repository of Knowledge
The Nalanda Parisar boasts a remarkable collection of knowledge with over 50,000 books adorning its shelves.

04

Empowering Connectivity and Technology
Technological advancement takes centre stage at Nalanda Parisar. Installing a SCADA system, an unprecedented feat in the state, ensures an uninterrupted electricity supply, reinforcing the library's commitment to a seamless learning environment.

05

Cultivating a Legacy of Learning
Nalanda Parisar is more than a library; it's a legacy of learning that empowers the youth to thrive in a world fueled by knowledge and innovation.

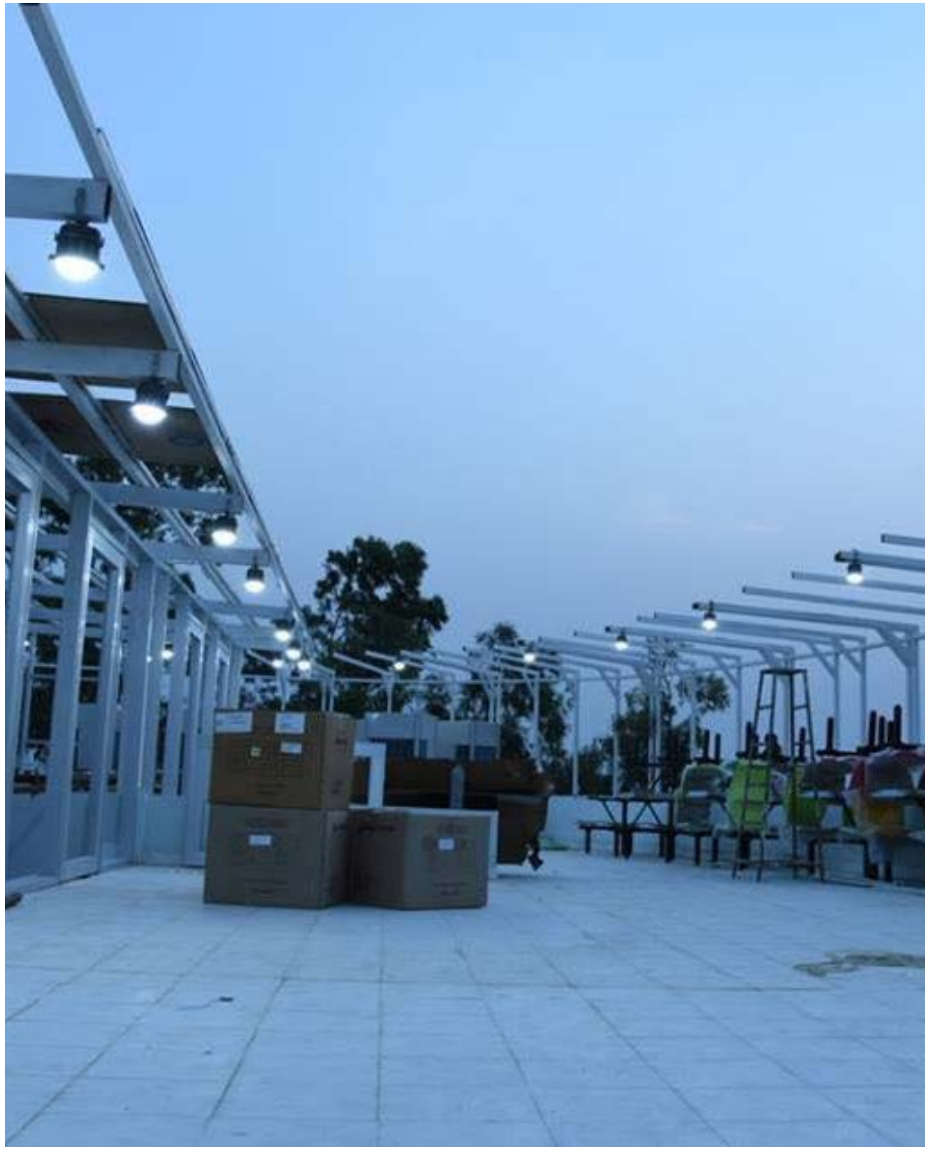
06

Unveiling the Future of Learning
As the sun sets over the serene landscape of Nalanda Parisar, it illuminates not only the pages of countless books but also the aspirations of generations.

07

Innovative Features

- An Educational Haven of the Future: The Nalanda Parisar redefines traditional concepts of libraries and study spaces.
- A Dynamic Spectrum of Amenities: The Nalanda Parisar has many amenities that elevate the learning experience.
- An Eco-Friendly Marvel: Commitment to environmental sustainability is a cornerstone of Nalanda Parisar's design.
- A Self-Sustaining Model for Success: The Nalanda Parisar pioneers a self-sustainable business model, a testament to its innovative approach.
- Empowering through Technology: Setting new benchmarks, the Nalanda Parisar adopts cutting-edge technology for uninterrupted operations.
- A Wealth of Knowledge: The library's collection is a treasure trove of educational resources.



Major Impacts

A Triumph of Learning
The statistics are a testament to Nalanda Parisar's monumental impact on shaping academic journeys.

A Space for Success
The Nalanda Parisar provides an empowering ecosystem with a total seating capacity of 500 students.

A Community of Achievers
The reach of Nalanda Parisar has extended beyond mere footfall numbers.

Empowering Futures, Generating Prosperity
Beyond academic achievements, Nalanda Parisar has also etched its mark on the financial landscape.

A Legacy of Excellence
In the heart of Nalanda Parisar, success stories unfold daily.

WE HAVE NOT CONCLUDED YET....

Ministry of Housing and Urban Affairs

Government of India