













**DHANBAD NAGAR NIGAM** 

# Programme to ENGAGE EDUCATE & EMPOWER for CLEAN AIR

5th June - 7th September 2024



# **Foreword**





# Office of the <u>Dhanbad Municipal Corporation,</u> <u>Dhanbad</u>



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I am pleased to present the report on the successful conclusion of the 90-Day Paryavaran Utsav, a transformative public outreach campaign spearheaded by the Dhanbad Nagar Nigam. This ambitious initiative was launched with the primary goal of raising awareness and fostering public engagement in addressing air pollution, aligning with the objectives of the National Clean Air Program (NCAP). By promoting collective responsibility and driving community action, we have taken significant steps toward building a cleaner, healthier, and more sustainable future for Dhanbad.

Air pollution remains a pressing concern, threatening both public health and environmental stability. Acknowledging the urgency of the situation, Dhanbad Nagar Nigam initiated **Paryavaran Utsav** to galvanize citizens into action. The campaign sought to empower individuals from all walks of life, encouraging widespread participation and cultivating a strong network of advocates for clean air and sustainable living.

The 90-day campaign was structured with a diverse, multifaceted approach to maximize its outreach and effectiveness. Through inter-school art competitions, interactive workshops, community dialogues, social media campaigns, and exhibitions, we ensured that our message resonated across the spectrum, engaging citizens of various ages, backgrounds, and interests. The success of the campaign lies in its ability to create a unified movement for cleaner air in Dhanbad.

This campaign has demonstrated the immense potential of community-driven action in addressing air pollution and underscored the critical role of public participation in shaping a sustainable future. By raising awareness and fostering an engaged and empowered citizenry, we have laid the groundwork for ongoing efforts to combat air pollution in our city.

We are honoured to share this report and we look forward to continuing this collective journey toward a cleaner, greener Dhanbad.

Shri Raviraj Sharma Municipal Commissioner Dhanbad

वेड बचाओं, स्टब्हता अपनाओं





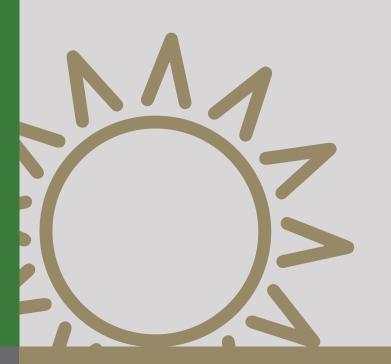






# About Dhanbad Municipal Corporation

Dhanbad Nagar Nigam is the civic body that governs Dhanbad, Katras, Jharia, Sindri, and the surrounding areas in the Dhanbad subdivision of Dhanbad district, Jharkhand, India. The Corporation is committed to ensuring the welfare of its citizens by implementing initiatives aimed at improving the quality of life, particularly in areas such as air quality, waste management, and public health.



# About Asar Social Impact Advisors

Asar is a startup incorporated as a for-profit company under Indian law. Asar enables a "collective impact" approach to tackle some of the major environmental challenges, with a focus on air pollution and climate change. We believe that solving today's systemic problems requires sustained dialogue and collaboration to create real lasting impact. We provide strategic advice, informed analysis, planning and evaluation support to funders, not-for-profit, and for-profit organisations, and government entities. We actively convene various stakeholders on specific issues to create collaborative spaces, resulting in transformative change.



# Introduction

Air pollution has long posed a major challenge for Dhanbad due to its mining dependent economy. However, the city has made remarkable strides in addressing air quality issues in recent years. Recognised as one of the 131 non-attainment cities under the National Clean Air Programme (NCAP), Dhanbad Nagar Nigam has implemented several impactful initiatives over the past three years



One of the city's key achievements is a notable 45.7% reduction in PM10 levels compared to the base year (2017-2018). In the 2023 Swachh Vayu Sarvekshan, Dhanbad was ranked among the top 12 performing cities under NCAP, earning a 19th-place ranking and securing ₹76 crore in incentives.

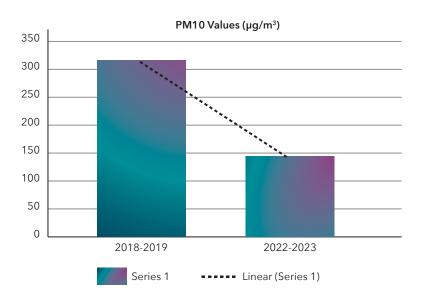


Chart 1: Air Quality Reduction in Dhanbad (PM10)

Dhanbad has also made significant progress in air quality monitoring. Since 2015, the city has expanded from a single Continuous Ambient Air Quality Monitoring Station (CAAQMS) that tracked only PM10 levels, to 10 stations. Placing it at the forefront of air quality monitoring, not just in Jharkhand but across 51 cities in Eastern India (Bihar, Jharkhand, Odisha, and West Bengal) where CPCB air quality monitoring exists. Another key development has been the introduction of weekly air quality bulletins, which provide regular updates on the city's air quality over the past seven days.

### A map showing number of monitoring stations in each city

STATE	LOCATION	MONITORING STATIONS
Jharkhand	Dhanbad	10
	Ranchi	0
	Jamshedpur	0
	Patna	6
	Gaya	3
Bihar	Muzaffarpur	3
	Angul	1
	Balasore	1
	Barbil	1
	Baripada	1
Odisha	Bhubaneswar	2
	Bileipada	1
	Brajrajnagar	1
	Byasanagar	1
	Cuttack	1
	Keonjhar	1
	Nayagarh	1
	Rairangpur	1
	Rourkela	3
	Suakati	1
	Talcher	1
	Tensa	1
West Bengal	Asanol	4
	Barrackpore	1
	Durgapur	3
	Haldia	1
	Howrah	4
	Kolkata	7
	Siliguri	1



In addition, Dhanbad Nagar Nigam sees value in increasing the awareness of the public on the issue, and to engage them in the process of resolving it. One flagship initiative is "Vayu Mitra"- a citizen volunteer programme, which aims to empower citizens to take collective action to ensure cleaner air. This initiative emphasises the importance of community effort in tackling air pollution, and provides a platform for citizens to contribute to clean air initiatives under the NCAP.



# What is Paryavaran Utsav and Why is it Needed?

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While governments and industries play a crucial role in tackling air pollution, the involvement of citizens, communities, and civil society organisations is equally vital. Citizen engagement is essential to raising awareness, changing behaviours, and encouraging active participation in clean air efforts. When people are informed and engaged, they are more likely to adopt measures for reducing pollution at their level and support policies that improve air quality. This effort ensures that the steps taken by the government are not merely top-down mandates but part of a broader movement driven by the community itself.



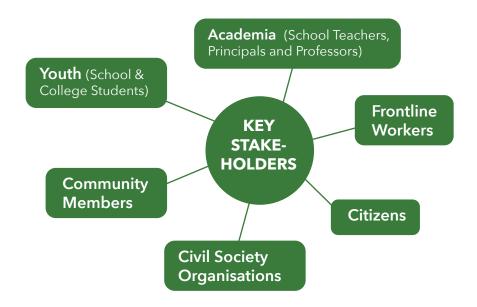
Under the National Clean Air Programme (NCAP), public engagement and awareness has also emerged as essential components to better air quality management and the successful implementation of the programme. Dhanbad Nagar Nigam also recognises the importance of involving its citizens in the fight against air pollution and fostering a deeper understanding within the community about the issue.

Recognising the historical challenges of air pollution in the city, Dhanbad Nagar Nigam went beyond conventional efforts and launched the innovative programme, Paryavaran Utsav. The programme not only informs but also engages and inspires diverse stakeholders to take responsibility for their environment and the air they breathe. Envisioned as an annual initiative, Paryavaran Utsav is led by Dhanbad Nagar Nigam with support from Asar. The Paryavaran Utsav united diverse stakeholders across Dhanbad under the shared vision of clean air for the city

The programme strives to **engage**, **educate**, **and empower** all stakeholders to work together for cleaner air. The key goals of the annual public outreach programme include:

- **1** Building public awareness: Enhancing public understanding and capacity to support actions that reduce air pollution and promote good practices for clean air.
- **2. Empowering individuals:** Educating various stakeholders about the health impacts from air pollution, identifying sources of pollution, and providing effective ways to take both individual and community action.

Paryavaran Utsav was launched last year on April 22nd 2023 (Earth Day) and concluded on June 5th 2023 (World Environment Day), spanning 45 days. The programme utilised various platforms to maximise outreach and impact, featuring inter-school art competitions, workshops, art installations, community dialogues, social media programmes, and interactive exhibitions. These diverse activities were designed to engage people of all ages, backgrounds, and interests, ensuring inclusivity and broadening the programme's reach.



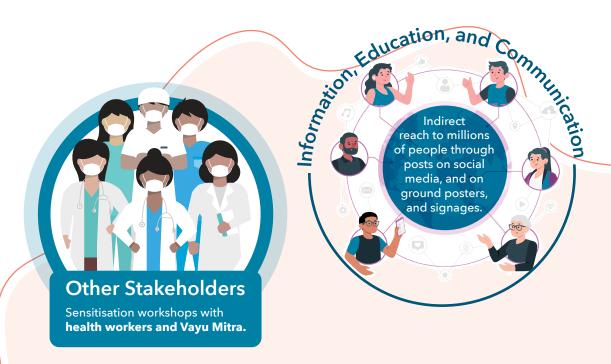


This year, the Paryavaran Utsav began on June 5th, World Environment Day, and, scaling up from previous years, ran for 90 days, concluding on September 7th, 2024, on the International Day for Clean Air and Blue Skies.

It is evident that tackling air pollution requires an inclusive approach. This year's theme, "आइये मिलकर स्वच्छ करें धनबाद की हवा," emphasises the importance of considering air quality as a shared responsibility. It calls for stronger community involvement and effective measures to address pollution.



## **PROGRAMME REACH**















# **01** ENGAGING YOUTH FOR CLEAN AIR

Engaging youth for clean air is essential for fostering a future generation that is both informed and proactive. Schools and colleges offer invaluable platforms. Platforms that can be used to not only educate young people about the significance of clean air but also empower them to become advocates for a healthier environment. This year, our approach to engaging youth included building their understanding through workshops and then reflecting their vision through art and various activities. The AQ Learning Programme, along with competitions and Nukkad Natak performances, played a crucial role in this effort.

### **Dhanbad AQ Learning Programme**

The Dhanbad AQ Learning Programme, launched by the Dhanbad Nagar Nigam, has been a crucial component of youth engagement. It includes interactive workshops and visits to the city's Continuous Ambient Air Quality Monitoring Stations (CAAQMS), where students learn about the science of air quality management and monitoring. The programme also seeks to evaluate the impact of these workshops on students' understanding through a thoughtfully designed impact evaluation framework. The programme aimed to:

- **Educate Students:** Providing hands-on learning experiences about air quality monitoring and its importance.
- **2. Enhance Awareness:** Helping students understand real-time air quality data. The implications on health and the environment from air pollution, and the preventive measures needed for mitigation.
- **Encourage Involvement:** Motivating students to apply their knowledge and actively participate in local clean air initiatives.







### "Design a Better Future" Inter-School Project Making Competition

As part of the 90-day-long Paryavaran Utsav, the "Design a Better Future" project-making competition was held for students in grades 9 to 12. This competition involved 21 schools in Dhanbad, both public and private. It encouraged students to be innovative and showcase their ideas and artistic talents on the issue of air pollution. Through their projects, students expressed their perspectives on the sources of air pollution, its impact on health, and potential solutions. The projects from the competition were displayed in a public exhibition at the closing ceremony of the Paryavaran Utsav, further amplifying the message of clean air and motivating citizens to take action for a healthier environment.



















# **Inter-College Debate Competition**

To engage college students, an inter-college debate competition was held on the topic "Role of Civil Society, General Public, Industry, and Government in Ensuring Clean Air." **Five colleges participated in this competition**, which provided a platform for students to explore the complexities of air pollution and discuss the collaborative roles of various stakeholders in addressing this challenge. The event highlighted:

- **Civil Society:** The role of community groups, and individuals in raising awareness and driving change.
- **2. Industry:** The responsibilities of businesses in reducing emissions and adopting sustainable practices.
- **Government:** The importance of policy-making, enforcement, and public initiatives in improving air quality.

This competition not only stimulated critical thinking among students but also emphasised the importance of a multi-faceted approach to tackling air pollution.

Together with the project making competition, AQ Learning Program, and debate competition, these initiatives have provided a comprehensive approach to engaging youth in the cause of clean air. They have fostered a sense of responsibility, creativity, and informed advocacy among the younger generation, equipping them with the tools and knowledge to make a meaningful impact.















# **02** NAGRIK SAMVAD

The Paryavaran Utsav also engaged various communities across Dhanbad. Through a series of **Nagrik Samvad** (community dialogues), the programme aimed to engage citizens at the grassroots level, offering them a platform to share experiences, and discuss their roles in promoting clean air. **The dialogues were designed to empower communities by fostering open communication and encouraging collective thinking.** 

A total of **27 community dialogues** were organised in different localities of Dhanbad throughout the programme. Special effort was made to engage vulnerable groups, providing them with a space to voice their concerns, learn about preventive health measures, and take actionable steps toward cleaner air.

During these dialogues, participants from diverse backgrounds, including residents and community leaders, engaged in discussions around the following key topics:

- 1 Identifying Local Air Pollution Sources: The dispersed sources of air pollution in their communities were discussed to help them identify and plan targeted interventions at the individual and community levels.
- 2. Sharing Health Impact Stories: Community members shared personal experiences of how air pollution has affected their health and well-being, shedding light on the urgency of addressing the issue.
- **Preventive Health Measures:** Practical steps and measures that individuals can take to protect themselves from air pollution were highlighted and discussed.
- **Community-Led Initiatives:** The dialogues encouraged brainstorming on potential community-led initiatives that could be implemented to combat air pollution and improve air quality in local neighbourhoods.

These **Nagrik Samvad** tries to inspire collective action within the communities, reinforcing the message that tackling air pollution is a shared responsibility.











# **03** INSPIRING COMMUNITY ACTION THROUGH ART & PERFORMANCE

As part of the programme, an event titled "Canvas for Clean Air" was organised. This initiative aimed to inspire community action through art, offering the citizens of Dhanbad an opportunity to creatively express their vision for a cleaner, healthier city.

Over 300 people, including ASHA workers, youth, and community leaders participated in the programme.

Participants shared their ideas for contributing to clean air efforts—such as planting trees, avoiding the burning of waste, educating others about air pollution, and using public transport. Through art-based activities like writing, drawing, and painting, they brought these ideas to life on a 200-foot-long white cloth laid out on the ground, with paints, brushes, and other materials provided for everyone to use.

At the end of the painting session, a thoughtful critique and discussion was held. Selected artworks were presented to the group for reflection, feedback, and appreciation, helping to deepen the collective understanding of how communities can unite for clean air. The event showcased the power of creativity in driving awareness and action, inspiring participants to take ownership of the air quality in their city.





# **Q4** SENSITISATION WORKSHOP WITH VAYU MITRA AND HEALTH WORKERS

As part of the Paryavaran Utsav programme, few interactive sessions were also organised for frontline health workers, who play a crucial role in community engagement and health education. These workshops aimed to equip health workers with a better understanding of air pollution, its effects on health, and the importance of preventive measures. By improving their knowledge on the subject, health workers were empowered to effectively communicate the dangers of air pollution and its prevention strategies to the communities they serve.



Additionally, two orientation sessions were conducted for the key volunteers of the Vayu Mitra programme. These volunteers act as grassroots champions for clean air in their localities. The sessions focused on building their capacity to identify local air pollution sources, engage with community members, and promote behaviour change for cleaner air.

Through these sensitisation workshops and orientation programmes, both health workers and Vayu Mitra volunteers have become instrumental in extending the reach of the clean air programme.



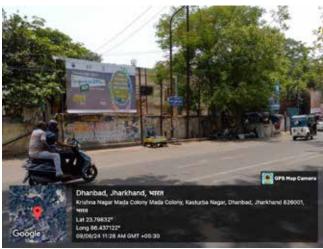


# **05** SIGNAGES AND POSTERS

A number of signages and posters were displayed at areas with heavy traffic, at community centres, public institutions and public transport hubs throughout the city during the programme period. These signages and posters were strategically placed across the city to create awareness amongst the masses on the impact of air pollution, and the importance of individual action in reducing it.











# **06** STREET PLAY

As part of the campaign, two impactful Nukkad Nataks (street plays), performed by two different groups with distinct themes, were organized at different locations in Dhanbad, showcasing the power of community engagement through creative expression.

One of the Nukkad Nataks was performed by college students, who delivered a powerful message on the role of Vayu Mitra and the importance of collective efforts for clean air. Through compelling storytelling and relatable characters, they highlighted how air pollution affects public health, daily life, and the environment. Their performance also emphasized the collective responsibility of citizens in adopting cleaner practices, from reducing vehicular emissions to using public transport.

In contrast, the second group was led by children from a local basti. Despite their young age, the kids demonstrated incredible passion and creativity as they depicted the everyday struggles caused by polluted air. Their play focused on how air quality impacts their community and highlighted simple actions that can be taken to improve the situation, such as planting trees and avoiding the burning of waste.









# Closing Ceremony of Paryavaran Utsav

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The Closing Ceremony of Paryavaran Utsav marked the culmination of a 90-day journey of citizen engagement, awareness, and action for cleaner air in Dhanbad. This grand event saw the participation of over 1,200 individuals, including school and college students, community members, civil society organisations, school principals, and professors. Distinguished guests such as the District Collector of Dhanbad, Municipal Commissioner, District Forest Officer, Director of the Central Institute of Mining and Fuel Research (CIMFR), the Vice Chancellor of Binod Bihari Mahto Koyalanchal University, and IIT (ISM) Dhanbad, along with other key dignitaries, were present.

The event featured a variety of activities, including a project exhibition showcasing the creative works of school students. There was also a public exhibition of all school projects. Highlights included the announcement and felicitation of winners from the "Design a Better Future" inter-school project competition, the inter-college debate competition, and the recognition of civil society organisations that played a significant role in the Paryavaran Utsav.

This closing ceremony was not only a celebration of the efforts made during the Paryavaran Utsav but also a call to action for continued collective responsibility and initiatives for a cleaner, greener Dhanbad.













The Paryavaran Utsav-2024 has been a resounding success, marked by an impressive response from the citizens of Dhanbad. Over the course of this 90-day programme, schools, colleges, communities, civil society organisations, and residents came together with enthusiasm and commitment to the cause of clean air. The programme has not only highlighted the importance of public engagement but also showcased the transformative power of unified action against air pollution.

The diverse range of activities, from interactive workshops and art competitions to community dialogues and educational sessions, demonstrated the programme's effectiveness in reaching various stakeholders and fostering a deeper understanding of air quality issues.

The impact of the Paryavaran Utsav extends beyond the immediate success of the events. It has laid a strong foundation for sustained efforts towards cleaner air in Dhanbad. The Dhanbad Nagar Nigam has set a precedent for future environmental initiatives. The lessons learned and the momentum gained from this programme will undoubtedly contribute to shaping a more informed and proactive community, dedicated to improving air quality and ensuring a sustainable future for Dhanbad.

















# पर्यावरण संरक्षण का लिया गया संकल्प

अक्टबर अक्टबर, एकट ' पर' पट में तर दिनक पर्यक्रमा अवार्ड कर एक में तर कर्मक्रमा अवार्ड कर एक पर्यक्रमा अक्टबर क्रांची कर क्रांच पर्यक्रमा, अपून्त और प्रमुक्त के प्राची की लेकर विभिन्न महा को गोरिक्षाच्यों का आप्टेसन किया जा मार्ड



महाबंद ही एवं हरू। संस्थान के लंदिन देवें महिला + सकत















# Messages from Dignitaries at the Closing Ceremony of Paryavaran Utsav

### Ms Madhvi Mishra (IAS), District Collector, Dhanbad

The District Administration and the Dhanbad Nagar Nigam are actively working to improve air quality. As a city with a coal-dependent economy, any improvement in air quality is a step in the right direction. In the last few years, the air quality has improved in the city and now falls more often in the 'Moderate' to 'Poor' category, compared to the earlier 'Severe' and 'Very Poor' levels. Since the air is shared by everyone, we all have a common responsibility to improve it. From the government to industries and the general public, everyone must work together for cleaner air, and we will continue delivering efforts to ensure cleaner air for all.



# Prof. (Dr.) Ram Kumar Singh Vice Chancellor Binod Bihari Mahto Koyalanchal University, Dhanbad

I am immensely proud to witness the active involvement of our young generation in the Paryavaran Utsav. I firmly believe that the youth are the driving force behind meaningful change, and their participation in this clean air effort demonstrates their unwavering commitment to creating a healthier, more sustainable world. By integrating education, research, and hands-on action, we can make significant strides toward a cleaner, greener Dhanbad. I have no doubt that our youth will continue to lead the way in this vital movement, inspiring others to join in the collective mission of environmental stewardship and progress.



### Shri Raviraj Sharma Municipal Commissioner, Dhanbad

The Paryavaran Utsav has been a landmark initiative by Dhanbad Nagar Nigam, dedicated to raising awareness, educating, and empowering our citizens to strive for cleaner air. This year's Paryavarn Utsav saw enthusiastic involvement from schools, colleges, civil society organizations, and everyday citizens alike, showcasing the power of community collaboration in shaping a healthier future for our city. Dhanbad proudly stands as the first city in Jharkhand to install more than 10 air quality monitoring stations, demonstrating our commitment to tackling air pollution. According to the latest report by the University of Chicago, Dhanbad has witnessed a noticeable reduction in air pollution, and our own data shows a significant percentage decrease in pollution levels.



# Shri Vikas Paliwal (IFS) District Forest Officer, Dhanbad

The Forest Department of Dhanbad has been actively contributing to the fight for cleaner air through a series of dedicated initiatives, including large-scale plantation drives and the conservation of our green cover. Forests and greenery play a vital role in regulating the climate, and through our continuous efforts, we aim to ensure a greener, healthier future for Dhanbad. Together, with the active participation of the community and the dedication of our youth, we can make a lasting impact on both our air quality and our environment.



# Prof. Arvind Kumar Mishra Director, CSIR-Central Institute of Mining & Fuel Research- Dhanbad

Efforts for clean air are a shared responsibility for everyone. With focused research, we can find new ways to reduce air pollution. But just having knowledge isn't enough. We must share what we learn in clear and simple language so that everyone in our community can understand. By working together, we can raise awareness and help people take meaningful action in their lives.



