



महाराष्ट्र शासन



## Voices of Change | परिवर्तनाची यशोगाथा

Stories Shaping a Greener Maharashtra





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## MESSAGE

Maharashtra has long stood at the forefront of India's economic and social progress. The State's growth trajectory has been shaped by industrial development and innovation, underpinned by a strong commitment to environmental responsibility and sustainable governance. As the impacts of climate change become increasingly evident, Maharashtra continues to demonstrate that economic development and ecological conservation can advance together in a balanced, thoughtful, and purposeful manner.

With its large population, rich socio-economic and cultural diversity, extensive coastline, and varied agro-climatic zones, Maharashtra is particularly vulnerable to the impacts of climate change. The State faces growing risks from rising temperatures, frequent heatwaves, recurring droughts, intense precipitation, floods, hailstorms, lightning, sea-level rise, and cyclonic events.

Maharashtra is the largest State economy of India, aspiring to be a trillion-dollar economy by 2029. In this context, it is imperative that Maharashtra's development strategy systematically integrates climate change adaptation and mitigation measures. Recognizing this urgency, the Government of Maharashtra is actively implementing a wide range of initiatives aimed at addressing climate risks while fostering sustainable, inclusive, and resilient development.

Aligned with India's Nationally Determined Contributions (NDCs), the State, through the Department of Environment and Climate Change, has been translating policy commitments into tangible action. Flagship initiatives such as Majhi Vasundhara Abhiyan (My Earth) exemplify this effort, positioning Maharashtra as a national leader in articulating and realizing a vision for a brighter, greener, and more sustainable future.

**“Voices of Change | परिवर्तनाची यशोगाथा”** stands as a testament to the collective achievements of Maharashtra's citizens, local institutions, and administrators working in partnership. It reflects the power of collaboration and community-driven action in addressing climate challenges. From the rejuvenation of water bodies and the expansion of renewable energy to improved waste management systems and the creation of green public spaces, the stories presented in this volume showcase a truly people-led approach to governance.

Through these efforts, Maharashtra reaffirms its unwavering commitment to building a green, resilient, and sustainable future, one that ensures responsible environmental stewardship for present and future generations.

**Shri. Devendra Fadnavis**  
Hon'ble Chief Minister  
Government of Maharashtra



## MESSAGE

Climate change presents one of the most pressing challenges of our time, and Maharashtra is responding with foresight, resolve, and decisive action. By strengthening climate resilience across sectors from water security and renewable energy to sustainable urban development and biodiversity conservation, the State is charting a balanced and sustainable development pathway.

Through integrated climate action strategies, alignment with national and global commitments, and people-centric initiatives such as Majhi Vasundhara Abhiyan, Maharashtra is translating policy vision into measurable outcomes. The Abhiyan aligns existing national and State schemes and policies through a holistic approach. As a result, citizens across the State are becoming increasingly aware of the underlying causes of the environmental changes they have been experiencing over recent years. Even in the remotest parts of Maharashtra, conversations today include themes such as carbon sequestration, solarisation, and climate resilience.

**“Voices of Change | परिवर्तनाची यशोगाथा”** brings forth the commendable efforts of Urban Local Bodies and Gram Panchayats that have embraced environmental responsibility as a core function of governance. The success stories presented here reflect a meaningful transformation in local governance practices. Initiatives ranging from source-level waste management to measurable progress in renewable energy adoption and water conservation demonstrate that well-planned interventions, when supported by active citizen engagement, can deliver lasting environmental benefits.

Compilation of success stories of the grassroots climate action serves as an important platform for knowledge exchange and replication. The experiences documented offer practical insights for regions across the State and reinforce our collective resolve to move from intent to implementation, and from targets to tangible outcomes.

I extend my sincere appreciation to all participants of the Majhi Vasundhara Abhiyan for contributing to the creation of a greener Maharashtra. The Department of Environment and Climate Change remains committed to strengthening policy support and institutional capacity, ensuring that Maharashtra continues to lead by example in sustainable and climate-responsive development.

**Smt. Pankaja Gopinath Munde**

Hon'ble Minister

Environment and Climate Change Department  
Government of Maharashtra



## MESSAGE

Majhi Vasundhara Abhiyan, the flagship programme of the Department of Environment and Climate Change draws inspiration from the ancient concept of the Panchamahabhuta - Bhumi (Earth), Jal (Water), Vayu (Air), Agni (Energy/Fire), and Akash (Space) for adopting a holistic and integrated approach to climate action.

I am happy to know that for the past six years the program has gradually reached out to all the Urban and Rural local bodies of the State. The competition has infused a lot of excitement and energy within the local bodies and citizens alike. Abhiyan has resulted in 456.59 lakh trees plantation, creation of 53,942 green spaces, over 6 lakh electric vehicles running across the State, construction of more than 43,017 rainwater percolation pits, a water storage capacity of 324 crore cubic meters, rejuvenation of over 3,487 water sources and creation of about 347.52 MW of renewable energy capacity. The Majhi Vasundhara Abhiyan has played a central role in this transformation by providing a consistent platform for climate action and citizen participation across Maharashtra.

**“Voices of Change | परिवर्तनाची यशोगाथा”** brings forth the remarkable work of Urban Local Bodies and Gram Panchayats with the support of citizens that have embraced environmental responsibility. The success stories presented in this book reflect a clear transformation in local governance practices. Efforts spanning source-level waste management to measurable progress in renewable energy adoption and water conservation demonstrate that well- designed interventions deliver enduring environmental impact when supported by active and sustained citizen participation. Such engagement strengthens accountability, fosters community ownership, and ensures that climate actions result in meaningful and long-term outcomes at the grassroots level.

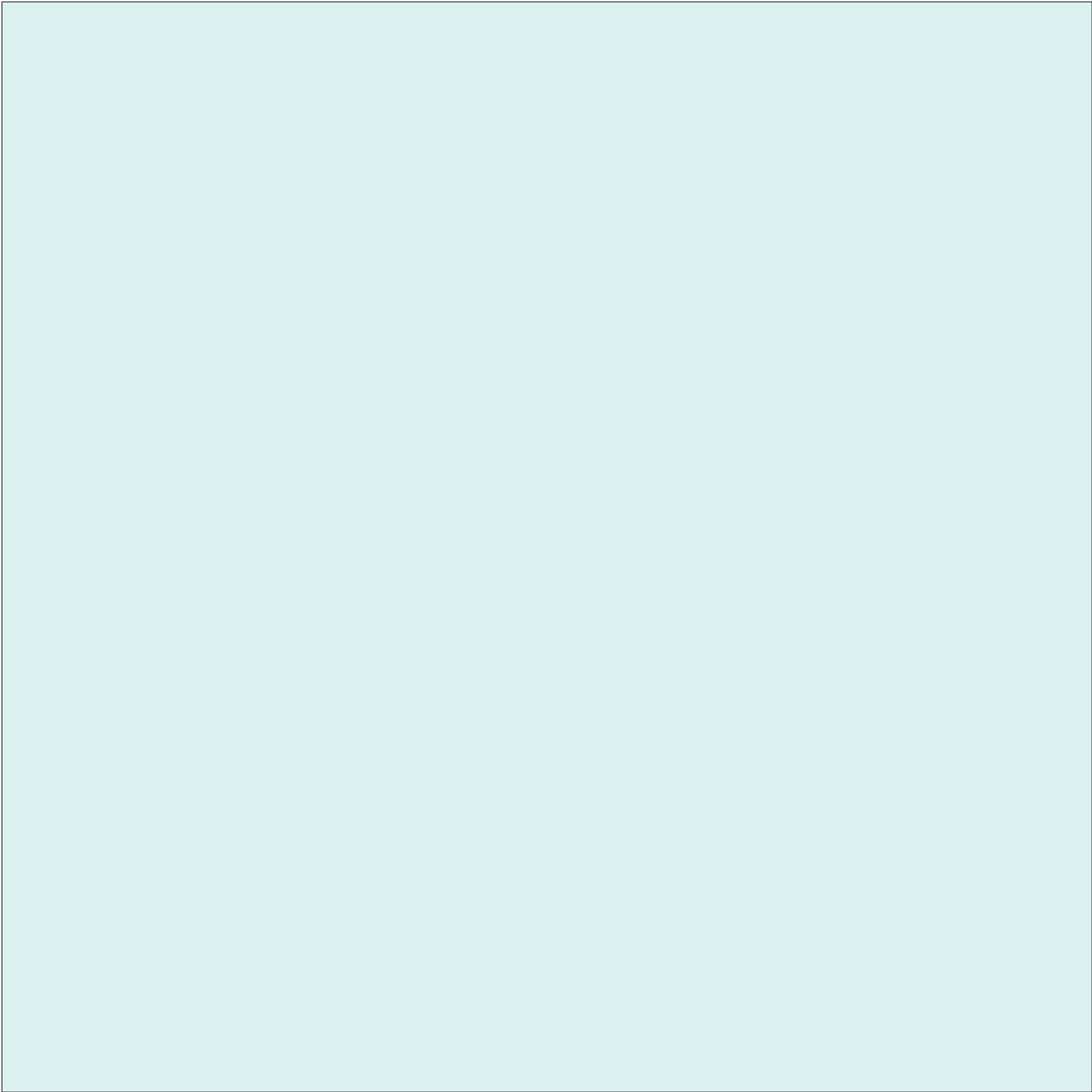
By bringing together these experiences and outcomes in a single publication, this Coffee Table book moves beyond statistics to reflect the success, scale, diversity, and impact of local climate action. It serves as a valuable knowledge resource and demonstrates how a programme like the Majhi Vasundhara Abhiyan can be effectively adopted by local self- governments across the country.

**Smt. Jayshree Bhoj, (I.A.S.)**

Hon'ble Secretary

Environment and Climate Change Department

Government of Maharashtra



## **CREDITS**

### **CONCEPT AND EXECUTION**



महाराष्ट्र शासन

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## ABOUT MAHARASHTRA

### The State boasts a sprawling coastal length of 877.97 km along the Arabian Sea

Featuring unique ecosystems like the Thane Creek Flamingo Sanctuary

### The State has the 5th largest Mangrove cover in India

Mangroves in Maharashtra, stretching along the coastline from Mumbai to the Konkan region, are among the State's most critical ecosystems

### The State holds a range of 650 km of the Western Ghats (Sahyadris)

A UNESCO World Heritage site and one of the world's eight "hottest hotspots" of biological diversity, home to thousands of endemic flora and fauna

### The Nagpur region is known as the "Tiger Gateway" of India

With reserves such as Tadoba Andhari, Pench, and Melghat, the region plays a pivotal role in India's national tiger conservation efforts

### Maharashtra's National Parks boast unparalleled biodiversity

Maharashtra has 6 National Parks, 6 Tiger Reserves, and over 40 Wildlife Sanctuaries

### Maharashtra is the 3rd most Urbanized State in India

With 45.23% of its population living in urban areas

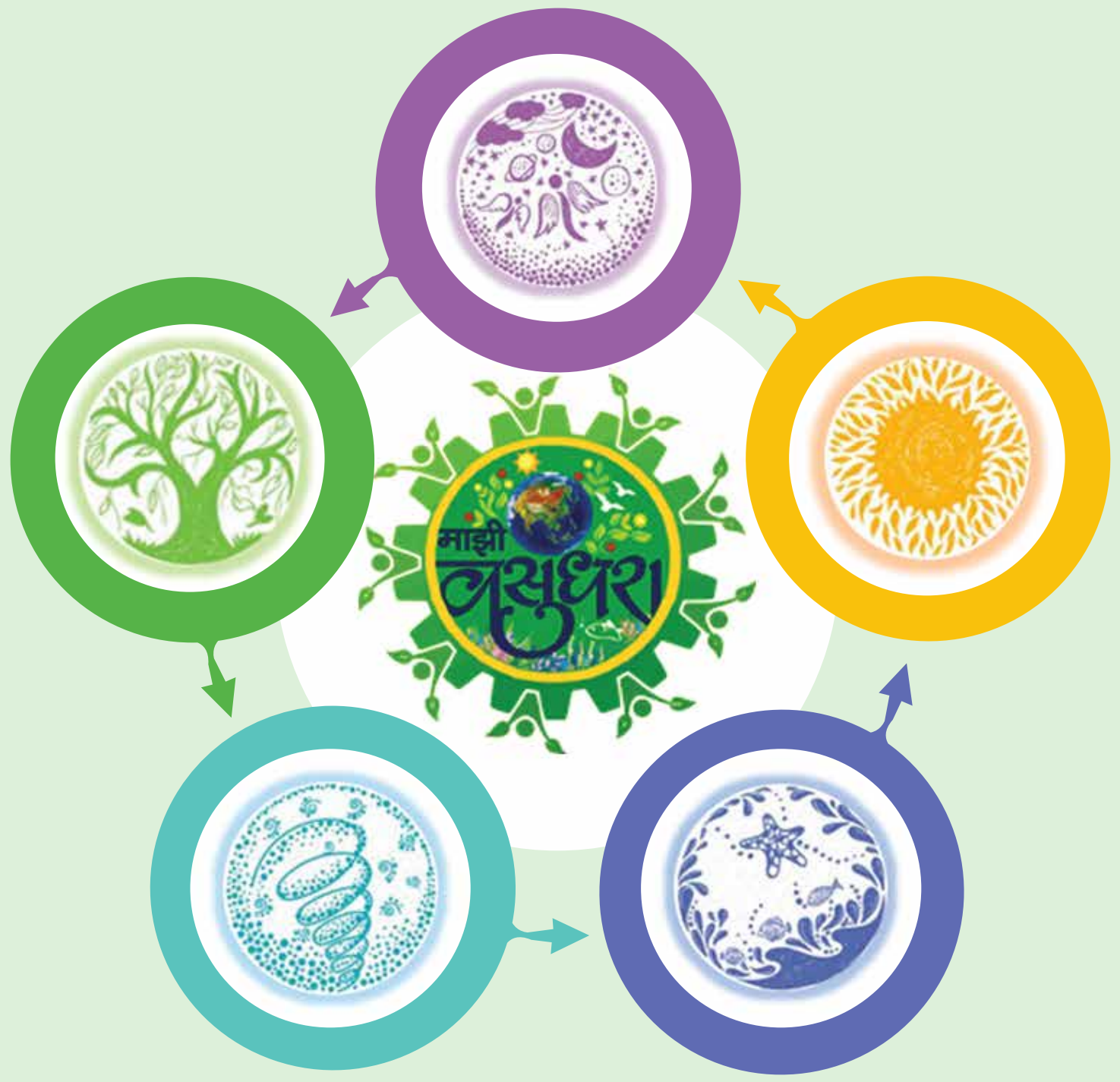
### The State has identified and protected multiple Ramsar Sites

Wetlands of international importance, including Nandur - Madhameshwar, Thane Creek and Lonar Lake, ensuring the preservation of migratory bird corridors

### Majhi Vasundhara Abhiyan covers the entire local Governance framework of the State

The programme spans 423 Urban Local Bodies and 27,904 Gram Panchayats across Maharashtra







## About the Book | Majhi Vasundhara Abhiyan (MVA)

Majhi Vasundhara Abhiyan (MVA) is a flagship environmental protection initiative launched by the Government of Maharashtra on October 2, 2020. The Abhiyan actively engages Urban Local Bodies, Gram Panchayats, and citizens to integrate sustainability into everyday governance and community practices. It is anchored around three core pillars i.e Carbon Sequestration, reducing greenhouse gas emissions and promoting sustainable lifestyle.

Aligned with the United Nations Sustainable Development Goals (SDGs) for holistic social progress, the program empowers governance through several key functions: evaluating and ranking the environmental performance of all registered Local Bodies in Maharashtra, allocating prize money and performance-based funds for climate projects, and integrating climate change education into State school curricula.

The initiative fosters active engagement by organizing Statewide competition among Urban and Rural Local Bodies, structured around critical climate action pillars such as Carbon Sequestration, Reducing GHG Emissions, and Promoting Sustainable Lifestyles, each reflecting a commitment to balancing and protecting the five elements. With broad participation encompassing 380 Non-AMRUT Cities, 27,904 Gram Panchayats, and 43 AMRUT Cities, MVA has established a comprehensive, culturally rooted framework for environmental governance and community-led sustainability across Maharashtra.

The Majhi Vasundhara Abhiyan (MVA) serves as the foundational framework of this coffee table book **“Voices of Change | परिवर्तनाची यशोगाथा”**. This coffee table book documents the outcomes of these efforts by presenting verified success stories from across Maharashtra. By developing performance indicators, field data, and implementation outcomes into a structured public record, the publication highlights the tangible impact of local action on environment initiatives. The Abhiyan’s detailed oriented framework of documentation, geotagged evidence, and third-party verification lends authenticity and credibility to the initiatives showcased.

Voices of Change stands as a demonstration to Maharashtra’s leadership in decentralised climate action. It offers an institutional reference for effective environmental governance at the local level and reflects the collective commitment of local bodies, communities, and the State towards building a resilient, sustainable, and environmentally responsible Maharashtra.





## Vayu

The Breath of New Life



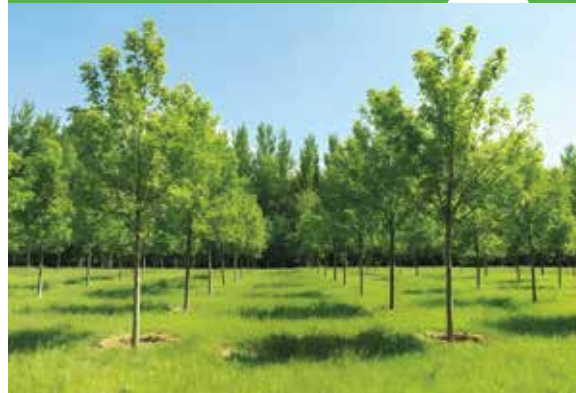
## Jal

The Flow of Prosperity



## Bhumi

The Promise of the Soil



## Agni

The Pulse of Clean Energy



## Akash

The Horizon of Collective Action



## The Panchamahabhuta Framework



**BHUMI** Centered on the restoration and nurturing of land, the Bhumi element targets the State-mandated 33% green cover through strategic tree plantation, creation of new green zones and sustainable agroforestry. It integrates tree conservation through tree census, compensatory plantation, and heritage tree protection. Biodiversity is preserved through People's Biodiversity Registers, seed conservation, native nurseries, and climate-resilient farming like organic and millet cultivation. The approach also includes systematic solid waste management, source segregation, processing of wet/dry waste, eliminating single-use plastics, and scientific treatment of legacy waste.



**VAYU** Aimed at enhancing air quality, the Vayu element emphasizes regular monitoring, banning crop residue burning, and reducing emissions from construction and waste. It promotes clean energy adoption by increasing LPG/biogas connections, managing agricultural waste, and encouraging electric vehicles and charging infrastructure. Additionally, Vayu strengthens community resilience through noise pollution control, climate change awareness, and disaster preparedness planning.



**JAL** Dedicated to the conservation and rejuvenation of water resources, the Jal element focuses on reviving traditional water bodies, implementing rainwater harvesting in public buildings, and supporting aquifer recharge through percolation pits. It promotes efficient water use through water budgeting and metering, manages greywater through community-level treatment systems, and encourages sustainable festival practices to prevent water pollution. The approach also emphasizes the protection of aquatic ecosystems and wetlands to support biodiversity and water security.



**AGNI** Driven by the goal of accelerating the clean energy transition, the Agni element promotes renewable energy awareness and deploys solar installations on public buildings and streets. It supports the adoption of biogas plants, solar water heaters, solar pumps, and decentralized solar plants to reduce fossil fuel dependence. The approach also includes energy-efficient solutions such as green streetlighting and encourages community and private participation in renewable energy projects.



**AKASH** Building environmental consciousness through digital engagement, the Akash element employs E-Pledge campaigns and social media outreach. It mobilizes community participation through awareness events, competitions, and the identification of Paryavaran Doots (environment ambassadors). The approach also integrates sustainability into local governance by engaging Self-Help Groups, promoting ecotourism, utilizing CSR funding, and incorporating climate education in schools and youth programs.





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## Ahilyanagar Municipal Corporation

### Transforming Neglected Infrastructure into Vibrant Green Corridors for Community Well-being

Ahilyanagar faced a common metropolitan challenge: the accumulation of large, neglected blank spaces beneath its extensive network of flyovers. Without a designated purpose, these areas became hotspots for illegal waste dumping and antisocial activities, contributing to visual pollution and significant urban hygiene issues. These "dead zones" hindered the city's aesthetic and posed a constant maintenance challenge for the administration. Recognizing the potential hidden within these underutilized tracts, the Municipal Corporation resolved to reimagine them as green assets, embarking on a systematic mission to convert vacant infrastructure into vibrant corridors of native vegetation.

The transformation began with a rigorous cleaning and reclamation process, clearing years of accumulated waste. These spaces were then professionally landscaped and planted with native tree species chosen for their resilience and ability to thrive in shaded urban environments. This strategic addition of vegetative cover served multiple purposes: it improved local air quality by filtering dust and pollutants, and it mitigated the urban heat island effect by cooling the concrete surfaces above and below. What were once derelict voids became well-maintained public zones, specifically designed for relaxation and community interaction.

The success of the initiative was anchored in public participation. By involving citizens, NGOs, local schools, and community groups in both the initial plantation and the ongoing upkeep, the Corporation fostered a deep sense of collective ownership. This collaborative approach ensured that the green belts remained protected and cherished by the residents they serve. Today, the project has not only enhanced Ahilyanagar's urban aesthetics and civic pride but has also established a highly replicable model for other cities. It proves that with creative thinking, even the most neglected corners of urban infrastructure can be converted into sustainable, functional green spaces that improve the quality of city life.

*Unused urban spaces can bloom into green corridors when citizens and local governance co-create.*





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## Amravati Municipal Corporation

### Achieving National Recognition through Evidence-Based Monitoring and Large-Scale Greening

Amravati city, in Maharashtra, has set a national benchmark for urban air quality management by securing the top rank in the Swachh Vayu Survekshan 2025. Competing in the category of cities with a population between 3 and 10 lakhs, Amravati achieved a perfect score of 200/200, surpassing other major cities like Jhansi, Moradabad, and Alwar. This recognition, under the National Clean Air Programme (NCAP), underscores the city's transition from identifying urban pollution challenges to implementing a data-driven and community-led response.

The city's strategy addressed the rising pressures of rapid urbanization, vehicular growth, and road dust. Central to this was a robust Data Collection Methodology that utilized both fixed Continuous Ambient Air Quality Monitoring Stations (CAAQMS) and mobile monitoring units. This technical framework allowed the Municipal Corporation to identify major pollution sources through traffic count surveys and industrial emission assessments, leading to evidence-based interventions in high-density zones.

A major pillar of Amravati's success has been its extensive long-term greening efforts. Over the past decade, the city has reportedly planted over 15 lakh trees, creating mini-forests, parks, and green pockets that serve as natural filters for particulate matter. Complementing these natural assets, the Corporation upgraded local infrastructure by controlling road dust and improving traffic management. To maintain these systems, the city institutionalized capacity building, training survey enumerators and field supervisors on data accuracy and safety protocols.

Citizen participation was a critical metric in the 2025 survey. Through ward-level meetings, social media campaigns, and school outreach, the "Clean Air Amravati" initiative turned pollution control into a public movement. While seasonal challenges like winter pollution peaks remain, the city's national first-prize award—including a ₹75 lakh cash prize—has bolstered its reputation as a model for environmental governance. Amravati's journey demonstrates how systematic monitoring, combined with massive afforestation and civic engagement, can transform the air quality of a growing medium-sized city.

*Amravati proves that when a city breathes as one, it paves a clear path toward a healthier, greener future*





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## ANANDWAN GRAM PANCHAYAT

### **Advancing Self-Reliance Through Solar Energy Decentralized Power Systems for Educational and Public Utility Infrastructure**

Gram Panchayat Anandwan, located in the Warora Taluka of Chandrapur district, continues its legacy of self-reliant living by integrating renewable energy. Established by Baba Amte as a center for social rehabilitation, Anandwan has now leveraged the Majhi Vasundhara Abhiyan to modernize its public services. The Panchayat has transitioned its core educational and administrative facilities to solar power, significantly reducing operational costs and improving energy reliability.

The energy transition was implemented through a series of targeted installations. For the village's educational institutions, 3 kW solar systems were commissioned at both the Anand secondary School and the School for the Hearing and Speech Impaired. Similar 3 kW systems were installed at the Gram Panchayat building and the local Anganwadi center. These decentralized units ensure that lighting and basic electricity needs are met independently of the grid, providing a stable environment for learning and administrative work.

To address the high energy demand of the water supply system, a larger 35 kW solar system with net metering was installed. This installation enables bidirectional electricity flow, allowing the Panchayat to offset its power consumption by feeding excess energy back into the grid. The technical execution of the 35 kW project, while the 3 kW units were installed, was overseen by the Electrical Subdivision, Chandrapur, with overall technical guidance provided.

By integrating these solar projects, Gram Panchayat Anandwan has successfully reduced its dependence on conventional power. These interventions deliver a clean, cost-effective energy model that supports the village's mission of sustainable, dignified living. The shift to solar power for public utilities is a practical example of how renewable energy can safeguard essential services while promoting environmental stewardship at the grassroots level.

*By integrating modern solar technology, Anandwan has transformed its public infrastructure into a clean and cost-effective model of self-reliance*





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माझी  
वसुंधरा

## BARAMATI MUNICIPAL COUNCIL

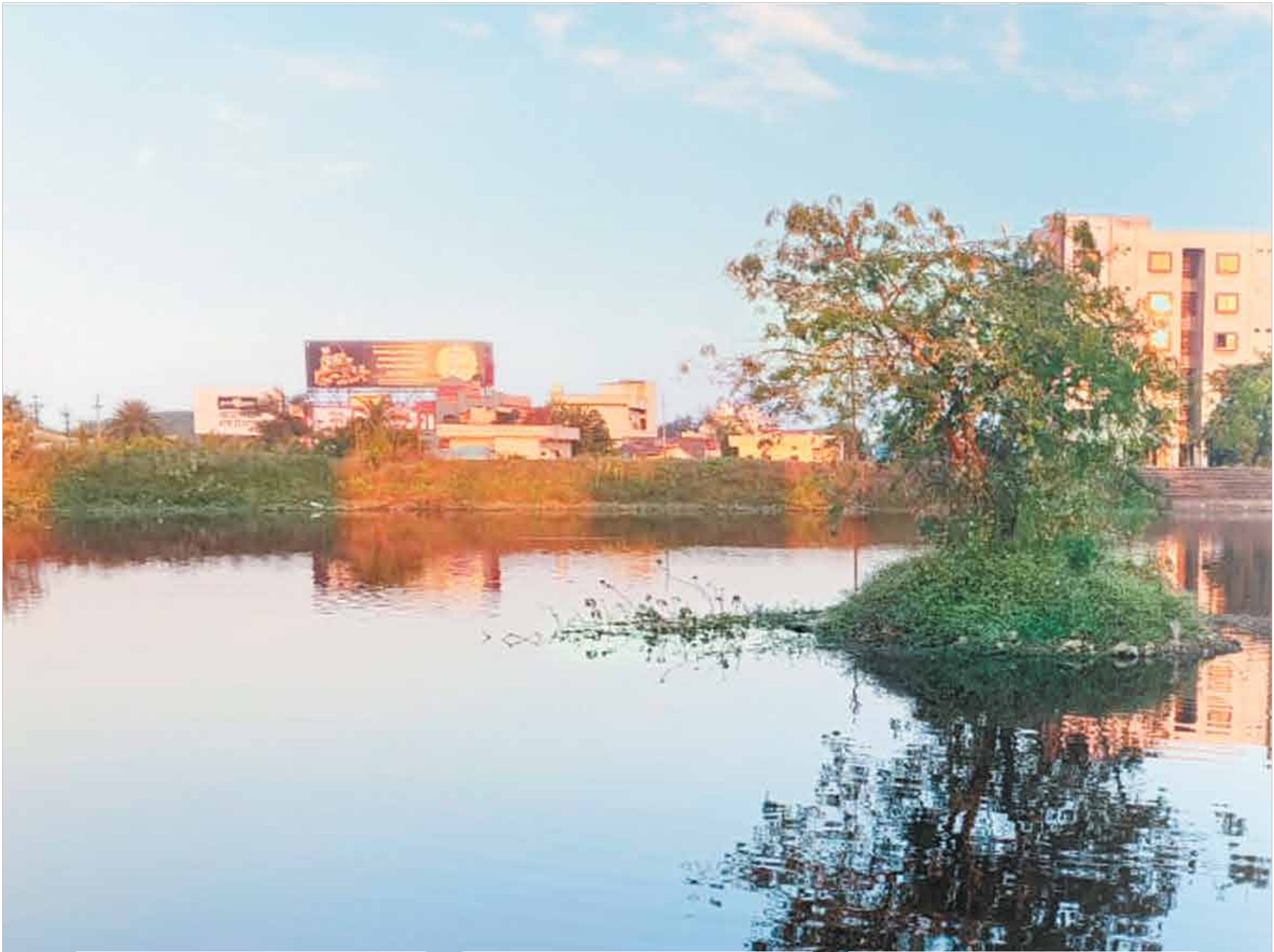
### Restoring Hydraulic Efficiency and Flood Protection Through Scientific River Rejuvenation

The Karha River, a vital waterway flowing through Baramati, had faced years of gradual degradation. Silt accumulation had made the riverbed shallow and choked, severely reducing its natural flow. This loss of capacity turned the river into a significant flood risk during the monsoon, creating a sense of persistent anxiety for residents in nearby low-lying areas. Once a natural asset, the degraded stretch had become a liability. Recognizing the urgent need for a permanent solution, the Municipal Council decided to intervene. The administration shifted its perspective, moving away from managing seasonal emergencies toward treating the river as a piece of vital natural infrastructure that required long-term, scientific restoration.

The restoration project focused on a critical 4-kilometer stretch of the river, where engineers deployed modern machinery to deepen the channel and remove years of accumulated silt. This process significantly increased the river's water-holding capacity, allowing it to manage heavy rainfall effectively. To ensure the long-term stability of the banks, robust gabion walls were constructed. These structures were designed to prevent soil erosion and provide reliable flood protection while maintaining hydraulic efficiency. The project was executed with a focus on ecological durability, ensuring that the engineering interventions supported the river's natural functions.

The impact of this rejuvenation has been transformative for the safety and environment of Baramati. The Karha River now flows with improved capacity, effectively eliminating the flood threat to adjacent neighborhoods. Beyond flood mitigation, the project has aided groundwater recharge and enhanced local water quality, allowing the riverside ecology to flourish once again. What was once a vulnerable and choked waterway has been transformed into a resilient, protected lifeline for the city. This project serves as a clear demonstration of how deliberate, scientific engineering can restore the delicate balance between urban settlements and their natural river systems.

*Through scientific engineering, Baramati has transformed a seasonal flood risk into a thriving and resilient lifeline for the city*





## BELA GRAM PANCHAYAT

### Used water and climate actions to shift village practices and public participation

Gram Panchayat Bela in the Bhandara district identified three primary challenges: low environmental awareness, increasing pressure on natural resources, and the urgent need to stabilize groundwater levels. To address these issues, the Panchayat adopted a comprehensive climate action approach aligned with the state's Majhi Vasundhara initiative and the national Mission LiFE. The goal was to transform village governance by placing resource protection at the center of local development.

The Panchayat structured its implementation around five thematic areas linked to natural elements, with a heavy priority on water conservation. Using local administrative systems for monitoring, the village executed a series of watershed works. These included the construction of small dams, the deepening of local streams, and the restoration of traditional water bodies such as ponds and wells. To ensure sustainability at the household level, the Gram Sabha mobilized residents to install soak pits and rooftop rainwater harvesting systems.

The program has resulted in measurable improvements in the village environment. The implementation of a plastic-free commitment, alongside large-scale plantation drives, has significantly enhanced local cleanliness and green cover. Beyond physical infrastructure, the initiative triggered a visible shift in community behavior toward groundwater protection and environmental practices. Local institutional capacity has strengthened, making public participation a permanent feature of village governance. In recognition of these sustained efforts, Gram Panchayat Bela was ranked first in the country and received the Carbon Neutral Special Award under the National Panchayat Awards 2023-24. These honors confirm Bela's status as a national model for rural climate resilience, demonstrating that disciplined local leadership can achieve world-class environmental standards.

*Visionary water management can transform a village into a symbol of climate resilience*





## CHANDRAPUR MUNICIPAL CORPORATION

### **Strengthened daily waste systems to increase segregation and reduce littering**

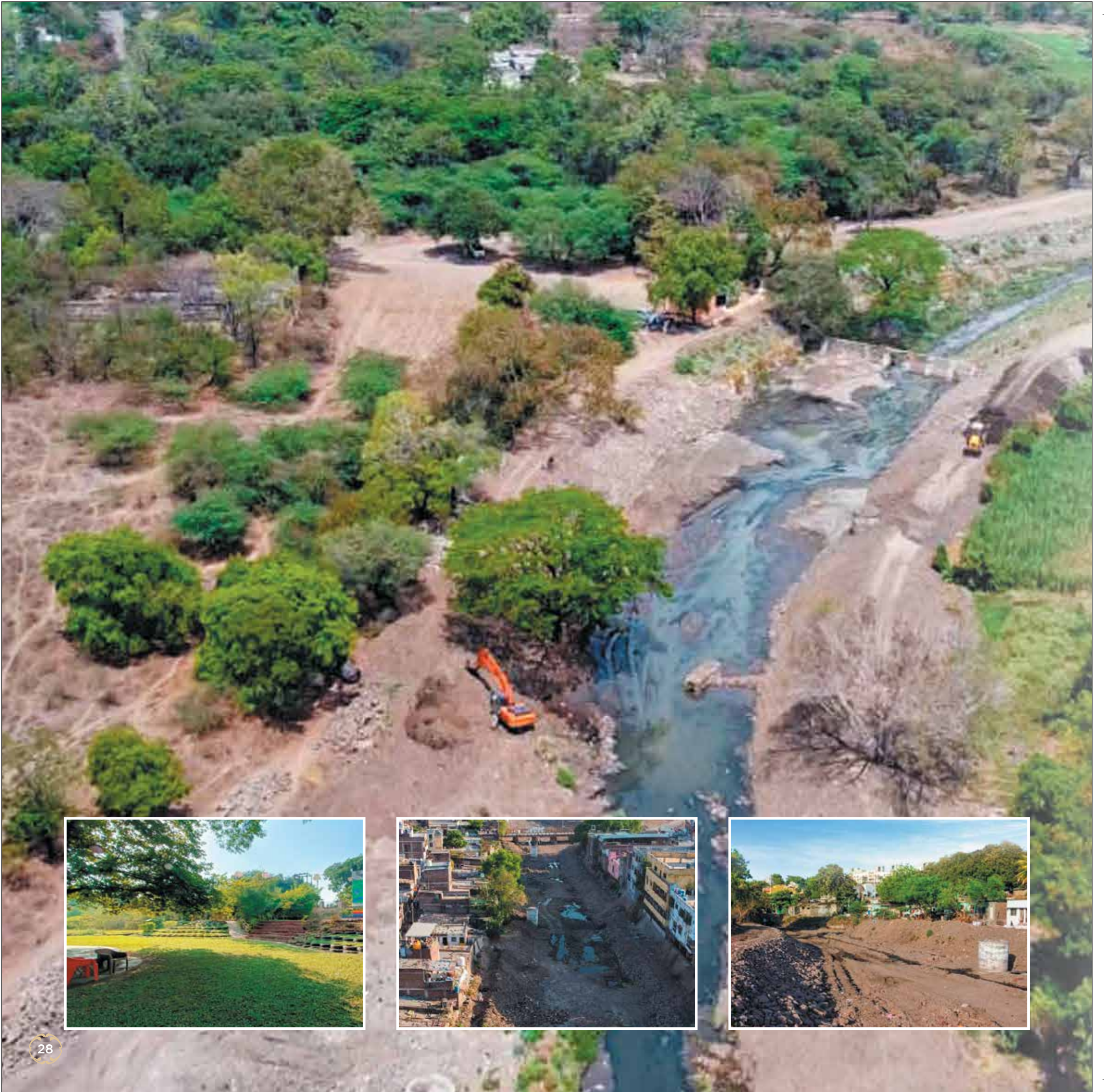
The Chandrapur Municipal Corporation (CMC) implemented a comprehensive set of urban interventions under Majhi Vasundhara Abhiyan to improve public hygiene and mitigate environmental risks. The Corporation's strategy focused on four key pillars: efficient solid waste management, standardized public sanitation, stringent plastic control, and enhanced citizen awareness. This systematic approach aimed to transform Chandrapur into a cleaner, more organized urban center through precise operational planning.

To strengthen waste management, the Corporation conducted a detailed city-wide survey to map population density and ward-wise waste generation. Using this data, a dedicated route plan was designed for all wards, ensuring that vehicle deployment and staffing matched the specific demands of each area. The CMC established a 100% segregated door-to-door collection system for both residential and commercial zones. Furthermore, the Corporation mandated that all large waste-generating establishments process their organic waste at the source, reducing the burden on municipal infrastructure.

Waste processing is strictly categorized by stream. Biodegradable wet waste is diverted to composting or biogas facilities, while dry waste is processed through a specialized Material Recovery Facility (MRF). A dedicated system was also established to handle construction and demolition (C&D) waste separately. For public sanitation, the Corporation standardized the availability of facilities by providing public toilets at regular intervals, targeting one unit every 100 meters. These facilities include separate blocks for men and women, maintained through professional agencies. To ensure financial sustainability, advertising boards were installed at these sites to generate non-tax municipal revenue.

For plastic mitigation, the Corporation launched the "Vikalp Thaila" initiative. Under this program, local Self-Help Groups (SHGs) manufacture cloth bags, which are supplied to shopkeepers and made available to citizens at affordable prices. This proactive supply is supported by a municipal enforcement squad that conducts regular market inspections, with fines of ₹ 5,000 for violations. Through these integrated measures, Chandrapur has successfully linked social empowerment with environmental enforcement, creating a cleaner and more disciplined urban environment for all its residents.

*Data-driven waste management with social empowerment leads to a cleaner and more sustainable urban future*





## CHHATRAPATI SAMBHAJINAGAR MUNICIPAL CORPORATION

### **Rebuilt an 11 km urban river stretch through a joint municipal, institutional, and citizen-led mission**

The Kham River Rejuvenation Project is a multi-stakeholder initiative led by Chhatrapati Sambhajinagar Municipal Corporation. The objective is environmental restoration of the 11 km river corridor, pollution control, flood-risk reduction, and revival of the riverbank as a public space.

Work began as a pilot between 2016 and 2019 in the Aurangabad Cantonment area, covering approximately 1.5 km. Activities included river cleaning, desilting, plantation, and bank protection. In 2020, the city launched the “Kham River Rejuvenation Mission.” Planning was based on pollution mapping, sewage pathway assessment, and risk-zone surveys.

In 2021-2022, the first “Kham Eco Park” was developed over 10.5 acres. It opened to the public on 26 January 2022, with a restored river edge, walkway, and green public spaces. Between 2022 and 2023, work expanded across the full stretch. The project reports that 11 km of river corridor and 54 acres of riverbank were cleaned and rejuvenated, 110 chronic dumping spots were removed, and about 25,000 households were linked to an improved waste collection system.

Key measures included closing sewage inlets, installing screens, desilting, stopping industrial discharge, stone pitching and bund strengthening, local-species plantation, and public amenities such as walkways, seating areas, open gyms, an amphitheater, and viewpoints. The project reports that the main city stretches remained flood-free for two consecutive monsoons. It also reports recognition through the River Cities Alliance and the St Andrews Prize for the Environment (2024).

The Kham mission combined pollution control, bank stabilization, and citizen participation to deliver a cleaner 11 km river corridor with reduced dumping and improved flood resilience.

*Reviving a river is more than an ecological fix; it is a reflection of urban pride and community resilience*





## CHIPLUN MUNICIPAL COUNCIL

### **Miyawaki plantation to increase green cover and respond to flood risk linked to the Vashishti river**

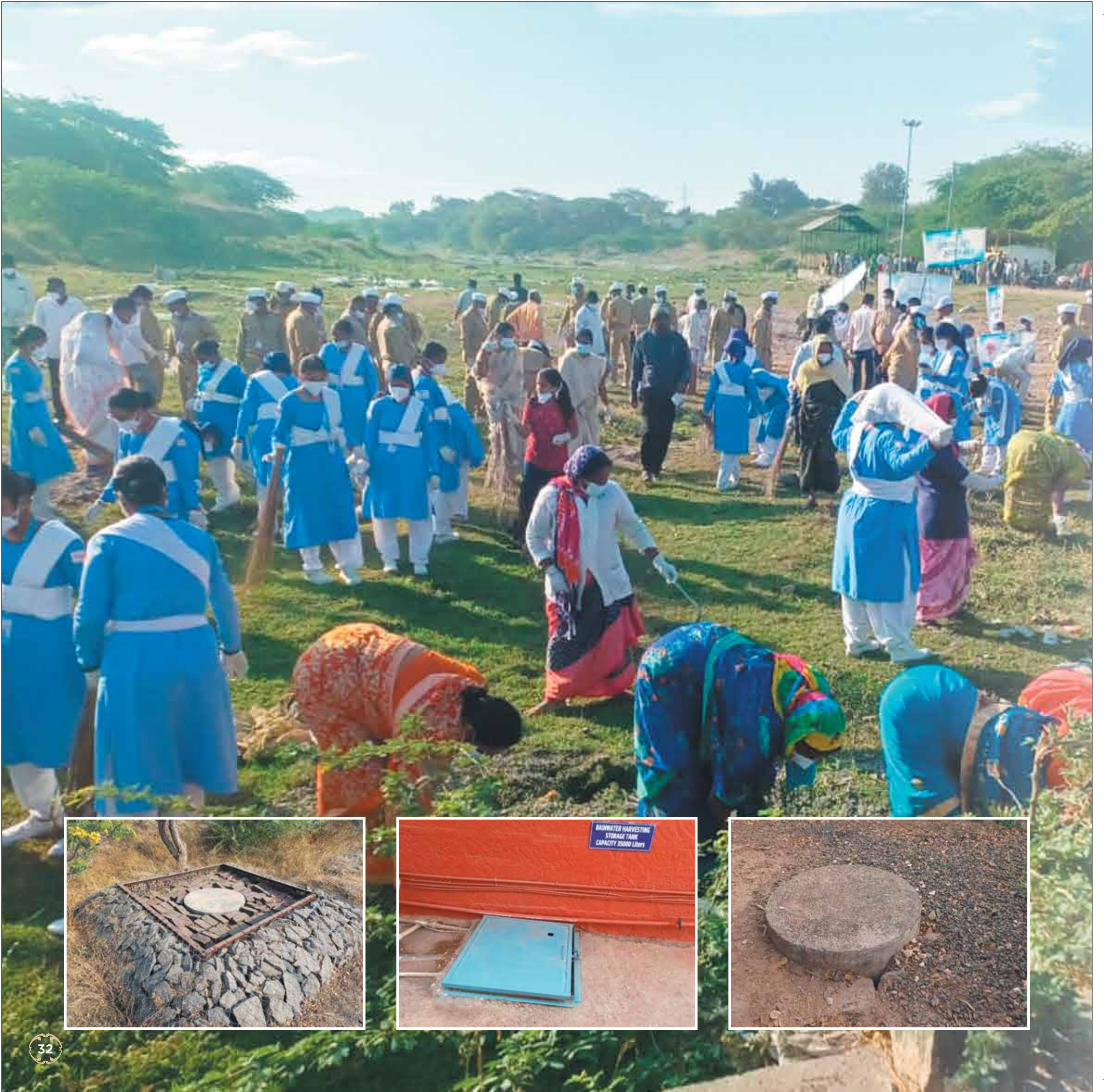
Chiplun, a town in the Ratnagiri district situated along the banks of the Vashishti River, has long grappled with the dual challenges of shrinking green cover and increasing flood risks. To address these vulnerabilities, the Chiplun Municipal Council implemented an indigenous Miyawaki plantation initiative. The project was designed not only as a tool for rapid oxygen generation but as a biological buffer to stabilize the soil and manage runoff in the flood-prone Govalkot area.

The project began with a rigorous pre-field investigation and feasibility study to identify sites with the highest ecological impact. Once the Govalkot area was selected, the Council executed a staged implementation process: land preparation, high-density planting, and the establishment of a daily maintenance regime. To ensure transparency and track progress, the Council institutionalized "real-time status" reporting, using site photographs to monitor the transition from barren land to a nascent forest.

The plantation features a diverse palette of over 4,500 trees, focusing on indigenous species known for their deep root systems and high survival rates in Konkan's humid climate. The species list includes Beheda, Arjuna, Umbar (Cluster Fig), and Bamboo for riverbank stability, alongside fruit-bearing and shade-giving trees like Mango, Jackfruit, Jamun, Banyan, and Peepal. This biodiversity-heavy approach ensures a resilient ecosystem that can withstand the intense monsoon cycles characteristic of the region.

The environmental projections for this compact forest are significant. The Council estimates that once the plantation reaches maturity, it will generate approximately 5,400 kg of oxygen per day (nearly 1.95 million kg per year). Beyond the technical outcomes, the project has become a site of civic learning; residents frequently visit the Govalkot plantation to understand the Miyawaki methodology and its role in climate adaptation. By linking urban forestry directly to river safety, Chiplun has created a replicable model for disaster-resilient greening in coastal Maharashtra.

*By planting a dense indigenous forest, Chiplun secures its riverbanks and creates a natural shield for a disaster-resilient future*





## DAHIWADI NAGAR PANCHAYAT

### Revitalizing Groundwater Levels Through Scientific Recharge Structures and Community Stewardship

The town of Dahiwadi faced a growing crisis as its groundwater levels began to fall. Rainfall had become increasingly irregular, and the heavy reliance on borewells led to their over-exploitation. During the harsh summer months, water scarcity became a difficult reality for many households. As urbanization expanded, the city's open land, which once allowed rain to seep naturally into the earth, was rapidly shrinking. Recognizing that waiting for better rainfall was no longer a viable strategy, the Nagar Panchayat decided to take proactive measures. The administration and the community resolved to create deliberate pathways to capture every drop of rain, shifting from a state of concern to one of structured, collective action.

Under the Atal Bhujal Yojana framework, the administration implemented a scientific approach to groundwater management. More than 50 groundwater recharge pits were strategically constructed at key public locations, including roadsides, school premises, and open grounds. These structures were designed in accordance with strict technical guidelines to ensure optimal absorption and filtration. A critical human element of this project was the active participation of the citizens, who helped identify the most effective sites for the pits. Today, these residents continue to take an active role in maintaining the structures, ensuring they remain clean and functional for the long term.

The impact of this initiative has been both immediate and heartening for the people of Dahiwadi. The recharge pits have successfully raised local groundwater levels, which in turn have increased the water output in nearby borewells. This has led to a significant, much-needed reduction in the town's reliance on costly water tankers. Beyond these technical achievements, the project has fostered a deep sense of shared stewardship. By involving the public at every step, the Nagar Panchayat has transformed water security from a purely government responsibility into a shared mission, ensuring a resilient, water-secure future for the entire community.

*Water security becomes a common mission when a community acts together*





## DAWWA GRAM PANCHAYAT

### Securing India's First Climate Action Special Panchayat Award through Integrated Sustainability

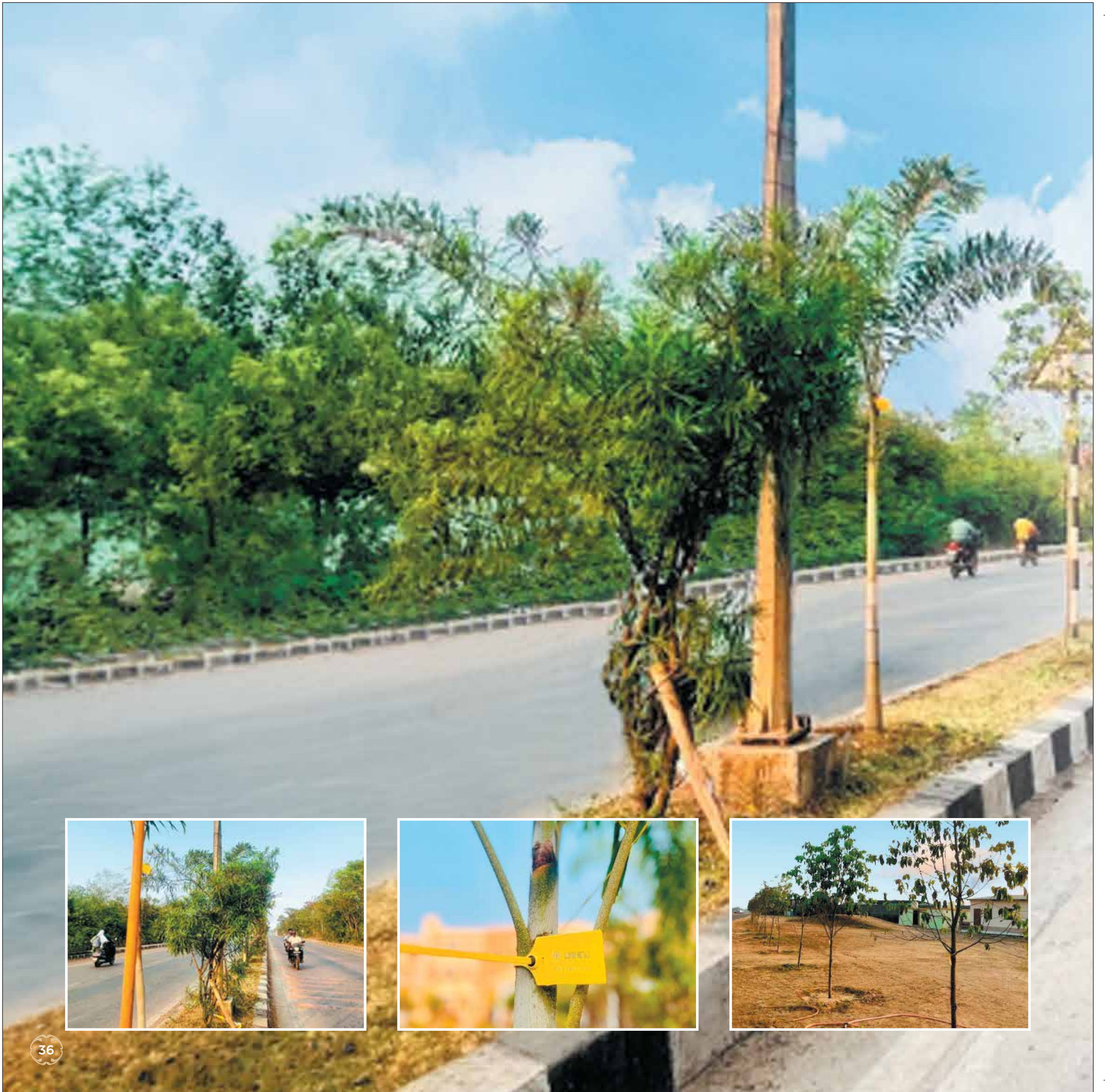
Dawwa, located in the Sadak Arjuni taluka of Gondia district, made history in 2025 as the first village in India to win the Climate Action Special Panchayat Award (CASPA). The village transitioned its public infrastructure to clean energy by installing solar panels on schools and government buildings. To support agricultural resilience, the Panchayat facilitated access to state schemes like the Mukhyamantri Saur Krushi Pump Yojana. By personally managing documentation and administrative follow-ups, the local leadership ensured that small-scale farmers received up to 95% subsidies for solar pumps.

Water security was achieved through technical interventions including residential soak pits and recharge shafts along local nullahs. These measures elevated groundwater levels, enabling year-round irrigation. To protect local water bodies, the village constructed a dedicated immersion tank for festival idols, preventing pollutants from entering the primary water supply. Dawwa has implemented a large-scale afforestation program. The village operates two native nurseries and uses seed-ball dispersal to increase green cover. Waste management has been modernized with source segregation and the use of electric vehicles for collection, effectively eliminating smoke and noise pollution.

In agriculture, the village introduced "Farm Schools" (Shetishalas) where farmers receive real-time training on demonstration plots. This initiative encouraged a shift from single-crop paddy farming to a diversified model including teak plantations, orchards, and livestock. This transition, supported by women-led Self-Help Groups (SHGs), has empowered women as primary decision-makers in local commerce and farm management.

The visible progress in Dawwa includes increased paddy yields, thriving orchards, and the return of migrant laborers who now find full-time work within the village. By combining high-tech monitoring, such as GPS-geotagging for project transparency, with community-led action, Dawwa stands as a national beacon of ecological harmony and inclusive growth.

*A National Model for Climate-Responsive Governance*





महाराष्ट्र शासन



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## GADCHIROLI MUNICIPAL COUNCIL

### Transforming Urban Landscapes Through Digital Forestry and Strategic Reforestation

The National Highway passing through Gadchiroli served as a vital transit route, but the constant flow of heavy traffic stirred persistent dust into the air. Within the city, extensive paved surfaces and a lack of adequate tree cover intensified the Urban Heat Island effect, making the environment increasingly uncomfortable for residents. The landscape offered little natural respite, and the administration found that existing plantations were difficult to monitor or maintain effectively. Recognizing these challenges, the Gadchiroli Municipal Council decided to move beyond traditional gardening. To launch a large-scale, technology-driven greening project, aiming to transform the city's climate through disciplined planning and digital oversight.

The council implemented a rigorous plantation strategy covering a 10 km radius along the National Highway, central dividers, and more than 50 municipal sites, including schools, government offices, and public gardens. To ensure the project's long-term success, every native tree planted was assigned a Unique Identification Number. This plantation data was digitally mapped via a specialized mobile application, allowing for real-time monitoring and accountability. This created a continuous green corridor and established a high-tech, data-driven system for urban forestry that moved away from guesswork.

The increased green cover now serves as a natural filter, reducing dust levels and moderating the urban temperature. The digital tracking system has significantly improved plant survival rates, providing the administration with the reliable data needed for timely maintenance and irrigation. Beyond the immediate environmental benefits, the initiative has established a replicable model for scientific plantation management across the state. This project reflects strong institutional pride in executing a large-scale environmental intervention with precision, enhancing Gadchiroli's identity as a city that proactively plans for its green and sustainable future.

*Digital care can turn barren land into a living, breathing green corridor*





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## GREATER MUMBAI MUNICIPAL CORPORATION

**In Ambojwadi, young residents led a climate vulnerability assessment and used it to secure local drainage and sewage upgrades.**

Ambojwadi, a settlement in the Malad area of Mumbai, was identified as a critical climate vulnerability hotspot. The community faces a complex overlap of challenges, including tenure insecurity, inadequate sanitation, and acute exposure to recurring floods and extreme heat. To address these systemic risks, the settlement adopted the Community Climate Action Planning (CCAP) approach a model that shifts the focus from top-down engineering to community-driven adaptation.

The process was anchored by local youth who led a comprehensive vulnerability assessment. By co-designing surveys and conducting infrastructure mapping, these youth groups documented the lived reality of climate change. The essential household coping mechanisms include residents raising platforms inside their homes to stay above rising water or temporary seasonal relocation. This ground-level evidence highlighted critical gaps: broken drainage networks, chronic waterlogging, and a total lack of green cover to mitigate heat stress.

The resulting Community Climate Action Plan categorized interventions into short, medium, and long-term goals. Armed with mapped evidence, youth groups and community-based organizations engaged directly with the Municipal Corporation of Greater Mumbai (MCGM). This data-driven advocacy led to the allocation of municipal funds for specific, high-priority drainage and sewage upgrades. The local outcomes were immediate: sewage backup was eliminated in the Sant Nirankari Bhavan area, and drainage flow was restored in Bismillah Chawl.

A standout success of the plan was the transformation of a flood-prone ground in Panchsheel Buddha Vihar. By combining traditional drainage improvements with nature-based solutions, the area was converted into a greener community space that manages runoff while providing a cooling effect. The success of the Ambojwadi model has triggered a scaling effect across Maharashtra; similar participatory processes are now being initiated in Vasai-Virar, Navi Mumbai, Akola, Nashik, and Nagpur, creating a new blueprint for urban climate justice.

*Youth-led community and evidence-based planning transformed a flood-prone settlement into a safer shared space*





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## GHATNANDRE GRAM PANCHAYAT

### **Household biogas units were installed to increase renewable energy use and reduce conventional fuel dependence**

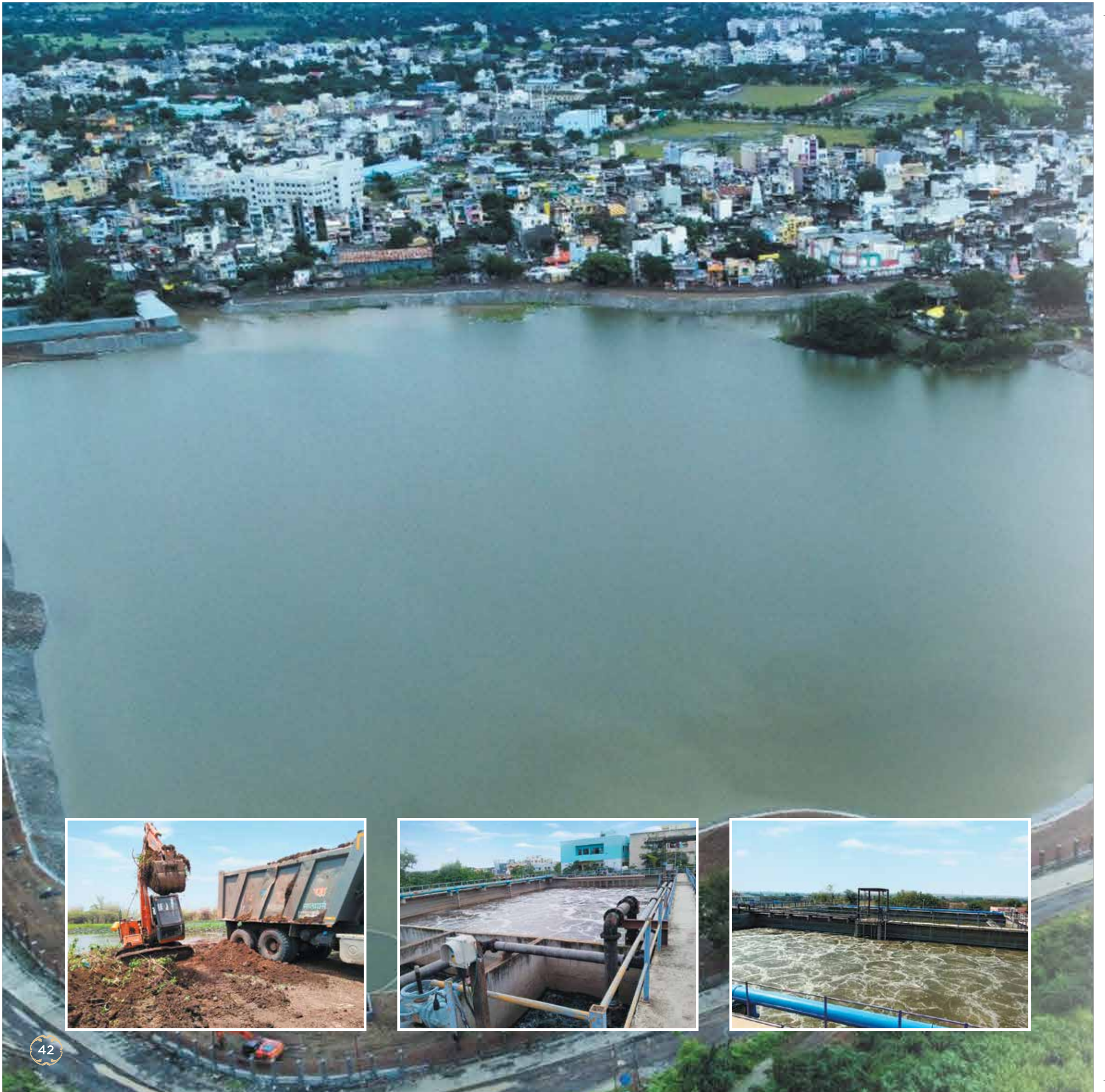
Gram Panchayat Ghatnandre, in the Kavathe Mahankal Taluka of Sangli District, has successfully implemented a systematic transition to clean energy at the household level. Under the Majhi Vasundhara Abhiyan, the village administration prioritized the adoption of biogas to enhance indoor air quality and reduce the community's reliance on conventional, non-renewable energy sources.

The initiative was funded through CSR. To date, specialized biogas units have been installed for 60 households across the village. These units convert organic waste, primarily cattle dung and kitchen wet waste, into clean cooking fuel, thereby providing a sustainable alternative to LPG and firewood. To ensure the technical success of the project, the Panchayat facilitated training and guidance to educate residents on optimal operation and routine maintenance.

To sustain the impact of the installation, the Panchayat institutionalized a system of follow-up checks. Technical teams conduct periodic visits to ensure units operate at peak efficiency and address any maintenance needs. This rigorous monitoring has ensured that the renewable energy transition remains permanent and functional.

The outcomes of the intervention are sustainable. Participating households have reported significant financial savings on cooking fuel, while the village has seen a reduction in smoke-related indoor pollution. Beyond the technical installation, the project has fostered a deeper environmental consciousness; every participating family has formally committed to a village-level pledge to conserve conventional energy and support climate-resilient practices. Ghatnandre's model demonstrates how targeted technology partnerships can empower rural households to become active participants in the state's clean energy mission.

*Ghatnandre proves that rural self-reliance begins at home, fueling a healthier and more sustainable future for every family*





## HINGOLI MUNICIPAL COUNCIL

### **Water bodies, wastewater reuse, and waste collection monitoring were taken up as community driven city effort**

Hingoli Municipal Council has implemented a multifaceted environmental strategy under Majhi Vasundhara Abhiyan, focusing on restoring heritage water bodies and modernizing urban utility systems. By combining traditional ecological restoration methods with smart technology, the Council has addressed long-standing pollution issues while improving the efficiency of daily municipal services.

A primary achievement was the revival of Jaleshwar Lake, a historic water body dating back to the Nizam period. After years of domestic waste dumping and stagnant conditions, the lake was restored through the innovative, step-by-step Cownomics method of Ayurvedic treatment. This nature-based process focused on three defined stages: eliminating foul odors, mitigating mosquito breeding, and stabilizing the water's chemical balance to restore the local aquatic environment.

Similarly, the Council undertook the restoration of Chiragshah Dargah Lake. This involved removing 800 tonnes of silt to significantly increase the lake's depth and water-holding capacity. To protect the water quality during religious festivals, the Council constructed a dedicated immersion ghat with safety fencing. A "Nirmalya Kalash" system was also established to ensure that floral offerings are collected separately rather than being discarded into the water. The site was further enhanced with public seating, transforming it into a community recreational space.

The city's sanitation infrastructure is anchored by a 15 MLD Sewage Treatment Plant (STP). The Council has successfully institutionalized the reuse of treated wastewater to maintain municipal green zones, operate public fountains, and support construction sites and road-divider plantings. To meet the city's water needs, the water treatment plant operates at 13.45 MLD, ensuring a stable direct supply of 11.5 MLD to residents.

To achieve 100% waste segregation, Hingoli introduced an Information and Communication Technology (ICT) based monitoring system. Every household and institution is assigned a unique QR code. Collection staff scan these codes daily when receiving segregated waste, enabling the Council to track compliance and service delivery in real time. Through these integrated measures, Hingoli has demonstrated how heritage conservation and smart-city technologies can work together to build a resilient urban ecosystem.

*Honoring heritage through modern innovation creates a truly resilient and thriving urban ecosystem*





## ICHALKARANJI MUNICIPAL CORPORATION

### Implementing Advanced Sewage Treatment Technology to Ensure Environmental Health and Water Security

Ichalkaranji, a major textile hub, faced a critical infrastructure deficit that weighed heavily on the minds of its administrators and residents. The city supplied 50 million liters of water daily, generating approximately 40 million liters of wastewater. However, the existing 20 MLD (Million Liters per Day) Sewage Treatment Plant (STP) can process only half of this volume. This significant treatment gap created persistent risks to the environment and public health, as untreated water threatened local resources. Recognizing that the city's growth depended on a permanent solution, the Municipal Corporation moved away from temporary management and committed to building long-term, modern infrastructure.

To resolve this challenge, a new 18 MLD STP was constructed at Baudha Vihar under the Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT). The administration selected the advanced Sequential Batch Reactor (SBR) technology to ensure the facility meets all modern regulatory standards. The project was executed with meticulous planning, from technical approval to final construction. Beyond just treating waste, the facility was designed for resource recovery; the treated water is now being channeled for municipal gardening and firefighting, with dedicated standposts currently under construction. Additionally, the sludge produced during the process is repurposed for composting, creating a closed-loop waste management system.

The successful commissioning of this plant has effectively bridged the treatment gap, ensuring nearly all of the city's wastewater is processed before discharge. This initiative has protected the region's water resources and significantly reduced the textile hub's environmental footprint. For the administration, the project has built immense institutional confidence and established a reliable foundation for the city's future expansion. Ichalkaranji's experience demonstrates how systematic planning and technical execution can address the most pressing urban challenges, turning public health risks into a model of sustainable management.

*Strategic planning transforms wastewater from an environmental risk into a valuable resource*





## KARJAT MUNICIPAL COUNCIL

### **Plastic, rubber, and C&D waste were repurposed for road construction rather than dumped.**

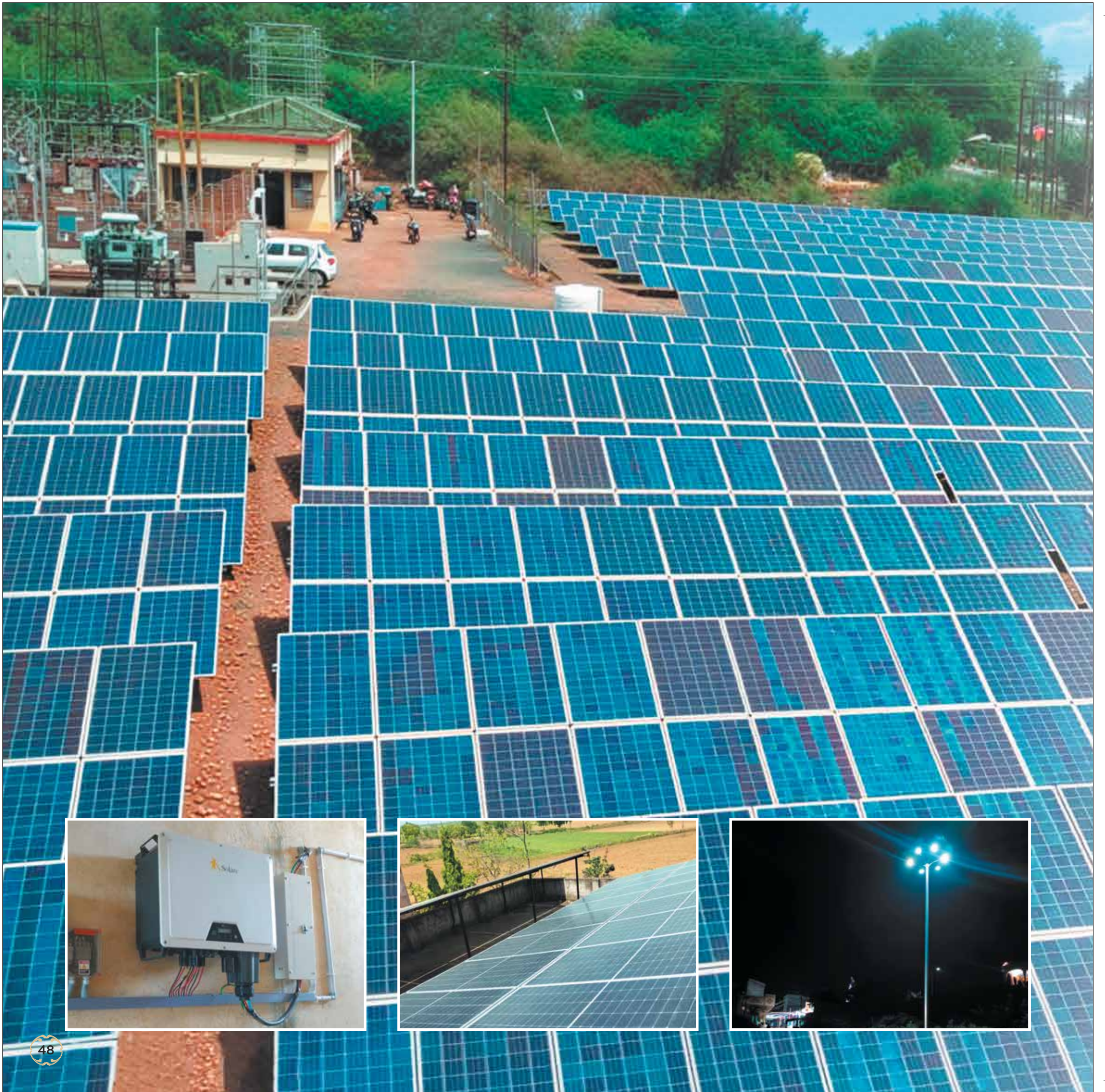
The Karjat Municipal Council has developed a circular economy model that directly links waste management with urban infrastructure improvements. The town generates approximately 4 tonnes of dry waste daily, all of which is now diverted from landfills through a rigorous 100% segregation and collection system. By viewing waste as a raw material rather than a disposal burden, the Council has created a sustainable pipeline for local road safety products.

Central to this initiative is a specialized facility for processing construction and demolition (C&D) waste. The Council established a toll-free contact system, enabling citizens to request debris collection at their locations. This waste is transported by municipal vehicles to a dedicated processing center operated in partnership. Here, C&D waste is integrated with discarded plastic and rubber to manufacture high-durability paver blocks and speed breakers.

These composite speed breakers represent a significant advancement over conventional concrete options. Being made from recycled polymers and aggregates, they are lighter, easier to handle, and faster to install. Engineered for outdoor durability, the products resist UV exposure, chipping, and cracking, even under heavy vehicle traffic. The Council has successfully deployed these recycled speed breakers on public roads and highways, demonstrating that municipal waste can be effectively repurposed into high-performance infrastructure.

Through this integrated approach, Karjat has not only addressed the challenge of debris management but also reduced road maintenance costs. The project stands as a practical example of how "waste-to-wealth" initiatives can be scaled to meet the rigorous demands of modern transportation networks while promoting environmental sustainability.

*Karjat proves that yesterday's waste is the building block for a safer and more sustainable tomorrow*





महाराष्ट्र शासन



## KHAPA MUNICIPAL COUNCIL

### Leveraging Competitive Excellence to Achieve Energy Self-Reliance and Fiscal Stability

The Khapa Municipal Council, established in 1867, has long operated with a disciplined approach to its limited financial resources. A significant and growing portion of its tight annual budget was consumed by a single recurring expense: the electricity bill. This was particularly demanding for essential public services such as the city's water purification system. The constant dependence on expensive grid power placed a persistent strain on municipal finances. Recognizing that a traditional approach would not solve this fiscal challenge, the Council made a strategic decision to turn its environmental commitment into a direct financial solution. They resolved to compete for the prestigious awards under the Majhi Vasundhara Abhiyan, intending to reinvest any prize money into solar infrastructure to transform Khapa into a "Solar City."

This strategy shifted the Council's focus from merely managing high operational costs to creating a self-funded asset for long-term savings. A 45 kW on-grid solar power plant was installed at the city's water purification center. This project was handled as a precise municipal operation, ensuring that the award was directly converted into tangible, revenue-saving infrastructure that serves the public good.

The solar plant has delivered immediate results, reducing the Council's electricity consumption by 5,000 to 5,500 units every month. This translates into recurring savings of approximately ₹45,000 to ₹55,000 per month funds that can now be redirected toward other civic amenities. Bolstered by this success, the Council has already begun work on an additional 35 kW plant using subsequent prize money. Khapa's journey demonstrates how a disciplined, award-focused strategy can empower even a resource-constrained council to achieve energy self-reliance and lasting fiscal stability. It stands as a proud example of how performance-based incentives can drive meaningful, sustainable change in local governance.

*By reinvesting awards into solar power, Khapa proves that environmental commitment is the direct path to financial self-reliance*





महाराष्ट्र शासन



## KURUNDA GRAM PANCHAYAT

### Revitalizing Local Landscapes Through River Restoration and Mass Afforestation

The Kurunda Gram Panchayat faces two environmental challenges that threaten the stability of the community. Every year, a shallow and silted riverbed led to severe flooding, causing extensive damage to local homes and fertile farmland. Meanwhile, the village's vast barren, known as the Maalran, remained a barren expanse, contributing to soil erosion and uncomfortably high local temperatures during the summer. Recognizing that these issues were deeply connected to the village's ecological health, the Gram Panchayat resolved to take action. They adopted the Lok-sahbhag (public participation) model, mobilizing the entire community to restore their natural assets.

The village launched a dual-track intervention to address both water and land. First, a 2 km stretch of the river was systematically deepened and widened, with the community removing over 30,000 cubic meters of silt to restore its natural flow. Simultaneously, the Gram Panchayat initiated a massive afforestation drive on the barren Maalran land. To ensure the long-term success of the plantation, a drip irrigation system was installed, and every family in the village was encouraged to "adopt" at least one tree, turning a government program into a personal commitment for over 500 villagers.

The results of this collective effort have been both measurable and life-changing. The river intervention has ended annual flooding entirely, with no incidents reported for two consecutive years. Furthermore, the increased water absorption has raised local groundwater levels by an impressive 5 to 8 feet, securing the village's water future. The afforestation effort saw the planting of over 5,000 native saplings, which achieved a survival rate of over 90% and has already helped reduce local summer temperatures by 2-3°C. Today, Kurunda is recognized as a district-level "Model Green Village," serving as a powerful example of how community-led action and Shramdan (voluntary labor) can build lasting ecological resilience and social cohesion.

*When every family adopts a tree, a village becomes a model of ecological resilience*





## LONAVALA MUNICIPAL COUNCIL

### Reclaiming the Khandala Lake Ecosystem from Neglected Waters to a Thriving Hub of Tourism and Environmental Health

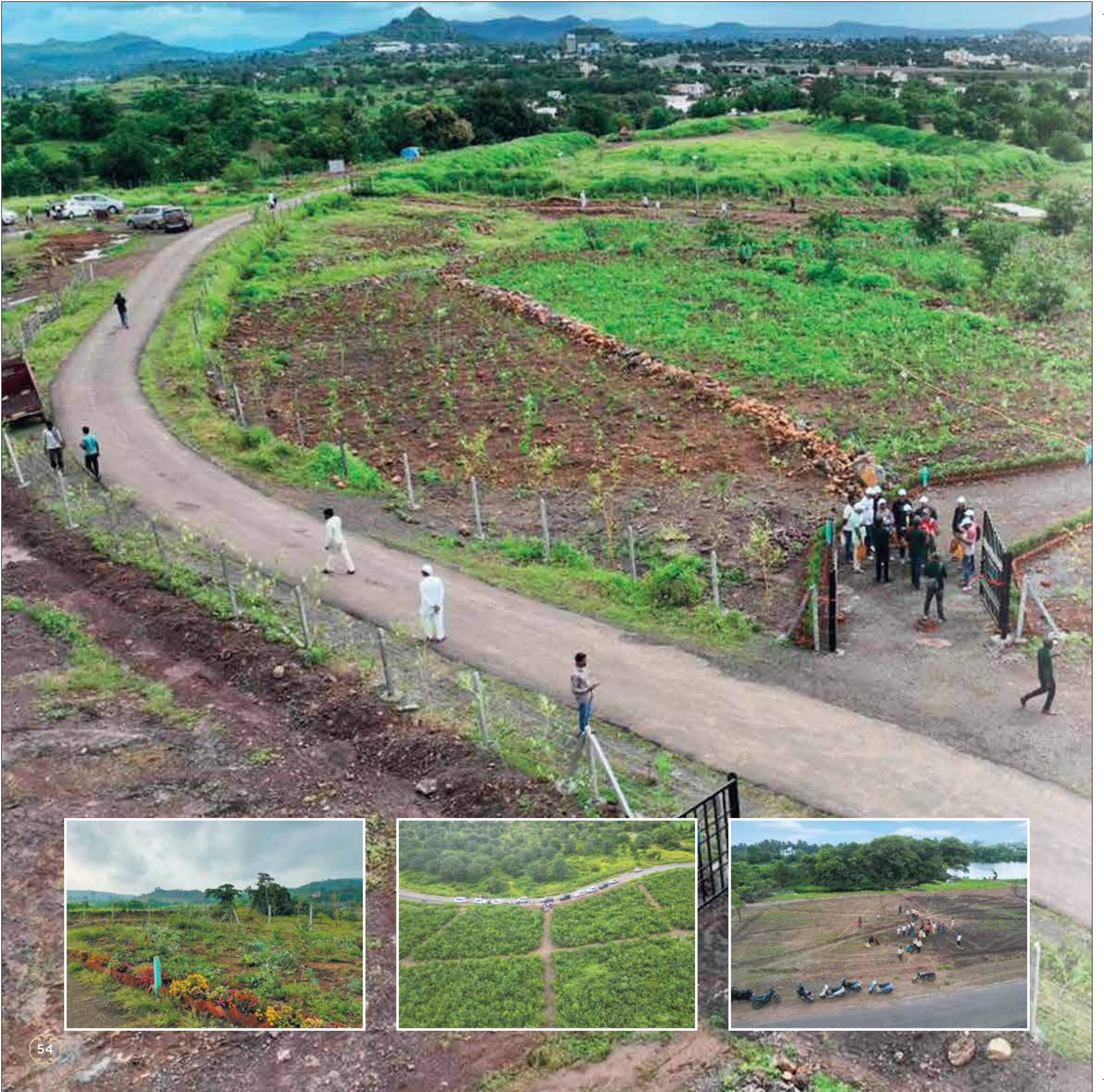
Lonavala, a premier hill station in Maharashtra, recently faced a critical environmental challenge when the historic Khandala Lake entered a state of severe degradation. Once a focal point of natural beauty, the lake had become a stagnant reservoir for wastewater and solid waste. The surrounding area, once scenic, was abandoned by the community and considered unsafe, resulting in a loss of biodiversity and a decline in the town's appeal as a tourist destination. To rectify this, the Lonavala Municipal Council initiated a comprehensive restoration project to reclaim the lake as a vital ecological and public asset.

The restoration strategy focused on immediate mitigation of water pollution, followed by long-term aesthetic and functional upgrades. The council's first priority was to fully divert wastewater inflows to prevent further contamination. To restore the lake's biological health, floating fountains were installed to promote aeration, increase dissolved oxygen levels, and prevent stagnation. This engineering intervention was essential for reviving the local aquatic ecosystem and eliminating foul odors.

Beyond ecological repair, the Council redesigned the lakefront to serve as a center for civic engagement. The infrastructure now features paved walking paths, ergonomic seating, and energy-efficient lighting to ensure safety and accessibility. To drive economic vitality, the Council integrated organized zones for local vendors and boating activities, alongside modern interactive features such as "selfie points" to attract the high volume of tourists visiting the region.

The rejuvenation of Khandala Lake has successfully transformed liability into a high-value community resource. Water quality has improved significantly, supporting a healthier ecosystem, while local businesses have reported a surge in foot traffic due to the lake's renewed status as a major attraction. This project is a clear example of how coordinated administrative action can restore natural heritage while boosting the local economy and urban well-being.

*A neglected lake can become a source of civic pride through vision and coordinated effort*





## MANCHAR NAGAR PANCHAYAT

### **Built a lush green ecosystem through Miyawaki plantations and new public gardens**

Manchar Nagar Panchayat, in the Ambegaon Taluka of Pune district, has implemented an ambitious greening strategy to expand the town's ecological footprint under the Majhi Vasundhara Abhiyan framework. The Nagar Panchayat transitioned from small-scale planting to developing massive, self-sustaining urban forests. This was achieved through a combination of the Miyawaki method, institutional land partnerships, and integrated biodiversity planning.

The expansion was executed in a structured series of phases. Under Majhi vasundhara Abhiyan , the Nagar Panchayat launched the Atal Ghan Van Project 1.0, establishing a 5-acre Miyawaki forest in its first phase. Approximately 50,000 native trees were planted using high-density techniques to ensure rapid growth and a resilient micro-ecosystem. Building on this success, the program was scaled up in a subsequent phase with Atal Ghan Van Project 2.0, covering 10 acres and incorporating over 100,000 native trees. Both projects utilize drip irrigation systems to ensure precise water management and high survival rates.

Parallel to these dense forests, the Nagar Panchayat is developing a comprehensive Biodiversity Park on 12.5 acres of municipal land in partnership with NGO. The first phase, consisting of 45,000 trees, is complete. The broader design for this park integrates multiple environmental elements, including lake conservation, solar- powered lighting, and a vermicompost unit to process organic waste. A unique "Waste Wonder Park" is also being developed within the site to promote upcycling and environmental education.

Manchar Nagar Panchayat is currently completing its Biodiversity Park and expanding the town's green infrastructure, creating a sustainable model for urban carbon sequestration.

*Commitment to large-scale greening today builds a vibrant, carbon-neutral sanctuary for generations to come*





## MANYACHIWADI GRAM PANCHAYAT

### **Electricity is now generated on household rooftops through an On-grid Solar Systems**

Manyachiwadi has established a transformative model for rural energy independence by becoming the first “solar village” in the state. This milestone was achieved through a structured rooftop solar initiative supported by the Majhi Vasundhara Abhiyan, which transitioned the entire community toward a cleaner and more self-reliant future. The journey began with a collective community decision during a unified village meeting, where every attendee committed to the transition and navigated the formal government processes required for on-grid rooftop solar systems. This large-scale implementation was made possible through a strategic private partnership that ensured technical viability for every household.

The scale of this project is highly significant, with 100 households each installing a 1 kW solar system to reach a collective village-wide capacity of 100 kW. As a result, each household now generates approximately 1,500 units of clean energy annually. Beyond individual homes, the village’s vital infrastructure is also powered by the on-grid solar installations. A 5-kW solar project serves the Gram Panchayat office, the local school, and the anganwadi, while a separate 4 kW system supports the water supply scheme.

By embracing this technology, Manyachiwadi has successfully insulated itself from rising electricity tariffs while contributing directly to global carbon neutrality goals.

This initiative serves as powerful evidence that when a community unites with a shared vision, it can transform solar energy into a permanent source of empowerment and environmental pride

*True energy independence begins when a shared vision transforms every rooftop into a source of sustainable pride*





## MIRA BHAYANDAR MUNICIPAL CORPORATION

### **Redefining Waste Management as a System of Collective Care and Resource Circulation**

Mira Bhayandar Municipal Corporation (MBMC) addressed the challenge of managing approximately 150 tonnes of dry waste daily by implementing a structured social and environmental intervention. Recognizing that a significant portion of unsegregated waste consists of usable household goods, the Corporation established Reduce- Reuse-Recycle (RRR) Centres. This initiative aims to divert functional items from landfills while providing essential goods to economically vulnerable communities.

The Corporation established six RRR Centres across different administrative zones in 2023. To ensure a steady supply of materials, MBMC conducted extensive outreach across more than 300 housing societies, schools, and community hubs. The operational model relies on partnerships with Self-Help Groups (SHGs) and non-governmental organizations. These partners manage the entire value chain: collecting donated items, sorting them by category, grading for quality, and performing necessary repairs, washing, or upcycling to make them fit for reuse.

The impact of the program is reflected in its high distribution efficiency. Out of 39,881 items collected, 37,076 were successfully redistributed to a 93% circulation rate. The inventory included 24,963 pieces of clothing, 5,697 books, and thousands of units of footwear, utensils, and toys. Even specialized waste streams, such as e-waste and plastic products, were processed. Distribution is conducted through verified channels, prioritizing slum communities, daily-wage workers, and waste pickers, ensuring that environmental benefits are coupled with social welfare.

To further reduce waste at the source, MBMC launched a "Thaila Bank" to provide reusable cloth bags as an alternative to plastic bags. This proactive supply is supported by a rigorous enforcement strategy, with the Corporation recording ₹87 lakh in penalties linked to plastic non-compliance. By combining convenient alternatives with strict administrative enforcement and a robust reuse network, Mira Bhayandar has created a sustainable urban model that views household waste as a communal resource rather than a disposal burden.

*A sustainable city is built by turning today's surplus into tomorrow's resource*





महाराष्ट्र शासन



## NAGPUR MUNICIPAL CORPORATION

### Reducing Range Anxiety through Strategic Public-Private Partnerships and Multi-Modal Charging Hubs

Nagpur's transition to electric mobility has outpaced the development of its public support infrastructure. By July 2025, the district had 77,795 registered electric vehicles (EVs) but was served by only 151 charging stations, a ratio of approximately one station for every 515 vehicles. With a significant portion of existing infrastructure being privately owned, public access remained restricted, particularly during peak hours. To bridge this gap, the Nagpur Municipal Corporation (NMC) initiated a rapid expansion of the city's public charging network.

In August 2025, the Corporation launched a project to establish 11 new public EV charging stations through a Public-Private Partnership (PPP). These stations are strategically located at high-traffic junctions and public parking hubs, including Jaitala Bazaar Square, Rahate Colony, Katol Road, and Yeshwant Stadium. Designed to serve two-wheelers, three-wheelers, and four-wheelers, these facilities are intended to provide reliable, fast-charging options that reduce "range anxiety" for daily urban commuters.

The expansion is strictly guided by the city's EV Readiness Plan, published in August 2024. This policy framework sets an ambitious target of achieving a 40% share of EVs in all new vehicle registrations by 2027. To support this shift, the plan established clear milestones: reaching 150 public or semi-public charging points by 2025 and doubling that capacity to 300 points by 2027. The project emphasizes that reliable scaling requires integrated planning between site selection and upstream power grid capacity.

By institutionalizing these targets, Nagpur is moving toward a mature EV ecosystem where public infrastructure precedes demand. The Corporation's focus on high-visibility, multi-modal hubs ensures that electric mobility becomes a practical choice for all segments of the population. This initiative positions Nagpur as a leader in urban transport decarbonization, demonstrating how structured municipal planning can accelerate the transition to a low-emission future.

*Nagpur is powering a future where clean mobility is a practical and accessible choice for every citizen*





महाराष्ट्र शासन



## NAVI MUMBAI MUNICIPAL CORPORATION

### Converting Legacy Dumpsites into Ecological Infrastructure Through Scientific Remediation

Established in 1987, the Koparkhairane dumpyard served as Navi Mumbai's primary waste disposal site for nearly two decades. Spanning 11.4 acres, the site accumulated 29 lakh metric tonnes (MT) of municipal solid waste through open dumping. Its proximity to residential neighborhoods created significant health and safety concerns, including landfill gas emissions, frequent fires, and the risk of groundwater leaching. The site was characterized by foul odors and pest outbreaks, which affected public health and environmental quality in the planned city.

To address these risks, the Navi Mumbai Municipal Corporation (NMMC) initiated a comprehensive scientific remediation and closure project. The process began with detailed site surveys and soil analysis to determine the extent of contamination. Technical experts oversaw the bioremediation of 20 lakh MT of legacy waste, followed by bio-capping to achieve permanent scientific closure. To ensure the permanence of this restoration, NMMC simultaneously strengthened the city's broader waste infrastructure, enforcing source segregation and redirecting new waste to the modern processing facility at Turbhe.

The reclamation phase focused on transforming the closed landfill into a high-density urban forest using the Miyawaki method. NMMC planted over 40,000 saplings across 60 native species to create a self-sustaining ecosystem. The restoration design includes a 10–35-meter-thick native tree wall acting as a green buffer, alongside jogging tracks and rejuvenated water bodies. The site now hosts a "Swachhata Park" that serves as an educational hub for public awareness of sustainable waste management.

The ecological impact of this transformation is reflected in the return of local wildlife. The restored site now supports 45 bird species, 20 butterfly species, and over 50 insect species. Notably, sightings of a Golden Jackal have been recorded, indicating the successful re-establishment of a complex food web. This project demonstrates how engineering-led remediation can convert degraded land into a vital ecological asset and a high-quality public space.

*Urban land once written off can be reclaimed through science and sustained public trust*





महाराष्ट्र शासन



## PANHALA MUNICIPAL COUNCIL

### Improved cleanliness and basic services through tight operational systems and audits

Panhala, a prominent hill station in Kolhapur district, faced high electricity expenditures and increasing carbon emissions from its municipal operations. To address this, the Panhala Municipal Council implemented a comprehensive solar energy strategy. The objective was to shift public infrastructure toward clean, renewable power and demonstrate the financial viability of sustainable energy at the local level.

The implementation strategy focused on installing solar panels across essential municipal and public facilities. These included administrative offices, water pumping stations, parking areas, and streetlighting networks. In total, the Council installed 75 kW of solar capacity. A key feature of this transition was the installation of rooftop solar systems on public buildings, which allowed the council to offset its grid dependency and redirect municipal funds to other developmental works.

Beyond traditional infrastructure, the Council introduced smart solar benches at six strategic locations throughout the city. These benches utilize solar energy to provide wireless and USB mobile charging ports for residents and tourists. To enhance public awareness, the benches are equipped to play Information, Education, and Communication (IEC) videos regarding environmental conservation. Additionally, integrated movable CCTV cameras on these benches have improved public safety in high-traffic tourist zones.

The impact of these interventions is measurable. The 75 kW solar network now reduces approximately 55.25 metric tons of CO<sub>2</sub> emissions annually. Financially, the transition saves the local body ₹4,75,520 per year in electricity bills. To ensure the long-term success of the project, the Council conducted awareness campaigns that encouraged local business owners and residents to adopt rooftop solar systems through available subsidy schemes.

This initiative has strengthened the institutional capacity of the Council to manage renewable infrastructure. Panhala has successfully balanced its heritage status with modern technology, proving that even small hill stations can achieve significant energy autonomy. By reducing costs and emissions simultaneously, the Council has created a sustainable environment that benefits both the permanent local community and the thousands of tourists who visit the city daily.

*Clean power is the ultimate investment for both environmental health and municipal self-reliance*





महाराष्ट्र शासन



## PANVEL MUNICIPAL CORPORATION

### Optimizing Urban Space with Vertical Photovoltaic Technology to Achieve Net-Zero Park Operations

The Panvel Municipal Corporation faced a modern urban dilemma: how to power its network of public gardens sustainably without sacrificing valuable recreational space. Maintaining these green pockets required significant grid electricity for lighting, leading to high operational costs that conflicted with the city's broader sustainability goals. Traditional, large-scale solar arrays were impractical due to severe space constraints and the shading provided by the very trees the parks were meant to protect. To overcome these limitations, the Corporation turned to an innovative architectural solution: Solar Tree technology. By choosing vertical, spiral-shaped structures, the administration sought to decarbonize park operations while creating a new type of functional green landmark.

Each Solar Tree is a masterpiece of space-efficient engineering, occupying only about 1-2 square feet of ground space—nearly 100 times less land than a conventional solar array of the same capacity. These units were strategically placed across municipal gardens to capture sunlight above the canopy line. Beyond generating clean power, the trees were designed as multi-functional community hubs, featuring integrated LED lighting, mobile charging stations, and Wi-Fi hotspots. This independent, off-grid operation has resulted in 100% savings on electricity expenditures for park lighting, while each unit offsets between 14 to 18 tons of CO<sub>2</sub> annually.

The initiative has transformed Panvel's parks into outdoor classrooms for renewable energy awareness. To deepen public engagement, the Corporation introduced QR-code dashboards on the structures, allowing residents to scan and view real-time data on energy generation and carbon savings. This transparency, combined with community-led naming campaigns for the trees, has fostered a strong sense of public ownership. Panvel's adoption of solar trees demonstrates how innovative design can bypass traditional infrastructure hurdles, proving that even the most space-constrained urban areas can lead the way in climate-ready infrastructure and shared civic pride.

*When parks produce energy, they become living classrooms for a climate-ready city*





## PAUNI MUNICIPAL COUNCIL

### Executing a Phased Energy Transition to Achieve Fiscal Self-Reliance and Operational Security

The Pauni Municipal Council faced a persistent financial burden due to steep and rising electricity bills. Powering the city's streetlights, administrative buildings, and public high-mast lighting consumed a significant portion of the local budget, limiting the funds available for other developmental needs. This heavy reliance on the conventional power grid also carried a considerable carbon footprint, and occasional power outages frequently disrupted public services after dark. Recognizing that recurring energy expenses were a barrier to growth, the Council decided to break this cycle. Under the framework of the Majhi Vasundhara Abhiyan, the administration committed to a disciplined, five-year plan to transition the town toward solar energy, shifting from a model of consumption to one sustainable self-reliance.

The project was executed in strategic, manageable phases to ensure technical stability and financial efficiency. The first phase involved the installation of 11 solar high-mast lights in major public squares to enhance safety. This was followed by the deployment of 62 solar streetlights along key arterial roads. The final phase integrated rooftop solar plants across municipal buildings, bringing the total installed capacity to 308 kwp. Each stage of the transition was accompanied by rigorous technical audits to verify energy output and system performance, ensuring that the new infrastructure was fully optimized for the town's needs.

The initiative has successfully delivered permanent reductions in municipal electricity expenditure, allowing for better allocation of public funds. Carbon emissions have been significantly curtailed, and public spaces now remain reliably lit regardless of grid stability. Beyond these measurable benefits, the multi-year project has built deep institutional confidence within the Council regarding the management of complex technological transitions. Pauni now stands as a testament to how systematic planning and phased execution can embed sustainability into the core of municipal operations, creating an enduring source of institutional pride and a blueprint for other local bodies.

*Systematic transition turns energy bills into enduring institutional pride*





महाराष्ट्र शासन



## PIMPRI-CHINCHWAD MUNICIPAL CORPORATION

### Reviving Riverside Ecosystems and Discovering New Biodiversity Through Scientific Habitat Restoration

The Pimpri Chinchwad Municipal Corporation (PCMC) held a 70-acre stretch of land along the Indrayani River that had remained degraded for years. Uncontrolled grazing and mounting urban pressure had stripped the site of its native vegetation, leaving the soil depleted and the local ecosystem silent. This once-vibrant riverside landscape had lost its ecological function, becoming a neglected space that no longer served the community or the environment. Recognizing the potential of this land, the Corporation chose to move beyond basic landscaping. They committed to a rigorous process of ecological restoration, aiming to revive the area as a self-sustaining native habitat.

The land was carefully redesigned to restore its natural balance, moving away from the concept of a park toward a functional wilderness. Native plant species were reintroduced to the site, and diverse microhabitats were meticulously recreated. This transition was managed with biological precision, focusing on the long-term health of the soil and the return of local flora.

The success of this restoration was confirmed by a remarkable scientific discovery: a unique species of jumping spider, *Mogrus* in Pune, was identified within the regenerated grasslands. This discovery served as tangible proof that the ecosystem had recovered sufficiently to support specialized life forms. Today, the 70-acre site functions as a thriving natural sanctuary and a living classroom for the city. It demonstrates nature's profound capacity to regenerate when supported by disciplined administrative care. By rekindling the relationship between the city and its natural heritage, the project has provided a lasting legacy of ecological responsibility for future generations.

*PCMC proves that disciplined restoration can revive an ecosystem's heartbeat and welcome back the wonders of nature*





## PUNE MUNICIPAL CORPORATION

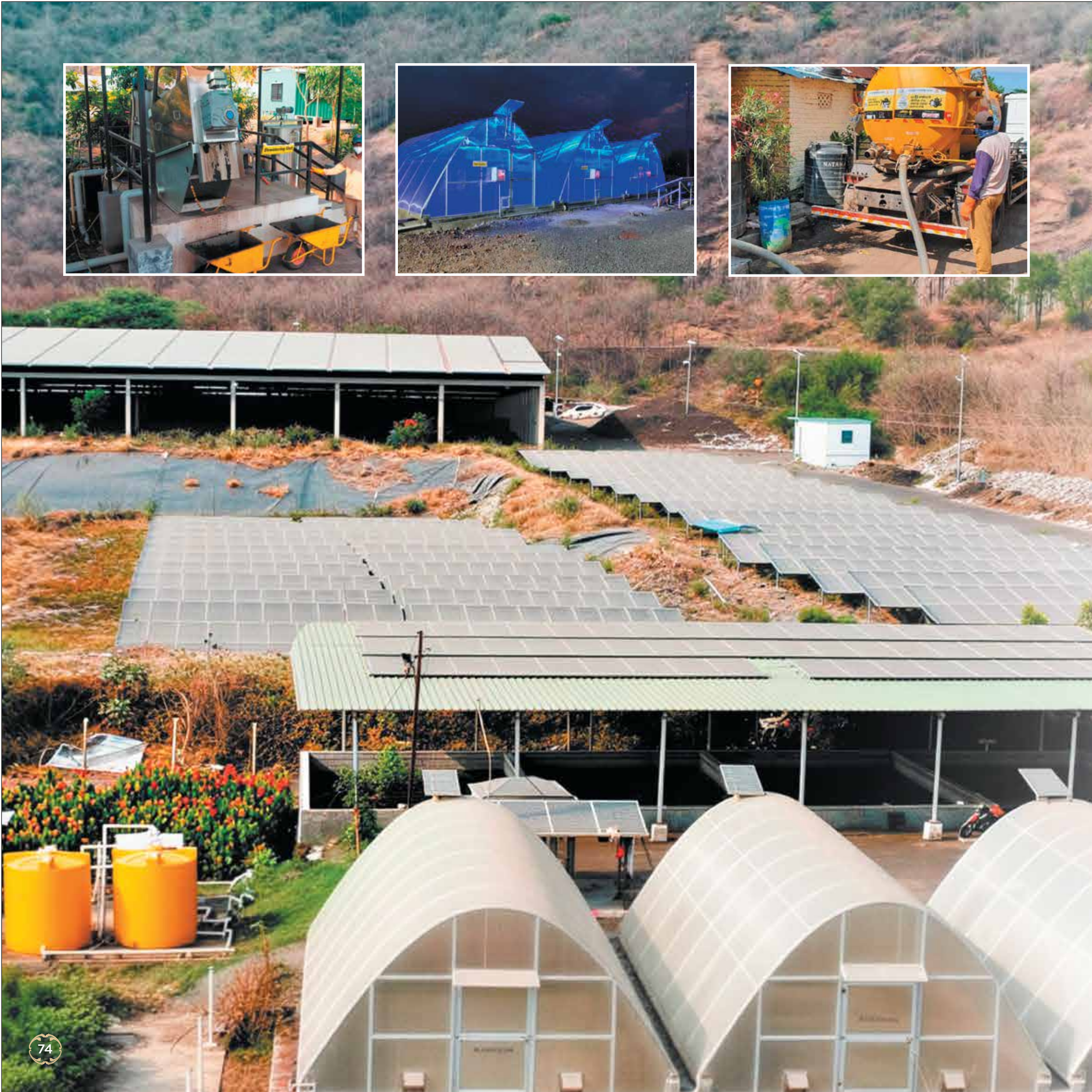
### Integrating Renewable Energy and Sustainable Design to Drive Urban Resilience

Pune, a major metropolitan hub, faced significant environmental pressure as rapid urban growth outpaced its sustainability efforts. Rising energy demands, increasing urban heat, and pollution levels challenged the city's long-term aspirations. While interest in renewable energy existed, the infrastructure for green design was fragmented, creating a visible gap between the city's environmental goals and its built reality. Recognizing that isolated projects were no longer sufficient, the Pune Municipal Corporation (PMC) moved toward a unified strategy. The administration committed to an integrated green infrastructure approach, ensuring that energy, buildings, and transportation were addressed as part of a single, coordinated municipal action plan.

The corporation activated this vision across multiple sectors with precision. By 2025, solar panels and water heaters reached 95,707 households, bringing clean energy to a significant portion of the population. Simultaneously, the PMC promoted rigorous green building standards, resulting in the certification of 30 residential and 10 commercial buildings, including two pioneering net-zero structures. To support sustainable mobility, a comprehensive network of electric vehicle charging stations was established, while energy-efficient green streetlights were deployed city-wide. Each of these initiatives served as a vital component of a larger, cohesive vision for urban sustainability.

The results of this integrated process have systematically expanded Pune's green infrastructure, effectively reducing heat stress and lowering the city's carbon footprint. Beyond these environmental improvements, the coordinated effort has built deep institutional expertise and operational confidence within the municipal administration. Pune's journey demonstrates how a structured, multi-sector approach can guide a large metropolitan area toward greater resilience. This success stands as a testament to the power of unified planning, transforming a complex urban challenge into a sustainable and responsible model for the future.

*A coordinated green strategy can steer a growing city towards resilience*





## SATARA MUNICIPAL COUNCIL

### Redesigning Waste Management to Achieve Near-Net-Zero Emissions and Institutional Accountability

The city of Satara relied entirely on an on-site sanitation system, with thousands of septic tanks serving as the primary infrastructure. This setup created a quiet but persistent burden on the environment; infrequent and unsafe desludging posed immediate public health risks and led to significant pollution. Beyond these visible issues, the untreated waste acted as a hidden source of methane emissions, substantially increasing the city's climate footprint. Recognizing the gravity of this environmental impact, the Satara Municipal Council decided to transform its sanitation services into a core component of its climate action strategy. The administration shifted its perspective, viewing waste not as a problem to be discarded, but as a resource to be managed to balance the city's carbon equation.

The council implemented an integrated system focused on both carbon reduction and sequestration. A scheduled desludging program was launched to ensure the systematic removal of waste, which was then processed at a newly constructed solar-powered fecal sludge treatment plant. This facility alone avoided 80 tonnes of CO<sub>2</sub> emissions annually while saving ₹8.4 lakh in energy costs. To offset remaining emissions, the city expanded its urban tree cover, which sequestered 5,880 T CO<sub>2</sub>e, and utilized water bodies to capture another 2,374 T CO<sub>2</sub>e. Furthermore, rooftop solar installations contributed an additional reduction of 2,154 T CO<sub>2</sub>e. This data-driven approach allowed the administration to monitor the carbon cycle of the entire sanitation process with high precision.

The results of this meticulous process management have placed Satara at the forefront of municipal climate leadership. The total carbon removal reached an impressive 10,408 T CO<sub>2</sub>e, leaving the city with a minimal net remaining emission of only 77 T CO<sub>2</sub>e. This near-net-zero balance marks significant progress toward the Satara Municipal Council's goal of total carbon neutrality. The success of this initiative demonstrates how essential service delivery, when executed with scientific rigor, can contribute directly to the global climate agenda. It stands as a proud model of how a local government can turn routine sanitation into a powerful example of institutional environmental accountability.

*When waste is managed as a resource, essential services can balance the carbon equation*





## THANE MUNICIPAL CORPORATION

### Executing a Comprehensive Environmental Overhaul to Reclaim Public Health and Urban Liveability

Thane faced a compounded air quality crisis that increasingly impacted the daily lives of its residents. Chronic traffic congestion and a fleet of aging diesel buses many over 15 years old heavily polluted the city's air. This was further exacerbated by open waste burning, construction dust, and the emissions from traditional wood-fired crematoria. Recognizing that these factors together diminished the city's liveability, the Municipal Corporation decided to confront the challenge through interconnected solutions. The administration moved from merely reacting to individual complaints to executing a city-wide environmental overhaul, placing the community at the heart of the transformation.

The corporation implemented a series of strategic interventions across transportation, waste management, and public infrastructure. A significant milestone was the introduction of 123 electric buses, which allowed for the decommissioning of 67 old diesel vehicles and saved 35,500 liters of diesel every month. To address air quality at the ground level, mist fountains were installed at major traffic junctions to suppress dust and mitigate heat. Simultaneously, the city's waste management was tightened through "deep cleaning" drives that reclaimed vulnerable garbage dumping points and converted them into green patches. In a further move toward cleaner energy, eight crematoria were transitioned from wood to Piped Natural Gas (PNG).

The impact of these changes has been reflected in a remarkable shift in citizen behavior. Daily public transport ridership surged from 1.61 lakh to over 3 lakh passengers, signaling a growing trust in the city's green infrastructure. To maintain transparency and accountability, the administration established a framework of 25 low-cost sensors linked to a public dashboard, allowing residents to monitor air quality in real-time. This transformation was powered by the synergy between municipal action and public engagement, turning environmental stewardship into a shared civic responsibility. Today, Thane's coordinated efforts have cleared a path toward a healthier and more sustainable urban future.

*Environmental care becomes a shared responsibility when people and systems move together*





## VENGURLA MUNICIPAL COUNCIL

### Protecting Coastal Ecosystems Through Specialized E-Waste Management and Circular Economy Practices

In the coastal town of Vengurla, the increasing reliance on electronic devices across households, businesses, and the tourism sector has led to a significant rise in e-waste. These discarded items contain toxic materials that, without a structured disposal system, were frequently mixed with everyday garbage. This lack of separation posed a severe threat to the town's sensitive soil and water resources, upon which the local community depends on its livelihood. Recognizing the long-term environmental risks, the Municipal Council determined that this stream of hazardous waste required a separate, safe route. The administration moved to institutionalize a simple but effective change: treating e-waste as a distinct category right at the point of origin.

The transformation was driven by systematic training and strategic partnerships. Sanitation workers were trained to identify e-waste during their daily door-to-door collection cycles, using separate bags to prevent cross-contamination. This waste is now transported to a dedicated zone within the Material Recovery Facility. To ensure the final disposal met all legal and environmental standards, the Council partnered with a CPCB-certified recycler, Global E-waste Management System. This process now ensures safe handling of 0.5 tons of e-waste every month. To support this logistical shift, the town introduced a dedicated "E-Waste Collection Day" and launched awareness campaigns to educate residents on the importance of responsible disposal.

The impact of this initiative has reached beyond waste management to foster a sense of shared community confidence. Today, the system operates seamlessly; sanitation workers are better protected from hazardous materials, and valuable components are recovered for reuse, generating a modest but symbolic monthly revenue of ₹500. This success was not the result of a single directive, but the product of a collective habit adopted by the entire town. Vengurla has demonstrated that by integrating specialized waste streams into daily routines, a community can effectively protect its own environment, one sorted item at a time.

*A community's collective habit can protect its home, one sorted item at a time*



## WAY FORWARD

“**Voices of Change | परिवर्तनाची यशोगाथा**” stands as a comprehensive account of Maharashtra’s sustained efforts towards environment initiatives and climate- responsive governance. The success stories documented herein reflect tangible outcomes across thematic pillars and highlight the effectiveness of integrating policy direction with strong on-ground implementation.

These success stories are the result of urban local bodies and gram panchayats taking ownership of climate resilience through the Majhi Vasundhara Abhiyan. Every water body rejuvenated, every solar panel installed, and every green space created represents a community that has prioritized the health of its natural ecosystem. This transition is a lived reality across the state of Maharashtra.

As this documentation draws to a close, it provides a clear pathway for strengthening decentralised environmental governance. The experiences captured offer practical insights for replication and scaling across Maharashtra and other states. This progress is rooted in the participation of local bodies and citizens, whose consistent efforts continue to shape a resilient and sustainable Maharashtra. Majhi Vasundhara Abhiyan thus remains a guiding framework for reinforcing environmental stewardship while advancing inclusive and sustainable development across the State.

