



## NATIONAL URBAN LEARNING PLATFORM

# COMPENDIUM OF GOOD PRACTICES

### THE URBAN LEARNATHON 1.0

RY. INNOVATION  
RASTRUCTURE

10 REDUCED  
INEQUALITIES



11 SUSTAINABLE CITIES  
AND COMMUNITIES



12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE  
ON LAND



16 PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



17 PARTNERSHIPS  
FOR THE GOALS





# **NATIONAL URBAN LEARNING PLATFORM**

# **COMPENDIUM OF**

# **GOOD PRACTICES**

## **THE URBAN LEARNATHON 1.0**

## National Institute of Urban Affairs

### Compendium of Good Practices

The Urban Learnathon 1.0  
National Urban Learning Platform

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# The 3Rban Learnathon 1.0

The 3Rban Learnathon was an inspiring national challenge launched by the Ministry of Housing and Urban Affairs (MoHUA) in partnership with the National Institute of Urban Affairs (NIUA) on March 13, 2023. Designed to unite urban practitioners under one collaborative forum, this challenge ignited a vibrant culture of knowledge-sharing and innovation in India's urban landscape. Through the National Urban Learning Platform (NULP), participants were empowered to showcase their expertise and contribute to a powerful, expanding repository of urban solutions.

Over 60 days, submissions poured in from all areas of the urban sector—cities, states, Smart City SPVs, administrative bodies, academia, Civil Society Organisations, and industries. The Learnathon recognised top ten entries under each theme and participation category. These winning entries are now accessible globally on NULP, reinforcing India's commitment to sustainable collaborative learning.

## Evaluation Process

The evaluation process was based on the NULP' principle of "share, consume and mentor." This means that solutions were created and shared on NULP by the municipal community itself and were rewarded based on the public voting.

The 3Rban Learnathon gained nation-wide participation with 264 entries. Based on the following four parameters on the scale of 1 to 5 marks, the entries were checked by a panel of experts.



Innovation



Replicability



Impact



Sustainability

55 entries were shortlisted and were open for public to vote. Top 12 entries received the highest number of votes and were rewarded with the respective prize money in National Urban Conclave held in October 2023.

Total Entries

264

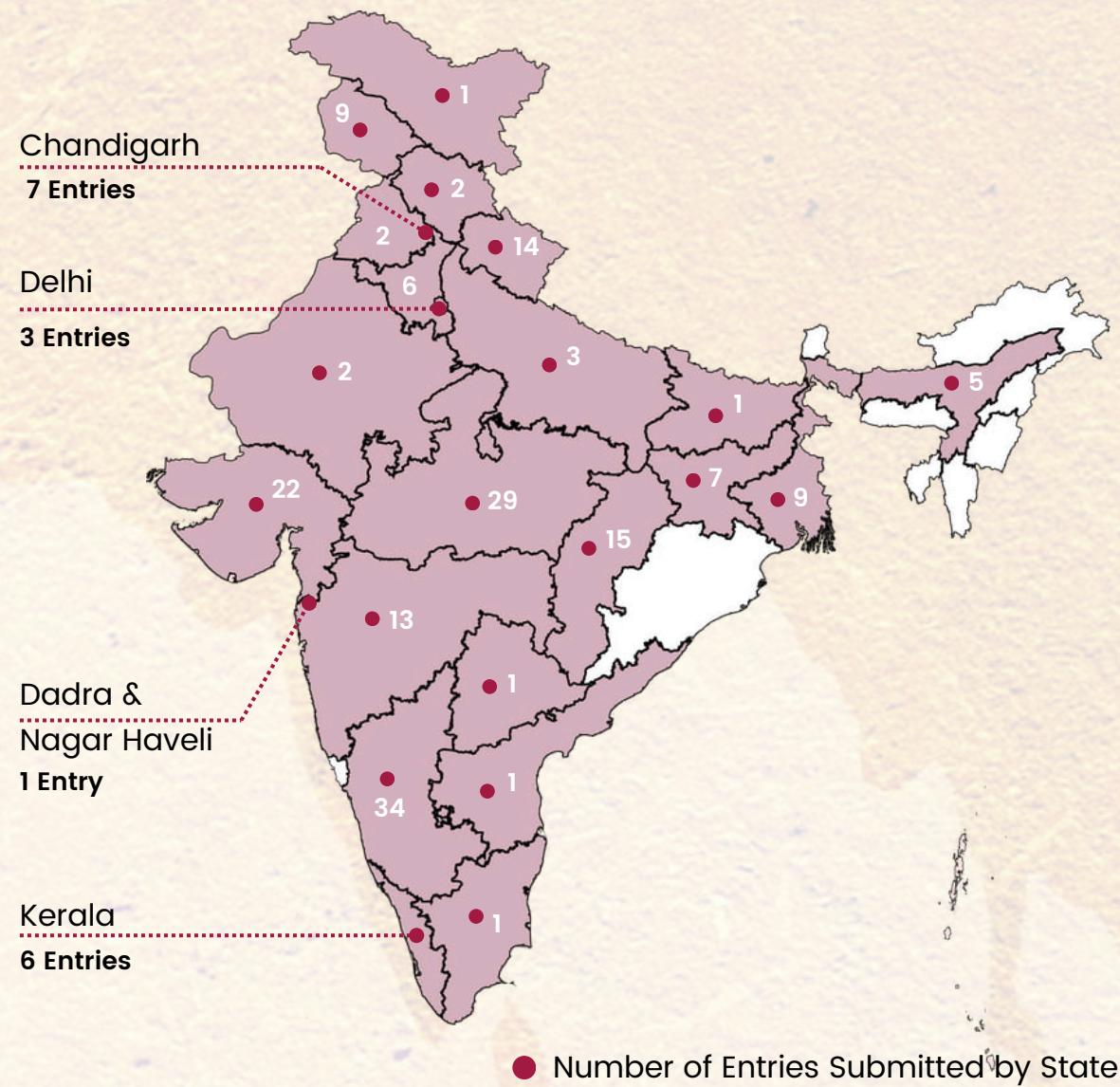
Shortlisted Entries

55

Winning Entries

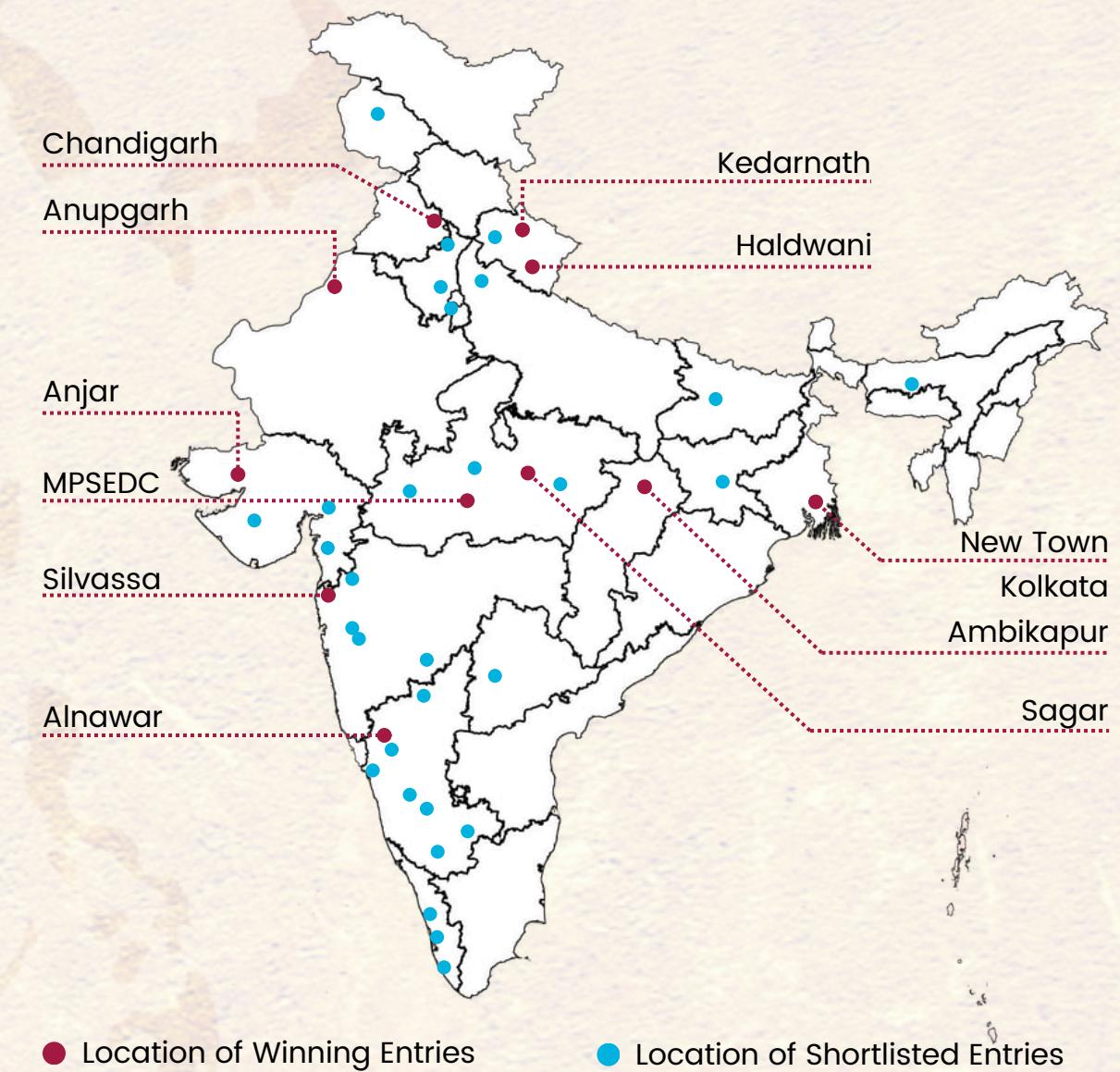
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# Nation-wide Participation



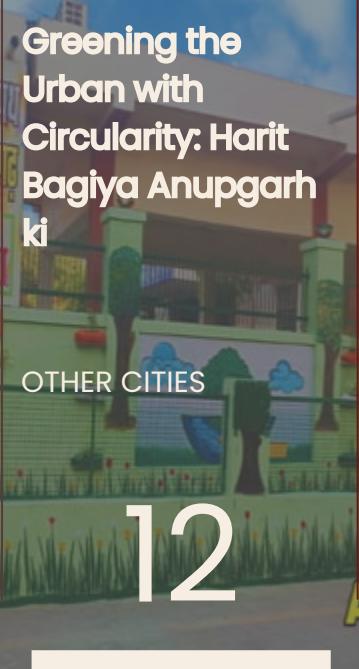
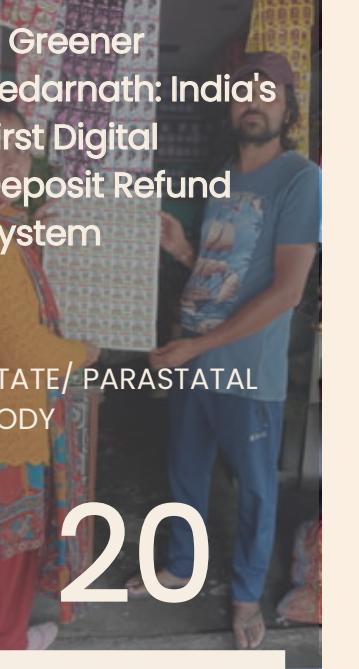
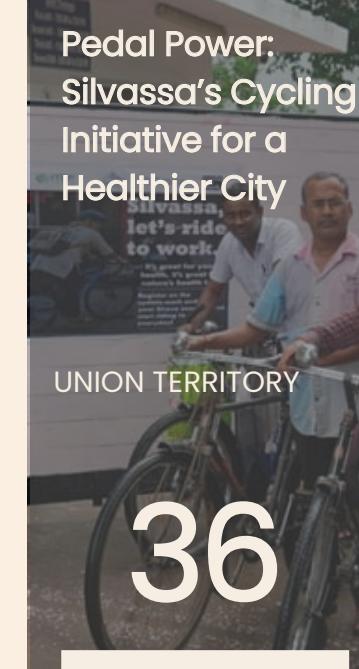
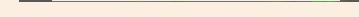
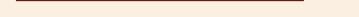
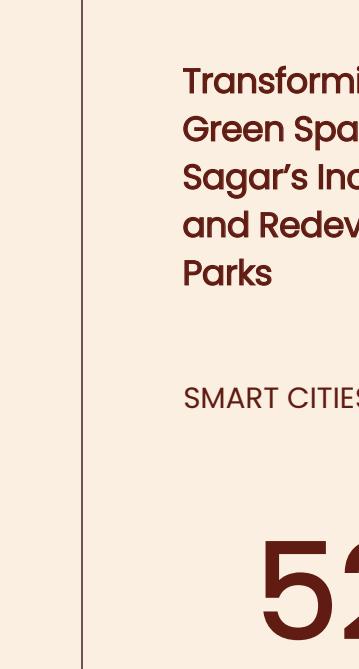
Disclaimer: The map of India is for general illustration only, and is not intended to be used for reference purposes.

# Shortlisted and Winning Entries



Disclaimer: The map of India is for general illustration only, and is not intended to be used for reference purposes.

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# Winning Entries

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The 3Rban Learnathon 1.0





# Greening the Urban with Circularity

## Harit Bagiya Anupgarh ki

### Anupgarh Nagarpalika



## Introduction

Under the Harit Bagiya Anupgarh initiative and in alignment with the Swachh Bharat Mission and the Environment Protection Act 1986, the Municipality of Anupgarh beautified the city's streets.

As a key part of this endeavor, 22,000 waste plastic bottles were repurposed to enhance the urban landscape, featuring wall-mounted plantations strategically placed throughout the area.

Category: Other Cities

## Problem Statement

Anupgarh faced the persistent issue of widespread littering and plastic waste accumulation across the city. In response to this pressing environmental concern, with the aim of enhancing the city's aesthetic appeal and fostering community engagement for solid waste management, Anupgarh initiated a proactive campaign titled "Harit Bagiya Anupgarh Ki."

## Project Highlights

1. Bottles were collected from various sources, including government and private schools, marriage halls, dharamshalas, restaurants and residential buildings within the municipality.
2. Municipal workers, participants of the Indira Urban Employment Guarantee Scheme, rag pickers and school students actively participated in the initiative.
3. The municipality procured plants and colors, while additional materials were sourced from waste.
4. Drip irrigation systems were implemented to ensure efficient mechanical watering of plants.



Category: Other Cities

## Environmental Impact:

- Single-use plastic bottles collected from multiple locations within Anupgarh's municipal area were repurposed, enhancing cleanliness and aesthetics, including the transformation of the dumping yard.
- Wall plantations promoted environmental conservation and indoor gardening in limited spaces.

## Social Impact:

- Employment opportunities were created for unskilled workers through the Indira Gandhi Urban Employment Guarantee Scheme.
- Innovation, creativity and healthy competition was fostered among school students.
- The visual appeal of government office buildings and schools was enhanced, discouraging undesirable practices on walls.
- Voluntary community service (Shramdaan) was encouraged, engaging citizens in garden maintenance and watering.
- The attractiveness of buildings was improved through decorative wall features and paintings.
- A "waste-to-best" mindset was promoted, inspiring similar initiatives in private spaces.
- The initiative was recognised in major state newspapers.
- Municipality Anupgarh received special appreciation for its significant impact.

# Turning Waste into Wealth

## Revolutionary Wastewater Treatment Project

Anjar Nagarpalika



## Introduction

Under its wastewater recycling initiative and aligned with sustainable development principles, Anjar Nagarpalika launched a Public-Private Partnership (PPP) project. This initiative, in collaboration with Welspun India, involved selling recycled by-products as manure.

The project had a total capacity of 40 Million Liters per Day (MLD), with Anjar contributing 3.5 MLD. The total cost of project was Rs. 150 Crore. This collaborative approach mitigated financial risks and distributed the financial burden among several cities, fostering a sustainable model for wastewater treatment and reuse.



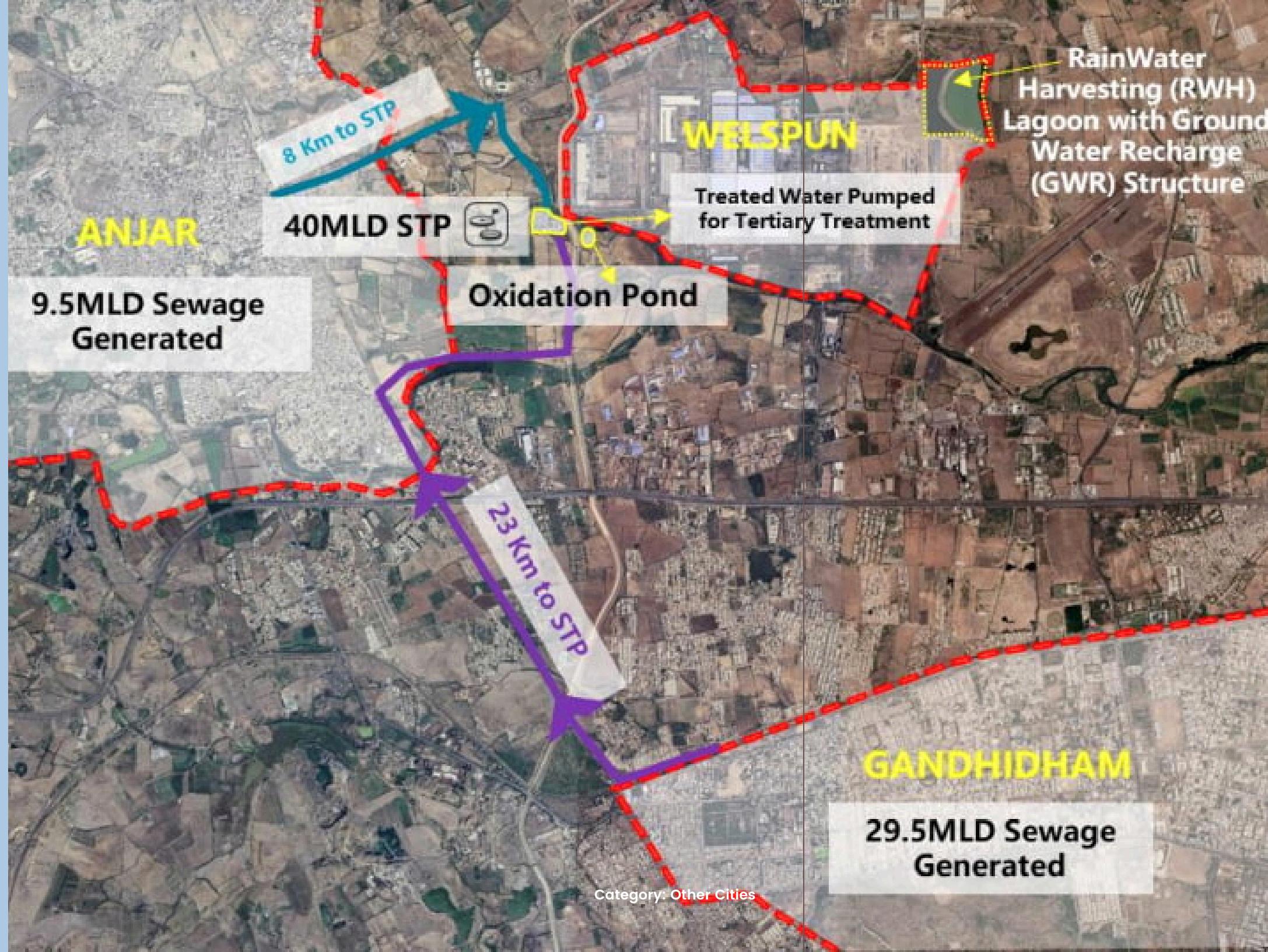
Category: Other Cities

## Problem Statement

Anjar faced the persistent issue of wastewater discharge into the river stream. In response to this pressing environmental concern, Anjar initiated a wastewater treatment project aimed at creating a clean environment, generating revenue, and fostering a circular economy.

## Project Highlights

1. Wastewater generated in Anjar, amounting to 3.5 Million Liters per Day (MLD), was collected and pumped to the Sewage Treatment Plant (STP) through a 25-kilometer pipeline.
2. The STP processed 3.5 MLD of wastewater from Anjar and approximately 20 MLD from Gandhidham.
3. The Activated Sludge Process, combined with chlorination for disinfection, was applied in water treatment.
4. Various tests, including BOD, COD, pH, TSS, Total Phosphate, Total Nitrogen, and Total Coliform, were conducted on the water.
5. The treated water was recycled, reused and sold.



## Project Impacts

### Financial Impact:

- Approximately Rs. 7 lakhs per year was generated from the sale of treated waste.
- Revenue was generated at the rate of 44 paisa per 1,000 liters of treated wastewater.

### Environmental Impact:

- Approximately 85% of the treated water was utilised by the Steel Plant, while the remaining 15% was dedicated to garden development over a 13-acre area.
- About 45 tons of sludge were generated daily and utilised as manure.



# A Greener Kedarnath

## India's First Digital Deposit Refund System

### Kedarnath Municipal Council



Kedarnath,  
Uttarakhand

## Introduction

A litter-free Kedarnath Yatra was facilitated by India's first Digital Deposit Refund System (DRS), a highly effective, community-owned joint initiative.

This initiative involved the Nagar Panchayat, Vyapar Mandal, Safai Karamchari, Pittu Sabha, Mule Union, Yatri, and local residents. In this system, QR codes were affixed to plastic bottles, which were sold to customers with a nominal surcharge, refundable upon deposit. Customers returned these bottles and received a refund, while the municipality collected and forwarded the bottles for recycling.

Category: State/ Parastatal Body

## Problem Statement

The significant footfall in Kedarnath, a prominent tourist destination, generated a considerable amount of plastic waste. To address this issue, a Digital Deposit Refund System was implemented by the Kedarnath Municipal Council.

## Project Highlights

1. Bottles were labeled by the brand owner, USI and sold to distributors.
2. A distribution network collected and sold USI-labeled bottles to retailers.
3. Retail outlets purchased USI-labeled bottles from distributors at ₹X per bottle and sold them to consumers.
4. Consumers purchased the product, paying ₹X per bottle to retailers.
5. Customers returned USI-labeled empty bottles to the Reverse Vending Machine (RVM) and received ₹X per bottle from an Escrow Account.
6. A mobile application was developed to efficiently manage the Digital Deposit Refund System (DRS), facilitating collection and payment mechanisms, complemented by back-end solutions for operations and scheme management..



# Project Impacts

## Environmental Impact:

- Clean material was utilized for reuse and recycling.
- A total of 1200 kg of legacy waste was collected and recycled.
- The Nainital High Court issued a directive through Writ Petition (PIL) 93 of 2023 to implement the scheme statewide.

## Social Impact:

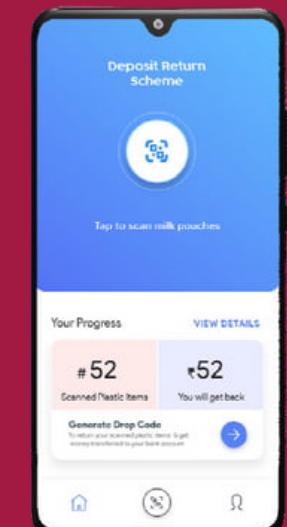
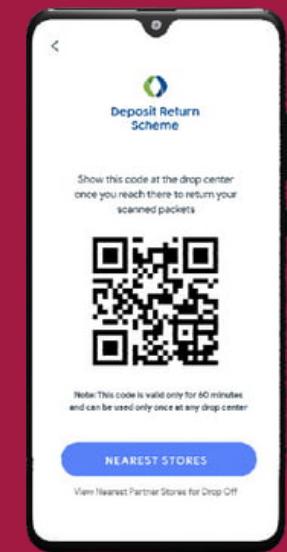
- A behavioral shift toward responsible disposal was promoted.

## Personal Impact:

- Local green jobs were generated.
- A national award was instituted by the Ministry of Electronics, Information, and Technology (MeITY) for the first Digital Innovation on the Deposit Refund System implemented in Uttarakhand.

## Technological Impact:

- Unique Serial Identification (SUI) was implemented for verification and authenticity.
- System transparency and data security were assured.
- Traceability for recovered material was established, facilitating reuse, refill, and recycling efforts.



# Guardians of Cleanliness

## The Baini Sena Initiative in Haldwani

Haldwani Nagar Nigam



### Introduction

Baini Sena, a self-help group (SHG) established under the National Urban Livelihood Mission (NULM) and Swachh Bharat Mission, was assigned the responsibility of overseeing and supervising sanitation works. In Uttarakhand, the term "Baini" is affectionately used to refer to sisters, inspiring the naming of this SHG as "Baini Sena."

### Problem Statement

The challenge of supervising implemented schemes in Haldwani was addressed by forming a Self-Help Group (SHG) by Nagar Nigam to oversee and monitor sanitation-related activities in the city.

### Project Highlights

- Every household and locality underwent monitoring at least twice a month.
1. The first visit was dedicated to sanitation supervision and gathering public feedback, while the second visit involved both sanitation supervision and the collection of user charges.
  2. Coordination between Baini Sena, sanitation teams and Nigam was facilitated through a cluster-based approach using WhatsApp groups.
  3. The city was organised into two clusters, each consisting of 35 and 27 wards, to enhance coordination efforts.

### Challenges

- Concerns were raised about gaining the trust and cooperation of Ward Representatives for this model.
- Dissatisfaction was expressed by local businesses, viewing the introduction of Baini Sena as a new form of tax.
- Refusal to pay user charges was noted due to unsatisfactory service delivery by sanitation workers.
- A ban request on Baini Sena was made by Environment Workers and a Public Interest Litigation (PIL) was filed in the Hon'ble High Court, Uttarakhand.



मेरा शहर - मेरी पहचान स्वच्छ सर्वेक्षण 2023  
स्वच्छता में हल्द्वानी को, बनायें नं. 1  
निवेदक :- नगर निगम, हल्द्वानी - काठमाडौं

## Project Impacts

### Environmental Impact:

- Due to regular personalised interaction, public awareness and sensitisation on cleanliness notably increased, as did the usage of the Swachhta App.
- Public trust and engagement with Nigam were enhanced through increased feedback and grievances, with information about other government schemes also being disseminated to the public at their doorsteps by Baini Sena.

### Social Impact:

- Regular and direct interaction with 65,000 households was established.
- Door-to-door waste collection increased from 60% to 85% of households, with the remaining 15% covered through secondary station and bin collection.

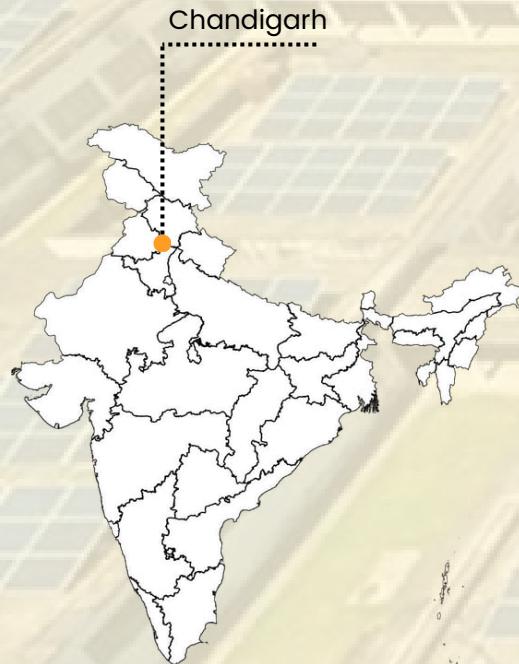
### Economic Impact:

- Baini Sena earned Rs 8 lakhs per month from user charge commissions, playing a crucial role in women's empowerment and livelihood generation.
- The collection of user charges from households reached 70%.

# Solar Revolution

## Chandigarh's Green Energy Transformation

Chandigarh Municipal Corporation



## Introduction

A significant increase in electricity demand was experienced by cities across the country, with Chandigarh facing a similar challenge. Struggling to meet the rising demand due to the lack of its own power generation source, frequent power supply breakdowns were common occurrences. The project Chandigarh Renewable Energy Science and Technology Promotion Society (CREST) was implemented to transform the city's energy needs through solar power generation.

Category: Union Territory

## Problem Statement

The challenge of lacking a local energy source was faced by Chandigarh, prompting the adoption of solar generation as a green solution to meet its electricity needs. This initiative positioned Chandigarh as the leading solar power generator among Union Territories.

## Project Highlights

1. An amendment was made to require the installation of solar power systems for buildings above 500 Sq. Yd.
2. The empanelment of vendors was carried out to provide residents with easy access to solar solutions at reasonable rates.
3. Real-time and remote monitoring for installed solar power plants was achieved through tools like a monitoring dashboard.
4. Prompt subsidy reimbursement for consumers was ensured.
5. A dedicated society was established for the implementation of renewable energy projects in the city.
6. Green spaces in government and private premises, such as buildings and water works, were identified for solar installations.



# Project Impacts

## Environmental Impact:

- A remarkable feat was achieved by Chandigarh, leading among all Union Territories in solar power installation, reaching a total capacity of 58.09 MWp in the year 2023-24.
- Net Zero energy consumption was successfully attained at various locations, including Paryavaran Bhawan, Dhanas Floating SPV Power Plant, Model Jail Sector-51, ISBT Sector-17, and New Secretariat Building SPV Power Plant, among others.

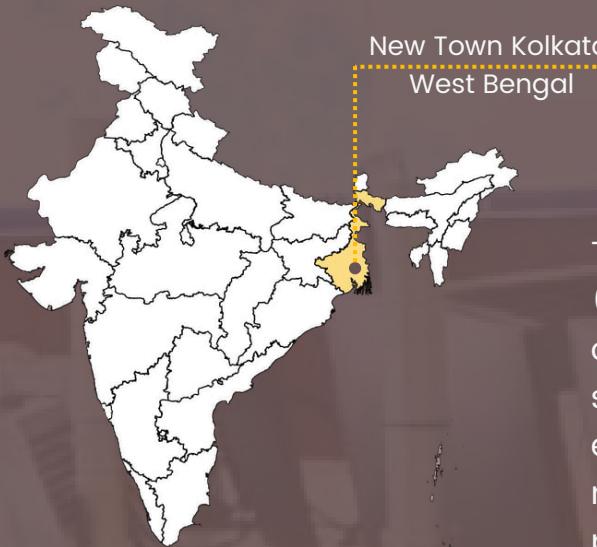
## Economic Impact:

- The latest number of beneficiaries in Chandigarh stood at 1,311, with a subsidy amount of Rs 10.75 crore provided.
- The government sector in Chandigarh installed 29 MWp of solar power capacity with a capital investment of Rs 104 crore. This initiative resulted in the generation of Rs 84 crore in revenue, contributing to an 81% recovery rate.

# Transforming Urban Management with ICCC

## A case of New Town Kolkata

### New Town Kolkata Smart City



The Integrated Command and Control Center (ICCC) served as the central hub for operations management of all IT-based urban service delivery solutions. Day-to-day exception handling was managed and a crucial role in disaster and emergency response was played by the center.

Data from various field devices and sources was processed by the ICCC and coordination with relevant stakeholders, including line departments and agencies, was ensured following defined Standard Operating Procedures (SoP) to provide an integrated response. The center aggregated and analysed data, generating valuable insights for the city administration to enhance services and facilitate long-term planning and policy-making.



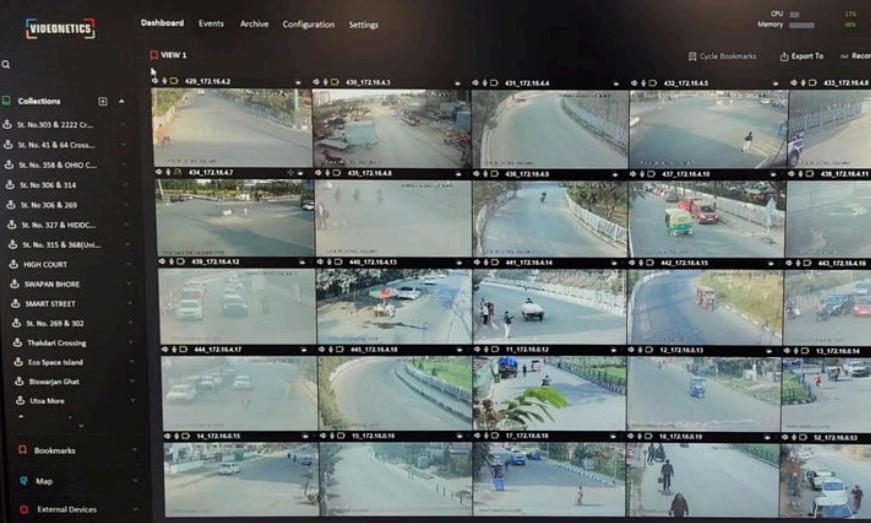
## Introduction

## Problem Statement

The Integrated Command and Control Centre (ICCC) was implemented under the Smart City Mission to manage operations of all IT-based urban service delivery solutions and to gather data received from multiple field devices and other sources (IGMS).

1. AI-enabled CCTV Surveillance
2. App-based Public Bicycle Sharing System
3. Real-Time Passenger Information Display System for Public Buses
4. Tracking through Smart Home Tag
5. Toilet Feedback System to monitor hygiene levels
6. Integrated Solid Waste Management with Vehicle Tracking System
7. Monitoring and management of street light
8. SCADA-based Water Supply System
9. Live drone-based surveillance through NKDA drones at ICCC
10. Monitoring of solar power plants generation
11. Measures for controlling pollution
12. Environmental sustainability and livelihood generation

Category: Union Territory



Public Services > Passenger Information System

MAP VIEW TREND ANALYSIS ALERTS REPORTS

Passenger Information System Project Details

29 Total 1 Offline 28 Online

Project 7 Project 26 Project 56

PIS ID 22 Date/Time 2023/04/27 15:43:25

Online

License No ETA(minutes) Route Destination

WB11D0830	11	AL/SH	Shapoorji
WB23C9709	9	DN2/1	Shapoorji
WB11D4268	11	AL/SH	Shapoorji
WB11E2357	9	AL/SH	Shapoorji
WB23D0034	11	DN2/1	Shapoorji

Bidhannagar

# Challenges

- Ensuring all safety and security guidelines for all integrated devices.
- Maintaining coordination between concerned vendors and departments.



# Project Impacts

## Social Impact:

- Real-time surveillance was provided.
- Prompt action to enhance citizen safety was enabled.
- Quality in service delivery for public health, road transport, etc., was improved.
- A 24x7 helpdesk and IGMS for sustainable monitoring were established.

NKDA

Toilet Feedback System Filter

TFS Admin th@districtnkda.in

Dashboard

Map view

List view

Reports

Alerts

Master Data

31% Clean

34% OK

3% Dirty

32% Very Dirty

DXTFS-3 Location: DB block community market Battery: 89% Signal: 84% Power: Good

DXTFS-4 Location: AXIS MALL Battery: 96% Signal: 91% Power: Good

DXTFS-5 Location: DF Community market Battery: 96% Signal: 95% Power: Good

DXTFS-6 Location: Sub-Central Business District(Action Area 1) Opposite of NBCC. Battery: 100% Signal: 100% Power: Good

DXTFS-7 Location: ... 2 months ago

NKDA Smart Home Tags

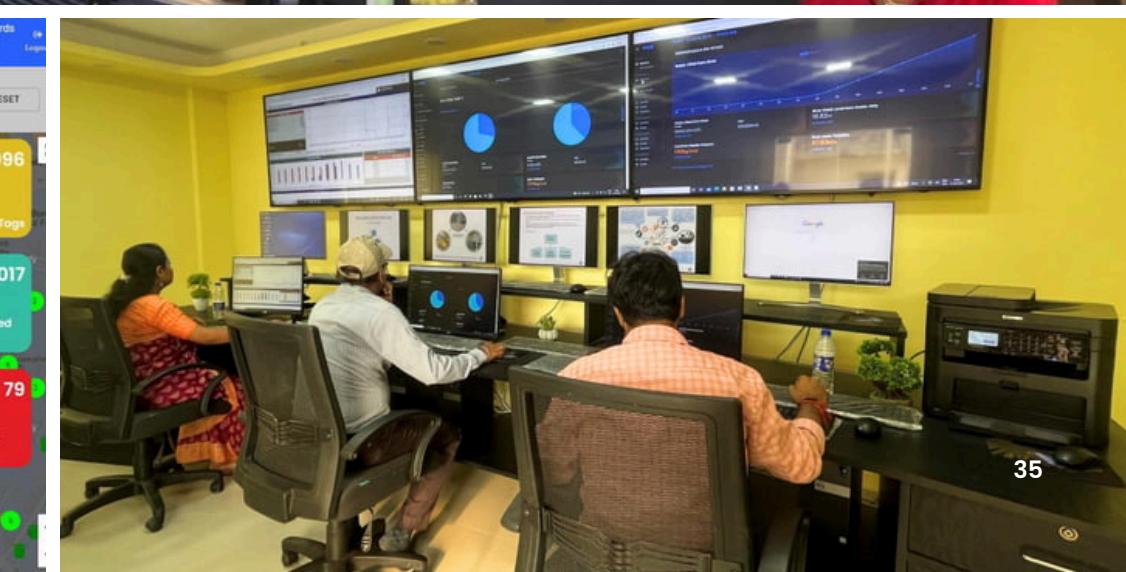
Action Area Block Plot Premise Search APPLY RESET

Category: Union Territory

2096 Total Tags

2017 Total Bins Cleaned Today

79 Total Tags not Scanned



# Pedal Power

## Silvassa's Cycling Initiative for a Healthier City

Silvassa Smart City



Silvassa, Dadra and Nagar Haveli



## Introduction

The CYCLE2WORK CAMPAIGN was introduced by the Municipal Council Silvassa on June 3, 2022. This inclusive initiative targeted individuals from the daily wage workforce to top-level senior management in both multinational and local corporations within the city, encouraging them to cycle to work.

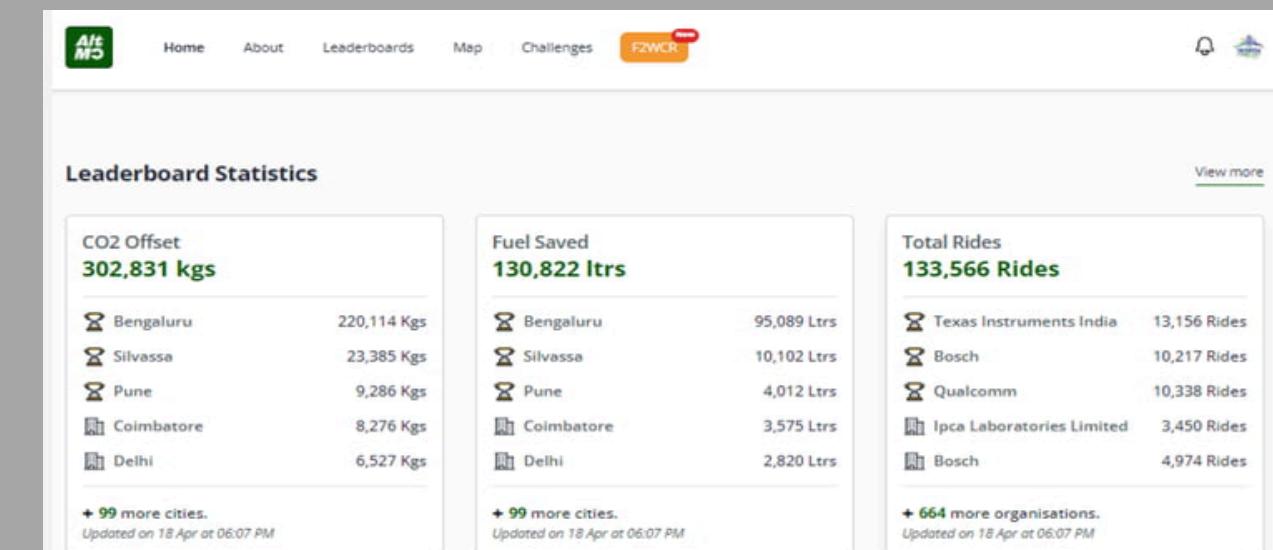
## Problem Statement

Significant challenges related to traffic and parking management were posed for the Silvassa city administration. To address issues concerning traffic congestion and to improve the mental and physical health of residents while promoting cycling as a mode of commute, this campaign was introduced.

Category: Union Territory

Employees from various sectors, including public and corporate sectors, were encouraged to adopt cycling as a mode of commuting to work as part of the CYCLE2WORK CAMPAIGN.

1. Employees from various sectors, including public and corporate sectors, were encouraged to adopt cycling as a mode of commuting to work as part of the CYCLE2WORK CAMPAIGN.
2. The Silvassa Smart City adopted a gamification platform, AltMo, and STRAVA for monitoring.
3. The AltMo platform captured the cycle rides made to work, tracked on STRAVA by the riders.
4. The platform reflected the number of riders, their rides to work, and the distance covered.
5. This data enabled the generation of a dashboard, and the AltMo portal facilitated access to data regarding total CO2 emissions and fuel saved by cycling to work.





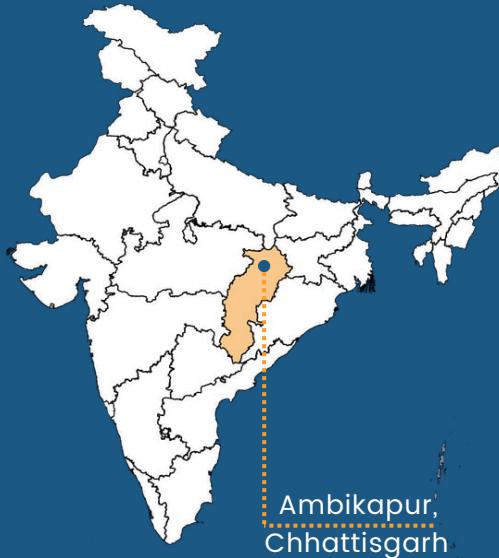
## Project Impacts

### Social and Environmental Impact:

- Cycling was normalised as a mode of commuting to work for people across socio-economic groups, from daily wage workers to top-level senior management in both multinational and local corporations.
- Industries incentivised cycling:
  - Vedanta changed its policy to prefer cycles over 2-wheelers.
  - More than five industries allowed smartphones till the gate after the launch of the C2W Campaign.
  - Owens Corning distributed cycles to employees to promote the campaign.
  - Industries began celebrating a weekly Cycle2Work day, where all employees clubbed together and rode to work.
- Appreciation was received from various organisations like Reliance Industries and Bluestar Industries.
- The city recognised and rewarded champions and ambassadors for their outstanding work and performance in promoting cycling through the CYCLE2WORK CAMPAIGN.

# Swachh Ambikapur: Revolutionising Waste Management

## Ambikapur Municipal Corporation



## Introduction

In 2015, 'The Swachh Ambikapur Mission' was initiated by the Sarguja district administration to address the solid waste issue and establish a long-term waste management strategy for the town. A significant dump yard where waste had been indiscriminately dumped had led to untreated garbage and the transformation of the area into exposed landfills.

## Problem Statement

Ambikapur faced challenges with an inefficient Solid Waste Management System, including overflowing community bins and indiscriminate waste dumping near roads and streets. In response, "The Swachh Ambikapur Mission" was initiated by the city administration to overcome these issues and improve waste management.

Category: Special Mention

## Project Highlights

1. The 45 MT of waste generated daily was fully segregated into 17 types of liquid waste and 20 categories of dry waste, further divided into 156 categories at the SLRM centre.
2. A 73% reduction in expenses was achieved, with costs lowered from ₹1.23 crore to ₹37 lakhs, while maintaining effective waste management practices.
3. 490 women from Self-Help Groups, called 'Green Warriors', were employed in waste segregation, earning over ₹60,000 per year, contributing to both livelihoods and community welfare.
4. A fleet of 100 manual rickshaws and 34 e-rickshaws collected waste twice a day, ensuring regular collection from households and commercial properties.
5. Organic waste was repurposed as feed for livestock, such as cows, ducks, fishes and also used as manure for green spaces, promoting sustainable agricultural practices.
6. Monthly revenue included ₹50 from households and ₹100 from commercial properties, generating up to ₹7 lakhs/month, alongside waste sales revenue ranging from ₹1 to ₹3 lakhs.

# Project Impacts



7. Campaigns were conducted using street paintings, pamphlets, and cultural activities like dances and plays to raise public awareness about waste management and segregation.

8. SLM Centers were equipped with CCTVs, security alarms, and RF connectivity for remote monitoring, and the initiative was featured as a case study by Doordarshan and Discovery.

## Environmental Impact:

- The entire city was transformed from a dumping yard into Swachhata Park.
- Within six months, the waste peak at the dump yard was developed into an aesthetically pleasing and scientifically designed park at a low cost, supported by a government grant of ₹3.6 crore.
- The park featured a large tertiary segregation center showcasing various waste categories.

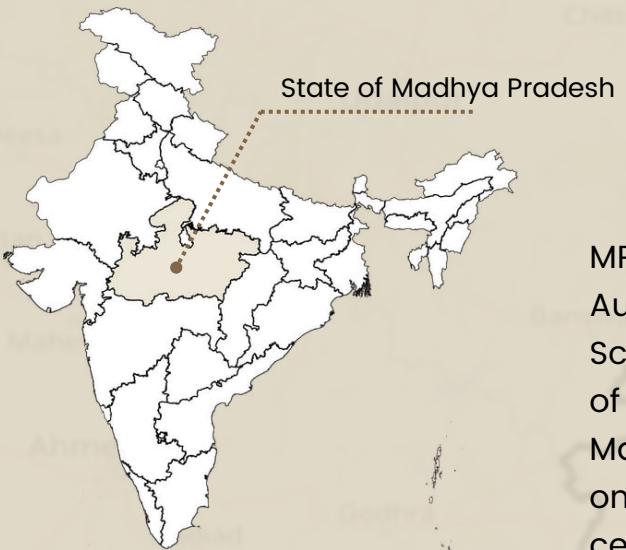
## Social Impact:

- Increased segregation at the source occurred due to heightened awareness of the mission.
- The transformed dump yard was now utilized by the public for recreational purposes.

# Enhancing Tax Collection and Monitoring with Digital Tools

## Property Information Management System of MPSeDC

### Madhya Pradesh State



MPSEDC developed a GIS-enabled online Automated Layout Process Approval and Scrutiny System (ALPASS) for the Directorate of Town & Country Planning, Government of Madhya Pradesh, which enabled instant and online generation of GIS-based land use certificates for citizens.

ALPASS served as a single-window system for land use and layout approval for citizens. It offered GIS-based automatic layout drawing scrutiny and mapping for users and officials. All calculations were based on uploaded GIS-based drawings. The system was integrated with other processes such as e-Sign, SSO, MP Bhulekh, ABPAS, IGRS, and PMIS.



## Introduction

## Problem Statement

Inefficient and time-consuming manual processes for layout approval and scrutiny resulted in delays, lack of transparency and difficulties for citizens in obtaining GIS-based land use certificates. These challenges impeded effective urban planning, hindered timely development projects and created barriers to citizen access to essential documentation. As a result, a critical need arose for an automated and streamlined system to expedite layout approval processes, enhance transparency and improve citizen access to land use certificates.

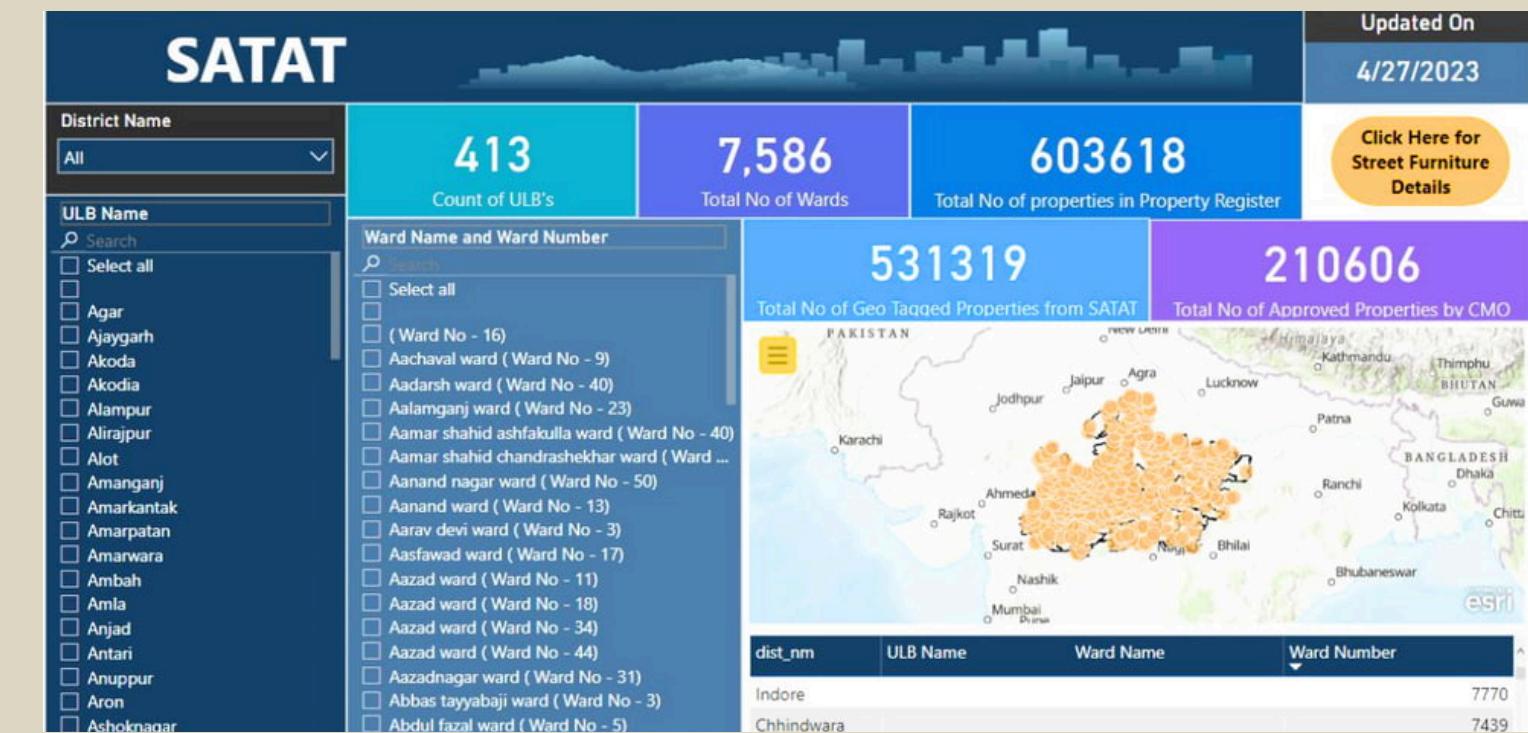
## Project Highlights

1. Automated checks for Master Plan and BVR Rules were integrated with other departments for authentic data retrieval.
2. Time management and prioritisation for departmental officials were facilitated using the time tracking feature.
3. An integrated GIS-based mobile application was provided for on-ground validation.
4. Dashboards and online reports were created for effective management and monitoring.
5. Features such as e-sign, Single Sign-On (SSO), a paperless environment, and streamlined processing enhanced efficiency.

# Challenges

- Awareness for GIS based drawing vs conventional CAD drawing
- Absence of GIS-based Master Plans
- Capacity building of department officials as well as Architects/Planners etc.
- Digitisation of Master Plan and BVR2012 rules and regulations.
- Development of Scrutiny Rule Engine and Calculator

The image shows two screenshots of the SATAT app. The left screenshot is from the Google Play Store listing, showing the app icon, name, developer information, and user reviews. The right screenshot shows the 'Existing Survey' interface, which includes a map, survey details, and a photo capture feature.



## Technological Impact:

- 24/7 accessibility and transparency were achieved.
- Online scrutiny rules and calculators facilitated better planning.
- E-sign and online payment options were implemented.
- All notifications were sent to applicants in real-time via email/SMS.
- Coordination for roads and nearby approvals was conducted digitally.

## Social Impact:

- No physical presence was required for the process.
- Entire documentation was completed digitally with fewer mandatory physical documents.
- Layout approval time was reduced from an average of 60 days to 30 days.
- Other impacts included reductions in forgery, enhanced transparency of records, fewer disputes, faster approvals, and environmental friendliness.

# Reimagining Water Supply

## Alnavar's 24/7 Initiative

### Alnavar Municipal Council



## Introduction

Alnavar, situated in Karnataka, grappled with the issue of water scarcity. The town sourced water from an irrigation tank named Davagi Naala, located approximately 7 km away. However, 75% of the tank's volume was dedicated to fulfilling irrigation requirements, leading to objections from local farmers and a scarcity of sufficient water supply.

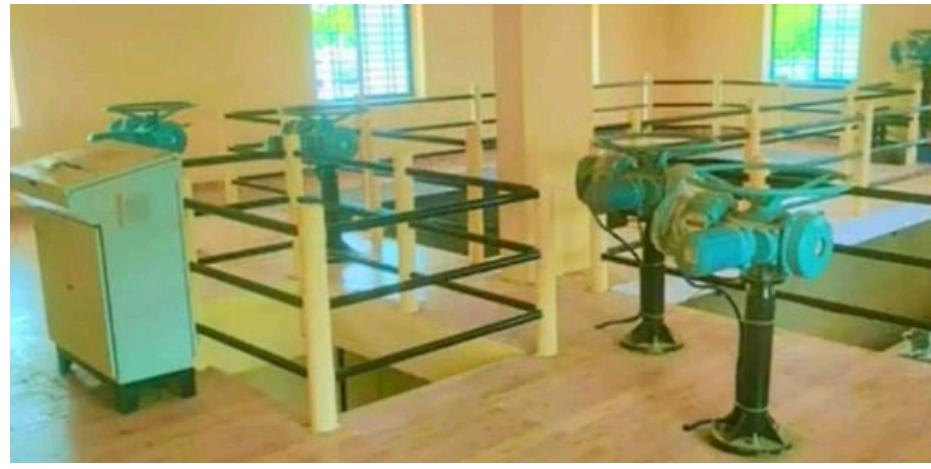
The overall health of the water supply system deteriorated, including the pumping station, water treatment plant, pipeline and overhead tank. In response to the pressing need, the Municipal Council of Alnavar implemented a new water supply scheme, drawing water from the Kali River. The objective was to provide water at a rate of 135 liters per capita per day (lpcd) with a residual head of 5 meters.

## Problem Statement

A shortage of 24/7 piped water supply was faced by Alnavar. The water supply project aimed to address the challenges of a disputed water source and growing water demands by providing an uninterrupted water supply 24/7.

## Project Highlights

1. The Kali River was identified as the optimal source of water.
2. Residents and farmers opposed the project and staged protests, resulting in law and order issues.
3. The scheme was implemented with a capacity of 5.6 Million Liters per Day (MLD).
4. Numerous legal challenges arose with farmers and the forest department concerning the acquisition of land for constructing water supply pipelines, jackwells and water purification plants.



# Project Impacts

## Social Impact:

- A continuous supply of clean drinking water 24 hours a day was ensured by the project.
- The water from the project pipeline effectively reached up to the second floor of houses. The supply volume increased from 25 LPCD to 135 LPCD, ensuring more water availability for residents.

## Economic Impact:

- User charges were based on usage, with a minimum charge of Rs. 58. The average monthly charge was reduced to Rs. 78, providing cost savings for consumers.
- The monthly demand rose from 2.5 lakhs to 6 lakhs. This increase led to 2 to 3 times more financial resources for the Town Panchayat, enabling better service provision to the public.
- The number of tap connections significantly increased from 1,800 to 3,700, with a demand for an additional 800 taps. This expansion positively impacted the income of the Town Panchayat.

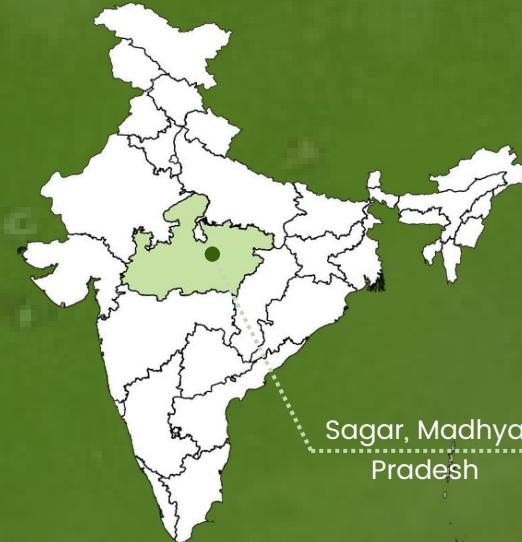
## Health Impact:

- A reduction in water-related diseases was achieved through the implementation of the project, contributing to improved public health.

# Transforming Green Spaces

## Sagar's Inclusive and Redeveloped Parks

Sagar Smart City



## Introduction

Sagar was endowed with abundant green spaces, which were underutilised by citizens due to the lack of basic infrastructure, such as pathways, lighting, and play equipment. Under the Smart City Mission, green spaces were redeveloped into three massive parks with modern amenities.

The objective was to provide attractive, safe, and usable green spaces for the public, with special emphasis on child-friendly and elderly-friendly components. These parks were effective in mitigating the urban heat island effect and served as valuable environmental resources as the city continued to grow in both size and population. The aesthetic value of the town was also enhanced by these parks.

## Problem Statement

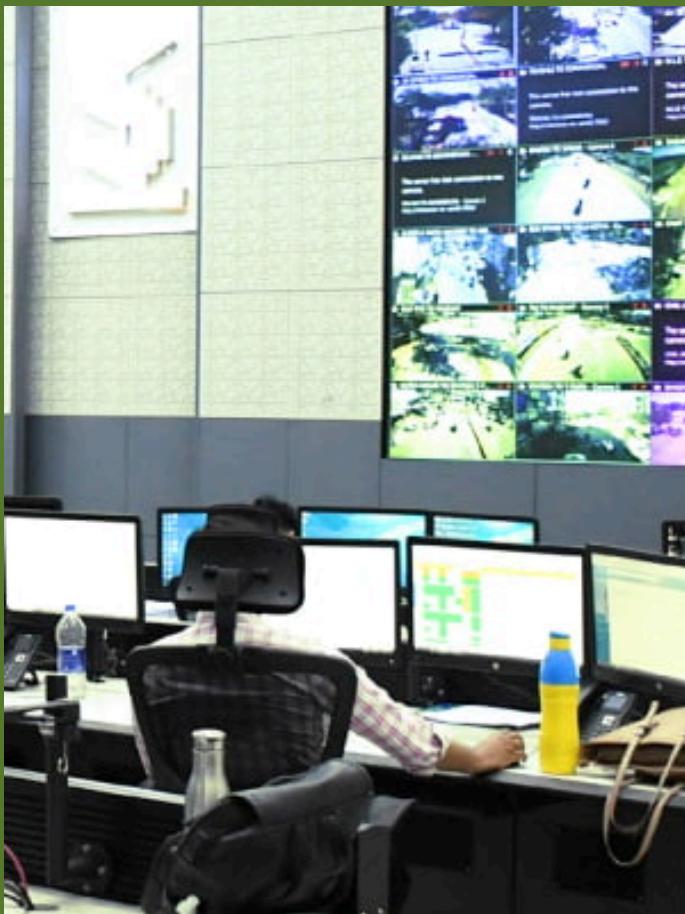
Challenges in utilising the green spaces in Sagar City, situated in hilly terrain, were faced due to insufficient infrastructure like pathways, lighting and play equipment. To address this issue, Sagar Smart City Limited transformed open spaces into parks, focusing on creating attractive, safe and usable areas for the public, with special consideration for children and the elderly.

## Project Highlights

- Park 1: Madhukar Shah Park, Gopalganj, Area: 0.65 Acre, child-friendly.
- Park 2: Dr. Hari Singh Gour Park, Gopalganj, Area: 1.60 Acre, designed with a youth-friendly concept.
- Park 3: Chandra Park, Civil Lines, Area: 1.70 Acre, designed for all age groups with provisions for cultural activities.

- 
1. The area was redeveloped, incorporating modern facilities while preserving its existing terrain and design.
  2. Additionally, these parks were equipped with a 300-person open-air theater for drama and theater enthusiasts, a 3.2 km jogging track and selfie points with feature walls.
  3. The parks served as venues for social events such as plays, marathons and competitions.
-

# Project Impacts



## Environmental Impact:

- The installation of solar-powered street lights resulted in energy savings, providing an eco-friendly and sustainable solution for the lighting needs in the area.
- The Air Quality Index (AQI) improved from 200-250 to 60-65.

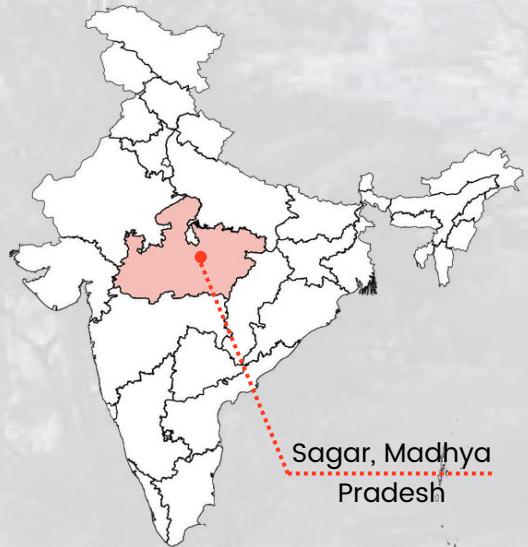
Category: Smart Cities

## Social Impact:

- Residents in Sagar enjoyed an enhanced neighborhood environment with improved public amenities, including a free gym for better health and well-being.
- Children had access to upgraded play areas, entertainment options and improved spaces for performing arts, redefining the concept of parks for the citizens of Sagar.



# Empowering Women Safe and Affordable Living in Sagar Sagar Smart City



## Introduction

With the growing socio-economic opportunities, more women migrated to cities for employment. These women often faced difficulties in finding safe, fully furnished, and conveniently located accommodations within secured and guarded campuses.

Sagar faced similar challenges, necessitating the need for safe, secure and easily accessible living arrangements for working women. The Working Women Hostel Project was implemented by Sagar Smart City to offer a safe and secure environment with all necessary facilities for working women.

## Problem Statement

The influx of women migrating to Sagar for employment posed challenges in providing clean, safe, affordable and convenient living spaces. To address this issue, the Working Women Hostel Project was initiated by Sagar Smart City in a proposed institutional campus.

Category: Smart Cities

1. Fully furnished single, double, and triple sharing rooms with attached toilets, gathering spaces, a visitor's room, kitchen, dining facilities, a sick room, a warden room and day care facilities were provided in the G+2 floor hostel.
2. Working women were accommodated at subsidised rates, making the hostel an affordable option.
3. The hostel campus is equipped with CCTV surveillance and security guards are present round the clock to ensure safety.
4. Two convenience shops operated by women were included in the hostel, catering to daily needs and contributing to revenue generation.
5. An affordable, secure, hygienic, and inclusive environment was provided for all working women in the city, without any discrimination.
6. Securing land allotment for the Working Women Hostel Project posed challenges.
7. The chosen area had safety concerns due to its shady environment, prompting security issues.



Category: Smart Cities

## Project Impacts

### Social Impact:

- Accommodation was provided for 42 working women, generating employment for 12 women in various roles at the facility.
- Two shops operated by women within the campus enhanced convenience and economic opportunities.

### Environmental Impact:

- Solar lighting was installed in the hostel, reducing electricity costs by 60%.
- A landscape garden around the building enhanced the natural environment.

# **43 Shortlisted Entries**

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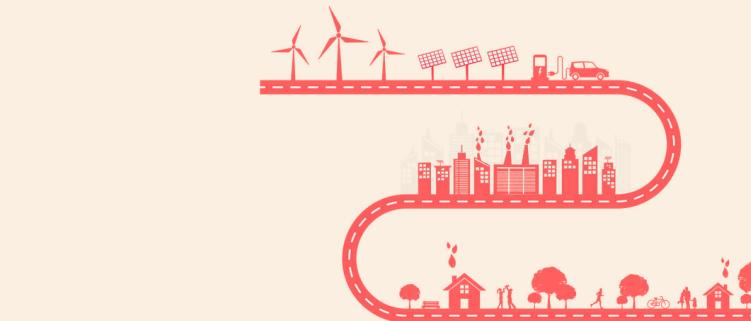
**The 3Rban Learnathon 1.0**



# Shortlisted Urban Solutions

The Learnathon facilitated the collating of various solutions to urban challenges, which will undoubtedly serve as good practices for other cities. Our aim to foster peer-to-peer learning has been successfully demonstrated through the shortlisted entries of the Learnathon. The innovative solutions provided by different municipalities will empower individuals, communities, and urban stakeholders.

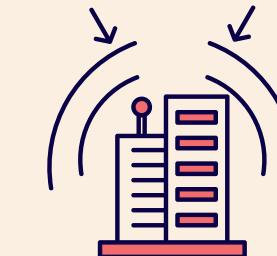
The summaries of the 43 shortlisted entries represent a means to enhance the capacity of municipal administration, engage the community in decision-making, increase transparency and integrate technology into the delivery of services. Therefore, these innovative solutions exemplify sustainable urban management.



**Self-Sustaining**



**Innovation**



**Resilience**



**Efficient Municipal Service Delivery**



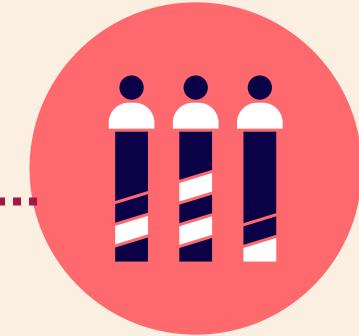
**Community Engagement**



**Scalable**



**Transparency**



**Skill Upgradation**

# Solid Waste Management



## Municipal Council Ambala Sadar

The solid waste management project by Municipal Council Ambala Sadar has greatly benefited the community by achieving around 95% recycling and eliminating waste dumping. It has protected the environment by reducing soil, water, and air contamination, and promoted home composting, leading to widespread kitchen gardens and organic fertilizer production. Public grievances related to waste management have decreased by 70%, resulting in cleaner streets. This self-sustaining and scalable project serves as a model for other urban areas.

## Single Use Plastic Ban: Bengaluru, Karnataka

The single-use plastic ban in Karnataka has greatly benefited the community and the environment by reducing plastic waste and pollution. It has led to cleaner streets, reduced drainage clogs, and less harm to wildlife. Major retailers have adopted sustainable practices, significantly decreasing their reliance on disposable plastics and encouraging customers to use reusable bags. However, challenges remain with small retailers, street vendors, and online companies still using banned items. Overall, the ban has promoted environmental sustainability and increased public awareness about the harms of plastic waste.



## Mission Clean City: Ambikapur, Chattisgarh

The project showcases urban projects that significantly enhance public life. These initiatives improve public spaces, sanitation, and governance through technology, resulting in safer, cleaner, and more efficient cities. The projects promote community engagement, inclusivity, and sustainability, directly benefiting residents by providing better amenities, increasing accessibility, and ensuring responsive city management. These efforts collectively uplift the living standards and foster a sense of pride and ownership among the urban population.

# Segregation at Source, Gurugram



The video "How to Implement Waste Segregation in Residential Complexes" demonstrates the effective implementation of waste segregation practices.

It explains the steps for setting up a segregation system, including educating residents, providing labeled bins for different types of waste, and ensuring regular collection and disposal. The initiative promotes environmental sustainability by reducing landfill waste and encouraging recycling and composting. It also highlights the importance of community involvement and collaboration with local authorities to achieve a cleaner and healthier living environment.



## Smart E-Waste Collection, Mysuru

The smart e-waste collection initiative in Mysuru, utilizing electric vehicles, has improved the management and recycling of electronic waste. This program has made e-waste collection more efficient by deploying electric vehicles to collect waste from households, commercial establishments, and markets. It has reduced harmful emissions and promoted better air quality, while also preventing the improper disposal of e-waste. The initiative supports the reuse and recycling of electronic waste, contributing to environmental sustainability and helping Mysuru move towards achieving "India's Net Zero Emissions" targets.



## Citizen Engagement in Managing Plastic Waste, Rohtak

The Eco-Bricks initiative by the Municipal Corporation of Rohtak has greatly benefited the community by engaging citizens in managing plastic waste effectively. By encouraging the creation of Eco-Bricks—plastic bottles stuffed with cleaned and dried plastic waste—the project has helped reduce plastic trash and promote environmental awareness. The initiative offered incentives like plants and cloth bags in exchange for Eco-Bricks, resulting in the collection of over 5000 Eco-Bricks in a year. These Eco-Bricks have been used in various construction projects, such as making benches, contributing to a cleaner and greener city while fostering a sense of community involvement.

# Water, Sanitation and Hygiene



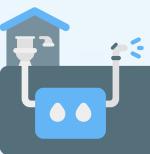
## Bangalore Water Supply and Sewerage Board

### Reuse of Treated Water

The reuse of treated water by the Bangalore Water Supply and Sewerage Board (BWSSB) has significantly benefited the community by providing a reliable water supply for agricultural and industrial purposes. It has improved the groundwater table in drought-affected areas, rejuvenated borewells and lakes, and enhanced ecological balance. The project supports farmers by providing nutrient-rich water, thereby reducing the need for chemical fertilizers, and has improved food security and livelihoods. Additionally, it has prevented pollution of surface waters and contributed to environmental sustainability and climate resilience.

### Water Supply Management & Rain Water Harvesting

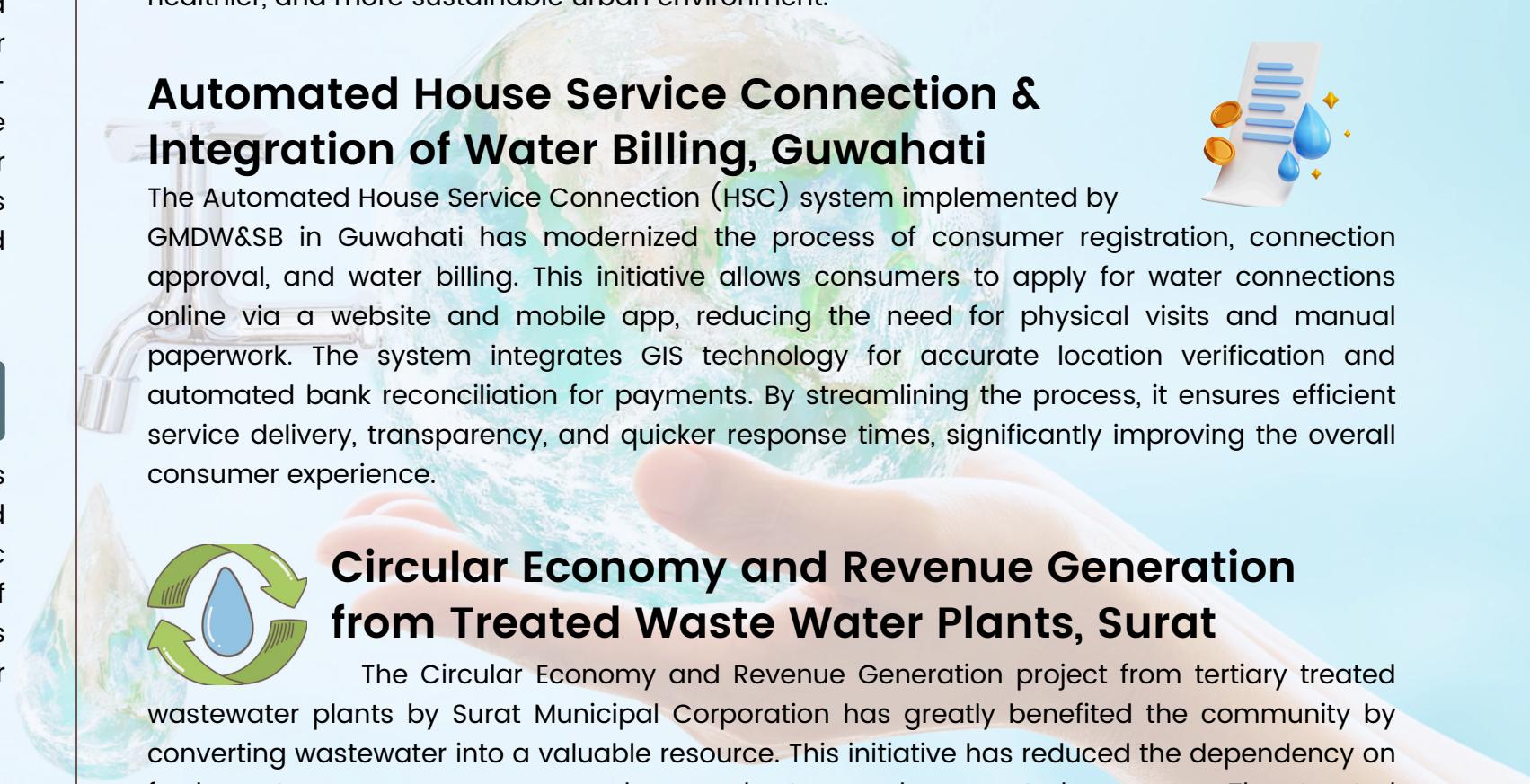
The water supply management initiatives by the Bangalore Water Supply and Sewerage Board (BWSSB) have greatly benefited the community by ensuring a reliable and adequate water supply. The implementation of Rainwater Harvesting (RWH) has increased groundwater levels, reduced dependence on external water sources, and promoted water conservation. The establishment of the RWH Theme Park has raised public awareness and provided training on sustainable water practices. The introduction of automated billing systems and a comprehensive complaint management system has improved customer service, billing accuracy, and transparency, leading to higher consumer satisfaction and better water management.



## Waste Water Utilisation & Tree Planting, Karwar

The reuse of treated wastewater in Karwar has had a significant impact on the community by providing a sustainable solution for water management. The project has improved the quality of treated water, which is now used for irrigating gardens, roadside

plants, and construction works, reducing the demand for fresh water. It has also mitigated issues related to unauthorized sewage connections and improved the overall sanitation infrastructure. The initiative has promoted environmental conservation through tree planting programs, enhancing the city's green cover and air quality. Overall, it has fostered a cleaner, healthier, and more sustainable urban environment.



## Automated House Service Connection & Integration of Water Billing, Guwahati



The Automated House Service Connection (HSC) system implemented by GMDW&SB in Guwahati has modernized the process of consumer registration, connection approval, and water billing. This initiative allows consumers to apply for water connections online via a website and mobile app, reducing the need for physical visits and manual paperwork. The system integrates GIS technology for accurate location verification and automated bank reconciliation for payments. By streamlining the process, it ensures efficient service delivery, transparency, and quicker response times, significantly improving the overall consumer experience.



## Circular Economy and Revenue Generation from Treated Waste Water Plants, Surat

The Circular Economy and Revenue Generation project from tertiary treated wastewater plants by Surat Municipal Corporation has greatly benefited the community by converting wastewater into a valuable resource. This initiative has reduced the dependency on fresh water resources, conserved groundwater, and generated revenue. The treated wastewater is utilized for industrial purposes, construction activities, lake rejuvenation, agriculture, and other non-potable uses, supporting sustainable urban development. The project also established a 40 MLD Tertiary Treatment Plant, ensuring a reliable water supply for industrial estates and promoting environmental conservation.

## Water Efficient Thrissur Project

The Water Efficient Thrissur project has significantly improved water management and service delivery in Thrissur. By implementing smart meters for commercial consumers and public taps, it has enabled accurate and real-time monitoring of water usage, reducing errors and enhancing billing efficiency. The project includes a comprehensive GIS mapping and asset management system, providing detailed information for better planning and maintenance. Public taps' consumption is monitored to identify and close inactive taps, reducing costs. The integration of SCADA for network efficiency and real-time water quality monitoring has ensured a reliable and efficient water supply, improving overall water governance and consumer satisfaction.



## Construction of Mahila Suvidha Grah

 Construction of Mahila Suvidha Grah (women's convenience centers) highlights the project's impact on improving sanitation and safety for women in urban areas. These centers provide clean, safe, and accessible restroom facilities, addressing a critical need for public sanitation. The initiative has empowered women by offering a dignified and hygienic space, contributing to better health and well-being. It also promotes gender equality by ensuring that urban infrastructure meets the specific needs of women, enhancing their comfort and security in public spaces.

## A Women-led Enterprise Model towards Mechanization of Sewer Cleaning in Patna City



The Swacchangini initiative in Patna, led by the Patna Municipal Corporation and UNFPA, has transformed sewer cleaning by eradicating manual scavenging and empowering women from marginalized communities. This program has trained 72 women to operate

mechanized cleaning vehicles, providing them with dignified and safe employment. The initiative has improved sanitation by cleaning over 8149 manholes and has promoted social and financial empowerment for women. By transitioning to mechanized cleaning, the project has enhanced public health and safety while fostering community development and gender equality.



## Water Tanker Booking, Thiruvananthapuram

The Water Tanker Pass issuance and Monitoring system in Thiruvananthapuram has significantly improved water delivery services, ensuring regulated, timely, and quality water supply. By mandating vehicle registration and licensing, implementing GPS tracking, and enabling online booking and payments, the system has eliminated monopolies, reduced exorbitant charges, and prevented contamination issues. Real-time monitoring and a 24x7 call center have enhanced service efficiency, ensuring over 90% of water deliveries within an hour. This project has increased public trust, provided additional income to the corporation, and won the Kerala State Best E-Governance Award for its impactful service delivery.



## Patana Pragathi Toilet Monitoring System, Hyderabad

The Pattana Pragathi Toilet Monitoring System (PP-TMS) in Telangana has significantly improved the management and monitoring of public sanitation facilities across urban local bodies (ULBs). This ICT-based system, launched in October 2020, includes a web portal for data upload, a mobile app for weekly monitoring, and a dashboard for real-time analysis. It has ensured that over 10,721 toilet seats are regularly inspected for cleanliness, maintenance, and COVID-19 safety measures. The initiative has increased accountability, with about 90% of toilets monitored bi-weekly, enhancing public health and hygiene standards in the state.



# Governance and Urban Management



## Incubation Center, Bhopal Smart City

The B-Nest Incubation Center in Bhopal has significantly benefited the community by fostering a vibrant startup ecosystem. It has provided incubation opportunities to early-stage startups, organized events like hackathons and investment meets, and supported startups in scaling up and accessing government procurement. The center has incubated 170 startups, created over 3400 jobs, and raised substantial investments, thereby contributing to the local economy. Additionally, it has promoted innovation and sustainability by supporting startups that develop smart city solutions and other innovative projects.

## Integrated Command Control Centre, Dehradun



The Integrated Command Control Centre (ICCC) in Dehradun has greatly improved urban management and citizen services. By providing real-time monitoring of various utilities and services, it enabled quick decision-making during emergencies, such as the COVID-19 pandemic. The ICCC facilitated better city surveillance, environmental monitoring, and instant communication of health advisories, enhancing public safety and awareness. The integration of multiple departments at a single point improved service delivery and the quality of life for residents, making the city more responsive and efficient.



## Pune Smart Comprehensive Governance

The Integrated Command and Control Center (ICCC) in Pune has greatly improved urban governance and service delivery by leveraging advanced technology for real-time monitoring and decision-making. This state-of-the-art facility integrates over 732 smart elements and 30 government applications, enhancing the city's response to emergencies and daily operations. The ICCC's capabilities include environmental and flood

sensors, public address systems, and emergency call boxes, ensuring efficient disaster management and public safety. This initiative has led to better traffic management, increased transparency, and improved quality of life for Pune's citizens by providing timely alerts and efficient public services.

## PCMC Smart Sarathi - Citizen Engagement Programme



The PCMC Smart Sarathi Citizen Engagement Program in Pimpri Chinchwad has enhanced communication between the Pimpri Chinchwad Municipal Corporation (PCMC) and its citizens through a comprehensive e-governance platform. The initiative has transformed traditional governance into a proactive and intelligent system, enabling efficient delivery of municipal services, online tax payments, and grievance redressal. Citizens benefit from real-time updates, emergency contacts, and participation in surveys and events, fostering a more connected and responsive community. The program also supports local businesses and promotes citizen involvement in city planning and decision-making.



## Punjab: e-Governance Transformation

The e-Governance transformation project in Punjab has greatly benefited the community by digitizing municipal services across 166 Urban Local Bodies (ULBs) in just six months. This initiative has improved service delivery, increased transparency and accountability, and enhanced revenue collection.

Citizens now have easy access to over 50 municipal services through mobile apps, web portals, and service centers, reducing the need for physical visits. The project has also enabled efficient grievance redressal and data-driven governance, making urban management more responsive and effective.

## Ease of Municipal & Citizen services in all ULBs, Karnataka



The Urban e-Governance project in Karnataka has significantly improved public service delivery and administrative efficiency. By digitizing services such as property ownership records, building licenses, and trade licenses, it has minimized the need for physical visits to government offices, saving time and effort for citizens. The project has ensured transparency and reduced fraud through automated verification processes and digital signatures. Additionally, it has facilitated seamless online payments and real-time updates, enhancing user convenience. Overall, this initiative has promoted a more efficient, accessible, and citizen-friendly governance model.



## Madan Mahal Eco Zone, Jabalpur

The project has improved infrastructure, including better road connectivity and public amenities, enhancing the overall quality of life for residents. It has facilitated smoother transportation and reduced traffic congestion, making daily commutes more efficient. The development has also spurred economic growth by attracting businesses and tourism to the area. Additionally, the project has created green spaces and recreational areas, promoting a healthier and more sustainable urban environment for the people of Jabalpur.

## Digital Library, Jabalpur

The project has modernized access to educational resources by providing a digital platform for learning. It has enabled students, researchers, and the general public to access a wide range of digital books, journals, and multimedia resources, thus enhancing their educational and research opportunities. The library has also facilitated digital literacy and encouraged a culture of reading and self-improvement. This initiative has bridged the digital divide, offering equitable access to information and contributing to the overall intellectual and cultural development of the community.



## Municipal Finance



### Land Monetization, Bhopal

The land monetization initiative by Bhopal Smart City Development Corporation Limited (BSCDCL) has significantly benefited the community by creating a sustainable financial model for smart city projects. It has developed dense, resilient urban communities with modern infrastructure and green spaces. The initiative has successfully monetized land worth INR 470 crore, supporting the financial health of BSCDCL. It has improved access to basic amenities, generated revenue for further development, and promoted private participation in urban development. The project also aims to create livable, sustainable communities, aligning with the goals of energy efficiency and environmental preservation.

## Social Aspects

### Smart Education in Government Schools of Shivamogga



The Smart Education project has significantly improved the learning experience by integrating technology into classrooms, providing students with interactive and engaging educational tools. This initiative has enhanced access to quality education, supported teachers with modern teaching aids, and improved student performance. By transforming traditional classrooms with smart boards and digital content, it has made learning more effective and enjoyable. The project has bridged educational gaps and prepared students for a technologically advanced world, fostering a more inclusive and future-ready educational environment.

# Transport and Mobility



# Automated Transport Control System, Srinagar

The Adaptive Traffic Control System (ATCS) implemented in Srinagar City has greatly improved traffic management and safety. By reducing congestion, delays, and accidents through real-time monitoring and dynamic signal coordination, it has ensured smoother traffic flow and safer pedestrian crossings. The system's ability to create green corridors for emergency vehicles and provide adaptive signal timings based on traffic volume has further enhanced efficiency. This modernization under the AMRUT scheme has not only saved vehicle operating costs and time but also reduced the economic and human costs associated with traffic crashes.

# Public Bicycle Sharing System, Ranchi



The Public Bicycle Sharing (PBS) system in Ranchi has significantly benefited the community by promoting non-motorized transport, reducing traffic congestion, and lowering pollution levels. Launched with 600 bicycles and 60 docking stations, the initiative has encouraged short and medium trips within high-density areas, offering a sustainable and healthy alternative to private vehicles. The project has enhanced urban mobility, supported environmental conservation by reducing greenhouse gas emissions, and improved public health. The system's success, evidenced by over 8,88,141 rides and widespread participation, showcases its positive impact on creating a greener, more efficient urban transport network.



# Installation of Way Finding Signage's, Sagar

The project has installed digital wayfinding signages across the city, helping residents and tourists easily locate key places, public services, and amenities. This enhancement in urban infrastructure has improved accessibility and mobility, making the city more navigable and user-friendly. It has also contributed to a smarter, more connected urban environment, fostering a sense of community and inclusivity.

# General Administration



# **Voter's Education and Electoral Participation, Surguja District**

The targeted voter education and electoral participation program in Surguja District aimed to overcome the challenges posed by left-wing extremism (LWE) and ensure high voter turnout. The initiative involved confidence-building measures, such as regular visits to remote areas by senior officials, interactions with voters, and appeals through print and electronic media. The police actively partnered in the Systematic Voters' Education and Electoral Participation (SVEEP) program, providing comprehensive security plans and area domination operations to ensure voter safety. As a result, Surguja recorded an 80.19% voter turnout in the 2014 parliamentary elections, the highest among LWE-affected districts in India, demonstrating a significant step forward in strengthening democracy.



# **Modernisation of Record Room, Gokak**

The modernization of the record room by the City Municipal Council Gokak has significantly improved municipal record management and preservation. Implemented between 2015-16 and 2018-19, the initiative organized records per Karnataka Municipal Officers guidance rules of 1966, making them easily accessible. Old records were laminated and stored systematically in a renovated hall with iron racks and cardboard boxes, reducing each section's burden, facilitating quick RTI responses, and ensuring transparency and efficiency in long-term record preservation.



# Population Control of Stray Dogs, Bijnor



The Animal Birth Control and Vaccination Program in Bijnor, under the Animal Birth Control (Dogs) Rules, 2001, aims to curb stray dog population and reduce rabies risks. In collaboration with Anand Charitable Trust, the program targets sterilizing and vaccinating 50 dogs monthly until March 31, 2024, fostering a safer, healthier community.

# Environment and Climate

## Cleaning of a prominent lake, Tarikere

The initiative to clean and restore Chikkere Lake in Tarikere transformed a neglected, garbage-filled area into a beautiful recreational spot. The Town Municipal Council, with the help of local NGOs and ULB resources, cleaned the lake without incurring extra costs. This effort improved the aesthetic appeal and health conditions of the surrounding area, eradicated a major blackspot, and encouraged activities such as fishing and boating. The project also enhanced tourism and community engagement, demonstrating effective use of local resources and cooperation for sustainable urban management.



## Reimagining Anganwadis & Open Spaces of Fort Kochi

The project "Reimagining Anganwadis & Open Spaces of Fort Kochi" has revitalized these areas, creating safe and stimulating environments for children to learn and play. By improving infrastructure and adding vibrant play areas, it has significantly enhanced early childhood development. The initiative fosters community engagement and ensures public spaces meet the needs of young children and their families. This transformation promotes a healthier, more inclusive community and supports the overall well-being of its residents.



## Petlad Municipality Innovation

The initiatives by Petlad Municipality have enhanced the community and environment through various innovative projects. The creation of selfie points and



beautification of littered areas have transformed public spaces, while water conservation projects at Dhobikund and the creation of Ganesh Visharjan Pond have revitalized local water bodies. Extensive tree plantations, including the Miyawaki Forest and other green belts, have improved air quality and urban aesthetics. Additionally, the Organic Waste Compost (OWC) project has promoted sustainable waste management by converting wet waste into valuable manure, supporting local agriculture and greener efforts.

## Indore Bio-CNG Fueled City Bus Service

The Indore Bio-CNG Fueled City Bus Service has significantly improved urban mobility by replacing diesel-fueled buses with eco-friendly bio-CNG buses. This initiative has reduced greenhouse gas emissions, improved air quality, and provided a sustainable transportation solution. By processing wet waste to produce bio-CNG, the project also promotes efficient waste management and reduces landfill waste. The use of bio-CNG has resulted in substantial fuel cost savings and supports the city's goal of achieving cleaner, greener urban transport.



## Disaster Management Centre, Sangli Miraj Kupwad

The Disaster Management Center established by Sangli Miraj Kupwad Municipal Corporation has significantly enhanced the city's preparedness and response to flooding and other emergencies. By integrating advanced technologies like CCTV cameras, GPS monitoring, and wireless communication, the center provides real-time data and coordination during disasters. This initiative has reduced the impact of floods, ensured timely evacuation, and minimized property damage and loss of life. The center's effective management during the 2021 floods, compared to previous years, showcased its capability to protect citizens and maintain essential services, earning commendations from state officials.

# Urban Planning and Housing



## Online Land Use Certificate, Madhya Pradesh

The implementation of the Online Land Use Certificate system by the Directorate of Town and Country Planning (DTCP) in Madhya Pradesh has significantly improved the efficiency of obtaining land use certificates. This new system allows citizens to apply and receive certificates online, reducing the average processing time from one month to just a few days. It provides 24/7 access, ensuring transparency and minimizing the risk of forged documents through digital authentication. The paperless process has also contributed to environmental conservation by reducing the need for physical visits and document handling.

## Digital Mapping of Utility Services and Related Assets in GIS, Nashik



The Online Land Use Certificate system by Madhya Pradesh's DTCP has reduced processing time from a month to a few days, offering 24/7 paperless access and ensuring transparency through digital authentication. This efficient platform fosters public trust and aids environmental conservation.



## Open Air Theatre, Jabalpur

The project has provided a dedicated space for cultural events, performances, and gatherings, enriching the social fabric of the area. It offers a platform for local artists to showcase their talents, promoting cultural heritage and artistic expression. Additionally, the theater serves as a recreational venue, improving the quality of life for residents by fostering a sense of community and offering diverse entertainment options.

## Redevelopment of Parks, Jabalpur



The project has transformed these parks into vibrant, well-maintained public spaces, providing residents with areas for recreation, exercise, and social interaction. The enhancements include new playgrounds, walking tracks, green landscapes, and seating areas, promoting a healthier lifestyle and fostering community engagement. Additionally, the beautification of these parks has improved the aesthetic appeal of the city, contributing to a better urban living environment and increasing the sense of pride among residents.



## Construction Permit, Chhattisgarh

The NiwasPass System in Chhattisgarh streamlines building permit processes by allowing urban residents to upload required documents and obtain building permission after system checks. This unique model enables citizens with plots up to 500 sq. meters to receive direct building approval for a nominal application fee of ₹1. Designed to improve efficiency, the system simplifies documentation and approval steps. It fosters accessible and convenient construction permit issuance for Chhattisgarh's urban population.



## Automated Layout Permission Approval and Scrutiny System, Nashik

The Automated Layout Permission Approval and Scrutiny System (ALPASS) implemented in Nashik has modernized the process of land development approvals. This GIS-based system allows for online application submission, automatic layout scrutiny, and map generation, reducing approval time from 60 to 30 days. It ensures transparency, authentication through digital signatures, and real-time updates, eliminating the need for physical visits and reducing the risk of forged documents. The system has improved efficiency, reduced disputes, and supported a paperless, environment-friendly process.

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