

## Municipalika 2026: Powering India's Urban Transformation at Bharat Mandapam

The 18th Edition of India's Leading 360° Platform on Safe, Smart & Sustainable City Solutions

**M**unicipalika 2026, India's longest-running and most authoritative platform on urban innovation and city infrastructure, will be held from 25–27 February 2026 at Bharat Mandapam, New Delhi. Marking its 18th edition, the event brings together over two decades of legacy in shaping dialogue, partnerships, and progress across India's urban ecosystem. Organised by Fairfest Media, with the Conference organised by Good Governance India Foundation and co-organised by the India Trade Promotion Organisation (ITPO), the 2026 edition reflects strengthened institutional collaboration and national significance.

As India advances toward its vision of Viksit Bharat @2047, cities are emerging as the central engines of economic growth, climate resilience, and social inclusion. Municipalika 2026 is positioned at this intersection – serving as the national interface where governance priorities, infrastructure investment, technological innovation, and urban design converge. More than an exhibition, it is a strategic platform where policy meets execution and innovation meets implementation.

The 2026 edition is expected to feature 300+ exhibitors, 3,000+ delegates, and over 10,000 trade visitors, representing 10 countries, 25+ Indian states, and 500+ cities. This scale reinforces Municipalika's position as India's definitive B2G and B2B meeting ground – uniting municipal commissioners, Smart City CEOs, central and state government officials, public works departments, urban planners, architects, engineers, EPC contractors, developers, consultants, and technology innovators under one roof.

### Municipalika

Municipalika 2026 forms the anchor of the larger Future Cities 2026 platform, alongside CAPEX - Construction, Architecture, Planning & Engineering Expo and PWX - Public Works Expo. Together, these co-located shows create India's only integrated 360° ecosystem addressing the full spectrum of urban, civic, and rural infrastructure development. From building materials and advanced construction systems to public works engineering, utilities, mobility, housing, and digital governance, the platform ensures seamless engagement between government demand and industry capability.

This integrated framework is particularly significant at a time when India is witnessing record infrastructure

allocations, accelerated urban expansion, and an increasing emphasis on sustainability and climate adaptation. Municipalika 2026 provides stakeholders with a structured environment to deliberate on procurement priorities, funding mechanisms, technological integration, and scalable implementation models. It enables cities to identify practical solutions, industry to understand policy direction, and both to collaborate on long-term impact.

Translating this vision into structured dialogue is the Municipalika 2026 Conference. The three-day programme will feature curated multi-track sessions addressing priority sectors such as Smart & Digital Cities, Urban Governance, Water & Wastewater Management, Sanitation & Solid Waste Management, Urban Transportation & Electric Mobility, Green & Renewable Energy, Safety & Security, Environment & Pollution Control, Urban Infrastructure Development, Public Works Engineering, and advanced construction technologies – ensuring comprehensive coverage of India's evolving urban agenda.

Complementing the exhibition and conference are curated B2B meetings, hosted buyer programmes, product and technology presentations, networking forums, and

prestigious awards recognising excellence in urban development and public infrastructure. These multiple touchpoints ensure that engagement translates into actionable outcomes – new partnerships, pilot projects, technology adoption, and investment opportunities.

### CAPEX

CAPEX – Construction, Architecture, Planning & Engineering Expo is a premier platform for showcasing cutting-edge construction technologies, advanced building materials, and engineering solutions shaping India's built environment. As a key component of the Future Cities 2026 platform, CAPEX brings together architects, planners, developers, EPC contractors, engineers, consultants, and government agencies to explore next-generation construction systems and sustainable design approaches.

The expo highlights innovations in prefabrication, modular construction, green building materials, smart engineering systems, HVACR, energy-efficient technologies, and automation, offering stakeholders a comprehensive view of India's rapidly evolving construction ecosystem. Through product demonstrations, technical presentations, and knowledge sessions, CAPEX facilitates meaningful industry



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Hall 5, Bharat Mandapam, New Delhi, India



engagement and supports the adoption of scalable, resilient, and sustainable infrastructure solutions.

## PWX

PWX – Public Works Expo serves as a focused platform for strengthening the backbone of India’s public works ecosystem at a time when the nation is accelerating investments in roads, railways, water systems, urban transport, digital infrastructure, and civic assets. It brings together Public Works Departments (PWDs), municipal engineering bodies, infrastructure developers, contractors, sustainability experts, and technology innovators to address the full lifecycle of infrastructure planning, execution, modernisation, and maintenance. The expo showcases advanced construction machinery, engineering materials, GIS and digital twin solutions, AI-enabled predictive maintenance systems, green infrastructure technologies, and resilient utility solutions.

By aligning infrastructure development with digitalisation, sustainability, and operational excellence, PWX strengthens India’s capacity to build durable, future-ready public assets in line with the vision of Viksit Bharat @2047.

## Rs.1 Lakh Crore Urban Challenge Fund: Powering India’s Infrastructure Acceleration

Reinforcing this national urban transformation agenda is the Government of India’s landmark Urban Challenge Fund, with an allocation of Rs. 1 lakh crore for the period 2025–26 to 2030–31, marking a major step forward for India’s urban infrastructure sector. Designed as a competitive, reform-linked financing mechanism, the Fund will accelerate investments in core civic infrastructure, mobility, utilities, water and sanitation, and climate-resilient systems, while strengthening municipal capacity and project execution.

The Fund is expected to catalyse additional investments of Rs. 3 lakh crore, fast-tracking high-impact projects and reinforcing India’s commitment to sustainable, resilient, and future-ready urban development across 4,223 cities.

**Fiscal Momentum for India’s Urban Transformation**  
India’s Union Budget 2026–27 sharpens the urgency—and expands the opportunity—within the urban sector. A 74% jump in Urban Local Body (ULB) grants (to Rs. 45,272 crore) materially strengthens city-level spending capacity, accelerating tender cycles, project approvals, and vendor engagement across municipal infrastructure. Simultaneously, PMAY–Urban allocations have been scaled up sharply versus last year’s revised levels (a

~179% increase over 2025–26 RE), signalling renewed momentum in housing delivery and unlocking large-scale demand for advanced construction technologies, green materials, and faster execution models. The Rs. 67,670 crore allocation for Jal Jeevan Mission strengthens the water and wastewater ecosystem, bringing treatment, distribution, smart metering, and operations & maintenance solutions back into active procurement pipelines.

These fiscal signals—backed by Rs. 12.21 lakh crore in central capital expenditure and Rs. 1.85 lakh crore of capex loans to states—point to a sustained push toward city-led infrastructure development spanning roads, drainage, utilities, public works, and civic systems. The Budget’s Rs. 100 crore incentive for single municipal bond issuances above Rs. 1,000 crore further strengthens urban balance sheets, expands access to structured financing, and enables larger, bankable PPP opportunities. Together, these measures create a conducive environment for policy-backed investment, technology adoption, and accelerated urban transformation—making Municipalika 2026 both timely and strategically aligned with national priorities.

# Government of India's New Thrust - Urban Challenge Fund (UCF)

- The Urban Challenge Fund (UCF) will provide Central Assistance (CA) of Rs.1 lakh crore, which will cover 25% of the project cost, subject to raising minimum 50% of the project cost from market. This will lead to a total investment of Rs.4 lakh crore in urban sector in next five years.
- UCF supports high-impact projects under three thematic verticals: Cities as Growth Hubs, Creative Redevelopment of Cities, and Water & Sanitation (and associated enabling infrastructure).
- The Urban Challenge Fund (UCF) represents a paradigm shift in urban infrastructure financing in India. Recognising that urban infrastructure requirements cannot be met through public finance alone, the UCF is designed to catalyse market-based financing and private partnerships for urban development by supporting cities to develop bankable, reform-linked projects.
- Coverage –
- All States and UTs are eligible to participate in UCF. The following categories of cities shall be covered under UCF:
  - All cities with a projected 2025 population of 10 lakh or more;
  - Capital cities of State/UT not included in the first category; and
    - o Major industrial cities (Manufacturing & Services) with a projected 2025 population of 1,00,000 or more (which will, by and large, cover all the cities in this category).
  - All ULBs in Hilly States/UTs, Northeastern States; and
  - ULBs with population below 1,00,000 in other States/UTs

- In principle all ULBs across the country are eligible for UCF
- Project Fund - Rs. 90,000 Crore
- Project Preparation & Support Facility (National, State/City Level) - Rs.5,000 Crore
- A dedicated Rs.5,000 crore corpus will enhance the creditworthiness of all ULBs in Northeastern & Hilly States/UTs and smaller ULBs (<1,00,000 population) in other States/UTs including Tier-II and Tier-III cities, particularly for first-time access to market finance. Central guarantee up to Rs.7 crore (or 70%) for first loan. On successful repayment of first loan, central guarantee of Rs.7 crore or 50% of the loan amount (whichever is lower) will be provided under this sub scheme. UCF unlocks a pipeline of bankable urban projects by combining:
  1. Catalytic central funding
  2. Market finance (loans, bonds, PPPs)
  3. Embedded governance and financial reforms

It crowds in public and private investment while improving project quality, professional management, efficiency, and long-term sustainability, especially through structured Public Private Partnership (PPPs).

- Reforms are not treated as a separate “reform agenda”; they are built into the project funding logic of UCF.

- UCF embeds reforms in three ways:
  1. Reform-linked bankability: To mobilise market finance, ULBs/implementing agencies must demonstrate fiscal discipline and creditworthiness—asset registers, stronger own-source revenues, improved collections, and efficiency improvements become essential.

2. Reform-linked project readiness: For growth hubs and redevelopment, cities must strengthen planning systems and implementation tools—planning baselines, byelaw reforms, redevelopment frameworks, land strategy, and execution mechanisms.
3. Reform-linked service performance: In water & sanitation (and related infrastructure), reforms drive quality, quantity, circularity and sustainability—operational performance standards, monitoring, and improved Operation & Maintenance (O&M) practices.

- UCF will deliver transformational urban projects that are better planned, better financed, and better governed, creating cities that:
  - function as economic growth engines,
  - achieve visible redevelopment and public realm transformation, and
  - provide reliable, high-quality and future-ready urban services.

- The Urban Challenge Fund is expected to catalyse large-scale mobilisation of market-based financing for urban infrastructure by strengthening municipal creditworthiness and incentivising reform-oriented governance. It will support the revitalisation of legacy city cores, promote economically competitive growth hubs, and advance Swachhta and sanitation-focused urban environments. By expanding access to market finance, particularly for small and vulnerable ULBs and encouraging structured private sector participation in city infrastructure development and management, the Fund aims to transform the financing and delivery framework of urban development in India.



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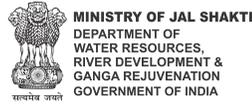
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**MESSAGE**

आवासन और शहरी कार्य मंत्री एवं  
विद्युत मंत्री  
भारत सरकार  
Minister of  
Housing and Urban Affairs; and  
Minister of Power  
Government of India

India is witnessing a transformative phase of urban development driven by rapid urbanisation, technological progress, and a strong focus on sustainability and inclusive growth. National initiatives have accelerated improvements in infrastructure, basic services, and quality of life in cities.

The Union Budget 2026 further strengthens this momentum with enhanced support for urban infrastructure, Urban Local Bodies, sustainable mobility, water and sanitation systems, affordable housing, and climate-resilient planning under the Ministry of Housing and Urban Affairs.

Municipalika + CAPEX + PWX 2026 the international conference scheduled for 25–27 February 2026 at Bharat Mandapam, New Delhi, is an important platform that convenes policymakers, urban local bodies, public agencies, industry, and global stakeholders for focused dialogue on urban governance, infrastructure development, sustainability, and smart city solutions in line with the Hon'ble Prime Minister's vision of Viksit Bharat by 2047.

I extend my best wishes for the successful conduct of the conference and look forward to the outcomes of the deliberations and the new ideas that will emerge from it.

**Manohar Lal**

श्रीनिवास कटिकिथाला, भा.प्र.से.  
सचिव  
**Srinivas Katikithala, I.A.S.**  
Secretary



सत्यमेव जयते



एक कदम स्वच्छता की ओर

भारत सरकार  
आवासन और शहरी कार्य मंत्रालय  
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Ministry of Housing and Urban Affairs  
Sankalp Bhawan, New Delhi-110001



## MESSAGE

India's urban transition today is not merely about expanding infrastructure, but about improving the quality, efficiency, resilience, and sustainability of service delivery. As cities confront increasing pressures related to water security, waste management, mobility, housing demand, climate adaptation, and fiscal sustainability, the emphasis must shift from isolated projects to integrated, outcome-based urban systems.

Flagship initiatives such as the **Atal Mission for Rejuvenation and Urban Transformation 2.0**, **Swachh Bharat Mission 2.0**, and **Pradhan Mantri Awas Yojana 2.0**, **CITIIS 2.0** have laid a strong foundation for institutional strengthening, digital governance, infrastructure modernisation, and citizen-centric urban reforms. The next phase requires deeper collaboration between governments, industry, technology providers, and financing institutions to scale innovations and improve execution efficiency.

The launch of Urban Challenge Fund and allocation of ₹1 lakh crore for a five year period from 2025-26 to 2030-31 marks a major step forward for India's urban infrastructure sector. This dedicated corpus will accelerate investments in core civic infrastructure, mobility, utilities, and climate-resilient systems, while strengthening municipal capacity and project execution.

The Fund is expected to catalyse additional investments of Rs. 3 lakh crores and fast-track high-impact projects, reinforcing our commitment to sustainable, resilient, and future-ready urban development in 4223 cities.

I am also glad that **CAPEX**, focusing on innovative building design, materials and construction technologies, and **PWX**, focusing on public works and infrastructure development are also planned with Municipalika to provide an integrated approach to safe, smart, sustainable and resilient cities development.

Platforms such as Municipalika provide an opportunity for evidence-based dialogue, sharing of best practices, demonstration of deployable technologies, and structured engagement between policy-makers and solution providers. Such interactions are essential to accelerate implementation, enhance capacity of Urban Local Bodies, and promote sustainable and resilient urban growth.

I encourage States, Urban Local Bodies, and sector stakeholders to actively engage with this platform and leverage it to strengthen implementation outcomes.

I extend my best wishes for the success of Municipalika 2026.

  
(Srinivas Katikithala)



25, 26 & 27 FEBRUARY 2026 | HALL-5, BHARAT MANDAPAM, NEW DELHI

## International Exhibition & Conference on Safe, Smart & Sustainable City Solutions



### Day 1 | 25<sup>th</sup> February 2026

- 08:00 - 09:30 | Delegate Registration
- 10:00 - 11:00 | Inaugural Program
- 11:00 - 13:00 | Walk-around of Exhibition by Dignitaries
- 13:00 - 14:00 | Inaugural Lunch

STAGE A	STAGE B	STAGE C
<b>14:00 - 15:15</b> <b>URBAN POLICY, REFORMS, GOVERNANCE &amp; EASE OF DOING BUSINESS</b> <ul style="list-style-type: none"> <li>• Urban planning reforms</li> <li>• Single-window digital clearances</li> <li>• Startup &amp; SME enablement</li> <li>• Regulatory modernization</li> <li>• E-approvals &amp; transparency</li> </ul>	<b>14:00 - 15:15</b> <b>BUILDING MATERIALS &amp; TECHNOLOGIES – EMERGING TRENDS</b> <ul style="list-style-type: none"> <li>• Advanced cement &amp; concrete systems</li> <li>• Steel innovation</li> <li>• Composite materials</li> <li>• Lifecycle durability</li> <li>• Low-carbon transitions</li> </ul>	<b>14:00 - 15:15</b> <b>FIRE SAFETY, RESILIENT &amp; FUTURE-READY PUBLIC INFRASTRUCTURE</b> <ul style="list-style-type: none"> <li>• Climate-resilient infrastructure</li> <li>• Asset retrofitting</li> <li>• Seismic safety standards</li> <li>• Low-carbon public works</li> <li>• Adaptive infrastructure design</li> </ul>
<b>15:15 - 15:30</b> Tea/Coffee Break		
<b>15:30 - 17:00</b> <b>SAFE &amp; SECURE CITIES, DISASTER RESPONSE &amp; RESILIENCE</b> <ul style="list-style-type: none"> <li>• Multi-hazard mitigation</li> <li>• Surveillance &amp; early-warning systems</li> <li>• Fire safety protocols</li> <li>• Emergency preparedness</li> <li>• Integrated disaster planning</li> </ul>	<b>15:30 - 17:00</b> <b>BUILDING MATERIALS &amp; TECHNOLOGIES – NEW APPLICATIONS</b> <ul style="list-style-type: none"> <li>• Innovative roofing &amp; walling</li> <li>• Advanced finishes</li> <li>• High-performance materials</li> <li>• Modular systems</li> <li>• Rapid construction solutions</li> </ul>	<b>15:30 - 17:00</b> <b>DIGITAL TRANSFORMATION &amp; SMART TECHNOLOGIES IN PUBLIC WORKS</b> <ul style="list-style-type: none"> <li>• GIS &amp; geospatial planning</li> <li>• Command control centres</li> <li>• BIM, AI &amp; IoT integration</li> <li>• Digital twins</li> <li>• Digital capacity building</li> </ul>
<b>17:00 - 18:30</b> Connect Stakeholders in Exhibition Hall		
<b>18:30 - 20:00</b> Vision Addresses		
<b>20:00 - 21:00</b> Networking Dinner		

### Day 2 | 26<sup>th</sup> February 2026

STAGE A	STAGE B	STAGE C
<b>10:00 - 11:15</b> <b>WATER &amp; WASTEWATER MANAGEMENT</b> <ul style="list-style-type: none"> <li>• Integrated water management</li> <li>• 24x7 water supply</li> <li>• Wastewater recycling</li> <li>• River protection</li> <li>• Cost-effective technologies</li> </ul>	<b>10:00 - 11:15</b> <b>DIGITAL GOVERNANCE</b> <ul style="list-style-type: none"> <li>• Citizen e-governance platforms</li> <li>• Digital approvals</li> <li>• Smart utility systems</li> <li>• Cyber security</li> <li>• Data-driven taxation</li> </ul>	<b>10:00 - 11:15</b> <b>CIRCULAR ECONOMY &amp; CONSTRUCTION AND DEMOLITION WASTE</b> <ul style="list-style-type: none"> <li>• Resource recovery</li> <li>• Waste-to-energy</li> <li>• Segregation systems</li> <li>• Material recovery facilities</li> <li>• Circular construction markets</li> </ul>
<b>11:15 - 11:30</b> Tea/Coffee Break		

Continued on next page

## Day 2 | 26<sup>th</sup> February 2026

STAGE A	STAGE B	STAGE C
<b>11:30 - 12:45</b>	<b>11:30 - 12:45</b>	<b>11:30 - 12:45</b>
<b>SANITATION, SOLID WASTE &amp; RESOURCE RECOVERY</b> <ul style="list-style-type: none"> <li>• Net-zero waste strategies</li> <li>• Circular waste models</li> <li>• Waste conversion</li> <li>• C&amp;D recycling</li> <li>• Urban recovery systems</li> </ul>	<b>SUSTAINABLE &amp; GREEN BUILDING TECHNOLOGIES</b> <ul style="list-style-type: none"> <li>• Energy-efficient services</li> <li>• Green materials</li> <li>• Climate-responsive facades</li> <li>• Sustainable ICT systems</li> <li>• Green certifications</li> </ul>	<b>MODERNIZING CONSTRUCTION USING SPEEDY TECHNOLOGIES</b> <ul style="list-style-type: none"> <li>• Speedy construction technologies</li> <li>• Advanced formwork</li> <li>• Mechanized construction</li> <li>• Composite systems</li> <li>• Sustainable management</li> </ul>
<b>12:45 - 13:15</b>		
Connect Stakeholders in Exhibition Hall		
<b>13:15 - 14:15</b>		
Networking Lunch		
<b>14:15 - 15:30</b>	<b>14:15 - 15:30</b>	<b>14:15 - 15:30</b>
<b>HOUSING FOR ALL</b> <ul style="list-style-type: none"> <li>• Affordable housing models</li> <li>• Land &amp; finance optimization</li> <li>• Regulatory frameworks</li> <li>• PPP housing</li> <li>• Scalable innovations</li> </ul>	<b>CLIMATE CHANGE &amp; ENVIRONMENTAL SUSTAINABILITY</b> <ul style="list-style-type: none"> <li>• Green construction products</li> <li>• Climate-adaptive envelopes</li> <li>• Pollution mitigation</li> <li>• Energy-efficient systems</li> </ul>	<b>ENHANCING DURABILITY IN PUBLIC WORKS</b> <ul style="list-style-type: none"> <li>• Lifecycle planning</li> <li>• Asset rejuvenation</li> <li>• Climate resilience</li> <li>• Structural codes</li> <li>• Sustainable asset management</li> </ul>
<b>15:30 - 15:45</b>		
Tea/Coffee Break		
<b>15:45 - 17:15</b>	<b>15:45 - 17:15</b>	<b>15:45 - 17:15</b>
<b>INNOVATIVE URBAN INFRASTRUCTURE FINANCING</b> <ul style="list-style-type: none"> <li>• Municipal bonds</li> <li>• PPP models</li> <li>• Blended &amp; ESG finance</li> <li>• Capital mobilization</li> <li>• Risk frameworks</li> </ul>	<b>MAYORS CONCLAVE INCLUDING PARTICIPATIVE CITIES</b> <ul style="list-style-type: none"> <li>• Urban leadership models</li> <li>• Citizen participation</li> <li>• Governance innovation</li> <li>• Inclusive city planning</li> <li>• Municipal collaboration</li> </ul>	<b>CONSTRUCTION IN ADVERSE CLIMATIC CONDITIONS &amp; DIFFICULT TERRAINS</b> <ul style="list-style-type: none"> <li>• Heat-resilient design</li> <li>• Coastal &amp; flood resilience</li> <li>• Adaptive terrain construction</li> <li>• Risk mapping systems</li> <li>• Resilient recovery frameworks</li> </ul>
<b>17:15 - 18:00</b>		
<b>INFRASTRUCTURE CONCLAVE</b> <ul style="list-style-type: none"> <li>• Infrastructure priorities &amp; delivery</li> <li>• Resilience &amp; governance reforms</li> </ul>		
<b>17:15 - 18:00</b>		
Connect Stakeholders in Exhibition Hall		
<b>18:30 - 19:45</b>		
Urban Innovation Challenge - Design Ideas Competition Awards Ceremony		
<b>20:00 - 21:00</b>		
Networking Dinner		

## Day 3 | 27<sup>th</sup> February 2026

STAGE A	STAGE B	STAGE C
<b>10:00 - 11:15</b>	<b>10:00 - 11:15</b>	<b>10:00 - 14:00</b>
<b>URBAN MOBILITY &amp; TRANSIT INTEGRATION</b> <ul style="list-style-type: none"> <li>• MRTS/BRT/LRT systems</li> <li>• Integrated transit planning</li> <li>• Smart traffic management</li> <li>• Last-mile connectivity</li> <li>• Sustainable mobility</li> </ul>	<b>USE OF INNOVATIVE / RENEWABLE ENERGY OPTIONS</b> <ul style="list-style-type: none"> <li>• Solar integration</li> <li>• Distributed renewables</li> <li>• Clean energy systems</li> <li>• Energy-efficient design</li> <li>• Low-carbon built environment</li> </ul>	<b>ARCAUSE SPECIAL SESSION</b>
<b>11:30 - 12:45</b>	<b>11:30 - 12:45</b>	
<b>ELECTRIC VEHICLES &amp; CHARGING INFRASTRUCTURE</b> <ul style="list-style-type: none"> <li>• Urban EV networks</li> <li>• Grid-integrated charging</li> <li>• Renewable-powered mobility</li> <li>• EV incentives</li> <li>• Future-ready electrification</li> </ul>	<b>CITY PROFESSIONALS CONCLAVE</b> <ul style="list-style-type: none"> <li>• Municipal capacity building</li> <li>• Inter-agency coordination</li> <li>• Public health measures</li> <li>• Safety frameworks</li> <li>• Community collaboration</li> </ul>	
<b>12:45 - 13:15</b>		
Connect Stakeholders in Exhibition Hall		
<b>13:15 - 14:15</b>		
Networking Lunch		
<b>14:15 - 15:45</b>	<b>14:15 - 15:45</b>	
<b>INTEGRATED TOWNSHIP DEVELOPMENT</b> <ul style="list-style-type: none"> <li>• Brownfield &amp; greenfield models</li> <li>• Heritage regeneration</li> <li>• Mixed-use development</li> <li>• Smart utilities</li> <li>• Sustainable communities</li> </ul>	<b>HUMAN &amp; ANIMAL CONFLICT IN INDIAN CITIES</b> <ul style="list-style-type: none"> <li>• Animal population management</li> <li>• Sterilization &amp; vaccination</li> <li>• Road safety reduction</li> <li>• Waste attractant control</li> <li>• Welfare-aligned policiesrisks</li> </ul>	
<b>16:00 - 17:00</b>		
Valedictory Session		

# Municipalika 2026 - Vision Addresses

The special evening session of Municipalika 2026 will feature three distinguished Vision Addresses that together frame the strategic direction of India's urban future. The session will be chaired by Omesh Saigal, former Chief Secretary of Delhi and former Secretary to the Government of India, whose vast administrative experience and deep understanding of urban governance will lend perspective and gravitas to the deliberations.

## Session Chair

**OMESH SAIGAL**  
Ex-Chief Secretary, Delhi  
Ex-Secretary, Govt of India



Bringing global insight, design intelligence and fiscal strategy onto a single platform, the addresses are curated to examine the most critical dimensions of urban transformation — international urban cooperation, the quality of the built environment, and the financial resilience of municipalities. Set against the backdrop of rapid urbanisation and growing climate and infrastructure pressures, the session will offer policymakers, city leaders and practitioners a forward-looking lens through which to navigate the next phase of India's urban journey.



**ANACLAUDIA ROSSBACH**  
United Nations Under-Secretary General  
Executive Director  
UN-Habitat

Global Urban Trends and the World Urban Forum: Its Significance for India” will explore the transformative forces shaping cities worldwide — from climate resilience and low-carbon infrastructure to inclusive housing, digital governance and sustainable urban finance. As cities across the world navigate climate challenges, rapid urbanisation, housing deficits and the imperative for inclusive growth, Ms. Rossbach's global perspective will illuminate how international urban frameworks and the deliberations of the World Urban Forum can guide India's urban transformation. Her address will offer strategic insights on resilient infrastructure, equitable housing, climate-responsive planning and multilevel governance — shaping a forward-looking roadmap for Indian cities to become more sustainable, inclusive and future-ready while strengthening India's engagement with global urban cooperation platforms.

**SRIKANTH VISWANATHAN**  
Chief Executive Officer  
Janaagraha Centre for Citizenship  
and Democracy



“Strengthening Municipal Finance for Sustainable Urban Growth” will focus on the financial health of Urban Local Bodies (ULBs) and the pressing challenges of mobilising resources to meet the rising demand for urban infrastructure. As cities expand, municipalities face increasing responsibilities in financing new assets while ensuring the maintenance and sustainability of existing systems. The address will reflect on the significance of the Sixteenth Finance Commission and its recommendations in strengthening fiscal devolution, enhancing accountability, and empowering ULBs with greater financial autonomy. By emphasising the importance of robust revenue frameworks, intergovernmental transfers and innovative financing mechanisms, the session will underscore municipal finance as a critical pillar for advancing structured, resilient and sustainable urban development in India.



**AR. K T RAVINDRAN**  
Former Chairman  
Delhi Urban Arts Commission

“Burgeoning Cities and the Imperative for a High-Quality Built Environment” will focus on the urgent need to create urban spaces that respond meaningfully to the aspirations of both cities and their citizens. As urban centres expand in scale and complexity, the address will emphasise the importance of design-led development that balances growth with liveability. It will highlight how thoughtful planning, contextual sensitivity and long-term sustainability must guide the shaping of the built environment. The address will further underscore the critical role of architecture and urban design in creating inclusive, resilient and people-centric cities that are not only efficient, but also humane and future-ready.

Collectively, the three Vision Addresses will present a comprehensive blueprint for shaping safe, smart and sustainable cities — aligning global urban trends with national priorities, embedding design excellence into city-making, and strengthening municipal finance as the backbone of implementation. Together, they will underscore that the future of Indian cities rests not on isolated interventions, but on integrated thinking, institutional capacity and collaborative leadership. The deliberations will set the tone for actionable dialogue at Municipalika 2026, inspiring cities to move decisively toward resilience, inclusivity and long-term sustainability.



# BAJAJ OUTDOOR LIGHTING FROM CONCEPT TO CARE

With more than  
170 stadiums building  
the future of sports in India



**SOLPOLE**

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Decorative Luminaires



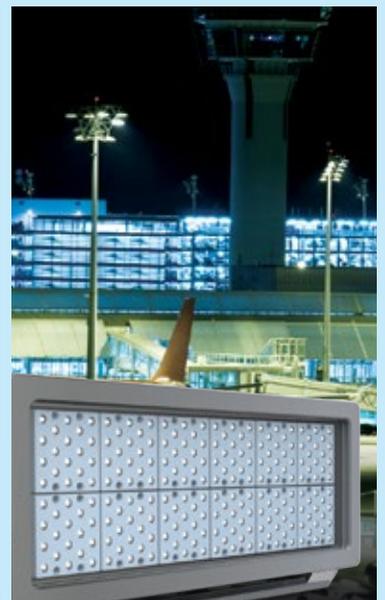
**SOLAR STREET LIGHT**

For a Sustainable  
Future



**FLAGMAST**

Keeping the  
Tri Colour Flying High



**AREA LIGHTING**

For Ports / Yards  
/ Airports



# HUDCO's Urban Invest Window (UiWIN)

## One Stop Solution for Infrastructure Development of ULBs



### 1. Background

India is witnessing one of the fastest-growing urban transformations in the world, and by 2030, over 600 million Indians will call cities, their home and by 20250 nearly half of its population projected to reside in urban areas. The number of urban households is expected to increase from about Rs. 10 Crore in 2021 to nearly 21 Crore by 2047. India's accelerating urbanisation offers both opportunities and challenges as cities must accommodate growing populations and rising expectations for better services. To support this growth, we need huge urban infrastructure investments, to the extent of Rs.75 - Rs.80 lakh crore over a 15-year period.

Urban Local Bodies (ULBs) are the primary institutions responsible for planning, implementing, and maintaining urban infrastructure and delivering civic services under various Central and State Sponsored Schemes. However, our Urban Local Bodies still face multidimensional challenges — from capacity building to project preparation, from fund mobilization to investment facilitation. Despite substantial public investments, implementation outcomes remain uneven due to persistent institutional, technical, and financial capacity constraints across nearly 5,000 ULBs, particularly in small and medium towns. Simultaneously, India's urban transition necessitates the adoption of Circular Economy (CE) approaches to minimise waste, optimise resource use, promote waste-to-wealth initiatives, generate green employment, and strengthen long-term urban economic resilience. The urban areas also require innovative and well-planned redevelopment to unlock economic potential, enhance liveability, and accommodate future demand.

Given the scale of projected urban growth and the accompanying financing gap, it is imperative to broaden investment avenues, enhance front-line capacity, enable knowledge sharing and equitable growth, and establish a dedicated facilitation mechanism that can channel capital efficiently into urban-sector projects. This dedicated facilitation mechanism is the newly launched 'Urban Investment Window' (UiWIN) of the Housing and Urban Development Corporation Ltd. (HUDCO), as the one-stop facilitator for infrastructure development of Urban Local Bodies across the country.

### 2. Urban Invest Window (UiWIN)

HUDCO's Urban Invest Window (UiWIN) was inaugurated by the Hon'ble Union Minister of Housing and Urban Affairs, Government of India, during the National Urban Conclave held on 08.11.2025. The Housing and Urban Development Corporation Ltd. (HUDCO), a Navratna CPSE with NBFC-IFC status, comes as a natural choice to be the facilitator for the Urban Invest Window (UiWIN) based on its institutional legacy, sectoral expertise, and unmatched operational footprint across India. Since its inception in 1970, HUDCO has financed projects in over 1,900 cities and towns, supporting a wide spectrum of urban infrastructure projects. Its Pan-India network of 20 Regional Offices and 10 Development Offices enable direct engagement with Urban Local Bodies (ULBs), especially in Tier-2 and Tier-3 cities, ensuring last-mile connectivity and implementation support. Beyond financing, HUDCO also offers consultancy and capacity building services, supported by its dedicated training institute, HSMI (Human Settlement Management Institute).

Leveraging HUDCO's pan-India presence, long-standing engagement with ULBs, and expertise in urban infrastructure financing, HUDCO's UiWIN is uniquely positioned to institutionalise a structured and scalable urban infrastructure support mechanism. The key objective of UiWIN include:

- Build capacities of ULBs and implementing agencies through training, knowledge products, toolkits and handholding;
- Support ULBs in strengthening investment-readiness of projects across urban sectors (solid waste,

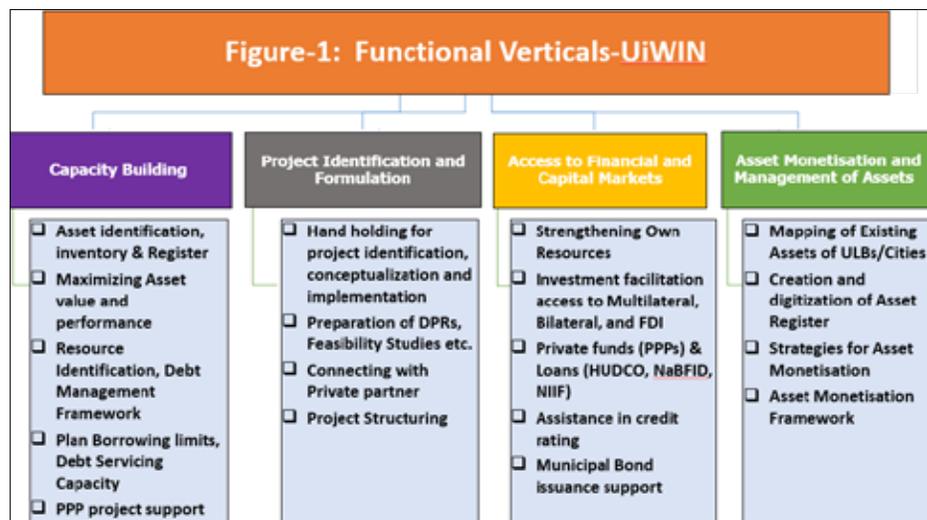
wastewater, construction waste, energy, mobility, etc.) in sync with Circular Economy principles, wherever required;

c) Leverage UiWIN as institutional mechanism that gets developed as a special arm for helping cities develop bankable projects for all types of urban infrastructure such as water, sanitation, solid waste management, roads, etc., offering project appraisal, financing, windows, and pipeline development emphasizing CE component; and

d) Support ULBs in leveraging additional public and private funds via UiWIN to scale urban infrastructure focused investments including CE & Climate Governance and long-term economic resilience in the country.

### 3. Key Offerings of UiWIN

The key solutions offered by UiWIN to ULBs include: (i) Capacity building of ULB and State officials; (ii) Project Identification & Formulation; (iii) Access to Financial & Capital Markets; and (iv) Municipal Asset Register, Monetisation & Management. The details of these 4 functional verticals are given in Figure-1.



HUDCO'S Regional Offices would act as State UiWINs to provide end-to-end support to ULBs. In a Hub and Spoke model, it will handhold the cities at every step of project journey - Capacity Building; Project Formulation and Asset Monetization; Access to Financial and Capital Markets; and Management and Maintenance of Assets. Working closely with the State Government and the ULBs, UiWIN will build a pipeline of bankable, investment-ready urban projects. UiWIN will connect the cities with investors - both domestic and global.

Through UiWIN, ULBs, Special Purpose Vehicles (SPVs), and State-level agencies will be supported to conceptualise, design, and access financing for a wide spectrum of urban infrastructure projects, including circular economy and climate-responsive initiatives aligned with national priorities and international commitments. The UiWIN will facilitate more investments from

multiple sources — which are faster and on better terms, like attract private investments by developing PPP projects, long-tenor, concessional and competitive financing from multilaterals like World Bank, ADB etc.

### 4. Comprehensive Area-Based Development (ABD) Approach

UiWIN will adopt a comprehensive, ring-fenced and area-based development (ABD) approach within selected ULBs (Figure 2), progressing systematically from project conceptualisation to financial closure and on-ground implementation through the following various stages such as: (i) Onboarding of Cities and State through their willingness and commitment; (ii) Identification and Ring-Fencing of developable ABD area; (iii) Detailed Infrastructure Needs Assessment including review of income-expenditure profile; assessment of assets, liabilities and borrowing capacity; gap analysis of ongoing and proposed projects; and convergence of existing Central and State schemes; (iv) Project Structuring and Financial Closure including PPP, Bonds, Multilateral financing; and (v) Implementation and Monitoring.

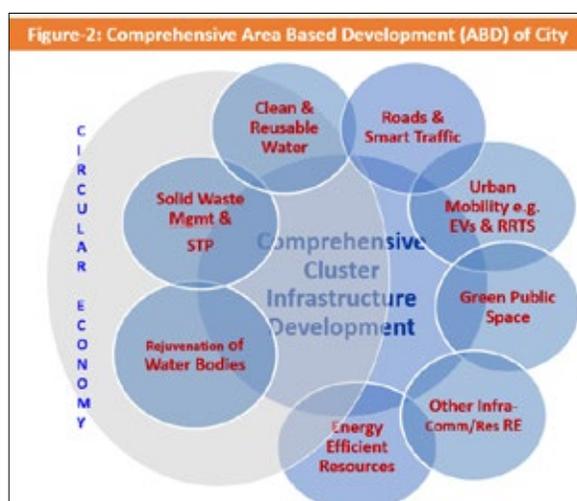
### 5. Expected Outcome

UiWIN will be a transformative initiative, aiming to double urban investments in next 5 years by - supporting in governance reforms, better financial management and improving the municipal competency. It will facilitate more urban investments through enhanced and accelerated lending from HUDCO for urban projects, structure PPP projects & attract private investments; long-tenor, concessional and competitive financing from multilaterals like WB, ADB & others; support issuance of Municipal & pooled bonds access for ULBs; Land value capture & monetization; use Convergence with Central & State schemes for additional funding;

and most importantly, help in Capacity building of ULB officials. The expected outcome of UiWIN is summarized in Figure-3.

### 6. Conclusion

Urban Invest Window (UiWIN) represents a paradigm shift in urban infrastructure development by providing a holistic, integrated and financially sustainable framework. With a clear roadmap to support the



Government's Viksit Bharat Vision 2047, HUDCO is uniquely positioned to lead the Urban Invest Window, ensuring both policy alignment and on-ground impact. The Urban Invest Window (UiWIN), anchored by HUDCO's institutional strength and national reach, offers a strategic solution to bridge the urban investment gap in Indian cities. By repurposing HUDCO's extensive pan-India network of regional offices to act as UiWIN as well as through its own Research & Training Institute (HSMI), HUDCO would ensure that even smaller cities receive localized, hands-on assistance to develop technically sound and financially viable urban infrastructure proposals. By providing end-to-end support, from project identification to financing, the UiWIN aims to unlock new funding avenues, strengthen local capacities, and accelerate the creation of resilient, inclusive, and future-ready cities aligned with the vision of Viksit Bharat 2047.



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hudco

A NAVRATNA CPSE

# Financing Infrastructure for Viksit Bharat



## Key Strengths

Pan India Presence

Urban Invest Window-(UIWIN)  
for 360° solutions to ULBs

Lowest NPA &  
Pristine Asset Quality

Highest Credit Ratings:

Strong Financial  
Ratios and Profitability

Private sector lending for roads,  
ports, real estate, energy and airports



**Housing and Urban Development Corporation Limited**

An NBFC - IFC under Ministry of Housing and Urban Affairs, Govt. of India

CIN: L74899DL1970GOI005276 GSTIN: 07AAACH0632A1ZF

Core - 7 A, HUDCO Bhawan, India Habitat Centre Lodhi Road, New Delhi - 110 003

# HUDCO's Quantum Jump in Financing Infrastructure

## 1. As India scales up urbanisation at unprecedented speed, what would be the investment requirement for infrastructure development in cities and urban centres?



India's urban population is on a faster growth trajectory and projected to rise by about 140 million over the next 15 years, growing from 470 million in 2021 to nearly 600 million by 2036. This would mean that 40% of the country's total population will reside in urban areas, up from 31% in 2011. Notably, urban population growth is expected to contribute around three-fourths of India's total population increase between 2011 and 2036. It is projected that 50% of our population would live in urban centres by 2050. India's accelerating urbanisation offers both opportunities and challenges as cities must accommodate growing populations and rising expectations for better services. To sustain economic growth, by 2036 a cumulative investment of USD 841 billion (i.e. Rs.75 -Rs.80 lakh crore) over a 15-year period, i.e. Rs.5-Rs.6 lakh crore annually is needed to strengthen urban infrastructure services including WASH, SWM, mobility infrastructure. As against this, total capex on urban infrastructure spending from all sources as per current scenario is estimated to be around Rs.2.5-Rs.3 lakh crore. Further, the demand for Capital expenditure is almost 10x from the current level of Capital Expenditure made by ULBs for Infrastructure Development.

## 2. HUDCO, being central to India's housing and urban infrastructure story for decades, what is your boldest priority for HUDCO in the next five years?

Established in 1970 as the specialized techno-financing company to provide long-term finance for housing and urban development projects, HUDCO has financed projects in over 1,900 cities and towns, supporting a wide spectrum of housing and urban infrastructure initiatives. Its Pan-India network of 20 Regional Offices and 10 Development Offices enable direct engagement with Urban Local Bodies (ULBs), especially in Tier-2 and Tier-3 cities, ensuring last-mile connectivity and implementation support. HUDCO offers a single-window platform that integrates Government of India and State policies, supports both inbound and outbound financing, and facilitates access to foreign currency loans and ECBs. It also plays a pivotal role in implementing flagship missions such as Urban Challenge Fund (UCF), AMRUT 2.0, PMAY-U 2.0, CITIIS 2.0, and Swachh Bharat Mission 2.0.

With cumulative sanctions exceeding Rs.5.65 lakh crore across 17,500+ projects, a CRAR of 38.28%, and a Provision Coverage Ratio nearing 95%, HUDCO combines scale with financial resilience. My boldest priority over the next five years is to institutionalize HUDCO's transformation into a full-spectrum Infrastructure Finance Company capable of anchoring India's next phase of urban and economic expansion to supplement the goal of Viksit Bharat.

With our transition to NBFC-IFC status and Navratna recognition, Housing and Urban Development Corporation Limited now has the regulatory and financial strength to finance infrastructure beyond housing — including mobility systems, logistics corridors, water security, and energy transition. Our ambition is to scale our infrastructure portfolio toward Rs.3 Lakh Crore by 2030 while maintaining strong capital adequacy and disciplined asset quality. This transformation rests on three clear pillars: calibrated diversification; empowering cities through structured finance; and embedding sustainability at scale. The next five years are about strengthening HUDCO's balance sheet, broadening its mandate, and positioning it as a long-term infrastructure partner to the nation. We will continue building homes. But equally, we will help build the economic foundations of a future-ready India.

## 3. How is HUDCO repositioning itself from a housing finance institution to a comprehensive infrastructure financing powerhouse?

HUDCO is undergoing the most significant transformation in its 55+ year history. Our transition to a full-fledged NBFC-Infrastructure Finance Company in August 2024, coupled with Navratna status, has expanded our mandate beyond housing into the entire infrastructure spectrum — transport, ports, power, water systems, energy transition and renewable energy.

This regulatory transition from an HFC to NBFC-IFC is aligned with India's long-term development agenda.

This repositioning if HUDCO also removes earlier sectoral constraints and expands our operational canvas significantly. Secondly, we are shifting from being a reactive lender to becoming a structured development partner. Through our Urban Invest Window (UiWIN), we are repurposing our regional Offices to help Urban Local Bodies prepare bankable projects and strengthen financial viability. This marks a move from transaction-based lending to ecosystem-based financing. Thirdly, we are diversifying our portfolio by entering calibrated private sector and PPP financing in sectors such as roads, seaports, airports, and energy transition. Fourthly, we are strengthening our financial architecture to support this expansion. Through instruments such as 54EC Capital Gain Bonds, Zero-Coupon Bonds, and international issuances including JPY-denominated green bonds, we are optimizing our cost of funds and diversifying our resource base. Finally, sustainability and asset quality discipline remain central. Our expansion into green infrastructure and climate-aligned projects is matched by strong provisioning norms and risk management frameworks to ensure long-term stability.

In essence, HUDCO is repositioning itself from a



Sanjay Kulshrestha

Chairman and Managing Director, HUDCO Ltd.

housing finance institution into a diversified infrastructure financier — one that supports the full lifecycle of urban and economic development while maintaining financial prudence.

## 4. The UiWIN initiative is drawing attention. In simple terms, what problem does it solve for urban local bodies?

Our Urban Local Bodies still face multidimensional challenges — from capacity building to project preparation, from fund mobilization to investment facilitation. Despite substantial public investments, implementation outcomes remain uneven due to persistent institutional, technical, and financial capacity constraints. Given the scale of projected urban growth and the accompanying financing gap and multidimensional challenges of ULBs, it is imperative to broaden investment avenues, enhance front-line capacity, enable knowledge sharing and equitable growth, and establish a dedicated facilitation mechanism that can channel capital efficiently into urban-sector projects. This dedicated facilitation mechanism is the 'Urban Investment Window' (UiWIN) of HUDCO, which was launched by the Hon'ble Union Minister of Housing and Urban Affairs, Government of India, during the National Urban Conclave held on 08.11.2025.

The Urban Investment Window (UiWIN) is envisioned as a dedicated platform within HUDCO to strengthen investment facilitation and financing for urban infrastructure projects across India. The key solutions offered by UiWIN to ULBs include: (i) Capacity building of ULB and State officials; (ii) Project Identification & Formulation; (iii) Access to Financial & Capital Markets; and (iv) Municipal Asset Register, Monetisation & Management. UiWIN will adopt a comprehensive, ring-fenced and area-based development (ABD) approach within selected ULBs, progressing systematically from project conceptualisation to financial closure and on-ground implementation.

The platform will streamline access to finance from all possible sources, enhance project bankability, and bridge the gap between project conceptualization and capital mobilization. By leveraging HUDCO's extensive pan-India network of regional and development offices as well as its own Research & Training Institute, UiWIN ensures that even smaller cities receive localized, hands-on assistance to develop technically sound and financially viable urban infrastructure proposals.

## 5. How will UiWIN strengthen transparency, accountability, and financial discipline in municipal infrastructure funding?

More than just a project support mechanism, the UiWIN is also envisioned as a 'capacity building ecosystem' that aims to strengthen transparency, accountability, and financial discipline in municipal infrastructure funding as well as empower cities to become self-reliant and investment ready. It is envisaged to help ULBs shift municipal infrastructure financing from ad-hoc decision-making to structured, market-aligned systems by enhancing their financial strategies, adopt global best practices, and access diverse funding streams including municipal bonds, foreign direct investments, and multilateral loans. UiWIN would offer access to toolkits, case studies, documentation templates, and interactive knowledge platforms, fostering peer-to-peer exchange. Acting as a true 'one stop shop' and offering a 'bouquet of services' for implementing bankable projects, UiWIN shall allow cities to bring ring-fenced and area-based development individual or bundled projects at HUDCO and receive access to empaneled vendors, loans at concessional rates, technical expertise for the entire project lifecycle and investment facilitation - all on a single platform. This unique proposition shall not only bridge the technical and financial gaps faced by ULBs but also enable cities to evolve into resilient, inclusive, and future-ready urban centres aligned with the national vision of Viksit Bharat 2047.

## 6. Which infrastructure sectors - water, sanitation, mobility, social infrastructure, green projects - are at the top of HUDCO's expansion agenda?

We are a sector-agnostic Company. As we expand beyond housing, our strongest growth momentum is clearly in energy transition, green energy and sustainable urban mobility - sectors that combine scale, sustainability, and long-term economic impact; while core urban infrastructure projects such as water, sanitation, solid waste management and road remain our developmental mandate, in alignment with national urban missions.

On the green front, our renewable and sustainability-linked portfolio has already crossed roughly Rs.20,000 crore and is expanding steadily. With India targeting 500 GW of renewable capacity and Net Zero by 2070, we see significant long-term opportunity in solar, green hydrogen, EV infrastructure, and climate-resilient projects. Urban mobility is another major focus area. Large-ticket metro systems, expressways, and regional connectivity corridors now form a growing share of our infrastructure book, reflecting the scale of India's urban transition. We are also selectively deepening our exposure to social infrastructure — including healthcare facilities and demographic-responsive urban development - to ensure growth remains inclusive.

## 7. Climate resilience is no longer optional. How is HUDCO embedding sustainability and green finance into its lending DNA?

Climate resilience is no longer a parallel theme for us — it is embedded into our lending framework. HUDCO is transitioning from being a traditional housing finance institution to a climate-responsive development financier, guided by a Board-approved ESG policy that ensures sustainability is integrated into credit appraisal and project evaluation.

On the portfolio side, we have built a dedicated green and sustainability-linked book. As of now, our renewable and Net Zero-aligned exposure is close to Rs.20,000 crores, spanning solar, hydro, pumped storage, and energy transition projects. We are also financing EV infrastructure and feeder-level solarization under national programmes — reflecting our commitment to decarbonizing both power and mobility. At the same time, climate resilience in India is as much about adaptation as mitigation. Therefore, water supply, sewerage, drainage, and solid waste management form a significant part of our climate-aligned financing. These sectors

strengthen urban resilience against floods, heat stress, and resource scarcity.

Importantly, we are greening not just our assets but also our liabilities — aligning with global green finance principles to mobilize competitive, sustainability-linked funding. These efforts are beginning to reflect in our external assessments — our ESG rating done by various agencies indicate steady progress and reinforcing our commitment to continuous improvement rather than compliance alone.

#### **8. Tier-2 and Tier-3 cities are India's next growth engines. What special mechanisms is HUDCO deploying to accelerate their infrastructure transformation?**

India's urban ecosystem comprises of 7,935 cities and towns, classified into 4 tiers based on population and economic activity. While approximately 400 Tier-1 cities have relatively stronger institutional capacity and access to capital, the vast majority of Tier-2, Tier-3, and Tier-4 cities face significant constraints in planning, financing, and implementing urban infrastructure projects. These cities, which house a substantial portion of India's urban population, are in fact India's next growth engines and therefore, require focused support to bridge the investment and capacity gaps that hinder their development. Further, these mid-sized cities can emerge as powerful growth drivers through developing 'City Economic Corridors' or 'City Economic Regions' (CERs), as envisaged in this year's Union Budget 2026-27 which allocated Rs.5,000 crore per CER over five years, using competitive, results-based financing to ensure accountability and efficiency. The CERs shift focus from mega-cities to Tier II and Tier III cities, temple towns, and smaller urban centers for decentralized and spatially diversified growth engines. In fact, some of the CERs have already been prepared such as Bhubaneswar-Cuttack-Puri-Paradeep Economic Region (BCPPER), Surat Economic Region (SER), Visakhapatnam Economic Region (VER), and Mumbai Metropolitan Region (MMR).

The challenge is not ambition — it is capacity and access to capital. HUDCO's approach is therefore designed around three core mechanisms: aggregation, credit enhancement, and capacity building. HUDCO through its UiWIN would help Tier-2 & Tier-3 cities to aggregate resources through various means including pooled financing; provide partial credit guarantee mechanism; and provide capacity building for technical and financial handholding. HUDCO's UiWIN would also work with various stakeholders including NITI Aayog for developing CER Plans for various cities, whenever required. Many Tier-2 and Tier-3 cities struggle with DPR preparation, asset mapping, financial reporting, and debt management frameworks. Through UiWIN, we

provide end-to-end support — from project conceptualization to structuring municipal bonds, PPPs, or blended finance models. We are also supporting asset monetization and digitization of municipal balance sheets so that cities move from being grant-dependent to becoming financially disciplined and investment-ready. So our strategy is simple: de-risk smaller cities, build their institutional capacity, and unlock capital at scale. That is how we accelerate infrastructure transformation beyond the metros.

#### **9. Are we likely to see innovative financing models — blended finance, PPP support, credit enhancement — from HUDCO in 2026 and beyond?**

India's infrastructure requirement cannot be met through traditional lending alone. Therefore, we are consciously evolving from being only a lender to becoming a financial structurer and enabler. On blended finance, we are actively working through platforms like UiWIN to combine HUDCO's capital with multilateral funding, municipal bonds, and private participation. The objective is to make complex urban and climate projects financially viable by lowering overall cost of capital. On the PPP front, we have established a dedicated PPP and Private Sector financing framework. This allows us to participate in commercially structured infrastructure projects.

Credit enhancement is another key lever. I am happy to inform that under recently cabinet approved Urban Challenge Fund (UCF), a Credit Repayment Guarantee Scheme with corpus of Rs. 5000 crore has been created to enhance credit worthiness of cities— especially Tier-II&III cities, which would immensely help smaller cities below 1 lakh population to access credit from capital market for their infrastructure development. HUDCO is fully committed to supplement this initiative through its Urban Invest Window (UiWIN) to extend one-stop solution to ULBs with capacity building; project preparation & implementation; financing with access to capital market; and creating municipal asset register & management.

Additionally, the incentive provided to ULBs this year's budget 2026-27 to raise municipal bonds, i.e. Rs.13 crore per Municipal Bonds of Rs. 100 crore and Rs. 100 crore for raising Municipal Bonds of Rs.1000 crore would leverage limited public capital to crowd in significantly larger private and institutional investment for creating sound financial ecosystem for bankable urban projects. This would also facilitate not just financing projects — but catalyzing capital, reducing risk, and building scalable funding architectures for urban India.

#### **10. Can you highlight one recent project or initiative that best reflects HUDCO's evolving role in nation-building?**

The Cabinet approval of the Urban Challenge Fund

(UCF) heralds a new paradigm in India's urban journey — from grant-based support to reform-driven, market-enabled transformation. With a corpus of Rs.1 lakh crore leveraging Rs.4 lakh crore infra investments, UCF would empower cities to become engines of innovation, resilience and inclusive growth. In this context, HUDCO's recent launch of Urban Invest Window (UiWIN) is fully geared up to supplement UCF to provide end-to-end support to cities in creating bankable projects, unlocking capital, and building future-ready, climate-responsive urban infrastructure ecosystems.

#### **11. What defining role do you see HUDCO playing in shaping future-ready cities?**

As India urbanizes at unprecedented speed, HUDCO's defining role is to ensure that urban growth is not only rapid — but also resilient, financially sustainable, and inclusive. The real challenge is building financially disciplined and investment-ready cities. That is where HUDCO sees its evolving role. First, as a capacity builder. Through the Urban Invest Window (UiWIN), we are helping Urban Local Bodies move from grant dependence to structured financing — supporting them in project preparation, credit rating, municipal bonds, PPP frameworks, and blended finance models. This creates a pipeline of bankable, well-governed projects. Second, as a large-scale infrastructure financier. With our NBFC-IFC status, we are financing not just housing and water supply, but logistics corridors, ports, mobility systems, and energy transition infrastructure — the backbone of future economic growth. We have signed MoUs with various States and their agencies to enhance collaborative efforts in infrastructure development and housing projects. Third, as a climate-conscious lender. Future-ready cities must be climate-resilient. We have embedded ESG frameworks into our appraisal systems and are expanding our green and sustainability-linked portfolio to support renewable energy, urban mobility, and water security.

#### **12. Glad to learn of HUDCO's international forays in Resource mobilisation of the order of 2 Billion \$ plus. Can we have details?**

HUDCO has successfully accessed international markets, raising JPY 174 billion approximately Rs.9,980 crore through ECBs, while actively partnering with institutions such as the World Bank and Asian Development Bank for line of credit of USD1 Billion to fund modern and sustainable infrastructure projects in cities. We are also planning to raise another USD 1 billion through two tranches of yen-denominated loans. This is how global capital meets local development with discipline and purpose.

# Nayi Soch, Naya Hisar: A Replicable Framework for Urban Waste Management

Waste management systems in many cities are supported by established infrastructure and regular collection services. However, challenges such as mixed waste reaching transfer stations, persistent landfill dependency, and limited adherence to source segregation continue to affect system efficiency. These gaps often arise from a disconnect between citizen awareness and daily compliance within routine waste handling practices.

**Nayi Soch, Naya Hisar**, initiated by the Municipal Corporation Hisar (MCH), aims to address this challenge through an implementation framework that focuses on integrating systems, citizens, and behavioural change within municipal operations. The programme is being implemented through a formal Memorandum of Understanding (MoU) between MCH, Why Waste Wednesdays Foundation (WWWF) as the IEC and PMU implementing agency, and the city's authorised door-to-door collection and transportation agencies, WeVois Private Limited and Karni Corporation Private Limited.

The initiative adopts a coordinated four-way governance model wherein the Urban Local Body, IEC partner, operational agencies, and citizens function within a structured implementation ecosystem. It aims to strengthen sustainable solid waste management through continuous Information, Education and Communication (IEC), supported by operational monitoring and feedback-based

review systems.

Within two and a half months of implementation across all 20 wards of Hisar, the city has recorded clean wet waste collection ranging between approximately 32–39 tonnes per day, reflecting improvement in segregation at source and enhanced citizen participation. Citywide segregation levels in operational terms have crossed 50 percent, indicating a transition from awareness-driven engagement to routine compliance across households.

Health & Sanitation Inspectors (HSIs) play a defined role as field-level facilitators of citizen engagement and monitoring. Equipped with standardised tracking formats, reporting templates, and photographic documentation protocols, HSIs contribute to daily compliance assessment. Helpers deployed in collection vehicles are similarly trained to identify mixed waste, guide households in segregation practices, and maintain route-level hygiene using daily segregation tracking sheets.

The programme also incorporates structured integration of waste pickers through training, safety orientation, and participation in Resource Recovery operations, thereby strengthening formal recycling linkages. Academic collaboration with Guru Jambheshwar University of Science and Technology (GJU) through a Value Added Course in Hygiene, Sanitation and Environment enables

student volunteers to participate in outreach, surveys, and ward-level monitoring activities.

Behavioural reinforcement is supported through video messages recorded by municipal councillors, elected representatives, school principals, and religious leaders demonstrating wet and dry waste segregation practices and encouraging citizens to hand over segregated waste only to municipal collection vehicles while discouraging littering and dumping.

School engagement programmes address key themes such as source segregation, reduction of single-use plastics, RRR practices, WASH principles, and clean toilet habits. Reverse tracking of commercial establishments including restaurants, dhabas, and juice outlets, along with systematic citizen feedback collection, further strengthens programme oversight.

Daily wet waste collection tracking and review mechanisms provide visibility into progress and enable corrective action where required. The initiative demonstrates how continuous IEC, when integrated with operational systems and monitoring frameworks, can support sustained behavioural compliance and improved waste management outcomes, offering a replicable model for other urban local bodies.

# Signature Global - Leading Transformation in Green Homes and Sustainable Living



Signature Global is one of India's leading real estate development companies, redefining the residential landscape across Northern India. Founded in 2014 and headquartered in Gurugram, the company began with a strong presence in the affordable housing segment and has strategically evolved into the mid-income and premium residential categories. This evolution is driven by a consistent focus on quality execution, long-term value creation, reliability, and adherence to global development and governance standards.

The company is backed by marquee institutional investors such as Nomura, HDFC, and IFC, the lending arm of the World Bank, reflecting strong financial credibility and investor confidence. Signature Global follows a disciplined and efficient land acquisition strategy, typically launching projects within 18 months of acquisition, which enables faster go-to-market timelines, optimised capital deployment, and enhanced project viability. This approach has strengthened its presence in high-growth micro-markets across the Delhi-NCR region.

Signature Global commands a market share of approximately 13 percent across the National Capital Region and 20 percent in Gurugram in the Rs.20 million to Rs.50 million residential price segment, underscoring

its leadership in its target markets. As of 9MFY26, the company has delivered 16.5 million square feet of real estate. Its robust development pipeline includes 21 million square feet of recently launched projects, 20.7 million square feet of forthcoming developments, and 13.8 million square feet of ongoing construction, comprising projects under active construction as well as those that have received occupancy certificates. These projects are slated for execution over the next two to three years.

In FY25, Signature Global reported sales bookings of Rs.102.9 billion, supported by sustained housing demand and strong execution capabilities. The company has achieved a sales CAGR of 58 percent between FY22 and FY25, demonstrating consistent growth momentum and reinforcing its position as one of the fastest-growing residential developers in the region.

Strengthening its focus on safety and innovation, Signature Global has partnered with the Indo-Italian joint venture CECO Hirun Pvt Ltd to implement Hysteretic Tuned Mass Dampers in select high-rise developments. This advanced seismic safety technology enhances structural resilience against earthquakes and high wind speeds by reducing vibrations and structural forces by 20 to 30 percent, while protecting key building components such as elevators, walls, and interior.

Signature Global (India) Limited holds multiple ISO certifications, reflecting its commitment to quality, safety, sustainability, information security, and operational efficiency. These include ISO 27001:2018 for Information Security Management, achieved in 2024 to safeguard sensitive data; ISO 9001:2015 for Quality Management to ensure compliance with customer and regulatory requirements; ISO 14001:2015 for Environmental Management to support sustainable development practices; ISO 45001:2018 for Occupational Health and Safety to ensure safe working environments; and ISO 31000:2018 for strengthening enterprise-wide risk management frameworks. Collectively, these certifications reinforce the company's focus on delivering high-quality and responsibly developed homes.

In a significant ESG milestone, Signature Global (India) Limited made a strong debut in the 2025 Global Real Estate Sustainability Benchmark assessment, achieving an overall average score of 84 across all evaluated parameters and securing a perfect score of 100 in Leadership and Governance. This performance places the company among the top-performing first-time participants globally and highlights its structured ESG approach, with sustainability integrated across project design, material selection, construction, and operations, including energy efficiency, water conservation, and waste management. The company's sustainability disclosures align with the Global Reporting Initiative framework, and its eco-friendly developments, such as Titanium SPR, have been recognised with accolades including Sustainable Business Leader of the Year 2025.

wwIn 2023, Signature Global successfully listed on both the Bombay Stock Exchange and the National Stock Exchange of India, further strengthening its position as a leader in responsible real estate development. With a proven track record of timely delivery, adoption of advanced construction technologies, strong governance practices, and a customer-centric approach, the company remains committed to building resilient, future-ready, and sustainable communities across India.





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**SIGNATURE GLOBAL**  
**SARVAM**  
AT DXP ESTATE

An address crafted around mudras, that nurtures your complete well-being.



OUR WELLNESS PARTNERS



Signatureglobal Homes Limited | CIN No.: U70100DL2008PLC176641  
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Corp. Off.: Unit No. 101, Ground Floor, Tower A, Signature Towers, South City 1, Gurugram, Haryana - 122001  
www.signatureglobal.in

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# A four-decade narrative of Trust, Innovation, and Strategic Urbanism in Chennai

The contribution of Ceebros to the Chennai real estate market is best measured by the permanence of its structures and the depth of its customer relationships. By delivering over 300 projects with a focus on "reliability, integrity, and timely delivery," the company has set a benchmark for the industry.

The integration of architecture, hospitality, and management into a single corporate ecosystem has allowed Ceebros to become more than just a builder; it is a curator of the urban lifestyle in Chennai.

The evolution of the Chennai real estate market serves as a microcosm for the broader transformation of urban India, transitioning from traditional, horizontal housing patterns to sophisticated, multi-vertical urban centres.

At the heart of this metamorphosis stands Ceebros, a real estate brand that has navigated the complexities of land acquisition, regulatory shifts, and evolving consumer aspirations for over forty years. Founded in 1978, Ceebros Property Development has established itself as an institutional cornerstone of the South Indian realty sector, characterized by a unique synthesis of boutique craftsmanship and large-scale industrial capability. The company's journey from a nascent residential promoter to a diversified group with interests in luxury housing, premium hospitality, and professional property management provides a rigorous case study in organizational resilience and strategic market positioning.

## Historical Foundation and Corporate Evolution

The inception of Ceebros in 1978 occurred during a pivotal era for Chennai, then Madras, as the city began to outgrow its traditional colonial enclaves and look toward modern, organized real estate development. Under the leadership of founder



Subba Reddy, the organization was built on a foundational ethos that emphasized integrity and timely delivery-values that were often scarce in the fragmented construction industry of the late 1970s and early 1980s.

The growth trajectory of Ceebros is marked by choosing to focus on the luxury and premier segments where quality and detailing command a premium. Over three and a half decades, Ceebros has developed over 300 projects, encompassing millions of square feet across the residential and commercial spectrum.

## The Philosophy of Generational Trust and Customer Lifecycle

One of the most distinctive features of the Ceebros brand is its claim to having developed properties for three consecutive generations of the same families. In a market where real estate is viewed as a legacy asset, this continuity of service represents an extraordinary level of customer retention. Industry observers and long-term clients, such as Gopal Srinivasan, Chairman of TVS Capital Funds, have noted that the founder's values are deeply embedded in the organization's DNA, influencing everything from the quality of the plaster to the responsiveness of the management.

The retention of customer loyalty is not merely a byproduct of longevity but is the result of a deliberate strategy of

"service excellence". Testimonials from eminent figures like the late M.S. Swaminathan highlight the company's "excellence in quality of workmanship and commitment to time in delivery" as primary

characteristics that distinguish it from the competition. This reputation has allowed Ceebros to maintain a premium pricing strategy, often commanding rates that reflect the intrinsic value of the brand's reliability.

The organization treats each customer as an integral part of the "ever-growing Ceebros family," a sentiment that translates into personalized service and a focus on long-term relationship management. This philosophy is reinforced by the company's expansion into professional property management services, ensuring that the developer remains the primary point of contact for maintenance and asset preservation long after the initial sale is completed.

## The Raintree Hotels: Pioneers in Eco-Luxury

In 2005, Ceebros entered the hospitality market with the launch of "The Raintree" hotels.

The Raintree on St. Mary's Road achieved the distinction of being South India's first five-star Eco-tel Hotel,

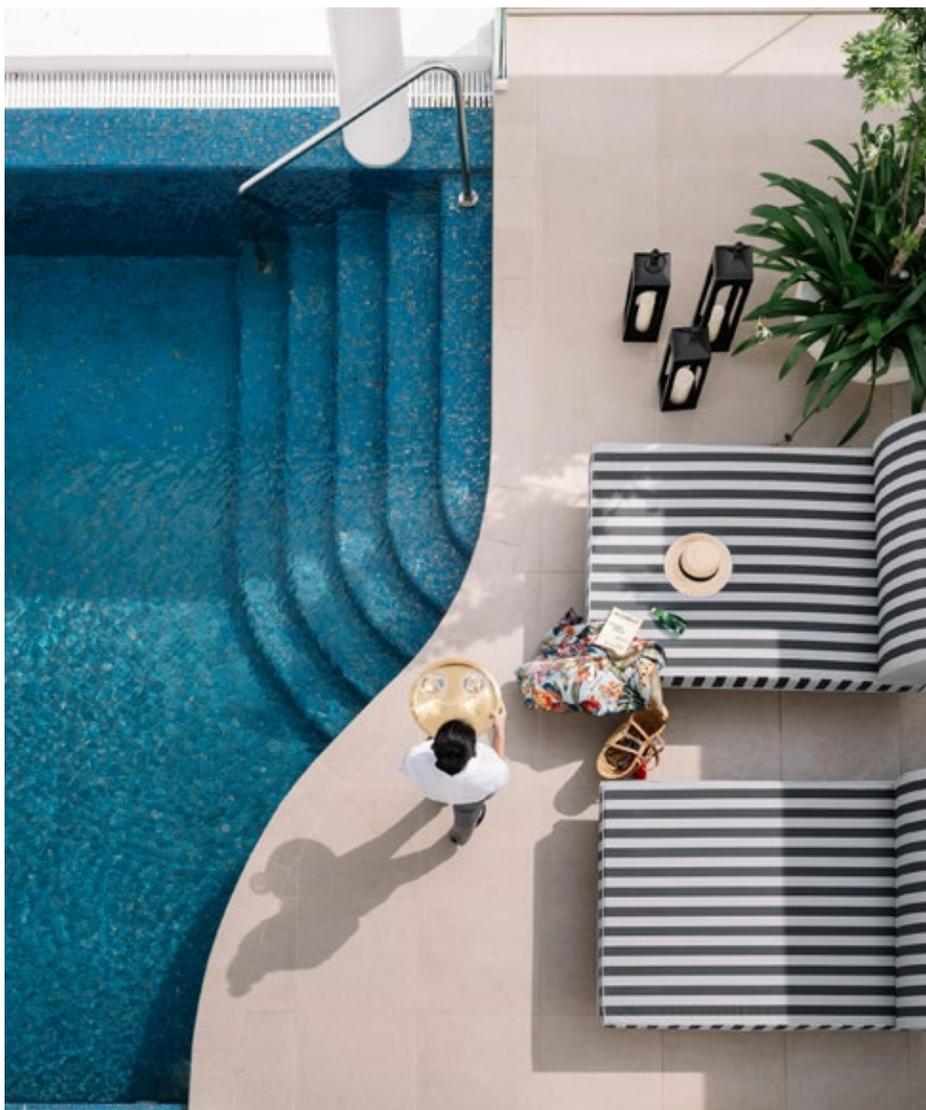
combining high-end hospitality with rigorous environmental standards. In 2025, Ceebros partnered with the

Accor group to bring in their luxury brand Pullman Hotels in Anna Salai Chennai.

## Summing Up

Ceebros represents a quintessential South Indian success story-one that prioritizes sustainable growth over aggressive expansion and trust over transaction.

As Ceebros moves toward the next decade with projects like One 7 4 and Upper House, the brand remains a "trusted symbol of enduring quality" and a pioneer in the luxury residential segment.



**CEEBROS** 

# Built on Trust. Cherished for Generations.

Defining Chennai's Skyline for over four decades.



Ceebros curates more than just property; it curates the art of living. For four decades the brand has defined the benchmark for luxury real estate through a rare synthesis of boutique craftsmanship and institutional precision.

From the high-performance corridors of OMR to Chennai's most prestigious urban enclaves, every detail is treated as a masterpiece and every development as a landmark. Experience a legacy built on integrity, where service excellence is the standard and every client is welcomed as family.

Corporate address: Sukriti, 19/1, 3<sup>rd</sup> Cross Street, Raja Annamalai Puram, Chennai - 600028  
T 044 2432 1818 / 2432 1919 enquiry@ceebros.com | www.ceebros.com

# Overview: Shillong Smart City Implementation

Under the Smart Cities Mission, Shillong is being transformed into a sustainable, citizen-friendly, and economically vibrant urban center. The Mission emphasizes area-based development (ABD) and pan-city initiatives, focusing on infrastructure, sustainability, mobility, and improved quality of life.

Shillong Smart City Limited (SSCL) has implemented several projects aligned with the Mission's core principles of sustainability, inclusivity, technology integration, environmental resilience, and economic growth.

## Key Areas of Implementation

### 1. Urban Infrastructure & Public Realm Improvement

Focus: Walkability, drainage, flood mitigation, and public safety

- Improvement of walkways in Laitumkhrah and surrounding areas
- Upgradation of drainage systems in Laban
- Restoration of natural storm water drains (Wah-daso, Mawbah, Bishop Falls)

#### Impact:

- Reduced urban flooding
- Improved pedestrian mobility
- Better sanitation and public health
- Enhanced urban aesthetics

These initiatives align with the Mission's goal of creating livable, safe, and sustainable urban environments.

### 2. Renewable Energy & Climate Action

Rooftop Solar PV Systems (Phase I & II)

- 11 government buildings equipped
- 1 MW clean energy generation

#### Impact:

- Reduced electricity costs
- Lower carbon footprint
- Increased energy security

This supports the Mission's objective of developing climate-smart and energy-efficient cities.

### 3. Water Sustainability & Conservation

Rainwater Harvesting Systems

- Installed in 43 buildings
- 2.48 crore liters storage capacity

#### Impact:

- Reduced pressure on treated water supply
- Improved water security
- Cost savings in municipal operations

In-Situ Wastewater Treatment (RENU Technology)

- Treatment of 5 key drains
- Cleaner discharge into Umkhrah river

#### Impact:

- Reduced river pollution
- Improved ecological health
- Enhanced urban sanitation

These projects strengthen Shillong's water resilience strategy, crucial for a high rainfall city facing climate variability.

### 4. Solid Waste Management Modernization

- Installation of waste disposal plants (oxygenation



plasma technology)

- Capacity: 4 tons/day
- Deployment of 10 litter picking machines

#### Impact:

- Improved waste processing efficiency
- Reduced landfill dependency
  - Cleaner streets and public spaces

This aligns with the Mission's goal of creating clean and environmentally responsible cities.

### 5. Smart Mobility & Traffic Management

Mechanized Multi-Level Car Park (Vivekananda Road)

- 58 parking slots
- Automated system

#### Impact:

- Reduced traffic congestion
- Better parking management
- Improved road safety

Mobility improvements are central to Smart Cities guidelines, emphasizing efficient urban transport systems.

### 6. Economic Development & Commercial Revitalization

Polo Commercial Complex

- Retail spaces, food court, recreational facilities
- Enhanced parking and traffic flow

Laitumkhrah Municipal Market Redevelopment

- Modern shopping arcade
- Organized relocation of vendors
- Structured parking facilities

#### Impact:

- Strengthened local economy
- Organized urban commerce
- Increased employment opportunities
- Improved land utilization

These initiatives align with the Mission's aim of fostering economic competitiveness and inclusive growth.

### 7. Community Health & Social Infrastructure

Open-Air Gyms (10 Locations)

#### Impact:

- Promotes healthy lifestyle
- Strengthens community spaces
- Encourages citizen participation

This supports the Mission's goal of improving quality

of life and social infrastructure.

### Alignment with Smart Cities Mission Guidelines

#### Shillong's implementation reflects key pillars:

Mission Guideline Shillong Implementation  
 Sustainability Solar energy, rainwater harvesting, wastewater treatment  
 Mobility Multi-level car park, improved walkways  
 Environmental Protection Waste treatment, stormwater management  
 Economic Growth Polo Complex, Market redevelopment  
 Citizen-Centric Planning Public gyms, pedestrian infrastructure  
 Smart Technology Plasma waste disposal, automated

parking

### Future Growth Prospects for Shillong

Based on current progress, Shillong's future smart growth trajectory includes:

#### 1. Climate-Resilient Urban Planning

Given Shillong's high rainfall and fragile hill ecology, further focus on:

- Nature-based drainage systems
- River rejuvenation programs
- Landslide risk mitigation

#### 2. Smart Mobility Expansion

- Integrated public transport systems
- Intelligent traffic management
- EV infrastructure development

#### 3. Digital Governance

- E-governance platforms
- Real-time city monitoring systems
- Data-driven urban management

#### 4. Tourism & Cultural Economy

Shillong's identity as the "Scotland of the East" can be enhanced through:

- Smart tourism infrastructure
- Cultural hubs and digital heritage mapping

#### 5. Green Economic Growth

- Expansion of renewable energy
- Sustainable urban housing
- Eco-friendly commercial zones

### Conclusion

Shillong Smart City implementation demonstrates a balanced model of sustainability, infrastructure modernization, environmental management, and economic revitalization.

By aligning closely with the Smart Cities Mission framework, Shillong is progressing toward becoming a:

- Climate-resilient hill city
- Clean and energy-efficient urban center
- Organized commercial hub
- Citizen-friendly and inclusive community

If current initiatives continue with stronger integration of digital systems and climate-responsive planning, Shillong is well-positioned for sustainable long-term urban growth while preserving its ecological and cultural identity.

# PMAY-Urban & PMAY-U 2.0: A Decade of Housing Transformation

## From Housing Shortage to Dignified Living | Investment Scale | Inclusive Urban Growth



Launched by the Ministry of Housing and Urban Affairs (MoHUA), AMRUT 2.0 (Atal Mission for Rejuvenation and Urban Transformation) marks a decisive shift in India's urban journey — from expanding infrastructure to delivering sustainable, technology-enabled and financially resilient water services across 500 cities.

### THE INITIATIVE

AMRUT 2.0 focuses on universal water security and circular urban water management, aligned with SDG 6 and the national vision of Viksit Bharat @2047.

- 100% Functional Household Tap Connections
- Universal Sewerage & Septage Management Coverage
- Rejuvenation of Urban Water Bodies
- Expansion of Green Spaces & Urban Ecology
- GIS-based Digital Master Planning
- Municipal Bond Financing & PPP-driven Infrastructure

### IMPACT & OUTCOMES

AMRUT 2.0 has significantly strengthened India's urban water ecosystem, driving measurable improvements in coverage, reuse, financing, and governance.

- Water supply coverage increased to ~77% nationally
- Urban India now at 83-85% safely managed drinking

**“In the next stage of AMRUT, India targets to have access to clean water for all urban citizens, increase coverage of sewerage & septage management, make our cities water secure and ensure that no dirty water falls into the rivers from drains.”**

**Shri Narendra Modi**  
Hon'ble Prime Minister

water coverage (JMP 2025)

- 33 lakh tap & 20 lakh sewer connections delivered in 2025 alone
  - ~6,000 MLD treated water being reused across States/UTs
  - 25 States/UTs established Water Resource Recovery Cells
  - Rs. 775 crore raised via Municipal & Green Bonds in 7 cities
  - 30,000+ women engaged under AMRUT Mitra initiative
- “AMRUT 2.0 is strengthening collaborative governance between Centre and States to ensure timely delivery and sustainable urban transformation.”  
— Shri Manohar Lal Khattar, Hon'ble Minister of Housing & Urban Affairs

### INFOGRAPHIC SNAPSHOT: AMRUT 2.0 AT A GLANCE

8,799 Projects approved worth Rs. 1.93 Lakh Crore  
Rs. 1,19,642 Cr – Water Supply Allocation  
Rs. 66,117 Cr – Sewerage & Septage Allocation  
1.78 Crore Tap Connections Approved  
65 Lakh Sewer Connections Approved  
12,289 MLD Water Treatment Capacity  
8,255 MLD Used Water Treatment Capacity  
1.17 Lakh Acres Water Bodies under Rejuvenation  
13,897 Acres Green Spaces Being Developed  
1.87 Lakh sq. km Geospatial Database Under Preparation  
860 Used Water Treatment Plants Onboarded  
17,000+ MLD Operational Capacity under JHA

### TRANSFORMATIONAL PROGRAMS

- Drink From Tap (409 projects across 27 States/UTs)
- Shallow Aquifer Management expanded to 75 cities
- India Water Pitch-Pilot-Scale Startup Challenge (120 startups supported)
- Specialised global collaborations with Singapore, Israel, Sweden & France
- Advanced capacity building for 275+ Municipal Commissioners & Engineers

### EDITORIAL NOTE

AMRUT 2.0 represents a new era of urban governance — combining infrastructure scale, financial innovation, digital planning, and community empowerment. As India enters the global dataset for safely managed water services for the first time, the mission stands as one of the fastest-improving water sector initiatives globally — ensuring that every Indian city moves toward resilience, sustainability, and water security.

# AMRUT 2.0: Powering India's Urban Water Revolution From

## Making Cities Water Secure | Sustainable | Resilient



Launched in June 2015, Pradhan Mantri Awas Yojana-Urban (PMAY-U) is one of the world's largest public housing missions. The scheme aims to provide pucca houses with basic amenities including kitchen, water supply, electricity and toilet to eligible urban families through Central Assistance routed via States and UTs. Building on its success, PMAY-U 2.0 was launched on 1 September 2024 with an ambitious investment of Rs.10 lakh crore to support one crore additional households. The mission operates through four verticals:

- Beneficiary Led Construction (BLC)
  - Affordable Housing in Partnership (AHP)
  - Affordable Rental Housing (ARH)
  - Interest Subsidy Scheme (ISS)
- The mission adopts a cooperative federalism model, digital MIS-based monitoring, geo-tagging integration with BHUVAN & BHARAT MAP, and Direct Benefit Transfer (DBT) to ensure transparency and accountability.

The mission operates through four verticals:

- Beneficiary Led Construction (BLC)
- Affordable Housing in Partnership (AHP)
- Affordable Rental Housing (ARH)
- Interest Subsidy Scheme (ISS)

### IMPACT & OUTCOMES

Over the past decade, PMAY-Urban has transformed the urban housing landscape:

- 1.22 Crore houses sanctioned; 1.15 Crore grounded; 97+ Lakh completed
- Rs. 8.45 Lakh Crore total investment mobilised
- Rs. 2.05 Lakh Crore Central Assistance approved
- Rs. 1.77 Lakh Crore Central Assistance released
- 96 Lakh houses registered in the name of women or

**“Sabka Sapna, Ghar Ho Apna. A house is not merely brick and mortar - it is dignity, aspiration and empowerment for millions of families.”**

**Shri Narendra Modi**  
Hon'ble Prime Minister

joint ownership

- 357 Lakh jobs generated (112 Lakh direct, 245 Lakh indirect)
- 631 Lakh MT cement and 143 Lakh MT steel consumption driving economic growth
- 25.83 Lakh beneficiaries supported through Interest Subsidy (Rs. 59,181 Cr)

“PMAY-Urban is not just about housing delivery — it is about inclusive growth, women empowerment, employment generation and strengthening the urban economy.”  
— Ministry of Housing & Urban Affairs

### INFOGRAPHIC SNAPSHOT: PMAY-URBAN AT A GLANCE

122.36 Lakh Houses Approved (2015-2026)  
97.20 Lakh Houses Completed  
Rs. 8.45 Lakh Crore Investment Scale  
22x Growth in Investment vs Previous Schemes  
10x Increase in Central Assistance vs 2004-2014  
142x Growth in Interest Subsidy Beneficiaries  
5,494 Towns Covered under PMAY-U 2.0  
10.73 Lakh Houses Sanctioned under PMAY-U 2.0 (as on Feb 2026)

### SUGGESTED VISUALS FOR FULL-PAGE LAYOUT

- Before-and-after beneficiary house transformation images
- All-India heat map of houses sanctioned & completed
- Infographic bar chart comparing 2004-14 vs 2015-25 growth
- Women beneficiaries receiving house keys
- Light House Projects (Chennai, Rajkot, Indore, Lucknow, Ranchi)
- Affordable Rental Housing Complex visuals

### EDITORIAL NOTE

A decade into implementation, PMAY-Urban stands as one of the largest housing transformations globally. By integrating digital governance, financial innovation, women-led ownership, green construction technologies and inclusive eligibility norms, the mission has reshaped urban India's social and economic fabric. PMAY-U 2.0 now sets the stage for the next leap making affordable housing a cornerstone of Viksit Bharat.





Ministry of Housing  
and Urban Affairs  
Government of India



Atal Mission for Rejuvenation  
and Urban Transformation



8,799 Projects  
worth ₹ 1.93  
lakh crores



12,289 MLD  
WTP and  
8,255 MLD STP  
Capacity  
being added

13,897 Acres of  
Parks being  
developed

1.17 lakh  
Acres of water  
body area under  
rejuvenation



Water supply  
coverage  
increased to  
~ 77%



30,000+ SHG  
Women  
engaged under  
AMRUT Mitra



1.78 Cr. new tap  
& 65 lakh sewer  
connections  
approved

1.87 lakh sq. km  
geospatial  
database  
under  
preparation

# AMRUT 2.0

Making Cities Water Secure

Throwback 2025

# River Cities Alliance

## Promoting a Comprehensive Approach to Urban River Rejuvenation



The River Cities Alliance (RCA), launched in 2021, is a landmark national initiative aimed at rejuvenating and sustainably managing urban rivers across India. It was jointly formed by the National Mission for Clean Ganga (NMCG) under the Ministry of Jal Shakti (MoJS) and the National Institute of Urban Affairs (NIUA) under the Ministry of Housing and Urban Affairs (MoHUA), establishing a first-of-its-kind collaborative platform. Today, the Alliance brings together 146 river cities united by a shared commitment to addressing the complex challenges of urban water management.

The RCA empowers alliance member cities with the tools, knowledge frameworks, and advisory support needed to integrate river-sensitive planning into mainstream urban development. The vision of the RCA is to conserve and rejuvenate urban rivers so they become clean, continuously flowing and ecologically vibrant waterways that enhance environmental sustainability and urban wellbeing. Its mission is to achieve healthy urban rivers through an integrated approach to river-sensitive urban planning.

To translate this vision into practice, the RCA Secretariat works across several strategic priorities. A central focus is strengthening institutional capacity within member cities. Targeted capacity building programmes are conducted for planners, municipal officials, and engineers to deepen understanding of River-Sensitive Master Planning and Urban River Management Planning. These initiatives help cities incorporate floodplain zoning, riparian buffer protection, and environmentally responsible land-use regulations into statutory Master Plans.

The facilitation of Urban River Management Plans (URMPs) forms another core pillar of the Alliance work. URMPs provide structured and actionable roadmaps for river rejuvenation, integrating pollution abatement, ecological restoration, stormwater management and community engagement. By promoting basin linked urban thinking, the dedicated basin chapters of RCA plans to encourage collaboration among cities located within the same river basin. This ecosystem based perspective recognises upstream downstream interdependencies and strengthens coordinated river governance.

Knowledge creation and dissemination are central to the Alliance's mandate. The Secretariat develops demand driven knowledge products, decision-support tools and technical frameworks tailored to the practical challenges faced by cities. It provides advisory services for ongoing and proposed river-centric interventions and fosters peer learning through workshops, consultations, and knowledge-sharing platforms.

Recent activities reflect the RCA's expanding operational footprint. State Level Capacity-building programmes have been conducted for the member cities on, including in Tamil Nadu, Bihar, West Bengal, U.P. and Uttarakhand for Urban River Management Plans, River-Sensitive Master Planning, and Urban Water Body Diagnostic Tool. The Alliance has supported cities in reviewing and updating Master Plans to integrate river-sensitive components that reduce flood risks, protect water quality, and enhance biodiversity along river corridors. Basin-level consultations have been initiated to strengthen cooperation among cities sharing common river systems.

The RCA has also facilitated structured knowledge exchange in International Summits and curated exposure visits, enabling city representatives to learn from successful river restoration experiences. RCA have been represented at global platforms such as World Water Week and the World Urban Forum, contributing to international discussions on sustainable urbanisation and integrated water management.

A distinctive strength of the RCA is its Thematic Expert Group (TEG), comprising experts in hydrology, urban planning, biodiversity, solid waste management, and environmental economics. The TEG provides on-demand technical assistance tailored to the needs of member cities, offering practical recommendations and reviewing strategies to ensure scientific rigour and contextual relevance.

An important forward-looking dimension of the RCA is its strong emphasis on academic collaboration and professional capacity building. The Secretariat actively partners with leading academic and research institutions to co-develop applied research and structured training programmes in urban river management. Efforts are underway to introduce specialised academic courses on Urban River Management and Ecologically Responsive Riverfront Development Systems (e-RFDS), thereby embedding river-sensitive approaches within higher education curricula. These initiatives aim to equip future planners, architects, engineers, and environmental professionals with integrated, ecosystem-based perspectives.

Complementing these partnerships is the Student Thesis Competition (STC), a unique national initiative designed to engage youth in reimagining urban rivers. The STC invites students from planning, architecture, engineering, environmental sciences, and related disciplines to develop innovative and research-driven proposals addressing real-world river challenges. By providing a platform to showcase emerging ideas and interdisciplinary thinking, the competition bridges academic inquiry with policy and practice. It also fosters a culture of innovation and responsibility among young professionals, ensuring that river stewardship becomes an integral part of future urban leadership.

Public awareness and citizen engagement are actively encouraged under the Alliance framework. Cities are supported in designing outreach initiatives and community-led activities that promote river-sensitive behaviour and collective stewardship. By positioning rivers as shared public assets rather than neglected backyards, the RCA seeks to build long-term societal ownership of rejuvenation efforts.

The Urban River Management Index (URMI) aims to establish a benchmarking system to assess and track the performance of member cities across thematic indicators aligned with the URMP framework, thereby promoting accountability and continuous improvement. The River Cities Alliance stands today as a significant national movement towards restoring the ecological integrity and social value of urban rivers. By aligning urban planning reforms, technical expertise, academic collaboration, youth engagement, financial innovation, and citizen participation, the Alliance is redefining the relationship between cities and their rivers. In doing so, it is laying the foundation for water-secure, climate-resilient, and environmentally responsible urban futures—where rivers are not only restored as natural ecosystems, but recognised as enduring lifelines of sustainable development.

**Shri Rajeev Kumar Mital**  
Director General, NMCG

**Shri Nalin Kumar Srivastava**  
Deputy Director General, NMCG

**Shri Dheeraj Joshi**  
Director (Urban), NMCG

**Shri Sumit Chakraborty**  
Urban Lead, NMCG

**Shri Lovlesh Sharma**  
National Program Lead (RCA), NIUA



# Engineering a Sustainable Future

## Tata Projects Leading India's Water Revolution

India's rapid urbanization has brought immense challenges in water supply, sewage treatment, and sustainable resource management. At the forefront of tackling these issues is Tata Projects, one of India's fastest-growing engineering, procurement, and construction (EPC) companies. With a legacy rooted in excellence, integrity, and safety since 1979, Tata Projects is reshaping the nation's water infrastructure through innovation, sustainability, and digital transformation.

### Legacy and Commitment

Tata Projects has consistently demonstrated that sustainability is not just a goal but an engineering standard. The company's approach blends sustainable business models, digital transformation, and measurable social impact, ensuring that infrastructure projects contribute to both economic growth and environmental stewardship.

### Transforming Water Infrastructure

Across India, Tata Projects has executed landmark initiatives in river rejuvenation, water supply systems, sewerage networks, and sewage treatment plants. Notable examples include:



Global benchmark in urban water restoration

- Dravyavati River Rejuvenation (Jaipur): A 47 km dead sewage channel was transformed into a thriving urban riverfront with green cover, setting a global

benchmark in urban water restoration.

- Jal Jeevan Mission (Sagar & Bhind): Tata Projects laid thousands of kilometres of pipelines, delivering lakhs of functional household tap connections to underserved communities.



- Banda & Hanota Dams (Madhya Pradesh): Composite Gravity Dam with piped irrigation network techniques saved 40% more water, boosting crop yields and groundwater recharge.



- Mega Sewage Treatment Plants (Bhubaneswar, Ujjain, Jaipur, Vishakhapatnam and RUDSICO): Advanced automation and multi-level plant designs drastically

reduced untreated sewage discharge.

The scale is staggering over 10,000 km of water pipelines, 1,000 km of sewerage networks, 450+ MLD wastewater treatment capacity, and irrigation coverage for 1.2 lakh hectares of farmland.

Water supply and Sewerage collection exceeds over 4 Lakh households.

### Smart Water: The Digital Twin Revolution

Tata Projects is pioneering digital twin technology in water management. By creating virtual replicas of water networks, the company enables:

- IoT & SCADA monitoring for real-time flow and pressure data.
- AI-driven leak detection, shifting from reactive to predictive maintenance.
- Asset management across thousands of kilometres of pipelines.



- Centralized command centres for city-wide water grids.

This integration of AI and digital twins is revolutionizing urban water governance, making systems

more resilient, efficient, and sustainable.

### Sustainability and Future Frontiers



extracting biogas and nutrients.

- Nature-based solutions, such as wetlands for low-energy water treatment.
- New frontiers like modular sewage treatment plants, green hydrogen production using treated wastewater, and energy-efficient desalination.

### Challenges and Resilience

Executing projects of this scale is not without hurdles. Tata Projects navigates stakeholder management, financial oversight, land acquisition, and vendor mobilization with a blend of technical expertise and community engagement. Their ability to deliver on time while maintaining trust and sustainability sets them apart in India's infrastructure landscape.

### Challenges Wheel



### Continuing Tata Legacy

Tata Projects exemplifies how engineering excellence can drive social impact. By combining technology, sustainability, and scale, the company is not only solving India's pressing water challenges but also setting global benchmarks. As urban India expands, Tata Projects' vision ensures that every drop saved today becomes an investment in tomorrow.



**Rajendra Inani**  
Vice President & Segment Head  
Water & Smart Cities Business

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Simplify. Create



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## Institution of Public Health Engineers, India (IPHE)

Institution of Public Health Engineers, India (IPHE) is a premier forum of Public Health & Environmental Engineers of the country. Established in 1972 as a modest society, today IPHE has spread all over the country with headquarters office housed in its own building located in a prestigious area of Salt Lake City, Kolkata. The corporate membership in the grades of Fellow, Member & Associate Member of the Institution is open to Public Health and Environmental Engineers and Academician with at least Bachelor's degree in Engineering or with equivalent qualification.

Organization Membership in a separate category is open to organizations/institutions, who are involved or interested in Public Health Engineering / Environmental Engineering.

Organizations working in the fields of Public Health and Environmental Engineering are eligible to join the Institution as Organizational Members.

The Institution has got a diversified spectrum of activities like organizing public awareness/ sensitization programmes, seminars, symposia, workshops, technical paper meetings and

### NOTABLE ACTIVITIES

- Water and Waste Water Treatment
- Sewerage and Drainage
- Solid Waste Management
- Bio-Medical Waste Management
- Environmental Impact Assessment Studies
- Rural & Urban Drinking Water Supply Management
- Engineering Project Formulation & Evaluation
- Control of Pollution & other Environmental Issues
- Hygiene & General Sanitation
- Human Resource Development & Capacity Building
- Research and Development

### IPHE PUBLICATIONS

- JIPHE Quarterly Journal since 1972 containing rich articles in the fields of Public Health Engineering/ Environmental Engineering, Science & Technology. Uploaded regularly on [www.ipheindia.com](http://www.ipheindia.com) and accessible by all corporate and organizational members of the institution free of cost.
- IPHE News containing activities of the institution across the country, important news items in the fields of Public Health / Environmental Engineering, Science & Technology; achievements & news about members, induction of new members etc.

### ACTIVITY CENTRES

Agartala (Tripura), Aizawl, Bengaluru, Bhopal, Bhubaneswar, Chennai, Delhi, Guwahati, Hyderabad, Itanagar, Jammu, Kolkata, Mumbai, Nagpur and Thiruvananthapuram (Kerala)

# Veolia Strengthens Its Presence in India with two Unprecedented Mumbai Water Projects

- **Secures 15-year O&M contracts and deploys advanced technologies for Mumbai's** largest and most critical water treatment plants, strengthening the city's long-term water security.

- **First time a French company has signed contracts of this scale** in the municipal water sector in India

- **On track to more than double India revenues by 2030**, in the areas of water, hazardous waste treatment, and energy through ambitious, transformative projects, underscoring strong growth momentum and long-term commitment to the market.

Veolia, a global leader in environmental services, has reinforced its presence in India by securing strategic contracts of unprecedented scale – the largest contracts ever signed by a French company in the municipal water sector – for two of Mumbai's largest Water Treatment Plants (WTPs), supporting the city's water security and sustainability goals.

The company has been appointed as the technology provider and awarded 15-year operations and maintenance contracts for Mumbai's upcoming 2,000 million liters per day Bhandup and 910 million liters per day Panjrapur Water Treatment Plants. Developed by Welspan Enterprises Ltd, both facilities are scheduled to be fully operational by 2030 and are expected to meet over 60% of the city's water requirements. Equipped with Veolia's advanced technologies, the plants will deliver high-quality, reliable water while optimizing footprint, reducing energy consumption, and enhancing operational efficiency—making them ideally suited to dense urban environments and local requirements.

Alongside these large-scale projects and building on more than 25 years of experience in India, Veolia continues to operate the country's pioneering 24x7 water supply project in Nagpur, managing 5 water treatment



plants with a combined capacity of approximately 786 million liters per day. Leveraging digital innovations such as Hubgrade®, Veolia has transformed system performance in the city, reducing Non-Revenue Water (NRW) from around 70% to below 30%, while delivering continuous, pressurised water to over 3.5 million residents. The company also maintains a strong operational presence in Delhi through Nangloi Water Services providing water to nearly 1 million inhabitants in the Nangloi area and across multiple cities in Karnataka, delivering integrated municipal water solutions at scale.

Guillaume Dourdin, CEO & Country Director, India, Veolia said, "These significant new partnerships in water and hazardous waste are a testament to Veolia's commitment to India. Our goal is to bring our long-term operational and technological excellence to every project, ensuring these vital assets perform sustainably for decades to come. From building on our strong presence in key cities such as Delhi, Mumbai, and Nagpur, we are expanding our footprint in states like Maharashtra, Uttar Pradesh, Gujarat and Karnataka to co-create solutions that support India's net-zero ambitions for 2070. In line with our global Green Up strategic program, we are proud to be the go-to solution provider helping accompany India's ecological transformation."

### Beyond Municipal Water, Expanding Tailored Solutions in Waste and Energy

Veolia plays a key role in hazardous waste treatment,

one of the boosters of its strategic GreenUp program. The company operates strategic infrastructure across India's industrial hubs, including Gujarat's first Zero Liquid Discharge (ZLD) facility in Ankleshwar, a landmark project enabling responsible wastewater management for industrial clusters. Veolia is developing a landfill facility in Magnad, set to become India's largest industrial hazardous waste landfill, with a capacity of 15 million metric tons and an operational lifespan of 30 years. The company is working with nearby

local communities to produce green fuel for on-site use, reducing the carbon footprint of hazardous waste treatment. Veolia is also advancing expansion plans across Maharashtra, including projects near Mumbai, to further strengthen regional hazardous waste management capabilities in alignment with the evolving needs of local industries. Pioneering industrial decarbonisation, Veolia operates India's first 5-tonnes-per-day (TPD) carbon capture plant for Tata Steel in Jamshedpur, capturing CO2 directly from blast furnace gas for reuse and positioning the company at the forefront of the nation's net-zero ambitions.

### ABOUT VEOLIA

Veolia group aims to become the benchmark company for ecological transformation. Present on five continents with 215,000 employees, the Group designs and deploys useful, practical solutions for the management of water, waste and energy that are contributing to a radical turnaround of the current situation. Through its three complementary activities, Veolia helps to develop access to resources, to preserve available resources and to renew them. In 2024, the Veolia group provided 111 million inhabitants with drinking water and 98 million with sanitation, produced 42 million megawatt hours of energy and treated 65 million tonnes of waste. Veolia Environnement (Paris Euronext: VIE) achieved consolidated revenue of 44.7 billion euros in 2024. [www.veolia.com](http://www.veolia.com)

## SUCCESS STORIES



### RCF, Mumbai

Recycling of municipal sewage to industrial use



#### SOLUTION:

A well-established reclaim system with ZeeWeed™ MBR treating 22 MLD, & RO treating 15 MLD for non-potable usage.

**VALUE:** Total of 5,475 million liters recycled per annum, enabling provision to 30,000 households near Mumbai since 2019.

### MCGM, Mumbai

Municipal Sewage Disposal Projects (MSDP)



#### SOLUTION:

Transforming 860 million liters/day from waste to resources via ZeeWeed™ MBR to reuse in Worli and nearby areas in Mumbai.

**VALUE:** Total of 350,000 million liters recycled per annum.

### Coromandel International Ltd., Vizag

Seawater Desalination



#### SOLUTION:

Veolia advances sustainable water management in Vizag with a Build-Own-Operate (BOO) seawater desalination plant. Using technologies like SWRO, it provides a dependable, high-quality water source, ensuring water security for the production facility.

**VALUE:** The solution ensures business continuity & stable operations by providing a reliable, high-quality water supply.

### Reliance Industries Limited, Dahej

Chloro Alkali Industry



#### SOLUTION:

Delivered world's largest 4,000 MTPD with modernization of caustic soda concentrator via film evaporator technology, optimizing operations with minimal steam consumption and with PLC based automation to streamline processes.

**VALUE:** Reduced overall carbon footprint by 100,000 tons/year, monthly savings of INR 40-60 lakh & 25-30% OPEX reduction with superior plant operations & incremental production capacity.

# INNOVATION SHAPING THE FUTURE OF WASTEWATER

## EUROTECK from equipment to ecosystem:

### A process driven approach to wastewater treatment

The rapid growth of India's urban population is placing unprecedented pressure on our wastewater systems. Overloaded plants and variable sewage quality are the direct consequences of this expansion, creating a critical need for innovative solutions that can work within our limited land availability

With over **20+ years of excellence in wastewater engineering**, Euroteck Environmental Pvt. Ltd. works at the ground level of this challenge. The company designs and delivers wastewater treatment systems **engineered for Indian operating conditions**, not ideal assumptions. Rather than supplying isolated equipment, Euroteck focuses on **end-to-end, process-driven treatment solutions** that perform reliably day after day.



By integrating **biological treatment, tertiary filtration, & sludge handling** into a single, well-engineered system, Euroteck Environmental helps cities and industries achieve stable compliance, reduced operational stress, and long-term reliability. Every system is developed with real-world constraints in mind including space limitations, load variations, energy efficiency, and ease of operation.

Backed by 2 decades of practical experience, Euroteck supports **Industries, Municipalities in protecting water bodies, strengthening urban sanitation, and building** wastewater infrastructure that is resilient, scalable, and future-ready.



## A<sub>2</sub>O with IFAS technology Revitalizing Urban Wastewater Infrastructure:

### The Transformation of Keshopur Phase-III STP, New Delhi



KESHOPUR 40 MLD to 60 MLD

The Keshopur Phase-III Sewage Treatment Plant (STP) in New Delhi, established in 1988, was originally designed with a treatment capacity of 40 MGD based on the conventional Activated Sludge Process (ASP). Over time, rapid urbanization and increased wastewater inflow led to

hydraulic and organic overloading, resulting in declining effluent quality and difficulty in meeting the revised discharge standards mandated by NGT/CPCB/DPCC. The existing facility lacked dedicated systems for biological nutrient removal (nitrogen and phosphorus), had limitations in aeration efficiency and sludge management, and faced significant space constraints that restricted conventional capacity expansion.

To address these challenges & enhance the plant capacity to 60 MGD, the STP was upgraded using A<sub>2</sub>O with IFAS technology. This advanced hybrid process integrates fixed biofilm carrier media within the existing aeration tanks, allowing the coexistence of suspended biomass and attached growth. The increased surface area supports higher microbial population and longer sludge retention time, significantly improving nitrification, denitrification, and biological phosphorus removal. As a result, the upgraded system achieved treated effluent standards of BOD and TSS ≤ 10 mg/L, along with effective nutrient reduction, improved sludge settle ability, and enhanced process stability under variable loading conditions. Importantly, the retrofit required no major civil expansion, making it a cost-effective, space-efficient, and sustainable solution for achieving regulatory compliance while extending the operational life and capacity of the existing infrastructure.

*The Keshopur Phase-III STP now stands as a testament to how innovation and smart engineering can turn aging infrastructure into a high-performing, environmentally sustainable asset.*

## ASBR Technology

We successfully installed and commissioned a 10 MLD Sewage Treatment Plant (STP) for the Bangalore Water Supply and Sewerage Board (BWSSB) at Hulimavu, Karnataka. The plant is designed using advanced SBR (Sequencing Batch Reactor) technology, ensuring efficient and reliable treatment of municipal wastewater.

The SBR process enables effective removal of organic matter, nitrogen, and phosphorus within a compact footprint, meeting stringent environmental discharge standards. Equipped with modern automation and control systems, the facility ensures consistent performance and operational efficiency.

This project highlights Euroteck's expertise in delivering sustainable, high-performance wastewater treatment solutions that support urban infrastructure and environmental protection.

## Advanced A<sub>2</sub>O Technology

### Aligning with India's Mission for Clean Rivers and Future-Ready Wastewater Infrastructure

India's commitment to river rejuvenation and urban sanitation has taken a decisive step forward with the inauguration of the **10 MLD state-of-the-art Sewage Treatment Plant at Ramnagar, Varanasi**, under the Namami Gange Mission. The Ramnagar STP, based on **advanced A<sub>2</sub>O (Anaerobic-Anoxic-Oxic) technology**, represents the new benchmark in municipal wastewater treatment designed to meet present needs while accounting for the next **10–15 years of urban growth**, fluctuating loads, and stricter discharge norms. Such projects underline a critical shift in India's wastewater strategy: **from capacity creation to performance-driven, future-ready systems.**

## Where Euroteck Fits In

This national direction closely aligns with the engineering philosophy of **Euroteck Environmental Pvt. Ltd.**, Rather than offering standalone equipment, Euroteck focuses on **integrated treatment ecosystems** combining biological treatment, tertiary filtration, and sludge management into cohesive systems that deliver **stable compliance, operational reliability, and lifecycle efficiency.** This approach mirrors the objectives of national programs like **Namami Gange**, where treatment reliability and environmental protection are as critical as installed capacity. Supporting India's Clean Water Vision

As India accelerates investments in wastewater infrastructure to protect rivers like the Ganga and improve urban sanitation outcomes, engineering-led, future-ready treatment solutions will play a defining role. Euroteck continues to support municipalities and industries in **building resilient wastewater systems that protect water bodies, ensure regulatory compliance, and sustain performance well beyond commissioning.**

*"When national vision meets process-driven engineering, sustainable wastewater treatment becomes a reality."*



RAM NAGAR UTTAR PRADESH



BENGALURU PLANTS 10MLD STP HULIMAVU

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**Come, explore and enjoy!**

# High-Speed Rail as Green Infrastructure and a Catalyst for Sustainable Growth

Rapid urbanization and rising intercity travel demand have intensified environmental pressures from road and air transport. High Speed Rail (HSR) offers a low-carbon alternative capable of supporting sustainable urban growth. Around the world, HSR is recognized not only as a technological advancement but as a powerful enabler of green mobility and sustainable development. India's first HSR corridor, implemented by National High Speed Rail Corporation Limited (NHRCL), aims to connect Mumbai and Ahmedabad over 508 km.

NHRCL, who is developing first HSR project has collaborated with the Indian Green Building Council (IGBC) to develop the world's first **Green Rating System for High-Speed Rail stations**. HSR is only as a technological advancement but as a powerful enabler of green mobility and sustainable development. The current HSR corridor under construction will have 9 stations at **Thane, Virar, Bilimora, Surat, Bharuch, Vadodara, Anand, Ahmedabad, and Sabarmati** and full journey will take approximately 2 hours and 7 minutes with limited halts at Surat, Vadodara, and Ahmedabad dramatically shorter than current road or conventional rail travel times. All HSR stations designed to become inclusive, people-centric public spaces with IGHC green certification of Platinum level. Sustainability features integrated into HSR stations include:



Sustainability features integrated into HSR stations include:

- Solar power generation
- Rainwater harvesting
- Sustainable water management in depots
- Plans to maximize renewable sources for traction power
- Better indoor air quality
- Improved natural ventilation
- Universal accessibility for the elderly and persons with disabilities
- Enhanced safety and comfort

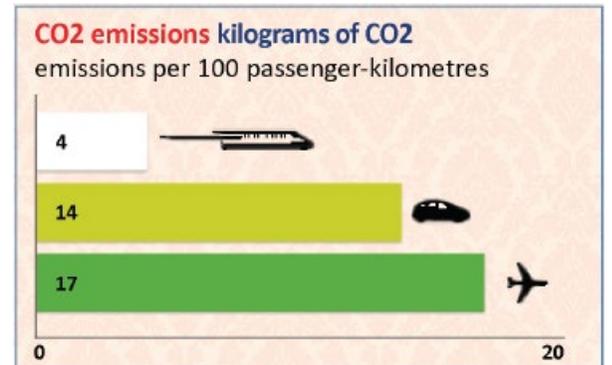
## HSR as Green Infrastructure

HSR is a Climate Resilient Transport Alternative with better energy efficient stations and low carbon first and last mile connectivity. This aligns with India's national climate goals and global sustainability commitments. HSR exemplifies a holistic approach to sustainability by combining:

- Cleaner mobility solutions

- Energy efficient stations and operations
- Reduced fossil fuel dependency
- Green construction practices
- Regional economic decentralization
- Better urban liveability and decongestion

HSR consumes significantly less energy per seat-km compared to road and air transport. Over a projected 30-year operational period (2023–2053), HSR has significant lower emissions per passenger-kilometre in the range of 14-30 g CO<sub>2</sub>/pkm in comparison to other parallel modes of transport like which has ~ 120 g CO<sub>2</sub>/pkm, and flights emit ~150–200 g CO<sub>2</sub>/pkm. Thus, HSR can reduce emissions by more than 90% compared to aviation on similar corridors. HSR trains operate with lower energy consumption due to aerodynamic design, regenerative braking systems and reduced particulate and noise pollution compared to highway and aviation infrastructure. When powered by green grids (solar, wind, hydro), HSR becomes one of the most sustainable mass transport options in the world.



## Impact of High Speed Rail on Sustainable Growth

HSR becomes anchor to sustainable urban development by encouraging transit-oriented development (TOD) around stations, reducing congestion and air pollution in megacities and helping in climate resilient development with reduced transit related emissions. It connects high density and costly locations to affordable housing remote locations and decongests the urban centres resulting in significant reduction in carbon emissions. Cities like Tokyo, Paris, and Madrid offer compelling examples of station area regeneration driving long term urban prosperity.

HSR drives investment and growth in adjacent urban and semi urban areas by providing fast connectivity resulting in increased regional productivity, less congestion on highways reducing vehicular CO<sub>2</sub> emissions with better logistics and business connectivity.

The India's high speed rail program demonstrates how mega infrastructure projects can be environmentally responsible while contributing significantly to national growth. It positions India among global leaders in sustainable transport innovation.

## Chitranjan Kaushik

CEO

Ecofirst Services Limited, A TATA Enterprise

# Why Waste Wednesdays Foundation (WWWF)

Urban waste management requires alignment between infrastructure, governance systems, and civic participation. Why Waste Wednesdays Foundation (WWWF), a CSR compliant, woman-led Section 8 not-for-profit company, works within this integrated framework — combining city-wide IEC, operational coordination, and structured monitoring to strengthen measurable waste management outcomes.

WWWF is implementing the city-wide IEC and PMU-linked framework with Municipal Corporation Hisar under the path-breaking initiative “Nayi Soch Naya Hisar,” contributing to ward-level outreach, institutional engagement, market sensitisation, volunteer mobilisation, and secondary collection point audits. Awareness is reinforced through tracking and review mechanisms, ensuring behavioural messaging aligns with field realities.

At the community scale, the Foundation operates a 24x7 RRR Centre, which has channelised close to 100 tonnes of material for reuse and authorised recycling including E-Waste, Plastic Waste, Paper Waste and Textile Waste demonstrating a continuous decentralised recovery model.

Through Project Vikalp – Borrow a Bag, implemented across MCD markets, over 2 lakh reusable cloth bags are

currently in circulation under a refundable deposit system, reducing dependence on single-use plastic.

WWWF has also implemented Project Swachh Sankalp - Zero Waste to Landfill colony models, including Northern Railways Officers Enclave, DID Lines, Aradhana Colony and other residential clusters. The same framework is currently being implemented at National Institute of TB and Respiratory Diseases under a Zero Waste to Landfill Hospital model, extending structured segregation and diversion to institutional settings. The model has also been operationalised at large public venues, including events at Rashtrapati Bhavan.

Under the CSR initiative of TWEPL – Swachh Vaahini, in collaboration with MCD, WWWF executed Project Arpan, a post-Diwali collection drive that gathered 5.5 tonnes of diyas and idols through over 200 doorstep pickups across MCD zones. With support from RWAs, temples, and citizens, the material was respectfully handled — sanctified before being sent to the MCD plant for recycling, with a portion reused by Self Help Groups. The initiative demonstrated that structured systems can uphold both environmental responsibility and cultural

sensitivity — because devotion deserves dignity.

Through initiatives such as Recycle Mela, Students vs Plastics (engaging over 2,600 educational institutions), and Swachh Vaahini-linked programmes, WWWF continues to move cities from awareness to action in a measurable and replicable manner.

www.whywastewednesdays.com  
Contact: whywastewednesdays@gmail.com  
8800995594





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- First Metro in the Global Transit Space to introduce end-to-end ticketing system on WhatsApp chat box.
- With train punctuality of 99.85%, over a network of 96.1 km provides service on a daily basis to nearly 10 lakhs commuters.
- Equipped with State-of-the-art technology offers comprehensive connectivity, convenience, reliability, safety and environmentally friendly transport.
- To transform the city's commute, one of the Asia's tallest multi-level Interchange Metro Station is built at Jayadeva Hospital junction on Bannerghatta Road.
- Implemented energy conservation in its operations, by promoting renewable energy and conserving water through harvesting.

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# BHARAT MANDAPAM

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NBCC (India) Ltd. proudly celebrates the GRIHA 4-Star rating for Bharat Mandapam, recognizing it as a model of sustainable development. This state-of-the-art facility at Pragati Maidan reflects our unwavering commitment to eco-friendly innovation, seamlessly combining modern design with environmental responsibility to shape India's green future.

The award celebrates the project's excellence in adhering to 31 sustainability criteria, reducing energy consumption, promoting renewable energy, and fostering a greener urban landscape.

### Sustainability Milestones at Bharat Mandapam

#### Energy Efficiency:

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#### Water Conservation:

70% annual water savings with a 1.1 MLD STP and low-flow fixtures.



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Advanced Building Management Systems (BMS) for efficient resource utilization.



#### Biodiversity Preservation:

Retention of 800+ mature trees and plantation of 5,000 native trees.



#### Waste Management:

On-site treatment of organic waste with an Organic Waste Converter (OWC).



#### Urban Greening:

Over 20,000 plants added to Delhi's landscape, enhancing air quality and aesthetics.



#### Renewable Energy:

25% reduction in grid dependency with 400 KWp solar PV installations.



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# From Reform to Resilience: How BWSSB Reimagined Urban Water Governance in 1000 Transformative days



Over the past 1000 days, the Bengaluru Water Supply and Sewerage Board (BWSSB) has undergone one of the most significant institutional transformations in the history of urban water management in India.

Faced with rapid urban growth, climate-induced variability, and increasing service expectations, the utility shifted from a conventional supply-focused organisation to a technology-enabled, citizen-centric, and sustainability-driven urban water institution.

The period between 2023 and 2025 has therefore marked not incremental progress, but a structural shift in how Bengaluru plans, delivers, monitors, and values water.

One of the most visible changes has been the move toward citizen-centric water delivery systems. The introduction of Sanchari Cauvery, India's first government-operated digital tanker platform, transformed tanker water supply from an informal market into a regulated public service.

Through GPS tracking, OTP-based delivery authentication, and standardised pricing, the initiative ensured equitable access while reducing price volatility that previously affected citizens during summer shortages.



Complementing this system, the Mini Tanker Programme, with approximately 1,700 small-capacity tankers, ensured reliable water availability in narrow lanes, informal settlements, and dense neighbourhoods that conventional tanker systems could not reach, significantly improving access for economically vulnerable communities.

Financial accessibility to piped water also saw major reform through the Sarala Cauvery EMI scheme, which allowed households and apartment associations to obtain Cauvery water connections through instalment-based payments.

This removed a major financial barrier to formal connections, expanded the consumer base, and strengthened long-term utility revenue streams.

At the same time, the Jaladhare online portal digitised the entire new-connection workflow—from application to approval and payment—dramatically reducing processing time, improving transparency, and minimising citizen interface friction.

A second major pillar of transformation has been technology-driven water governance. BWSSB established

one of India's first citywide groundwater intelligence systems, deploying nearly 4,000 IoT-based groundwater sensors that provide real-time data on aquifer levels, extraction patterns, and seasonal stress indicators.

This system enables predictive water management rather than reactive crisis response. Complementing this initiative, IoT-enabled borewell automation was introduced to monitor pumping durations and prevent excessive extraction from public borewells, ensuring data-driven groundwater regulation.

Institutional digitisation extended further through the development of the BWSSB Smart Water Dashboard, an integrated monitoring platform covering water supply flows, pressure zones, treatment plants, tanker movements, groundwater data, and consumer grievances.



This integrated operational visibility has improved decision-making speed, service accountability, and governance transparency. Supporting these systems, several citizen and operational applications—such as Sanchari Cauvery (tanker booking), Parisara Jalasnehi (treated water booking), Jalamithra (citizen participation), Antharjala (borewell approvals), Jalasamrakshaka (enforcement), and Sajala (digital billing)—have collectively created one of the most digitised urban utility ecosystems in the country.

Parallel to digital transformation, BWSSB made decisive progress in water sustainability and circular economy adoption. The introduction of Zero-Bacteria Treated Water (ZBTW) technology, developed in collaboration with IISc researchers, significantly improved confidence in treated wastewater reuse.

With Bengaluru generating approximately 2,120 MLD of sewage daily, installed treatment capacity of 1,348.5 MLD, and over 1,200 MLD currently treated, the Board has steadily expanded reuse pipelines to supply high-quality treated water to industries, technology parks, and large campuses for non-potable purposes. This transition is gradually reducing freshwater extraction pressures while strengthening the city's long-term water resilience.

Water conservation initiatives also moved from awareness campaigns to measurable outcomes. The 15 lakh aerator distribution programme, one of the largest water-efficiency interventions in India, helped reduce household consumption levels across the city.

The Green Star Challenge encouraged households and commercial establishments to adopt leak control, efficient fixtures, and conservation practices, embedding behavioural change alongside infrastructure reforms.

In parallel, the construction of 3,000 rainwater recharge pits across BWSSB premises strengthened groundwater recharge capacity and institutionalised stormwater capture practices.

Infrastructure modernisation remained another core focus. BWSSB upgraded 34 sewage treatment plants, with 23 facilities receiving Five-Star Clean Water Credit Ratings from the Government of India—one of the highest recognitions achieved by any Indian urban utility for

wastewater performance.

Sewer network inspection and maintenance also saw technological upgrades through robotic pipeline inspection systems, which identified defects, reduced excavation needs at 38 locations, and lowered operational costs while minimising traffic disruption and citizen inconvenience.

Institutional accountability and revenue protection improved through the formation of the specialised "Blue Force" enforcement teams, which deployed data analytics, inspections, and legal enforcement measures to detect illegal connections, meter tampering, and water theft. These measures strengthened revenue assurance while promoting compliance and equitable distribution.

Financial sustainability was addressed through the first comprehensive tariff rationalisation in over a decade, reducing annual losses significantly and enabling reinvestment into infrastructure expansion and service improvements.

Combined with capacity expansion through Cauvery Stage V augmentation and continued sewer network strengthening, these financial reforms improved the Board's long-term institutional viability.

Beyond infrastructure and governance reforms, BWSSB also strengthened public engagement and institutional credibility. The city recorded a Guinness World Record for the largest water conservation pledge, mobilising over 5.3 lakh citizens in a single campaign, demonstrating the power of citizen participation in urban water sustainability.

Cultural engagement initiatives such as Kaveri Aarti reinforced emotional ownership of water conservation, linking behavioural awareness with civic identity.

These integrated reforms—spanning service delivery, digital governance, sustainability, infrastructure, financial restructuring, and citizen engagement—have collectively repositioned BWSSB from a traditional municipal water supplier into a modern urban water management institution.

The transformation is significant not merely for Bengaluru, but for rapidly growing cities across the Global South facing similar pressures of population growth, groundwater depletion, and climate variability.



The last 1000 days demonstrate that urban water security is not achieved through a single mega-project alone; it emerges from a coordinated combination of technology, governance reforms, citizen trust, financial sustainability, and institutional leadership. The Bengaluru experience now offers a replicable framework for cities seeking to transition from reactive crisis management to proactive, resilient water governance—one that balances infrastructure expansion with conservation, transparency, and long-term ecological responsibility.



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# India Takes Center Stage: The Global South's First AI Summit Signals a New Tech Power Shift



India held the AI Impact Summit from 16-20 Feb in New Delhi, marking the first-ever global AI summit hosted by the Global South; an important milestone for India's AI ambitions.

## A sparkling guest list

Among the prominent political leaders in attendance were Prime Minister Narendra Modi, French President Emmanuel Macron, Brazilian President Luiz Inácio Lula da Silva, Spanish Prime Minister Pedro Sánchez, Bhutanese Prime Minister Tshering Tobgay, and United Nations Secretary-General António Guterres. They were joined by ministerial delegations representing more than 45 countries.

The big names in tech, including, Sundar Pichai (CEO, Google & Alphabet), Sam Altman (CEO, OpenAI), Dario Amodei (CEO, Anthropic), Demis Hassabis (Co-founder & CEO, Google DeepMind), Brad Smith (President & Vice Chair, Microsoft), and Alexandr Wang (Chief AI Officer, Meta), among others. However, Microsoft co-founder Bill Gates and NVIDIA CEO Jensen Huang cancelled at the last minute due to unforeseen circumstances.

Business leaders, including Mukesh Ambani (Chairman & MD, Reliance Industries), Nandan Nilekani (Co-founder & Chairman, Infosys), Sunil Bharti Mittal (Founder & Chairman, Bharti Enterprises), Salil Parekh (CEO, Infosys), Natarajan Chandrasekaran (Chairperson of the Tata Group), and Shantanu

Narayan (Chairman & CEO, Adobe), among others were also present.

## Key quotes: What they said

“Together, we must transform this disruption into humanity's biggest opportunity...We must democratize AI. It must become a tool for inclusion and empowerment, particularly for the Global South... Design and develop in India. Deliver to the world. Deliver to humanity.” - PM Modi

“In the coming two years, we should be seeing more than \$200 billion worth of investment across the five layers of the AI stack...We are aiming to attract up to \$200 billion in AI investments across compute, data and application layers over the next two years...” - Ashwini Vaishnaw, Union Minister for Electronics and Information Technology

“India is uniquely positioned for an extraordinary AI trajectory...If the right investments and policies are in place, India can become a full-stack player in AI...India's scale, talent, and digital adoption make it a key player in the global AI journey...” - Sundar Pichai, CEO of Google & Alphabet

“India has all the ingredients to be a full-stack AI leader...India is our second largest market...No country matches India for total energy in terms of building AI...This will be one of the biggest markets for AI in the world, and I think India will have a huge amount of influence...India...is well-positioned to lead in AI, not just to build it but to shape and decide what our future will look like.” - Sam Altman, CEO of OpenAI.

“India has an absolutely central role to play in these questions and challenges, both on the side of the opportunities and on the side of the risks...I've been spending the last few days meeting with Indian builders and enterprises, and the energy to build together here is palpable, unlike anywhere else...” - Dario Amodei, CEO of Anthropic

“I think India is a very positive case study, in large part due to the talent pool. I was at a dinner with a number of Indian founders and venture capitalists last night, and the statistic was that there are more consumer AI startups in India than in the United States...”

- Alexandr Wang, Chief AI Officer of Meta

“Jio connected India to the Internet Era. Jio will now connect India to the Intelligence Era. We will deliver intelligence to every citizen...India cannot afford to rent intelligence. Therefore, we will reduce the cost of intelligence as dramatically as we did the cost of data...Our resolve is clear: make intelligence as ubiquitous as connectivity.” - Mukesh Ambani, Chairman of Reliance Industries

“India is a nation of AI optimists...We are building AI at scale with trust, resilience, and long-term competitiveness...Our mission should be to make AI work for every individual and every citizen in this country. We should put the AI tools in the hands of the last person of the country and in fact on the earth...” - N Chandrasekharan, Chairman of Tata Sons

The bottom line: Despite high-profile last-minute cancellations by Bill Gates and NVIDIA CEO Jensen Huang, the summit delivered substantial outcomes. The government outlined plans to attract more than \$200 billion in AI investments across the stack, while Reliance Industries announced a Rs. 10 lakh crore push into data centres. A Tata-OpenAI partnership focused on infrastructure was unveiled, and Microsoft reiterated a \$50 billion commitment to the Global



South. Several high-impact sessions concluded with concrete action points. The true measure of the summit's success, however, will depend on timely execution and tangible real-world impact in the months ahead.



## The Saint-Gobain History

“The Customer is King”. Nowhere else has this statement been truer than in the case of Saint-Gobain. Started in 1665, Saint-Gobain's first customer was Louis XIV, the King of France. And his order? To make glass for the Hall of Mirrors in the Palace at Versailles. Over the next three and a half centuries, through constant innovation in manufacturing technology and introduction of new products, Saint-Gobain has made glass a building material of choice that, besides satisfying the functional needs, providing immense aesthetic value both to the King and the common man. Since 1665, Saint-Gobain has been synonymous with the future of glass.

## Saint-Gobain - Today

A worldwide leader in light and sustainable construction, Saint-Gobain designs, manufactures, and distributes materials and services for the construction and industrial markets. Its integrated solutions for the renovation of public and private buildings, light construction, and the decarbonization of construction and industry are developed through a continuous innovation process and provide sustainability and performance. The Group's commitment is guided by its purpose, “MAKING THE WORLD A BETTER HOME”.

**€46.6 Bn in Sales in 2024, 161,000 employees, located in 80 countries. Committed to achieving Carbon Neutrality by 2050**

## Saint-Gobain in India:

In India Saint-Gobain is present in Glass and Glass Solutions for architectural, automotive, solar, and homes; Plasterboard and Plasters; Industrial mortars; Construction Chemicals; Abrasives; Ceramics; Performance Plastics and Life Sciences. Saint-Gobain is an innovation-driven company and investments in Saint-Gobain Research India, a world-class Research Centre in Chennai, are aimed at developing innovative solutions that combine performance and sustainability for hot and humid climates. Saint-Gobain has over 75 plants across 35 locations in the country with an employee strength of around 9000 of which 15% are women employees.

## Saint-Gobain Glass India Legacy:

Saint-Gobain India is present in the flat glass industry for over the last two decades and consistently invested in People, Processes, Technology, and Innovation. With 6 float glass plants, Saint-Gobain has over 50% of India's float glass manufacturing capacity. Today, Saint-Gobain is considered a strong Technology and Market Leader shaping the industry with wide range of advanced products and solutions with a unique pan-India manufacturing footprint with plants in Sriperumbudur, Tamil Nadu (started in May 2000), Jhagadia, Gujarat & Bhiwadi, Rajasthan (greenfield investment started in March 2014).

More than 60% of the float glass investments are in Tamil Nadu in the World Glass Complex (INR 5000

Crs investment), which is a unique facility across the world, which manufactures the entire range of products comprising Clear Glass, Tinted Glass, Mirrors, Solar Control Glass, Lacquered Glass, Advanced Glass (Insulated, Toughened and Laminated), Security Glass (Fire-safe, Bullet and Blast Resistant) and UPVC Windows. It is Saint-Gobain's largest investment in a single destination globally. With unparalleled global expertise, Saint-Gobain has consistently made products and provided solutions that combine both sustainability and performance. Over 95% of the products manufactured by Saint-Gobain are Made in India. The World Glass Complex in Chennai is also an export house that accounts for over 90% of value-added flat glass exports from India.



## Shaping India's Skyline

Saint-Gobain India Glass has partnered with many marquee projects of the country over the last 25 decades - Rashtrapathi Bhavan, the new parliament vista, Surat Diamond Bourse, large campuses of all the IT majors, Shopping Complexes, Residential Projects, Hotels, Airports, Vistadome Trains of India, Vande Bharath Trains among others feature Saint-Gobain's products. When it comes to sustainability, Saint-Gobain is a leader in Green Building materials wherein 7/10 Green Buildings in India use Saint-Gobain Glass.



**Sri Siddaramaiah**  
Hon'ble Chief Minister  
Govt of Karnataka



**Sri D.K. Shivakumar**  
Hon'ble Deputy Chief Minister  
Govt. of Karnataka

## BANGALORE WATER SUPPLY & SEWERAGE BOARD

### The Cauvery Lifeline: Bengaluru's Quest for Sustainable Water

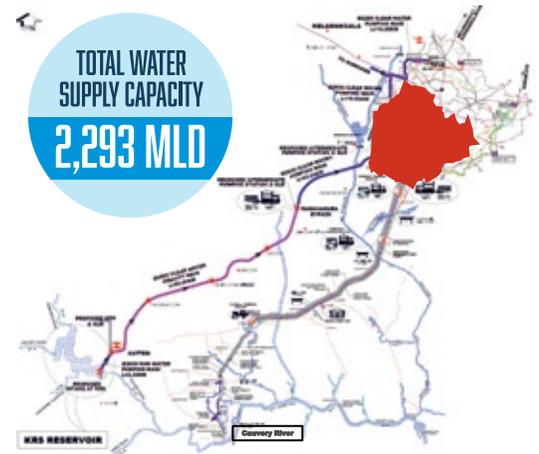
#### River Cauvery to Bengaluru



Bangalore, located 920 meters above sea level, receives its water supply from a source 100 kilometers away

#### Stages & Implementation

1896 Hessarghatta	36 MLD
1933 Thippagondanahalli	135 MLD
1974 Cauvery Stage-I	135 MLD
1982 Cauvery Stage-II	135 MLD
1993 Cauvery Stage-III	270 MLD
2002 Cauvery Stage-IV Phase-I	300 MLD
2002 Cauvery Stage-IV Phase-II	500 MLD
2024 Cauvery Stage-V	775 MLD



NITI Aayog, in collaboration with the GoK and the BWSSB, organised a two-day National Workshop on "Reuse of Treated Wastewater in India" on 6-7 November 2025 in Bengaluru under its State Support Mission. The workshop was graced by Hon'ble Member NITI Aayog Dr Vinod K. Paul and the Chief Secretary, Govt. of Karnataka Dr. Shalini Rajneesh and other senior officials from eighteen States.

### Acknowledged by the World, Committed to Our City



#### Guinness World Record - 2025

Recognized for securing the highest number (6 lakh citizens) of pledges in a single week for a water conservation campaign, setting a benchmark in public engagement.



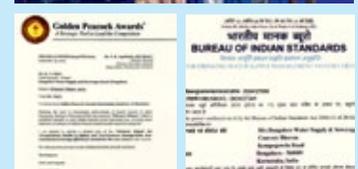
#### Global Water Leader Award -2018



#### Climate Smart Utilities Award-2023

#### A Showcase of Excellence

BWSSB's commitment to innovation and excellence in urban water management has not gone unnoticed. The organization's performance has been validated by prestigious awards and partnerships on the global stage, reinforcing its position as a leader in the water sector.

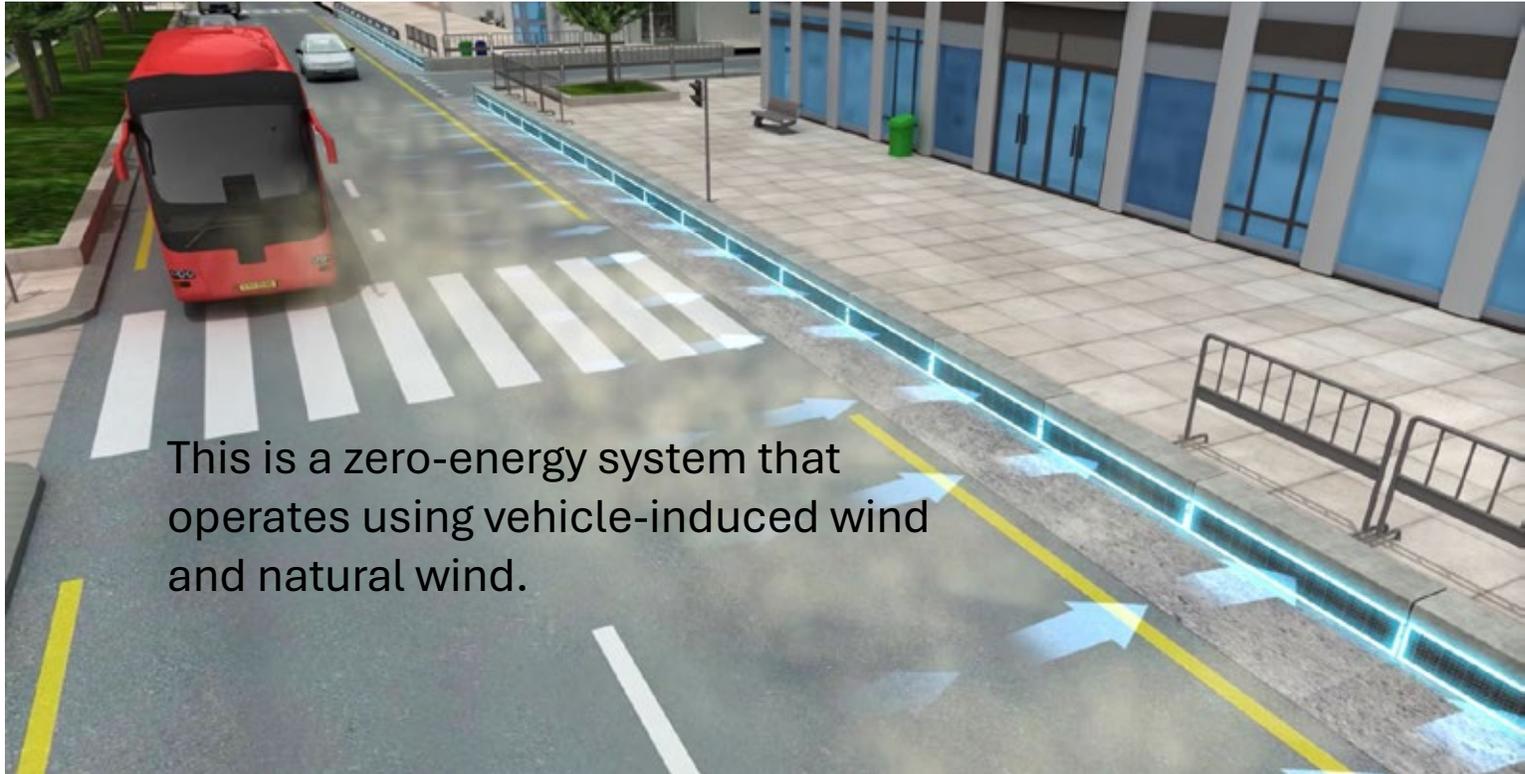


The Golden Peacock Award presented by the Institute of Directors (IOD) - India (2024)

India's First BIS-Certified Utility Board (2025)



## Green Road Drainage System for Smart and Sustainable Cities



This is a zero-energy system that operates using vehicle-induced wind and natural wind.

- **World's first, uniquely patented technology**
- **Installed in Korea, Vietnam, and other countries with ongoing installations currently underway**



- **Captures road fine dust up to 350 mg/m, with over 50% removal efficiency**
- **Blocks road debris such as trash, cigarette butts, and leaves**
- **Blocks sewer odors with 99% efficiency**
- **100% improvement in road surface drainage performance**

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# URBAN INNOVATION CHALLENGE

Design Ideas Competition

future cities  
a 360 degree event on city development & public works

CAPEX MUNICIPALIKA SMART & SUSTAINABLE CITIES PWX PUBLIC WORKS EXPO

BHARAT MANDAPAM, NEW DELHI, INDIA | 25, 26 & 27 FEBRUARY 2026

Knowledge Partners:

Associate Partner:

The Urban Innovation Challenge 2025, brought to you by Good Governance India Foundation (GGIF) & Municipalika, is a national design + ideas competition calling young innovators to rethink India's urban future.



future cities  
a 360 degree event on city development & public works

CAPEX MUNICIPALIKA SMART & SUSTAINABLE CITIES PWX PUBLIC WORKS EXPO

BHARAT MANDAPAM, NEW DELHI, INDIA | 25, 26 & 27 FEBRUARY 2026

Knowledge Partners:

Associate Partner:

## ABOUT THE COMPETITION

**MUNICIPALIKA** is India's oldest and largest trade show and conference on safe, smart and sustainable cities.

As the go-to destination for ideas, technologies, and partnerships, MUNICIPALIKA drives urban transformation and innovation across Indian cities.

Co-organized by ITPO (India Trade Promotion Organisation)

The **Good Governance India Foundation (GGIF)**, in association with **Municipalika 2026** and **Daikin**, and supported by **Ethos Empowers**, present the **Urban Innovation Challenge (UIC) 2026**, a national design and ideas competition that seeks smart, practical, and implementable solutions to address India's urban challenges.

URBAN INNOVATION CHALLENGE  
Design Ideas Competition

future cities  
a 360 degree event on city development & public works

CAPEX MUNICIPALIKA SMART & SUSTAINABLE CITIES PWX PUBLIC WORKS EXPO

BHARAT MANDAPAM, NEW DELHI, INDIA | 25, 26 & 27 FEBRUARY 2026

Knowledge Partners:

Associate Partner:

**Unleashing Ideas for Sustainable, Resilient & Inclusive Cities**

The Urban Innovation Challenge (UIC) brings together India's brightest young architects, engineers, planners, and designers to solve real urban challenges - sustainability, resilient infrastructure, and inclusivity.

**LAST DATE TO REGISTER: 4<sup>TH</sup> JAN '26**

TO PARTICIPATE\* AND FOR MORE INFORMATION, VISIT - [www.ethosempowers.com](http://www.ethosempowers.com)

Good Governance India Foundation | urban News Digest | ethos!! EMPOWERS

Submission Deadline: 6th January 2026 | GET IN TOUCH: Phone - +91 83691 43133 | SCAN TO REGISTER  
Awards Distribution: 27th February 2026 | Email - info@ethosempowers.com

\*Terms & Conditions Apply



future cities  
a 360 degree event on city development & public works

CAPEX MUNICIPALIKA SMART & SUSTAINABLE CITIES PWX PUBLIC WORKS EXPO

BHARAT MANDAPAM, NEW DELHI, INDIA | 25, 26 & 27 FEBRUARY 2026

Knowledge Partners:

Associate Partner:

## LET US DEEP DIVE INTO THE CHALLENGE



## CATEGORIES



### Young professionals Category

Recent graduates and Professionals (up to 35 years of age) from related disciplines

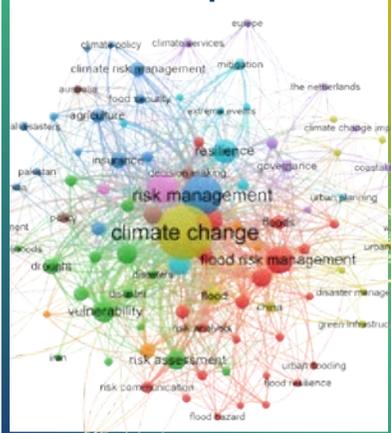


### Student Category

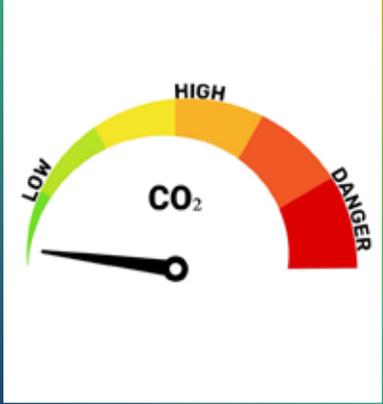
Undergraduate and postgraduate students of architecture, urban design, planning, engineering, social sciences, and environmental studies

## THEMES

### Theme 1: Resilient Development



### Theme 2: Sustainable Green Built Environment



### Theme 3: Redevelopment and Reconstruction



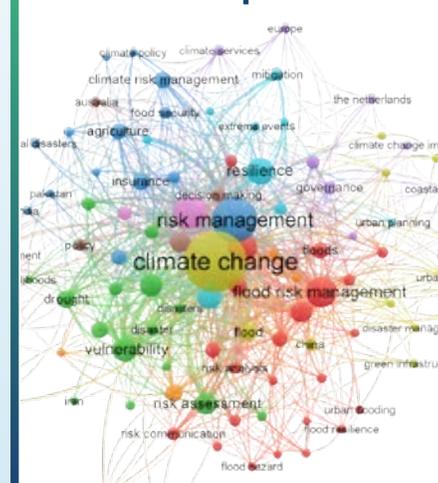
## THEME 1: Resilient Development

### 1. Resilient Development: Designing for Natural Disasters and Climate Change

As climate risks intensify, cities must build resilience into their planning and design frameworks. Participants are invited to propose **urban design, architecture, and planning strategies** that help communities withstand, recover, and adapt to natural disasters such as floods, landslides, earthquakes, and tsunamis.

Incorporating **digital tools and data-driven systems** such as warning mechanisms, risk mapping, and smart infrastructure monitoring can make resilience proactive rather than reactive. Solutions should envision how **technology and community preparedness** together can mitigate future crises and enable faster recovery.

### Theme 1: Resilient Development



## THEME 2: Sustainable Built Environment

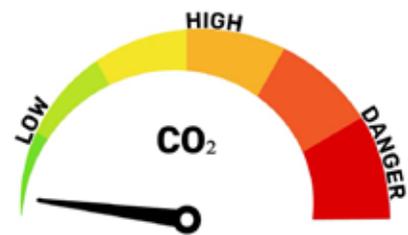
### 2. Sustainable Green Built Environment: The Way Forward

The building and construction sector accounts for nearly 37% of global greenhouse gas emissions (UNEP, 2023) making **green building design** no longer a choice but an inherent parameter of spatial design. Participants are invited to present implementable ideas for designing a **sustainable, energy-efficient, and low-carbon built environment**.

Solutions could address:

- Sustainable building materials and technologies
- Energy-efficient architecture and passive design strategies
- Integration of **smart energy systems** and automation for energy efficiency
- Adaptive reuse and circular economy in construction
- Urban ecology and green infrastructure integration

### Theme 2: Sustainable Green Built Environment



## THEME 3: Redevelopment & Reconstruction

### 3. Redevelopment and Reconstruction in an Urbanising World

With **rapid urbanisation** and increasing demand for space and resources, Indian cities are constantly being rebuilt and reimagined. Participants are encouraged to reimagine models of **redevelopment and reconstruction** that combine **density, liveability, and equity** with **intelligent urban systems**.

Submissions may focus on urban renewal, adaptive reuse, housing, infrastructure upgrading, or transit-oriented development, while addressing issues of affordability, inclusivity, and resilience. The goal is to propose smart and **tech-enabled frameworks** that strengthen the social and environmental fabric of growing cities.

### Theme 3: Redevelopment and Reconstruction



## AWARDS & RECOGNITION

For each of the three themes, prizes will be awarded separately in both categories:

**Student Category and Young Professionals Category.**

### Prizes per Theme (per Category):



₹50,000



₹30,000

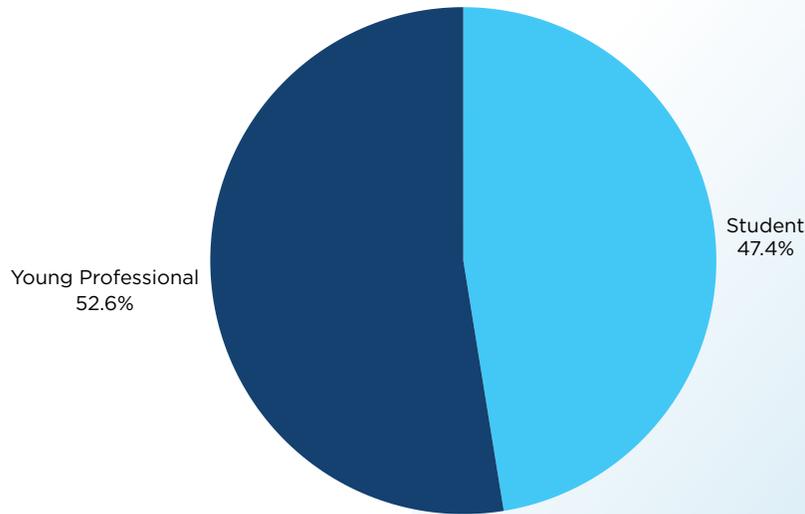


₹20,000

### 3 Commendation Awards: ₹5,000 each

Each theme will have 6 winners per category, resulting in 18 winners per category and 36 winners overall.

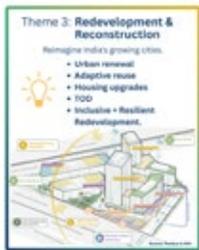
## COMPETITION STATISTICS



**135+**  
Submissions

**290+**  
Registrations

## SOCIAL MEDIA ENGAGEMENT



## EVALUATION CRITERIA



**Social Impact**  
Inclusivity and benefit to communities



**Contextual Relevance**  
Alignment with India's urban realities



**Innovation**  
Originality and creativity of the idea



**Implementability**  
Feasibility and clarity



**Scalability**  
Potential to replicate or scale up

## NATIONAL JURY PANEL



Mr. Amit Bhatt



Ar. C.N. Raghavendran



Ar. Divya Kush



Prof. Kavash Kapadia



Ar. Manushi Ashok Jain



Mr. Sanjay Goyal



Mr. VR Bansal



Mr. V. Suresh

## WINNERS - YP CATEGORY

### Young Professional Category

Theme: Redevelopment & Reconstruction

Sr. no.	Award	name 1	Studio	Designation	name 2	Studio	Designation
1	Winner	Akanksha Salpute		Architect			
2	1st Runner Up	Naashra hasan		Architect			
3	2nd Runner Up	Nehal B S		Architect			
4	commendation	Rishu Jaiswal	StudioBOXX	Architect			
5	commendation	Neha Shah		Architect			
6	commendation	Tirumala Tanishka		Architect			

Theme: Resilient Development

Sr. no.	Award	name 1	Studio	Designation	name 2	Studio	Designation
1	Winner	Anoushka Dutta	High Level Committee on Urban Planning, Government of Gujarat	Junior Urban Designer	Anandita Onkar	Assam Urban Knowledge Hub, Government of Assam	Urban Designer
2	1st Runner Up	Divya Gupta	Folds Design Studio	Architect	Jay Keskar	JVK	Principal Architect
3	2nd Runner Up	Vinay Kumar		Designer			
4	commendation	Abhay Rajesh		Architect			
5	commendation	Aayushi Kute		Architect			
6	commendation	Muskan Singhania	The 5L OW Life	Architect			

Theme: Sustainable Development

Sr. no.	Award	name 1	Studio	Designation	name 2	Studio	Designation
1	Winner	Trevin D'Souza	Five Cross Architects	Junior Architect			
2	1st Runner Up	Charanya Gajbiye	Architecture Brio, Mumbai	Junior Architect			
3	2nd Runner Up	Pranjal Tak	Architecture Brio	Junior Architect			
4	commendation	Akanksha Chandan Th	Self Employed	Junior Architect			

## WINNERS - S CATEGORY

### Student Category

Theme: Redevelopment & Reconstruction

Sr. no.	Award	name 1	college	year of graduation	name 2	college	year of graduation	name 3	college	year of graduation
1	Winner	Anushka Singh	BIT Mesra	2026	Pratik Sengupta					
2	1st Runner Up	Rhavya Shah	Institute of Design Planning and Technology, IIT SCET, Surat	2025						
3	commendation	Fathima Thanha PMS	Fransad knowledge city college of architecture	2028	Ruman Madani	Fransad knowledge city college of architecture	2026	Asagha KT	Fransad knowledge city college of architecture	2026
4	commendation	SHOAB S.	REVA UNIVERSITY	2027						
5	commendation	Diya Satish	NITTE Institute of Architecture, Mangalore Campus	2027	Sakshi S	NITTE Institute of Architecture, Mangalore Campus	2027			
6	commendation	Ayesha parveen	JNFAU	2026	Srisani Tejaswini	JNFAU	2026			

Theme: Resilient Development

Sr. no.	Award	name 1	college	year of graduation	name 2	college	year of graduation	name 3	college	year of graduation
1	Winner	Yegyan Agrawal	Institute of Architecture and Planning, Birla University	2026						
2	1st Runner Up	Anil sharma	Sri vasud	2027	Pratham joshi	Sri vasud	2027	Devanshi joshi	Sri vasud	2027
3	2nd Runner Up	Vedantree Kote	VIVA SCHOOL OF ARCHITECTURE	2026	MARAS PATIL	VIVA SCHOOL OF ARCHITECTURE	2026	JEET RAUT	VIVA SCHOOL OF ARCHITECTURE	2026
4	commendation	Anil Poojari	Chandigarh College Of Architecture	2028	va Garg	Chandigarh College Of Architecture	2028	Anoopkaur Kaur	Chandigarh College Of Architecture	2028
5	commendation	Gopika D	Dr M S B Educational and research institute	2026	Shravanishree a	Dr M S B Educational and research institute	2026			

Theme: Sustainable Development

Sr. no.	Award	name 1	college	year of graduation	name 2	college	year of graduation	name 3	college	year of graduation
1	Winner	Vikram Ajay Pathakurathiyal	Rachana Sansad Academy of Architecture, Mumbai	2026	Samrudhi Ganesh Tale	Rachana Sansad Academy of Architecture, Mumbai	2026			
2	1st Runner Up	Abhishek Mehta	CEPT UNIVERSITY	2027						
3	2nd Runner Up	MANASI VARADE	SCHOOL OF PLANNING AND ARCHITECTURE BHOPAL	2028	PSHALI SHARMA	SCHOOL OF PLANNING AND ARCHITECTURE BHOPAL	2028	PRIV RAJAN YADAV	SCHOOL OF PLANNING AND ARCHITECTURE BHOPAL	2028
4	commendation	Rajesh	Munamad Bahadur engineering college - kaulakara	2028						
5	commendation	Sarvesh panar	PILLAI COLLEGE OF ARCHITECTURE	2026	Tanmay sau	PILLAI COLLEGE OF ARCHITECTURE	2026	Highkesh shah	PILLAI COLLEGE OF ARCHITECTURE	2026
6	commendation	Dhruv Mehta	National Institute of Technology Tricity	2026						

# MUNICIPAL CORPORATION OF DELHI

WASTE-TO-ENERGY (WTE) FACILITIES

INDIA'S LARGEST C&D WASTE PROCESSING PLANT

ZERO WASTE TO LANDFILL COLONIES

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SWACHH VAAHINI

SWACHHATA HI SEVA

STUDENTS VS PLASTICS

RECYCLE MELA

RRR CENTRES

PROJECT VIKALP - BORROW A BAG



WTE PLANT



WTE PLANT



INDIA'S LARGEST C&D WASTE PROCESSING FACILITY



# Progress of Works Undertaken in the Last 06 Months by Municipal Corporation of Delhi

## 1. Administrative Department

The Municipal Corporation of Delhi (MCD) operates as a unified civic body following its reunification on 22 May 2022. It is among the largest municipal corporations in the world, governing an area of 1,397.3 sq. km across 250 wards, organised into 12 administrative zones. The BJP assumed control of the corporation in 2025, and the reconstituted Standing Committee, comprising 18 members, held its second meeting in July 2025, clearing 23 resolutions after more than two and a half years of political and legal deadlock.

The administrative focus during the reporting period has centred on:

- Reconstitution and activation of the Standing Committee, which has approved over 130 pending policy proposals and layout plan changes.
- Appointment of 14 nominated MLAs (11 BJP, 3 AAP) to the MCD by the Assembly Speaker to strengthen legislative oversight.
- Continuation of zonal deputy commissioner oversight across all 12 zones for sanitation monitoring, grievance redressal, and inspection compliance.
- Coordination with the GNCTD on financial delegation, following a government notification in October 2024 enabling MCD to execute contracts above Rs. 5 crore upon intimation to the Standing Committee.
- Regularisation of 4,553 Safai Karamcharis during the reporting period, addressing long-standing employment concerns of sanitation workers.

## 2. Revenue Department

Municipal revenue is derived primarily from property tax, advertisement tax, parking charges, licensing fees, and grants from the GNCTD. The MCD presented what it described as a potentially first-ever surplus budget



estimate for 2026–27.

Budget 2025-26 (Annual): Rs. 17,000 crore (approx.)

Budget 2026-27 (Projected): Rs. 17,044 crore income vs. Rs. 16,698 crore expenditure projected surplus of ~Rs. 1,200 crore

Property Tax Collected (up to Dec 2025): Record Rs. 2,700 crore collected highest in MCD history

Sanitation Allocation 2025-26: Rs. 4,907.11 crore single largest departmental allocation

Roads Allocation 2026-27: Rs. 1,330 crore for resurfacing ~1,000 km of narrow roads (below 60 feet wide)

Sanitation Boost 2026-27: Rs. 2,300 crore sanctioned, covering 70 new road-sweeping machines and 1,000 electric litter pickers

GNCTD Supplementary Grant: Rs. 3,630 crore total assistance approved (Rs. 1,330 crore roads + Rs. 2,300 crore sanitation)

Special drives have been planned for recovery of property tax dues from government and private properties, with a projected additional recovery of Rs. 500 crore in 2026–27. Digitisation of property records and integration with GIS platforms continues as an ongoing reform.

## 3. Road Infrastructure

Road maintenance in Delhi is divided between the Public Works Department (PWD), which maintains major arterial roads, and MCD, which manages internal colony roads and neighbourhood streets. The MCD's jurisdiction covers a vast network of roads, with a focus on roads below 60 feet in width across residential and commercial areas.

Key activities and approvals during the reporting period include:

- Rs. 1,330 crore sanctioned by the Delhi Government



in 2026–27 for resurfacing and strengthening approximately 1,000 km of narrow roads. Focus areas include pothole rectification, dust control, and road strengthening post-monsoon.

- Standing Committee approval for upgrades to roads and streetlights in South and West Delhi zones, cleared during the committee's July 2025 session.
- Deployment of 24 additional mechanical road sweepers approved by the Standing Committee specifically to address dust pollution on arterial roads.
- MCD currently deploys 52 mechanical road sweepers on road sections of 60 feet or more in width. A 7-member committee has been formed to fast-track an RFP for mechanised cleaning of Delhi's full 1,400 km arterial road network.
- Plans finalised for use of approximately 15,000 kilolitres of treated water for road washing operations to reduce dust generation.
- An automated multi-level puzzle parking facility with capacity for 188 vehicles approved at Bharat Darshan Park, Punjabi Bagh, to ease traffic congestion.

## 4. Storm Water Drain

Storm water drainage in Delhi is managed jointly by MCD and the Irrigation and Flood Control Department (IFC). Delhi's drainage network includes 201 natural drains distributed across three drainage basins: Najafgarh, Trans-Yamuna, and Barapullah. The original drainage master plan was prepared in 1976 and is acknowledged to be severely inadequate for current rainfall intensities.

Key works and developments during the reporting period:

- Pre-monsoon desilting operations were carried out across MCD's drain network. Inspections conducted during February 2025 found that of 337 storm water drains surveyed, 73 lacked adequate screening infrastructure, and corrective measures have since been initiated.
- Super-sucker machines and mechanised jetting equipment continue to be deployed for cleaning primary and secondary drains where manual cleaning is insufficient.
- Delhi's Chief Secretary has formally recommended the enactment of a dedicated 'Storm Water and Drainage Act for Delhi' with penal provisions against encroachment and illegal dumping in drains a legislative proposal under active consideration by the GNCTD.
- Sensitive waterlogging-prone locations are being monitored through CCTV cameras, and water pump deployment at 41 identified vulnerable waterlogging points has continued from the previous reporting period.
- MCD has directed all zonal deputy commissioners to ensure 100% verification and maintenance compliance of compost pits and water body drainage infrastructure as part of Swachh Survekshan 2025 preparations.

## 5. Management of Lakes and Water Bodies

Urban water body management in Delhi is shared between MCD, DDA, and the Delhi Jal Board. Recent efforts have focused on ecological restoration, boundary protection, and reducing sewage ingress.

- Zonal deputy commissioners were specifically directed to conduct 100% verification of all water bodies under MCD's jurisdiction as part of Swachh Survekshan 2025

inspection drives.

- Desilting, boundary wall protection, and landscaping works have been carried out at selected water bodies across municipal zones.
- MCD has established 51 green waste management centres, processing approximately 60 quintals of green waste daily. Composting infrastructure includes 211 small pit composters across the city with a combined capacity of 543 tonnes per day of wet waste.
- Construction and Demolition (C&D) waste management is being addressed separately. MCD's area generates approximately 6,000 tonnes of C&D waste per day, of which around 5,000 tonnes is now being processed at dedicated facilities at Bakkarwala, Ranikheda, Shastri Park, and Burari.
- Three contracts totalling 80 lakh tonnes capacity have been awarded for legacy waste bio-mining at Okhla, Ghazipur, and Bhalswa landfill sites, with the objective of freeing land from legacy waste over time.
- Sewage treatment capacity improvements continue in coordination with DJB to reduce untreated wastewater entering drain networks connected to the Yamuna.

## 6. Public Welfare Initiatives

Social welfare activities under MCD's mandate encompass primary health services, public health programmes, shelter support, and community infrastructure.

- The MCD's Public Health Department tested 2,255 water samples in 2024–25. Of these, 409 were found to be of poor quality. Corrective actions including chlorination and deployment of ORS camps have been undertaken in affected areas, in coordination with the Delhi Jal Board.
- The Standing Committee has approved purchase of 17 backhoe loaders for sanitation operations in South



Delhi, improving response to waste accumulation and drain blockage.

- A comprehensive community dog management policy is being formulated, with the Standing Committee resolving to establish a dedicated committee. Currently 20 animal shelters are operational, with proposals to establish zone-wise shelter facilities.
- Community centres and civic infrastructure: Rs. 50 crore has been allocated for the revamp of 298 community buildings in smaller colonies to improve local gathering infrastructure.
- Primary education: Rs. 50 crore has been allocated for upgrading MCD primary schools, covering classroom environments, sanitation facilities, and building infrastructure. MCD operates one of the largest networks of primary schools in India, providing free and compulsory education to children aged 5–11 years.
- Subsidised meal and shelter services continue to be provided to homeless persons and migrant workers through DUSIB-administered facilities operating across Delhi.

## 7. Solid Waste Management

Solid waste management remains MCD's most operationally intensive responsibility. Delhi generates approximately 11,000 metric tonnes of municipal solid waste (MSW) per day. The Supreme Court of India, in the MC Mehta case (WP Civil No. 13029/1985), has actively monitored Delhi's waste management compliance and as of late 2024 flagged a potential public health emergency arising from the processing capacity deficit.

Current waste processing capacity and expansion targets:

- Existing Waste-to-Energy (WtE) plants process 6,550 TPD of MSW to generate electricity.
- A new 100 TPD bio-methanation plant at Ghogha Dairy

became operational in September 2025.

- A 200 TPD biogas plant at Nangli Dairy is operational; similar plants at Goyla and Ghogha Dairies are targeted for completion by March 2026.
- Expansion of WtE capacity underway at existing Okhla and Tehkhand plants.
- A waste processing facility at Ghazipur (including a dung and ingesta drying plant at the city's only licensed slaughterhouse) has been approved by the Standing Committee, clearing a long-standing NGT directive.
- MCD informed the Supreme Court that two new large-scale solid waste management projects a 3,600 TPD WtE plant at Narela-Bawana and a 3,000 TPD WtE plant at Ghazipur are expected to be commissioned by December 2027–December 2028. Once operational, these plants will result in a capacity surplus of approximately 3,000 metric tonnes per day over projected waste generation.
- Bio-mining operations at legacy landfill sites at Ghazipur, Bhalswa, and Okhla continue under contracts awarded for 80 lakh tonnes of legacy waste.
- Door-to-door waste collection services and mechanised road sweeping across major corridors are being continued. Public awareness campaigns around segregation at source remain active, with 2,61,059 citizens participating in the 'Delhi's Freedom from Garbage' campaign in August 2025.
- MCD has converted 105 illegal garbage dumping sites into clean areas and has installed 308 EV charging stations, with 262 additional stations under planning.

#### 8. People-Friendly Mobile Apps / Digital Strategies

Digital platforms continue to support citizen-facing service delivery and internal administrative efficiency:

- MCD 311 App: Allows residents to register complaints related to sanitation, roads, streetlights, solid waste, and building regulation violations. Complaint resolution timelines are monitored through integrated digital dashboards available to zone-level officials.

- Online Property Tax Portal: Enables digital filing and payment of property tax under the Unit Area System. Digitisation of legacy property records continues, with integration with GIS platforms progressing across zones.
- Trade Licensing and Permits: Online portals enable application and renewal of trade licences, building permissions, and other civic services, reducing physical interface with municipal offices.
- Swachh Survekshan Monitoring: Digital checklists and GIS-based sample location tracking are being used to coordinate the Swachh Survekshan 2025 inspection drive across all 12 MCD zones, with private consultant oversight and zonal nodal officer reporting.
- CCTV-based monitoring of 41 identified waterlogging-prone locations continues as part of the monsoon preparedness digital framework.
- The MCD's waste collection data now reflects over 12,000 tonnes of daily municipal solid waste collected an increase over the earlier 11,000 tonne baseline — enabled by better tracking and collection systems.

#### 9. Brand Delhi / City Identity Initiatives

While MCD does not operate a standalone branded city campaign, its ongoing policy priorities and public communications collectively project Delhi as a city committed to civic improvement, environmental responsibility, and digital governance. Key thematic pillars during the reporting period are:

- Swachh Delhi (Clean Delhi): Flagship cleanliness drives, Swachh Survekshan 2025 preparations, and behaviour change campaigns such as the 'Delhi's Freedom from Garbage' drive have engaged over 2.6 lakh citizens and 1.26 lakh students in awareness activities.
- Green Delhi: Plantation drives conducted from 6–8 August 2025 involved 29,737 individual plantation activities across MCD zones. MCD has planted over 1.8 lakh trees by December 2024 and developed eight Miyawaki

micro-forests.

- Digital Delhi: Expansion of online civic services, digital payment systems for property tax, and grievance management platforms align with the Smart Cities Mission and the GNCTD's digital governance agenda.
- Air Quality and Dust Control: Mechanical road sweeping, dust suppression through treated water, and construction waste management programmes are being operated in coordination with the Delhi Pollution Control Committee and the GNCTD's air quality action plan.
- Accessible Delhi: Improvement of pedestrian walkways, public toilet upgradation, and community building revamps contribute to enhanced public accessibility and quality of life.

#### Conclusion

The progress recorded by the Municipal Corporation of Delhi during the last six months reflects both continuation of established civic service systems and meaningful advances in governance, infrastructure, and financial management. The reconstitution of the Standing Committee after a prolonged period of deadlock has enabled important long-pending projects to advance. A projected first-ever budget surplus, a record property tax collection of Rs. 2,700 crore, and committed large-scale investments in solid waste management infrastructure mark a period of institutional consolidation and forward-looking planning.

The city's solid waste processing infrastructure is on a defined expansion trajectory, with total processing capacity expected to exceed daily waste generation by 2026–27 upon commissioning of new plants. Road resurfacing, sanitation strengthening, and digital service improvements further demonstrate MCD's commitment to progressively improving the quality of life for Delhi's approximately 2 crore residents.

# Best Practice Initiatives in Urban Local Bodies of Delhi

## Municipal Corporation of Delhi | National Capital Territory

### 1. Reuse of STP Treated Water for Non-Potable Purposes

**Theme:** Wastewater Management - Reuse and Recycle  
**ULB Name:** Municipal Corporation of Delhi (South Zone)

In a city where groundwater tables have been declining sharply for decades, the Municipal Corporation of Delhi initiated a programme to treat and reuse treated sewage effluent from its Sewage Treatment Plants (STPs) for non-potable applications. MCD operates multiple STPs with a combined treatment capacity of over 632 MLD. Under this initiative, treated water meeting NGT-prescribed norms is supplied through a dedicated pipeline network to industrial units, road washing operations, and horticulture.

The initiative was implemented in coordination with the Delhi Jal Board, which manages the primary STP network. Approximately 15,000 kilolitres of treated sewage water is now being used daily for road washing to suppress dust across arterial roads, reducing the demand on freshwater sources. German-origin MBR (Membrane Bio Reactor) technology has been adopted at select plants to achieve crystal-clear purified effluent, making the treated output suitable for reuse in industrial processes and green belt irrigation.

Households and commercial establishments in the covered zones have been connected to the underground drainage (UGD) network, with compliance enforced through regularisation drives and penalty provisions for unauthorised discharges. The area surrounding STPs has been developed with landscape plantings, eliminating odour through the MBR process and making the premises publicly accessible.

#### Impact of the Initiative

The reuse programme has meaningfully reduced the demand for freshwater in operational and horticultural uses within MCD's jurisdiction. Road washing with recycled effluent has contributed to measurable reductions in dust particulate levels along treated corridors. Industries connected to the supply have reduced their dependence on tanker water and groundwater extraction. The STP surroundings have been transformed into green zones attracting bird species, providing ecological co-benefits alongside the water economy objective. Underground water is being economised and

groundwater depletion rates in treated zones are being monitored for long-term improvement.

### 2. Safe Management of Faecal Sludge in Peri-Urban Areas

**Theme:** Implementation of Faecal Sludge Treatment Sanitation Chain Management

**ULB Name:** Municipal Corporation of Delhi (Outer and North-West Zones)

Large parts of Delhi's outer zones and newly urbanised village areas continue to rely on on-site sanitation systems septic tanks and pit latrines rather than the underground drainage network. In the absence of a regulated faecal sludge management system, septage was being disposed at un-designated locations, causing soil and groundwater contamination. MCD, in partnership with the Consortium for DEWATS Dissemination (CDD) Society India, implemented a Faecal Sludge Treatment Plant (FSTP) programme to address this gap.

The FSTP processes septage collected from household tanks by registered desludging operators, treating it through a multi-stage process including settling, drying beds, and composting. The treated output biosolids suitable for agricultural use is made available to farmers on request. The programme has brought formerly unregulated septage flows under a documented sanitation value chain for the first time in the covered areas. ULB zones with populations above 50,000 without full UGD coverage have been prioritised for adoption of this economically viable technology.

#### Impact of the Initiative

Safe disposal of human excreta has been achieved in project areas, with verified elimination of open dumping of septage at undesigned sites. Farmers in adjoining areas have expressed active interest in receiving the compost produced at the FSTP, creating a secondary economic loop. The sanitation value chain from household to treatment to beneficial reuse has been strengthened, contributing to improved public health outcomes and reduced groundwater contamination. The model is being proposed for replication across other MCD zones that lack full sewerage coverage.

### 3. E-Waste Collection by Smart Electric Vehicles

**Theme:** Best Practices in 3R (Reduce, Reuse and

Recycle)

**ULB Name:** Municipal Corporation of Delhi -Solid Waste Management Department

To modernise its solid waste collection system and reduce vehicular emissions within the city, MCD deployed a fleet of smart electric vehicles (EVs) dedicated to door-to-door dry waste collection across residential colonies. The vehicles are equipped with GPS tracking and are mapped to optimised route plans, ensuring complete ward coverage while eliminating idle routing.

Each EV is fitted with auto-tipper mechanisms and segregation compartments to maintain the separation of dry and wet waste at the point of collection. Citizens are sensitised through ward-level awareness drives on the importance of segregation. Wet waste collected is processed through vermicomposting and windrow composting methods at designated sites. Dry waste is transported to Material Recovery Facilities (MRFs) where it is sorted on conveyor belts into 38 categories including paper, plastic, cardboard, tetra packs, PET bottles, and metals by trained sorting workers.

MCD has established dry waste collection centres at landfill sites where recyclable materials are segregated, baled using hydraulic balers, and dispatched to scrap dealers or recycling units. Non-recyclables such as Multi-Layered Plastics (MLP) and Segregated Combustible Fractions (SCF) including cloth and footwear are co-processed at cement factories, diverting them from landfill. The landfill sites have additionally been beautified with gardens created using recyclable materials.

#### Impact of the Initiative

The introduction of GPS-mapped EV fleets has improved collection efficiency and citizen satisfaction across the covered wards. Revenue generated from the sale of compost and segregated dry waste has reached Rs. 41.96 lakhs, providing a direct financial return to MCD's waste management operations. Manual sorting has been supplemented by conveyor belt systems at MRFs, improving worker safety and sorting quality. Over 150 MT of non-recyclables have been dispatched to cement factories for co-processing, reducing landfill burden. Source-level segregation has improved measurably in targeted wards as a result of sustained

awareness drives accompanying the EV deployment.

#### 4. Preparation of Agarbatti (Incense Sticks) from Market Flower Waste

**Theme:** Best Practices in 3R Waste to Wealth

**ULB Name:** Municipal Corporation of Delhi Ghazipur Flower Market Zone

Delhi's flower markets particularly the wholesale market at Ghazipur generate several hundred kilograms of flower waste daily from unsold and wilted stock. This waste, previously disposed of in open areas and contributing to drain blockages, has been converted into a productive raw material through MCD's Waste to Wealth initiative. A dedicated unit was established at the market to collect and process fresh flower waste for the production of incense sticks.

The process involves fresh flower petals being dried through a combination of sunlight exposure and electrical dryers to remove moisture. The dried petals are then powdered, mixed with binding agents, and rolled onto bamboo sticks to produce incense sticks. Women Self-Help Groups (SHGs) associated with MCD's livelihood programme have been trained and employed in production, packaging, and local sales. The unit produces approximately 400 to 500 incense sticks per day, packaged under a civic brand and sold at community events, markets, and municipal offices.

##### Impact of the Initiative

The initiative has successfully diverted daily flower waste from open dumping and drain disposal, improving market hygiene and reducing solid waste volumes at the Ghazipur site. It has created direct livelihood for SHG members involved in production and packaging, generating employment for women at the ward level. The production of incense sticks from organic waste has demonstrated a replicable Waste to Wealth model that other market zones in Delhi are now in the process of adopting. The initiative has reduced demand on landfill capacity while creating a modest revenue stream for participating groups.

#### 5. Dedicated Restrooms and Welfare Facilities for Sanitation Workers

**Theme:** Worker Welfare Sanitation Workforce

**ULB Name:** Municipal Corporation of Delhi Sanitation Department

MCD's sanitation workforce begins its daily duties as early as 5 AM, sweeping and cleaning streets across all 250 wards before the city wakes. Despite their critical role, Safai Karamcharis known in other states as Pourakarmikas have historically lacked basic facilities at their work locations. MCD has now constructed dedicated restrooms for its sanitation workers across zones, located near zone offices and high-density work areas.

Each restroom facility is equipped with separate toilet units for male and female workers, a dress-changing room, a feeding room with seating, mobile charging points, a first aid kit, and a drinking water supply. Electricity and water connections are maintained by MCD. The facilities are designed to meet the daily practical needs of workers who spend long hours in the field. The initiative covers both permanent and contractual sanitation staff, benefiting approximately 15,000 front-line workers across the Corporation's zones. The regularisation of 4,553 Safai Karamcharis during the 2025-26 period has further reinforced MCD's commitment to workforce dignity and welfare.

##### Impact of the Initiative

The provision of dedicated restrooms has demonstrably improved the working conditions and morale of MCD's sanitation workforce. Workers report improved efficiency in field duties as a result of access to rest, changing, and hygiene facilities in proximity to their work areas. The initiative has been received as a recognition of the dignity and essential contribution of the sanitation workforce a message reinforced by the concurrent regularisation programme. The facilities also include provisions for female sanitation workers, addressing a long-standing gap in workplace infrastructure for women in civic sanitation roles.

#### 6. Mechanised Material Recovery Facility with Conveyor Belt Sorting

**Theme:** Effective Management of Material Recovery Facilities (MRF)

**ULB Name:** Municipal Corporation of Delhi Central and East Delhi Zones

To improve the quality and efficiency of dry waste processing, MCD commissioned mechanised Material

Recovery Facilities equipped with conveyor belt sorting systems and hydraulic baling machines. Segregated dry waste collected by door-to-door vehicles is transported to these sorting sheds, where it is loaded onto conveyor belts via feeding hoppers.

Trained sorting workers stationed along the belt classify incoming dry waste into 15 to 18 categories, including high-value recyclables such as PET bottles, metal, glass, and paper; low-value scraps; and non-recyclables such as Multi-Layered Plastics (MLP) and Segregated Combustible Fractions (SCF). After sorting, recyclables are compressed into bundles using hydraulic balers and stored for dispatch. Recyclable items are sold to registered scrap dealers, while non-recyclables are dispatched for co-processing at cement factories. To date, 150 MT of non-recyclables have been dispatched to cement factories across the region.

##### Impact of the Initiative

The transition from manual roadside sorting to mechanised MRF processing has significantly improved the quality and speed of waste classification. Sorting workers operate in better, safer conditions than open-site sorting. The system recovers greater value from waste streams, as finer categorisation enables higher prices from scrap dealers. Non-recyclables are diverted from landfill through co-processing, contributing to MCD's landfill burden reduction targets. The installation of baling machines has improved storage and dispatch logistics, reducing turnaround time between sorting and sale.

#### 7. Bio-Mining Operations at Legacy Landfill Sites

**Theme:** Sustainable Solid Waste Management Reclamation of Landfill Land

**ULB Name:** Municipal Corporation of Delhi Ghazipur, Bhalswa, Okhla Landfill Sites

Delhi's three legacy landfill sites at Ghazipur, Bhalswa, and Okhla have accumulated decades of mixed municipal solid waste, growing well beyond permissible heights and posing serious environmental, public health, and fire hazard risks. Under Supreme Court monitoring in the MC Mehta case, MCD awarded three bio-mining contracts covering a combined capacity of 80 lakh tonnes of legacy waste, with the objective of scientifically processing and reclaiming the occupied land.

Bio-mining involves excavating legacy waste, screening it through trommel machines to separate inert material (soil-like fraction) from combustibles and recyclables. Combustible fractions with sufficient calorific value are directed to Waste-to-Energy plants or cement factories for co-processing; recyclables are segregated and sold; and the inert fraction is used for landfill cover, road sub-base, or construction fill. Simultaneously, two large WtE plants a 3,600 TPD facility at Narela-Bawana and a 3,000 TPD plant at Ghazipur are being commissioned for December 2027 and December 2028 respectively, which will create a downstream capacity to prevent future landfill accumulation.

##### Impact of the Initiative

Bio-mining operations are progressively reducing the volume and height of all three landfill mounds. Reclaimed land at completed sections has been repurposed for green area development. The processing of legacy waste through trommel screening has recovered significant quantities of recyclables and calorific fractions that would otherwise remain permanently entombed. Once the Narela-Bawana and Ghazipur WtE plants are operational, Delhi will cross a historic threshold processing more waste than it generates, eliminating the need for new landfill land. The bio-mining contracts also represent one of the largest urban waste reclamation programmes currently active in India.

#### 8. Rejuvenation of Urban Water Bodies and Verification Drive

**Theme:** Conservation of Water Bodies Environmental Protection

**ULB Name:** Municipal Corporation of Delhi All 12 Administrative Zones

Delhi's urban water bodies ponds, seasonal lakes, and open wells have been systematically encroached upon, filled with solid waste, and denied ecological attention for decades. As part of MCD's Swachh Survekshan 2025 compliance drive, all 12 Zonal Deputy Commissioners were directed to conduct 100% physical verification of water bodies under their respective jurisdictions. This systematic audit identified sites requiring desilting, boundary protection, fencing, or drainage improvements.

At identified sites, desilting operations, boundary wall construction, landscaping, and public pathway improvements have been undertaken. Open well rejuvenation drives have been carried out in covered wards, preventing residents from using wells as solid waste dumping points and restoring them as supplementary water sources. Sewage ingress a primary cause of water body degradation is being addressed through UGD expansion and enforced household connections in surrounding areas.

##### Impact of the Initiative

Rejuvenated water bodies have become additional sources of water for local communities and have improved the aesthetic character of surrounding neighbourhoods. Prevention of solid waste dumping into water bodies has solved the multipurpose challenge of water conservation, waste management, and prevention of waterborne disease simultaneously. Restored water bodies serve as ecological habitats and provide groundwater recharge benefits. The systematic 100% verification drive has, for the first time, produced a ward-level inventory of water body status across MCD's jurisdiction a planning baseline that did not previously exist.

#### 9. Beautification and Upgradation of Public Toilets

**Theme:** Sanitation with Public Toilet Infrastructure

**ULB Name:** Municipal Corporation of Delhi All Zones

MCD identified all public and community toilet facilities across its 250 wards and prepared a condition assessment report for each. A large proportion were found to be non-functional due to broken fittings, lack of water supply, absent electrical connections, and deteriorated structures. A comprehensive renovation programme was launched to convert these unusable facilities into clean, attractive, and fully functional public conveniences.

Each upgraded facility received 24-hour water supply, electrical connections, and fresh painting with thematic artwork and cultural motifs on exterior and interior walls a deliberate design choice to make toilets visually appealing and encourage public use. Facilities for persons with disabilities were incorporated through ramp access and compatible toilet seats. Sanitary napkin vending machines and incinerators were installed in female toilet blocks. Mobile charging points and proper ventilation were added in selected locations. Regular maintenance contracts ensure ongoing cleanliness and hygiene standards.

##### Impact of the Initiative

Previously unusable public toilets have been restored to full functionality and are now actively used by residents and pedestrians. The application of colourful artwork and murals on toilet walls has proven to be an effective behaviour-change tool public use of toilets has increased measurably in areas where beautification was implemented, with corresponding reductions in open defecation and open urination complaints. Disabled-friendly facilities have improved accessibility for a segment of the population that had been structurally excluded from public sanitation infrastructure. The initiative has demonstrated that public toilets need not be merely utilitarian aesthetics and dignity of design are themselves drivers of civic behaviour.

#### 10. Production of Cocopeat Fertiliser from Coconut Husk Waste

**Theme:** Waste to Wealth Organic Waste Processing

**ULB Name:** Municipal Corporation of Delhi Horticulture and Solid Waste Management

Delhi's markets and residential areas generate significant volumes of coconut husk waste daily, which was previously dumped in open areas alongside other organic waste, contributing to unmanaged waste dumps. MCD initiated a programme to address this by introducing source-level segregation of coconut waste and deploying coconut shredding machines at collection points.

Collected coconut husks are shredded and processed into Cocopeat a nutrient-rich growing medium widely used in horticulture, gardening, and tree plantation. MCD's horticulture department uses Cocopeat produced by this process for its own plantation drives, including the establishment of eight Miyawaki microforests and the planting of over 1.8 lakh trees by December 2024. Surplus Cocopeat is sold to residents, nurseries, and other institutions at Rs. 50 per kg, generating revenue for the local waste management programme.

**Impact of the Initiative**

The initiative has converted a stream of coconut husk waste that previously contributed to open dumps into a commercially valuable horticultural product. Revenue of approximately Rs. 1,300 or more per production cycle is generated through retail sales, demonstrating the Waste to Wealth principle in practice. MCD's plantation and greening initiatives have directly benefited from the in-house supply of Cocopeat, reducing procurement costs for growing medium. The model has attracted interest from other agencies and private bodies, with several institutions visiting MCD's processing units to learn the replication methodology. Waste volumes at collection points in covered areas have reduced as a direct result of segregation at source.

**11. Zero Waste Office Initiative Leading by Example**

**Theme:** Reduce, Reuse, Recycle Institutional Waste Management

**ULB Name:** Municipal Corporation of Delhi Civic Centre and Zonal Offices

Recognising that civic bodies must lead by example on waste reduction, MCD launched a Zero Waste Office Initiative across its Civic Centre headquarters and zonal offices. A dedicated 'No Waste' desk was established in each office to oversee the programme. All employees received awareness training on waste segregation, reduction of single-use plastics, and responsible disposal of office-generated waste.

A Cutlery Bank was commissioned in each office stocked with steel plates, mugs, glasses, and spoons for use by all staff and visitors in place of single-use disposable items. The initiative effectively eliminated the use of paper cups, plastic plates, and single-use cutlery in MCD's official premises. Wet and dry waste generated in offices is separately collected and processed: wet

waste goes to composting, dry waste to MRFs. An internal official order mandates compliance from all employees and establishes accountability at each department level. Compost produced from office organic waste is used for the green areas surrounding MCD's premises.

**Impact of the Initiative**

The Cutlery Bank initiative has eliminated single-use plastic and paper tableware from MCD's official functions and daily operations, providing a visible institutional commitment to the plastic reduction mandate. Staff behaviour has shifted measurably toward waste segregation as a result of sustained internal awareness programmes. The volume of waste generated by MCD offices has reduced, with the compost produced being returned productively to the green infrastructure of the premises. The initiative has served as a credible demonstration model that single-use plastic-free institutional operations are operationally feasible, encouraging adoption by contractors, vendors, and partner organisations working with MCD.

**12. Urban Afforestation and Miyawaki Micro-Forest Programme**

**Theme:** Tree Plantation and Urban Green Cover Expansion

**ULB Name:** Municipal Corporation of Delhi Horticulture Department, All Zones

In response to Delhi's deteriorating air quality, urban heat island effect, and declining green cover, MCD's Horticulture Department undertook a large-scale urban afforestation programme combining traditional plantation drives with the Miyawaki dense-forest methodology. During the August 2025 plantation drive alone, 29,737 individual plantation activities were conducted across MCD zones, with participation from residents,

school students, and Resident Welfare Associations.

By December 2024, MCD had planted over 1.8 lakh trees across road medians, dividers, parks, and public spaces within its jurisdiction. Eight Miyawaki micro-forests have been established at selected sites these are dense, multi-species native plantations that grow 10 times faster than conventional plantations and create self-sustaining forest ecosystems within small urban footprints. Road dividers and median strips have been planted to simultaneously beautify streetscapes and act as green dust barriers. Treated sewage water is used for irrigation of planted areas, integrating the STP reuse programme with the green cover expansion objective. Cocopeat produced from MCD's coconut waste processing initiative is used as a growing medium for saplings, creating a closed-loop system between waste processing and horticulture.

**Impact of the Initiative**

The plantation drives have added measurable green cover to Delhi's urban fabric, contributing to air quality improvement, urban cooling, and biodiversity support. Miyawaki micro-forests have established self-sustaining green patches in previously barren or under-used public spaces. The beautification of road dividers with plantings has improved the visual character of arterial roads while providing functional dust and noise barriers. The integration of treated water irrigation has enabled MCD to maintain green areas without additional freshwater consumption. The programme has mobilised significant community participation over 2.6 lakh citizens engaged in Swachh and Green Delhi initiatives during the reporting period building a culture of civic environmental stewardship.

**BHARAT MANDAPAM**  
A Landmark in Sustainability  
Proudly Honoured with Cleanest City In India

Municipal Corporation, Karnal, proudly celebrates achieving the 3rd Rank nationwide in the 'Swachh Shehar' (Clean City) category for cities with a population between 50,000 and 3 lakh at the Swachh Survekshan 2024-25 awards. This prestigious honour, presented by Hon'ble President Droupadi Murmu, marks a historic milestone as Karnal becomes the first city in Haryana to receive this presidential recognition. It reflects the city's unwavering commitment to exceptional sanitation, sustainable urban development, and the Swachh Bharat mission.

**Sustainable Milestones at Bharat Mandapam**

- Wall Painting Competition between Students
- Create No-Vending Zones
- Sheru(Mascot) for swachhata awareness in public
- Meri Beat Meri Pehchan a monthly competition between Safai Supervisors in Nigam Area
- 3d Model of Solid Waste Management Plant of MC Karnal
- Compost Bags are eco-friendly, biodegradable liners typically made from plant-based materials (like cornstarch or PLA) rather than traditional petroleum plastics.
- SR's Refuse, Reduce, Reuse, Repurpose and Recycle
- First Zero Waste Office declared in the State

# PRAMA Video Security Solutions Make Smart Cities Smarter and Safe Cities Safer

The smart city market in India is growing rapidly, driven by government initiatives and increasing urbanization. As the world population continues to grow, cities are especially becoming more crowded and in need of more efficient infrastructure and service offerings. Internet of Things (IoT) technologies are improving efficiency, sustainability and livability.

Environmental concerns have been gaining traction in recent years and the citizens are demanding sustainable solutions. Smart energy systems and waste management solutions are adopting IoT technologies and benefiting from the data collected via the connected devices. Smart grids are especially important in increasing reliability and security in the times of outages, security threats and other unexpected occurrences. IoT sensors are used in smart waste management to monitor the garbage cans and optimize waste collection schedules and reduce litter. The Smart Cities market is expected to continue seeing a fast growth, as governments are seeing the potential they can bring for both sustainable and economic growth.

A Smart City project focuses on using technology and data-driven solutions to enhance the quality of life for citizens, improve infrastructure, and promote sustainable development.

## Key Features

- **Efficient Infrastructure:** Smart grids, waste management, and transportation systems
- **Digital Services:** E-governance, online services, and citizen engagement platforms
- **Sustainable Environment:** Green buildings, renewable energy, and environmental monitoring
- **Economic Growth:** Innovation hubs, entrepreneurship support, and job creation

A Safe City project, on the other hand, prioritizes citizen safety and security through technology-enabled solutions.

## Key Features

**Video Security Cameras:** CCTV cameras, AI-powered monitoring, and emergency response systems

**Law Enforcement:** Advanced forensic tools, predictive policing, and community engagement

**Emergency Services:** Integrated response systems, disaster management, and public safety alerts

**Social Initiatives:** Women's safety, community outreach, and awareness programs

While Smart City projects focus on broader urban development, Safe City projects concentrate on ensuring citizen safety and security. Both initiatives often overlap, and many cities implement them together to create a holistic urban ecosystem.

## Key factors driving the market growth include:

**Government initiatives:** The Indian government's focus on developing smart cities, with initiatives like the Smart Cities Mission, is driving growth.

**Urbanization:** Increasing urban population and the need for efficient urban infrastructure are fueling the demand for smart city solutions.

**Technological advancements:** Innovations in IoT, AI, and data analytics are enabling the development of smart city solutions.

The market is segmented into various focus areas, including:

**Smart Transportation:** Smart ticketing, traffic management, and passenger information management systems.

**Smart Buildings:** Building energy optimization, emergency management, and parking management systems.

**Smart Utilities:** Advanced metering infrastructure, distribution management, and substation automation systems.

**Smart Citizen Services:** Smart education, healthcare, public safety, and street lighting solutions.

PRAMA, a premier indigenous Video Security brand, is making significant strides in enhancing smart cities and safe cities through its advanced technologies.

Here's how PRAMA contributes:

## How PRAMA's Smart City solutions deliver value

PRAMA's Smart City solutions deliver value through various innovative technologies and services. Their solutions focus on enhancing urban living, improving safety, and promoting sustainability. Some key areas where PRAMA's solutions add value include:

**Smart Security Solutions:** PRAMA offers advanced video security products, including AI-powered cameras, access control systems, and intelligent video management



software. These solutions enhance public safety and security in smart cities.

**Transportation Management:** PRAMA's transportation solutions help monitor and manage traffic flow, reducing congestion and improving mobility.

## PRAMA's AI-enabled Security Applications

With the incorporation of artificial intelligence (AI) applications into video security technologies is bringing big transformation in its outcomes. The AI has made Video Content Analytics (VCA) more accurate and added the empowering predictive capabilities. Security Industry is entering into a new era of video security, with AI-based technology applications, helping video monitoring to entirely new use cases that provide more tangible benefits across the verticals.

## Bespoke Smart City and Safe City Solutions

PRAMA's Smart and Safe City Solutions include the City Surveillance Solution, Mobile Enforcement Solution & Transportation Solution, etc.

Some notable PRAMA products and solutions include: **AiSense Technology Enabled Cameras:** AI-powered camera with advanced analytics capabilities

**Ranginview Solution:** High-quality, full-color video technology for enhanced surveillance

**Smart Mobile Enforcement Solution:** Portable, AI-powered security solutions for law enforcement and public safety

**Smart Transportation Solution:** The efficient smart traffic and safe transportation solution provided by PRAMA's Advanced Traffic Management System (ATMS) Cameras and allied systems.

Overall, PRAMA's Smart City solutions aim to create more livable, sustainable, and efficient urban environments. PRAMA's Smart City solutions deliver value through various innovative technologies and services, focusing on enhancing urban living, improving safety, and promoting sustainability.

## Powered by AISENSE Technology

AI-Powered Surveillance makes all the difference in terms of tech-enabled solutions for security management. PRAMA integrates Artificial Intelligence (AI) into its video security systems, enabling features like facial recognition, object detection, and predictive analytics. These capabilities enhance real-time monitoring and threat detection.

PRAMA Aisense Cameras and Solutions promises superior performance in security management in smart cities and safe cities. Artificial intelligence (AI) technology is revolutionizing video security by adding significant value in several ways. AI Cameras are offering Enhanced Accuracy. AI algorithms can accurately detect and recognize objects, faces, and license plates, reducing false alarms and improving the reliability of security systems.

**Real-Time Monitoring:** AI enables real-time analysis of video feeds, allowing for immediate detection of suspicious activities and quick response to potential threats.

**Predictive Analytics:** AI can analyze patterns and predict potential security breaches, helping to prevent incidents before they occur.

**Automated Alerts:** AI-powered systems can automatically generate alerts for specific events, such as unauthorized access or unusual behaviour, ensuring timely intervention.

**Efficient Data Management:** AI helps in managing and analyzing large volumes of video data, making it easier to retrieve and review relevant footage.

**Cost-Effective:** By automating many aspects of video surveillance, AI reduces the need for constant human monitoring, leading to cost savings.

**Scalability:** AI systems can easily scale to cover large areas and multiple locations, providing comprehensive security

coverage.

**Integration with Other Systems:** AI can integrate with other security systems, such as access control and alarm systems, to provide a unified and efficient security solution.

Overall, AI enhances the effectiveness, efficiency, and reliability of video security systems, making them more capable of protecting people and property. If you have any more questions or need further details, feel free to ask!

PRAMA's Aisense Cameras are designed to provide superior performance in video security management through several advanced features:

**AI-Powered Analytics:** These cameras use artificial intelligence to analyze video feeds in real-time, enabling features like facial recognition, vehicle identification, and behaviour analysis.

**Smart Alerts:** AI Sense Cameras can generate real-time alerts for various scenarios, such as unauthorized access, intrusions, and unusual activities. This allows for quick responses to potential security threats.

**High-Resolution Imaging:** The cameras offer high-definition video quality, ensuring clear and detailed footage, which is crucial for accurate identification and analysis.

**Edge-Based Processing:** By processing data at the edge (within the camera itself), these cameras reduce the need for extensive bandwidth and storage, making the system more efficient and responsive.

**Versatile Applications:** AI Sense Cameras are suitable for a wide range of applications, including traffic monitoring, public safety, and property surveillance. They can be used in various environments, from urban areas to industrial sites.

**Integration with Other Systems:** These cameras can be integrated with other security systems, such as access control and alarm systems, to provide a comprehensive security solution.

Overall, PRAMA's Aisense Cameras leverage advanced AI technology to enhance the effectiveness and efficiency of video security management, providing reliable and intelligent surveillance solutions.

## Application Scenarios

Prama Aisense cameras are advanced security cameras that leverage artificial intelligence (AI) and machine learning (ML) to provide intelligent video analytics. Here are some application scenarios for PRAMA Aisense cameras:

### Perimeter Protection and Intrusion Detection

**Border security:** Monitor borders and detect intruders, reducing the risk of unauthorized crossings.

**Critical infrastructure protection:** Safeguard sensitive areas like power plants, airports, and government buildings.

### Smart City and Traffic Management

**Traffic monitoring:** Analyze traffic flow, detect accidents, and optimize traffic signal control.

**Smart parking:** Guide drivers to available parking spots, reducing congestion and improving parking efficiency.

**Public safety:** Detect suspicious behaviour, such as loitering or vandalism, in public areas.

### Customized Smart City and Safe City solutions

PRAMA offers tailored solutions for diverse needs, such as city surveillance, crowd control, school surveillance, traffic management, healthcare security, and city surveillance. These solutions address specific challenges in urban environments.

Indigenous Manufacturing helps to reduce the import duty and tax burden away from the Smart Cities plan. As part of the "Atmanirbhar Bharat" initiative, PRAMA manufactures its products locally, ensuring high quality and reliability while supporting the Indian economy.

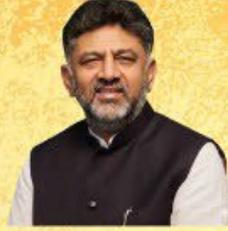
Advanced Traffic Management System (ATMS) in Smart Cities help to manage the traffic more efficiently. PRAMA's traffic management solutions optimize traffic flow, reduce congestion, and enhance road safety through automated monitoring and analytics.

Integration with Smart City Infrastructure is key to the security management and sustainability. PRAMA's systems seamlessly integrate with other smart city technologies, creating a cohesive and efficient urban ecosystem.

Smart Cities are not just assure smart security and smart living but they also provide new economic opportunities. They also help the job creation objectives. The implementation of smart and safe city technologies generates employment in sectors like IT, urban planning, and security. They are future-ready cities of a new age India.



**Shri Siddaramaiah**  
Hon'ble Chief Minister  
Government of Karnataka



**Shri D.K. Shivakumar**  
Hon'ble Deputy Chief Minister  
Government of Karnataka



Government of Karnataka

**Achievements  
of the  
Public Works  
Department  
1000 Days**



**Shri Satish Jarkiholi**  
Hon'ble Minister  
Public Works Department  
Government of Karnataka

# KARNATAKA'S PUBLIC WORKS DEPARTMENT (KPWD)



Under the leadership of the Hon'ble Chief Minister, Karnataka's Public Works Department has significantly accelerated **infrastructure growth over the past 1000 days**. Focused on roads, bridges, and public buildings, PWD emphasizes quality, transparency, and timely delivery. The department strengthens connectivity, improves safety, and supports economic expansion through strategic planning and sustainable development initiatives.

KSHIP-4, supported by the Asian Development Bank, represents a transformative highway upgrade initiative with an **investment of ₹5,736 crore**. Covering **875 km across 11 state highways**, the project enhances connectivity, safety, and trade efficiency. Detailed Project Reports are under preparation, ensuring modern engineering standards and long-term economic benefits statewide.

**SHDP Phase-5 aims to upgrade 1,300 km of major roads** to strengthen regional mobility. **Stage-1 works worth ₹4,000 crore** have been tendered, with **646 km** already progressing physically. With **₹519.25 crore** spent so far, the project improves logistics efficiency, reduces travel time, and enhances road safety standards.

NH Wing coordinates National Highway widening and bridge integration projects across Karnataka. It facilitates construction of railway over-bridges and underpasses, reducing traffic congestion and enhancing commuter safety. Through interdepartmental collaboration, the wing ensures seamless connectivity between state and national corridors, strengthening freight movement and regional development.

PRAMC oversees monitoring of 39 structurally weak bridges and implements milestone-based tracking systems. It strengthens accountability in financial and physical progress reporting. Additionally, the cell drives asset monetization of vacant government lands and buildings, generating revenue streams while ensuring infrastructure sustainability and strategic reinvestment.

## ACHIEVEMENTS OF THE PUBLIC WORKS DEPARTMENT - 1000 DAYS

(Key Statistics and Major Projects)

Under the firm and people-centric leadership of the Hon'ble Chief Minister, the Public Works Department (PWD) has achieved significant progress in the development of road, bridge, and building infrastructure across the State over the past 1000 days. The key statistics and major initiatives are detailed below.



### NEWLY IMPLEMENTED PROJECTS / PROGRAMMES

#### Financial Year 2023-24

- In Kalyana Karnataka region, a 78 km road project from Kalmala Junction near Raichur to the Ballari-Lingsugur Road Circle near Sindhanur is being implemented under the Hybrid Annuity Model at a cost of ₹1,696 crore. Of the total stretch, 50 km has been completed, and the remaining work is in progress.
- Administrative approval has been granted to undertake the construction of a 123 km four- and six-lane road from Devanahalli-Vijayapura-H Cross-Vemagal-Malur up to the Tamil Nadu border in three packages. One project is in progress, Two project is currently under the tendering stage.

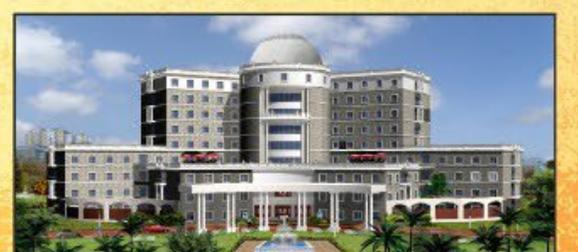
#### Financial Year 2024-25

- Under the SCP scheme, construction of 15 new student hostel buildings has been initiated by the PWD, and the works are currently in progress.
- Under KSHIP-4, Detailed Project Reports are being prepared to upgrade 875 km of 11 State Highways at a cost of ₹5,736 crore with assistance from the Asian Development Bank.
- Under SHDP Phase-5, 1,300 km of major roads are planned for development. In Phase-1, works estimated at ₹4,000 crore have been tendered. So far, 646 km has achieved physical progress, with an expenditure of ₹519.25 crore incurred.
- Construction of six Railway Over/Under Bridges at a total cost of ₹350 crore has been taken up at the following locations: near Kukkarahalli in Mysuru, K.R.S. Road, Shivamogga-Bommanakatte Road, Mallapur in Ron (Gadag District), Channapatna - Byrapatna Road, and Chikkaballapura.

#### Financial Year 2025-26

- A total of 39 dilapidated bridges across the State have been identified. The Cabinet has approved ₹2,000 crore for bridge works during the current year. This includes reconstruction/repairs of structurally weak bridges, restoration of flood-damaged bridges, and construction of footbridges.
- Detailed Project Reports have been prepared for construction of ring roads at Raichur city (under KKRDB macro funding) and Bailhongal town. DPRs are also being prepared for development of the Wagdari-Ribbonpalli road and road widening works in Maddur town.
- Steps are being taken to identify vacant sites and buildings under the PWD for Asset Monetization to generate revenue for the State exchequer.
- New court buildings at Bengaluru (CMM Court Complex), Chikkamagaluru, and Puttur have been completed at a total estimated cost of ₹85 crore.
- Administrative approval has been granted for construction of five new court buildings at Mangaluru, Bagalkote, Basavakalyan, Koppal, and Virajpet at an estimated cost of ₹171.30 crore.
- More than 2,900 jobs have been created across the State through the recruitment of maintenance workers to strengthen road maintenance and safety.
- Under the CRIF scheme during 2023-24, approval was accorded for 297 works worth ₹1,385 crore covering approximately 1,590 km of State Highways and Major District Roads. So far, about 1,254 km of road development has been completed.
- To facilitate safe crossing of streams and rivulets for residents and school children in unconnected habitations of coastal and Malnad regions, 441 footbridges have been taken up at an estimated cost of ₹74.10 crore. In the past two and a half years, 208 footbridges have been completed, and the remaining works are in various stages of physical progress.
- Under the SCP and TSP schemes, 100 Dr. B.R. Ambedkar student hostel buildings are being constructed to benefit 4,900 boys and 5,100 girls. Of these, 53 hostels have been completed, and the remaining works are progressing (without land-related issues).
- Under the SCP and TSP schemes, buildings for 11 residential schools (each accommodating 250 students - 125 boys and 125 girls) have been taken up. Construction of six residential school buildings has been completed, and the remaining works are nearing completion.
- During the tenure of the present Government (1000 days), alongside the implementation of new initiatives and the continuation of ongoing projects, a total allocation of ₹23,874 crore has been provided from the financial year 2023 up to the end of December 2025. Of this, ₹20,193 crore has been expended as of the end of December 2025. Further, as of the end of November 2025, the Department has achieved an average physical progress of 68.50% and financial progress of 85%.
- Significant advancements have been made in the development of road, bridge, and building infrastructure, with several major projects being successfully implemented. Under the leadership of the Hon'ble Chief Minister, the Public Works Department has laid a strong foundation for Karnataka's long-term and sustainable development.

SL. No.	Plan		2023 to Dec 2025			
			Grant	Expenditure		Progress in %
1	State Highways Improvements and Development (SH, SH-Ren, SHDP, KSHIP, KRDC, Bridges)	Expenditure	10,451.41	9,456.96	Rs.	90%
		Road (Km)	5304.71	4266.11	Km	80%
		Bridges	111	62	No.	56%
2	Major District Roads improvements (MDR, MDR-Ren, SDP, CRF, CMGRY, Nabard, Bridges)	Expenditure	9,266.37	8,784.58	Rs.	95%
		Road(Km)	8588.1	6349.36	Km	74%
		Bridges and Foot bridges	278	175	No.	63%
3	SCP/TSP Roads	Expenditure	231.88	231.88	Rs.	100%
		Road (Km)	121	121	Km	100%
4	Buildings (Judicial, Office and School )	Expenditure	3,924.08	1,719.82	Rs.	44%
		Building	605	457	No.	76%
TOTAL		Expenditure	23,873.74	20,193.24	Rs.	85%
		Road (Km)	14013.81	10736.47	Km	77%
		Bridges (Foot bridges)	389	237	Km	61%
		Buildings	605	457	No.	76%



# Kerala Urban Policy Commission: A Blueprint for Kerala's Urban Future



When the Government of Kerala approved its State Urban Policy, it did more than clear another policy document. It signalled a structural shift in how Indian states might think about urbanisation itself. Through the Kerala Urban Policy Commission (KUPC), the state has attempted something unprecedented in India: crafting a long-term, evidence-based, climate-aware, and governance-centred urban policy that recognises the complexity of Kerala's settlement patterns and prepares for 2050 rather than the next five years. The first state initiative after the Charles Correa Urbanisation Commission work and government of India for decades.

This is not a routine reform. It is a recognition that Kerala's urban transition is already underway... and accelerating.

## The Kerala Paradox: Urban Without Cities

Unlike most Indian states, Kerala does not urbanise through megacities alone. Instead, it exhibits a dispersed settlement pattern where villages evolve into census towns, small towns expand, and urban characteristics diffuse across districts. The line between "rural" and "urban" is blurred. High literacy, remittance-driven incomes, improved connectivity, and social development have produced what planners often call a "rurban continuum."

This distinctive pattern demands a different policy imagination. Conventional Indian urban frameworks tend to focus on large metropolitan governance, municipal corporations, and infrastructure megaprojects. Kerala's challenge is subtler: how to manage incremental urbanisation spread across hundreds of local bodies while preserving ecological balance, social equity, and fiscal sustainability.

The Kerala Urban Policy Commission was constituted in December 2023 precisely to address this structural shift. Its mandate was clear: assess emerging urban trends, anticipate climate risks, strengthen institutions, and recommend a long-term framework to guide the state for the next 25 years.

## From Fragmented Schemes to a Coherent Vision

For decades, India's urban development has largely been scheme-driven. Flagship missions such as Smart Cities and AMRUT, have brought investments, but often without deep integration into state-level spatial and governance reforms. Kerala's move represents a conscious effort to transcend this fragmentation.

The Commission's report: popularly referred to as the 'Nava Kerala Urban Policy', is built on extensive consultations, research studies, and stakeholder engagement across districts. More importantly, it places infrastructure, governance, environment, and economy within a single integrated vision.

At the heart of this approach is a crucial projection: by 2050, nearly 80% of Kerala's population may live in urban areas or urban-like settlements. This is not merely a demographic statistic; it is a planning imperative. Without proactive policy, dispersed growth can strain water systems, overload waste infrastructure, fragment land use, and amplify disaster vulnerabilities. Kerala has already witnessed the consequences of climate stress — floods, landslides, coastal erosion. Urban expansion without environmental safeguards would only intensify these risks.

## Climate as Core, Not Add-On

One of the most striking aspects of Kerala's urban policy framework is that climate resilience is not treated as a supplementary chapter. It is embedded in spatial planning, infrastructure design, and governance reform. Hazard-aware land use planning, floodplain protection, watershed-based development, and data-driven risk mapping are integral to the recommendations. This reflects an understanding that urban growth in Kerala is inseparable from ecological systems: its rivers, coastlines, midlands, and highlands.

In an era where climate adaptation is often reactive, Kerala's approach seeks to institutionalise preventive planning. This shift from response to preparedness could serve as a model for other states increasingly vulnerable to extreme weather.

## Strengthening Local Governments

Kerala's governance tradition, rooted in decentralisation and empowered local bodies, provides fertile ground for implementing such a policy. Yet urban local bodies across India often struggle with limited fiscal autonomy, staffing shortages, and technical capacity gaps. The Commission recognises that infrastructure ambitions mean little without institutional strength. Its recommendations reportedly include professionalisation of municipal services, improved fiscal frameworks, integrated planning systems, and capacity-building measures.

Urban transformation cannot be delivered solely through state-level directives. It requires empowered municipalities capable of managing water supply, waste management, public transport, housing, and land regulation with technical competence and financial clarity. In this sense, the Kerala Urban Policy is as much about governance reform as it is about urban design.

## Beyond Infrastructure: The Economic Lens

Urban policy is often equated with roads, bridges, and drainage. Kerala's framework broadens the lens. By linking urban growth to employment generation, knowledge clusters, innovation corridors, and inclusive

economic opportunities, it seeks to position cities and towns as engines of sustainable prosperity.

Kerala's high human development indicators provide a competitive advantage. Yet job creation and economic diversification remain pressing concerns. Aligning urban planning with economic strategy; especially in emerging sectors like green industries, tourism, services, and knowledge economy hubs, could strengthen the state's long-term resilience.

## The National Significance

Kerala's move carries implications beyond its borders. India is urbanising rapidly, but most states lack a comprehensive, state-wide urban policy that integrates spatial planning, climate resilience, governance reform, and fiscal architecture.

By becoming the first state to institutionalise such a framework, Kerala has set a precedent. The process itself: expert commission, stakeholder consultations, long-term horizon, cabinet approval; demonstrates that urban governance can be treated as a strategic domain rather than a reactive administrative function.

Other states may not replicate Kerala's exact model, given varying demographic and geographic contexts. But the principle, that urbanisation demands anticipatory, integrated policy thinking, is universally relevant.

## The Road Ahead: Implementation is the Test

Policy formulation, however visionary, is only the beginning. The true test lies in implementation.

Will hazard-based zoning translate into enforceable regulations?

Will municipalities receive sustained fiscal support?

Will political cycles respect the long-term continuity envisioned for 2050?

Will data systems be robust enough to guide planning decisions?

Urban governance often falters at the intersection of ambition and administrative reality. Kerala's decentralised ecosystem may offer an advantage, but coordination across departments, local bodies, and agencies will be critical.

Moreover, citizen participation, a hallmark of Kerala's governance culture, must remain central. Urban policy cannot succeed without community buy-in, especially when it involves land use restrictions, environmental safeguards, or infrastructure reconfiguration.

## A Timely Intervention

Kerala's Urban Policy Commission represents a rare example of proactive statecraft in urban India. Rather than waiting for urban stress to become unmanageable, the state has chosen to anticipate it.

In doing so, it acknowledges a fundamental truth: urbanisation is not merely about expanding cities; it is about shaping the social, economic, and ecological fabric of the future.

As India prepares for a predominantly urban century, Kerala's experiment offers a compelling lesson — that thoughtful planning, grounded in evidence and aligned with climate realities, can transform urban growth from a challenge into an opportunity.

The question now is not whether Kerala needed such a policy. It clearly did. The larger question is whether the rest of India is prepared to follow its lead.



# Kerala's Design Turn: From Policy Promise to Development Paradigm



When most Indian states speak of development, they speak in the language of infrastructure: roads, ports, industrial parks and IT corridors. Kerala has chosen a different vocabulary. With Cabinet approval for the Kerala State Design Policy in 2024, the state has signalled that design is not an aesthetic afterthought but a strategic instrument of economic growth, governance reform and social transformation.

This is a bold move. In a country where design has often remained confined to elite institutions and niche industries, Kerala's policy seeks to democratise it, embedding design thinking into public systems, tourism, MSMEs, traditional crafts, startups and social enterprises. The question is not whether the policy is visionary. It is whether it can translate vision into institutional depth and measurable impact.

## Design as Development Strategy

The Kerala State Design Policy positions design as a catalyst for the state's next growth cycle. The emphasis is not merely on branding or beautification, but on systemic intervention:

- Enhancing competitiveness of MSMEs and traditional sectors
- Strengthening tourism experiences and destination value
- Supporting startups through user-centric innovation
- Improving public service delivery through design thinking
- Boosting the creative economy as a driver of employment

In doing so, Kerala aligns itself with global shifts where design is recognised as a strategic economic lever. Countries from Finland to South Korea have used design-led innovation to strengthen manufacturing, digital products and public services. Kerala's ambition is to contextualise this within its own socio-economic fabric.

Importantly, this policy emerges at a time when the state is navigating economic pressures — fiscal constraints, high unemployment among educated youth, and the need to diversify beyond remittances and traditional sectors. Design, therefore, is not ornamental policy; it is adaptive strategy.

## A Public-Private Design Ecosystem

One of the more compelling aspects of the policy is its emphasis on new models of public-private collaboration. Rather than treating design as a government department's internal function, the state envisions partnerships with designers, academic institutions, industry bodies, tourism stakeholders and social enterprises. This approach reflects a deeper understanding: design thrives in ecosystems, not silos.

By fostering design incubation, mentorship and industry linkages, Kerala seeks to create a virtuous cycle — where policy enables innovation, innovation improves products and services, and improved products enhance market access and livelihoods.

For MSMEs and artisans, particularly in handloom, handicrafts and traditional industries, this could mean the difference between stagnation and global relevance.

Design intervention can upgrade product aesthetics, usability, packaging and storytelling — areas where Kerala's rich cultural capital often remains underleveraged.

## Tourism: From Scenic to Experiential

Kerala has long marketed itself as "God's Own Country." But global tourism is shifting from passive sightseeing to immersive experience. The design policy recognises that destination design — signage, wayfinding, cultural interpretation, infrastructure aesthetics, sustainability practices — shapes visitor perception as much as natural beauty.

By integrating design thinking into tourism planning, Kerala can enhance not only visitor satisfaction but also local economic multipliers. Well-designed tourism ecosystems generate repeat visits, strengthen local enterprises and elevate brand positioning in competitive global markets.

This is particularly significant as the state seeks resilient tourism models post-pandemic, with sustainability and community participation at the core.

## Creative Economy as Growth Engine

Globally, the creative economy - spanning design, media, crafts, digital content, and cultural industries - is one of the fastest-growing sectors. Kerala's policy explicitly acknowledges this potential.

The state's literacy levels, diaspora networks and strong cultural traditions provide fertile ground for a design-led creative economy. If supported by incubation centres, design labs, skill programmes and export linkages, this could unlock new employment pathways for young professionals who might otherwise migrate.

However, unlocking creative capital requires more than policy notification. It demands sustained funding, institutional anchoring and cross-departmental coordination.

## Design in Governance: The Quiet Revolution

Perhaps the most transformative — yet least discussed — aspect of the policy is its potential to reshape governance. Design thinking in public administration can:

- Simplify citizen interfaces
- Improve service accessibility
- Enhance digital platforms
- Increase transparency and user trust

If Kerala embeds design within local government processes, it could redefine how citizens

experience the state — from licensing systems to health-care interfaces to municipal services.

For a state known for decentralisation and strong local governance, this is a natural progression. Design can be the bridge between policy intent and citizen experience.

## Implementation: The Real Test

While the Cabinet nod marks a crucial milestone, implementation will determine legacy.

Key challenges include:

**1. Institutional Architecture** – Is there a dedicated nodal body with executive authority and budgetary autonomy?

**2. Capacity Building** – Are bureaucrats and local officials trained in design thinking methodologies?

**3. Funding Continuity** – Is there long-term fiscal commitment beyond pilot projects?

**4. Measurement Metrics** – How will impact be evaluated — economic output, employment, export growth, service efficiency?

**5. Inclusivity** – Will rural artisans and small entrepreneurs truly benefit, or will gains cluster in urban creative hubs?

Policy success depends on converting design from concept to culture.

## A Model for India?

India's national discourse on innovation often focuses on digital platforms and manufacturing incentives. Yet, systemic design integration remains fragmented. Kerala's initiative could offer a template for other states — particularly those seeking to strengthen MSMEs and creative industries.

In many ways, the Kerala State Design Policy represents a quiet but significant policy innovation. It reframes development away from hardware alone and toward human-centric systems.

If implemented effectively, Kerala could position itself not merely as a tourism brand or welfare state, but as India's design capital — a laboratory where creativity, governance and economic strategy intersect.

## Beyond Aesthetic Aspirations

Design is not about making things look good. It is about making systems work better.

For Kerala, the stakes are high. The state must generate jobs for its youth, enhance export competitiveness, strengthen tourism resilience, and modernise governance — all while navigating fiscal constraints.

The design policy offers a unifying framework to address these goals. But frameworks succeed only when translated into lived reality.

The Cabinet nod has opened the door. The coming years will reveal whether Kerala can walk through it — transforming design from policy text into everyday practice, and from aspiration into measurable growth.

If it succeeds, Kerala will not simply have adopted a design policy. It will have redesigned development itself.



# Building With Purpose: India's Light House Projects Under GHTC-India



Ministry of Housing and Urban Affairs  
Government of India

The Building Materials & Technology Promotion Council (BMTPC), under the Ministry of Housing and Urban Affairs, is spearheading a landmark initiative to introduce globally proven alternate construction technologies into India's affordable housing programme, through six demonstration projects spread across the country.

## Background: The Global Housing Technology Challenge

The Global Housing Technology Challenge- India (GHTC-India) was launched in 2019 under the Pradhan Mantri Awas Yojana (Urban) with a clear mandate: to identify, evaluate, and mainstream innovative construction technologies from across the world that are cost-effective, climate and disaster resilient, sustainable, and capable of rapid deployment at scale. The initiative was anchored in a 3S Mantra- Skill, Scale, and Speed- as the guiding framework for superior quality construction.

BMTPC, the nodal technical body under MoHUA, led the evaluation process, through which 54 technology providers were shortlisted as Proven Technology Providers under six broad categories of alternate construction systems. These categories span the full spectrum of modern construction methodology: Precast Concrete Construction- 3D Volumetric (4 providers); Precast Concrete Construction- Components Assembled at Site (8 providers); Light Gauge Steel Structural System & Pre-Engineered Steel Structural System (16 providers); Prefabricated Sandwich Panel System (9 providers); Monolithic Concrete Construction System (9 providers); and Stay-in-Place Formwork System (8 providers).

From among these 54 shortlisted technologies, one technology from each of the 6 broad categories was selected to be demonstrated through a dedicated Light House Project (LHP)- a full-scale, occupied residential complex that would serve as a live laboratory for builders, engineers, policy-makers, and the public.

## The Six Light House Projects

The foundation stones of all six LHPs were laid simultaneously by the Hon'ble Prime Minister on January 1, 2021. Each project was assigned to a specific city and technology, representing different construction systems and geographic contexts across India. Five of the six LHPs have since been completed and inaugurated, with units now occupied. The sixth, at Agartala, is currently under construction.

**1. Chennai, Tamil Nadu: Precast Concrete (Component-Based) Technology** by B.G. Shirke Construction Technology. Columns, beams, slabs, and staircases are cast in a factory yard, transported to site, and assembled. Joints

are sealed with in-situ concrete; AAC blocks fill the walls. Think of it as assembling large pre-made concrete parts like a kit.

**2. Rajkot, Gujarat: Monolithic Concrete (Tunnel Formwork) Technology** by Outinord Formworks. A tunnel-shaped steel formwork is placed over reinforcement and walls + slabs are poured together in one single concrete pour- creating a seamless, monolithic structure. AAC blocks form infill walls. Fast, uniform, and minimal joints.

**3. Indore, Madhya Pradesh: Steel Structure + Sandwich Panels Technology** by Rising Japan Infra. A pre-engineered steel frame is erected first; deck slabs are installed and concreted; then factory-made insulated sandwich panels are fixed as walls. Combines structural steel with factory-fabricated wall panels for speed and thermal efficiency.

**4. Lucknow, Uttar Pradesh: Steel Structure + Stay-in-Place PVC Formwork Technology** by Novel Assembler. Steel structure is erected; then pre-finished PVC panels (factory-made) are fixed permanently as wall forms and filled with concrete on site. The PVC stays in place- no stripping needed, and provides a finished surface directly.

**5. Ranchi, Jharkhand: 3D Volumetric Precast Concrete Technology** by Magicrete Building Solutions. The most modular approach, entire 3D room-sized structural modules are cast in a factory, transported, and stacked on site using cranes, like interlocking blocks. Seven towers of G+8, totalling 1,008 dwelling units.

**6. Agartala, Tripura: Light Gauge Steel Frame (LGSF) + Precast Panels Technology** by Mitsumi Housing. Factory-made LGSF panels and precast concrete panels form the walls (filled with lightweight concrete); a steel superstructure ties it together. Seven blocks, 1,000 units (G+6). Still under construction at the time of this report.

Throughout the GHTC-India programme, an institutional framework was established to manage the end-to-end process, from technology evaluation to project

execution. This included designing and conducting the evaluation process that resulted in 54 shortlisted

Proven Technology Providers, structuring the challenge mechanism through which the six LHP sites and technologies were selected, and coordinating with state governments, contracting agencies, and technology providers during execution.

A publicly accessible register of all 54 Proven Technology Providers has been maintained, along with contact details of the contracting agencies for all six LHPs. This register is intended to facilitate wider adoption of these technologies by state housing boards, urban local bodies, and private developers looking to replicate the LHP model. Alongside this, the construction processes, material specifications, and performance outcomes documented through each LHP have been made available to the broader construction ecosystem, ensuring that the knowledge generated through these projects can inform future housing initiatives at scale.

## Significance and Outlook

The GHTC-India programme and its Light House Projects represent a significant departure from conventional approaches to public housing. By introducing globally proven technologies into the Indian context through full-scale demonstration rather than pilot studies, the initiative has generated a body of evidence- technical, logistical, and performance-related, that is directly applicable to future large-scale housing programmes. With five LHPs completed and occupied, and the sixth underway in Agartala, the programme has fulfilled its primary demonstration objective. The 54 Proven Technology Providers remain empanelled and available for engagement. BMTPC continues to serve as the coordinating and technical advisory body for the mainstreaming of these technologies under PMAY(U) and beyond.



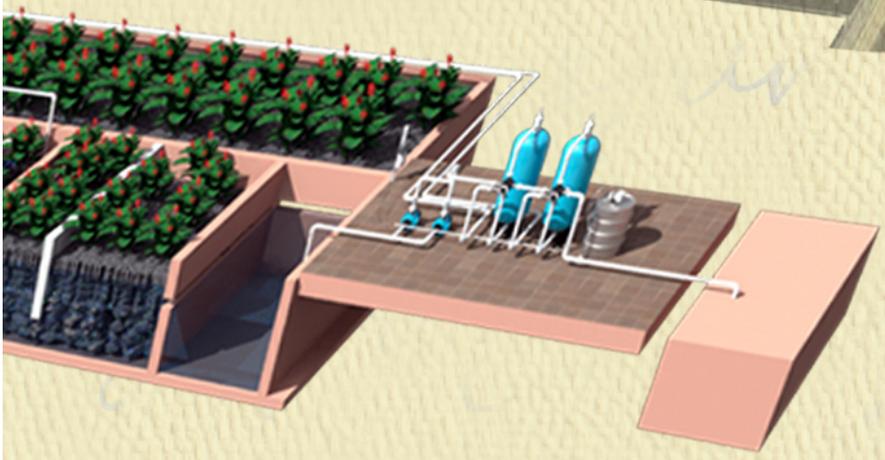
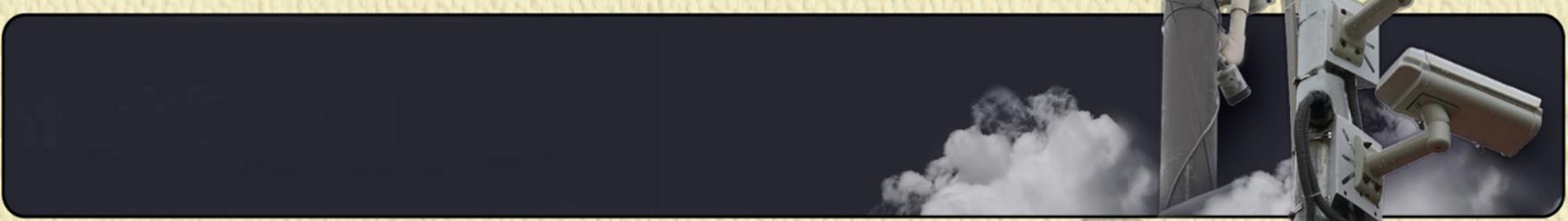
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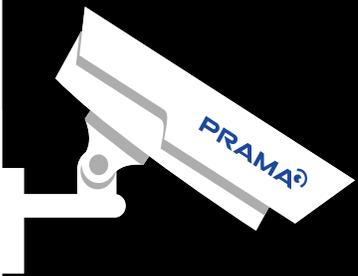




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