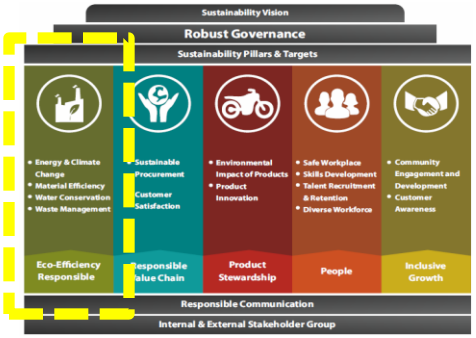


Escalating ESG Benchmarks in Environment Facility Operations

Presenter:

Hero MotoCorp Ltd
Gurgaon

08th Oct' 2026

External-Confidential

Company Overview



Company Name

Hero MotoCorp Ltd.

Services

Hero MotoCorp is the world's largest manufacturer of motorcycles and scooters, we provides customers with an excellent range of mobility solutions that ensure style and comfort.

Ambitious Targets on Sustainability - HATS

- 100% Carbon Neutral Operations by 2030
- 100% Waste Neutral facilities by 2025
- 500% Water Positive facilities by 2025
- 30% Gender diversity by 2030
- 100% Product recyclability by 2030
- 100% Green Dealerships by 2030

Salient features: Gurgaon Plant

01 Most flexible 2W manufacturing plant with 91 models with platform 100 cc,125 cc,150 cc ,200cc and Scooters

02 ISO 9001, 14001, 45001, 22000, 50001,GreenCo certified. & Water positive assurance

03 Sustainable plant with certification of Single use Plastic Free Plant, Zero Waste to landfill & Zero liquid discharge plant

04 Achieved Water positivity of 172% & Gold Award in Blue Rating System

05 Photovoltaic roof to generate electricity (Green Energy with 750 KWp capacity)

06 Machine shop equipped with robots, Smart cells & CNC machines, Robotic Welding & Painting, Cabot's in assembly, AGV's for material movement

1. Project Brief: Escalating ESG Benchmarks in Environmental Facility Operations

Date of commencement	Apr'2025
Date of completion of project	Mar'2026

Trigger of the Project

Top management commitment towards sustainability & green manufacturing





Hero MotoCorp's Ambitious Targets on Sustainability (HATS)





To Support Sustainable Development Goal



Operational Trigger

Manual Tracking

Utility data logged by hand resulted in undetected operational losses, lack of real-time visibility, and delayed alarm responses.

Heat Loss & Energy Waste

Sludge dryers failed to reach 130°C–135°C due to severe thermal losses, necessitating continuous running of high-cost electric heaters.

Long-Haul Disposal

Disposing 89% of hazardous waste via co-processing required distant transportation, significantly increasing carbon footprint and logistics expenses.

Flooded Sewer Lines

Damaged pit covers allowed monsoon rains to flood sewer lines, overloading the effluent treatment plant and wasting recoverable rainwater.

Unsafe Working Conditions

Operators and maintenance technicians faced recurring hazards including slip, trip, fall, and overhead impact risks during daily routines.

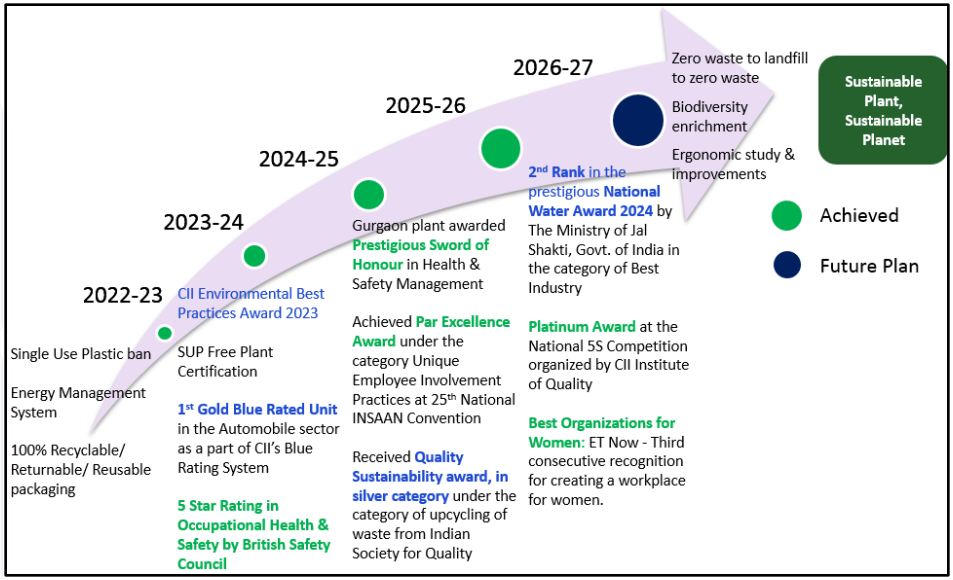
Resource Capability Gap

Constrained pool of trained specialized personnel challenged the facility's ability to maintain pace with aggressive sustainability and circularity targets.

Uniqueness of the Project

- Supporting India's Circular Economy Action Plans and Hazardous Waste Management Rules by conserving natural resources.
- Energy saving prevents approximately **23.2 Metric Tons of CO2 emissions** annually (the carbon absorption equivalent of **planting over 1,000 trees**), directly supporting India's Panchamrit target of reducing carbon intensity.
- Treating every drop of water as a strategic asset
- Transformed employee well-being by merging **5S principles with ergonomic engineering** (*Search-Free, Air-Free, Climbing-Free, Accident-Free, Counting-Free*).
- **Breaking Gender Barriers,** establishing a supportive framework for women in traditionally male-dominated roles.
- **Beyond Compliance:** Operates under self-imposed internal discharge and emission targets that are **10% stricter** than legal statutory limits set by the Pollution Control Board.

Major milestones of Project accomplishment



2. List of Tangible Benefits

S. No.	Pillar	Projects	Tangible Benefits		
			Cost Saving		Other Tangible Benefits
1	Environment Excellence	Scaling Waste Circularity	Cost saving in lacs/ Annum	2.84	• **Increased waste recycling up to 60% approx.** • **Distance reduced= 1646km** • **1.56 MT CO2 reduced by reducing distance**
2		Boosting sludge dryer efficiency through direct thermal transfer	Cost saving in lacs/ Annum	3.1	• **Saved 32,400 KWH/annum** • **Reduced 23.2 MT CO2**
3		Centralised Utility Cockpit SCADA	Cost saving in lacs/ Annum	0.175	• **Saving of fresh water approx. 342.3 KL/ annum** • **Saving soft water approx. 724.8 KL/annum**
4	Social Excellence	Ergonomic redesign & Hazard Mitigation	Cost saving in lacs/ Annum	9.3	• **Sustaining Zero injury & Zero environment incidents since last 4 years** • **Total space saved= 320 sqft i.e. 29 sqm** • **Total time saved= 1293.75 hrs. i.e. 53 days/annum**
5		Capability Building & Diversity	Cost saving in lacs/ Annum	-	• **Gender Diversity also increased by 3%** • **Developed 33 nos. of Fire fighters** • **Developed 4 nos. of First aiders**
6	Governance Excellence	Significant reduction in water pollutant levels Digital Compliance & Monitoring Infrastructure Expansion of Governance & Policy training	Cost saving in lacs/ Annum	-	• **Beyond Compliance: Actual outcomes achieved are 60% lower than the stringent internal standards** • **60% Reduction in Pollutant Load** in discharge water. • Records data 24 hours a day without manual site visits • **100% Workforce Coverage:** Extended mandatory Code of Conduct, POSH, and Human Rights training to all contract operators and workforce members, beyond permanent staff.
Total Saving in lacs / Annum				15.41	

3. List of Intangible Benefits

S. No.	Pillar	Projects	Intangible Benefits
1	Environment Excellence	Scaling Waste Circularity	• **Upcycling of waste-** Next step after Co-Processing • Used as a **resource for other industries** • also **eliminating emission of gases** which incineration normally produces thus contributing to Environment. • Support the **SDG12** Responsible Consumption and Production- Resource conservation and waste reduction resulted in savings of resources for the people, society. • Spreading **Community awareness** and efforts towards **Beyond Compliance**
2		Boosting sludge dryer efficiency through direct thermal transfer	• **Eliminated Procurement Overhead:** Avoids recurring purchase orders, vendor follow-ups, and oil delivery tracking. • **Elimination of Hazardous Oil Disposal** • **Enhanced Workplace Safety by** Eliminating high-temperature oil circulation significantly reduces fire hazards, chemical spill risks, and operator exposure to thermal fluid burn risks.
3		Centralised Utility Cockpit SCADA & OCEMS	• **Reduced Scaling and Corrosion in Equipment** which extends the operational life of ozone generator components and priming pumps. • **Avoidance of Non-Compliance Fines** • Reduced Manual Log Logging
4	Social Excellence	Ergonomic redesign & Hazard Mitigation	• **Elimination of Ergonomic Burdens** - "Muda" (Waste) and "Muri" (Overburden) have been designed out of the process • Manual removal exposed workers to high odor levels and harmful gases. Automation **reduces the risk of respiratory issues and long-term complications**. • Skill level up of the team w.r.t. to waste as perception changed from • - **"Waste"** to **"Misplaced Resource"** • - **"Dust Bin"** to **"Value Bin"** • - **"Scrap Yard"** to **"Waste Management Yard"** • - **"Kachra" to "Specific Waste"** • Saving of Human energy by implementing automatic systems. • Inherent cost consciousness amongst the team.
5		Capability Building & Diversity	• Shifted focus from basic machinery operation to comprehensive safety • Champion diversity by empowering women in non-traditional shop-floor roles
6	Governance Excellence	Stringent Parameters & Digital Infra	• Benchmarking done and Chairman of HSPCB also visited our Plant Facility on 2nd Dec'2022 and appreciated our team and called our Environmental facilities as **"Model Facilities in India"** • Building consistency in policy and enforcement across HMCL.

4. Horizontal deployment in HMCL- Replication potential and progress of project assimilation cross functional / within group plants.

S. No.	Projects	Status at HMCL Other Plants						
		Hero MotoCorp Ltd, Dharuhera (HM1D)	Hero MotoCorp Ltd, Haridwar (HM3H)	Hero MotoCorp Ltd, Neemrana (HM4N)	Hero MotoCorp Ltd, Vadodara (HM5V)	Hero MotoCorp Ltd, Tirupati (HM6T)	Global Parts Center (HP3N)	Center of Innovation & Technology, Jaipur (CIT)
1	Scaling Waste Circularity	✓	✓	✓	Not Feasible	Not Feasible	Not Feasible ETP not available	Not Feasible ETP not available
2	Boosting sludge dryer efficiency through direct thermal transfer	Under Progress	Under Progress	✓	✓	Under Progress	Not Feasible ETP not available	Not Feasible ETP not available
3	Centralised Utility Cockpit SCADA	Under Progress	Under Progress	✓	✓	✓	Not Feasible ETP not available	Not Feasible ETP not available
4	Ergonomic redesign & Hazard Mitigation	✓	✓	✓	✓	✓	Not Feasible ETP not available	Not Feasible ETP not available
5	Capability Building & Diversity	✓	-	✓	✓	✓	Not Feasible ETP not available	Not Feasible ETP not available
6	Significant reduction in water pollutant levels Digital Compliance & Monitoring Infrastructure Expansion of Governance & Policy training	✓	✓	✓	✓	✓	Not Feasible ETP not available	Not Feasible ETP not available

5. Sharing of best practices- Replication potential of project within sector



We actively share our Environmental best practices with internal and external stakeholders, including government ministries ,senior IAS officials, and industry peers. Our ETP/STP facilities consistently receive high praise for operational excellence , cleanliness and technical standards.





Senior IAS officials and HSPCB officials benchmarking our facilities





"Knowledge Exchange" Facilitating learning sessions for new HSPCB joiners.





"Standardizing excellence" ETP & STP site visits during new employee induction


JCB INDIA LIMITED

JCB

Ref No.: EHS020226
Dated: 03 February 2026

To,
M/s Hero MotoCorp Limited
Gurugram, Haryana

Subject: Letter of Appreciation – ETP Plant Visit

Dear Team,

On behalf of M/s JCB India Limited, we extend our sincere appreciation to you and your entire team for facilitating the industrial visit to your Effluent Treatment Plant (ETP) on 02 February 2026.

We are grateful for the time and effort dedicated to demonstrating the plant processes, explaining the operational controls, and allowing us to observe the coolant treatment and effluent management systems in detail. The insights shared during the visit have significantly enhanced our understanding of best practices and identified valuable opportunities for improvement within our own facility.

We deeply value the spirit of mutual collaboration shown by your team. Your openness, technical guidance, and willingness to share knowledge reflect a strong commitment to strengthening environmental compliance and fostering industry-wide benchmarking.

We remain thankful for the cooperation extended to us and look forward to continued knowledge-sharing and partnership in the future. Should you require any support from our side, please feel free to contact the undersigned.

Warm regards,

Jaijeet Gupta
Head – Corporate EHS
General Manager
M/s JCB India Limited

Industry Recognition letter of appreciation from JCB India for best-practices sharing



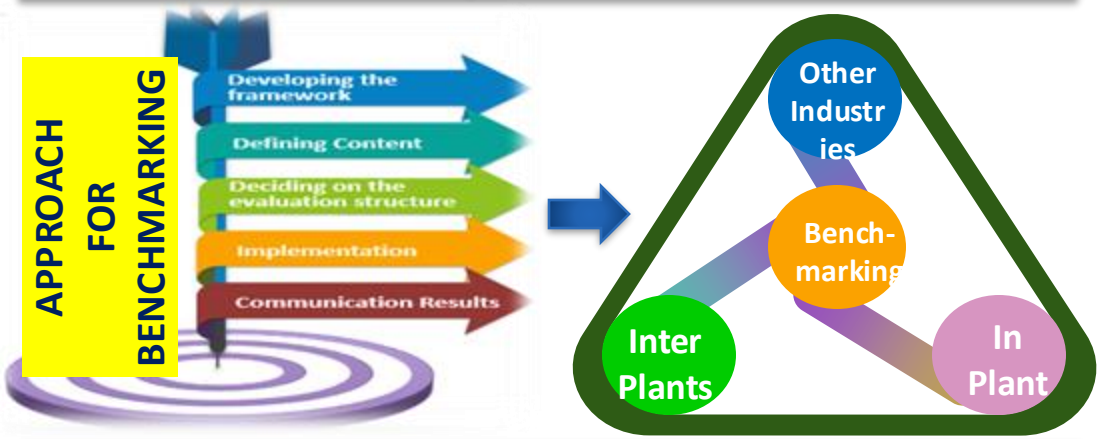
Chairman Pollution Control Board visited our Env. Facility appreciated and called our Facility as World Class.

6. List of Challenges faced and brief on countering

Challenges	Methods to Overcome
• transitioning paint sludge to a recycler vendor—since ETP sludge could only go for co-processing, and Low ETP sludge generation led to dispatching partially filled, large-capacity trucks, wasting vehicle space and fuel. • Increasing sludge cost while sending for recycling • Sludge drying machine increases energy consumption • Safety risks during maintenance. • Increase in short-term fixed costs arising due to the installation of automatic mechanical systems. • Environmental facilities involve sludge, oil, and chemicals. It **feels impossible** to keep things “Shinning” when the process itself is inherently messy. • All existing facility infrastructure—including washrooms was exclusively designed for male personnel, with no dedicated female facilities available. • Subconscious gaps in workplace etiquette, align everyone on legal and ethical standards, and establish an environment of absolute trust and psychological safety without making the female member onboarding feel awkward or forced. • Environmental facilities often operate under local, national, and international standards that frequently change or conflict with one another.	• Smart Hybrid Loading Strategy: When dispatching the full ETP sludge load, any remaining truck space was filled with paint sludge to ensure 100% vehicle space utilization. Rest of the paint sludge sent to recycler vendor. • Using hot water generators for running the sludge drying machine. • Provided fixed stairways & platforms for easy access. • Change of mindset fro Impossible to Possible by Focusing on Source Control. • Prioritized infrastructure development by constructing dedicated, secure female washrooms directly within the facility premises. • Scheduled comprehensive, compulsory training sessions for the entire team covering Code of Conduct (COC), Human Rights, and Prevention of Sexual Harassment (POSH). • Stringent parameters set i.e. Beyond Compliance

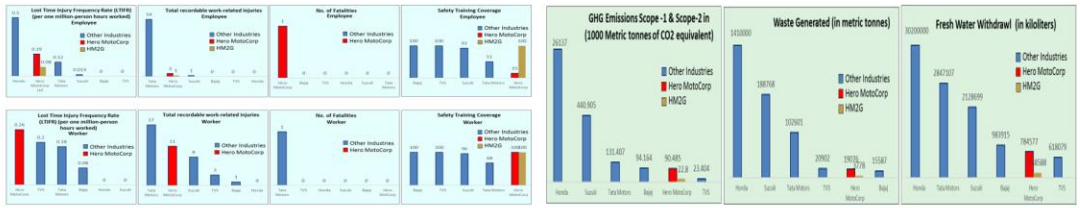
7. Achieving National benchmarks / Standards

Benchmarking Model- Peer Comparison & Improvement



National Benchmarking with Other Industries thru Study of Sustainability Reports/ Site Visits/ Attending Conferences & Seminars

Safety & Environment Performance Benchmarking



Conclusion:-

Safety Performance:
- Fatalities: Both Hero MotoCorp and Tata Motors recorded one fatality.
- Injuries: Bajaj reported the lowest number of total recordable work injuries (1) and the lowest LTIFR among the group.
- Training: Our analysis indicates a need to increase our employee training coverage percentages.

Environment Performance:
- GHG Emissions (Scope 1 & 2): TVS recorded the lowest emissions.
- Waste Generation: Bajaj produced the least amount of waste.
- Water Usage: TVS reported the lowest fresh water withdrawal.

Industry Benchmarking- Visit to Env. Facility

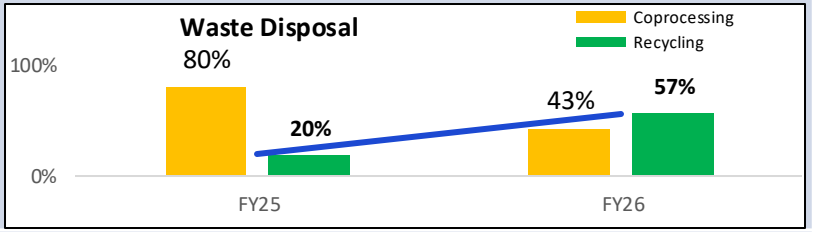
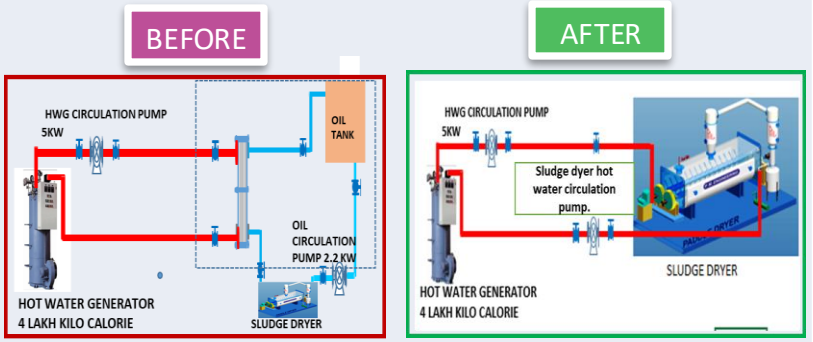
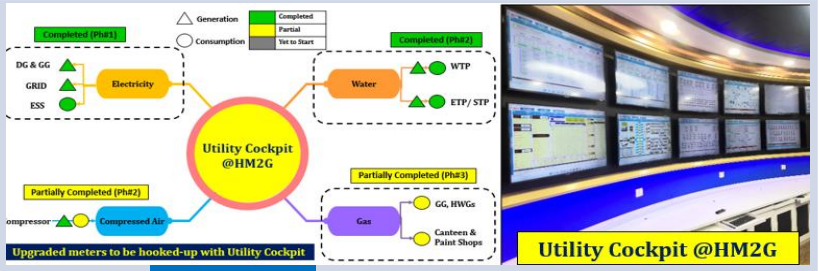
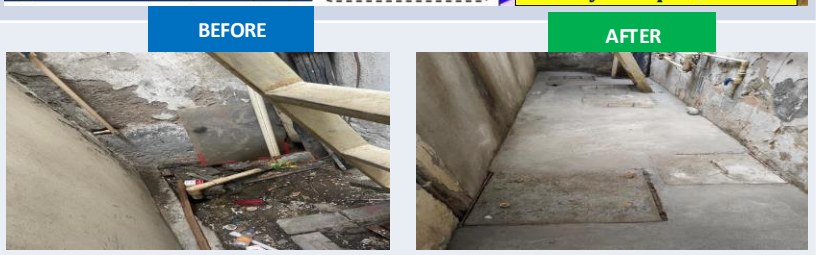


Sh. P Raghavendra (Retd. IAS) Chairman, Haryana State Pollution Control Board appreciated HM2G team and called out facilities as "**Model Facilities in India**" On 2nd Dec'22

8. Priority plans on fast track for +1 year and +2 year

Projects	*Resource Requirement*
Replacement of your existing MEE + ATFD system with our High recovery Batch RO system and patented Evaporator (CEE) by 2027	Under progress
Biodiversity Impact Assessment for Identification of any critical habitats within the plant boundary by Dec'2026	Under progress
Green Co Rating Recertification by 2027	Under progress
Onsite Solar Rooftop PV Plant having capacity 1250 kWp by Dec'2026	Under progress
Construction of Road using plastic waste by Mar'2027	Under progress
Ergonomic Consultation: Ergonomic Evaluation & Training by Nov'2026	Under progress
Exploring Other wastes for upcycling	Under progress
Adaptation of new technologies for reduction of waste generation at source	Trial under process

9. Project details- Environment Excellence

Project	Description	Reference image
Scaling Waste Circularity	In FY26, the plant executed an operational push to maximize this circular model. **By optimizing sorting, logistics, and internal waste-handling workflows, we scaled up recycling from 20% to 57%**, shifting nearly half of paint sludge away from linear disposal into high-value material recovery.	
Boosting Sludge Dryer Efficiency through Direct Thermal Transfer	**Background-** In the sludge dryer oil was heated through hot water. The temp of hot water was 140 degree and the temp of oil had to be maintained at 130 and 135 degree. But due to heat loss in between, the temp of oil could not be maintained, due to which the oil heater had to be run and sludge dryer running cost was high. **Countermeasure-** Hot water is directly circulated in the sludge dryer machine, which reduces heat loss and improves machine efficiency.	
Centralized Utility Cockpit SCADA	Installed smart, communicable meters across WTP, ETP, STP, MEE, and recycling units, backed by real-time SCADA dashboards. Key data-driven outcomes include: • STP Ozonator & fire pump house priming line shifted on soft Water which saves 342.3KL of fresh water in a year. • Weld shop cooling tower Water drain line shifted to ETP which saves 724.8 KL of soft water in a year.	
Storm water Diversion	Fixed 16 damaged sewer pits before the monsoons to keep clean rainwater out of sewage lines. This redirected 1,168 KL of rainwater into an onsite lake to recharge groundwater while cutting STP treatment loads and costs.	

9. Project details- Social Excellence

Ergonomic Redesign & Hazard Mitigation

AIM-
To enhance the productivity of workforce, equipment, space, inventory ; Quality of products, processes, work environment, work life and safety of individual, machine & material.

OBJECTIVE-
To reduce human stress by providing pleasant working environment.

PROJECT-
Standardized workplace safety under the 5F philosophy (Search-Free, Air-Free, Climbing-Free, Accident-Free, Counting-Free):

Provision of permanent platform for replacement of filter media



Implementation of Mechanical Material Lift for handling of Chemical Bags



Elimination of human intervention for removal of oil & scum by installing Mechanical type skimmer for cleaning of Bar Screening chamber



Manual removal of scum | Scum removal thru Mechanical type skimmer

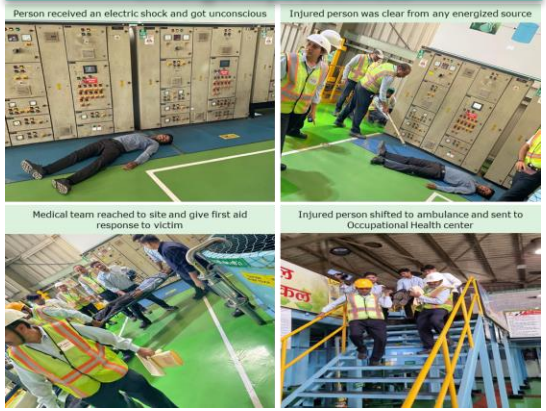
Hazard Mitigation thru 5S implementation @ Env. Facility



By identifying critical gaps and implementing a structured action plan, we successfully increased our 5S score from 82% to 92 % within H2

Capability Building & Diversity

Conducted live electrocution mock drills at ETP to validate real-time emergency readiness

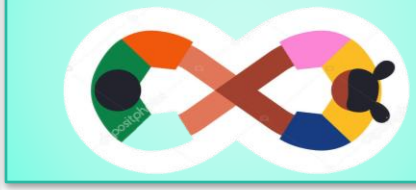


Trained 100% of operators in firefighting and internal First aid/ CPR trainings



Operations related awareness trainings also organized on various topics such as Plant operations, Hazardous waste handling, energy saving, etc.
Total 644 training Manhrs covered in FY26.

Raising female representation at shop floor in the male dominated sector

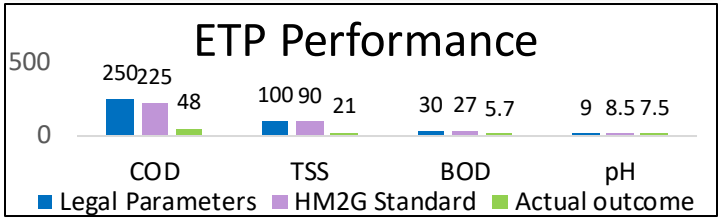


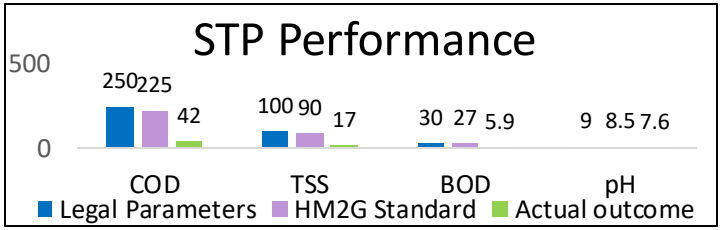


9. Project details- Governance Excellence

Beyond Compliance

Stringent Parameters Set @HM2G with respect to the Legal Parameters for ETP & STP Performance





PROJECT-
Target set 10% more stringent as compared to Legal standard. Actual outcomes achieving are 60% lesser than stringent targets.

Digital Compliance Infrastructure

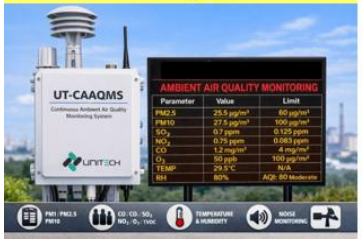
Online Effluent Monitoring System connected with CPCB & HSPCB Portal



On line Piezometer installed to monitor Ground water table



Online Ambient Air Quality Monitoring System



Digital Env. Information Board display



Generating Green Dashboard showing ESG Milestones



Inclusive Policy Extension

Extended mandatory **Code of Conduct, POSH, and Human Rights** training beyond permanent staff to include **100% of contract operators and workforce members**.

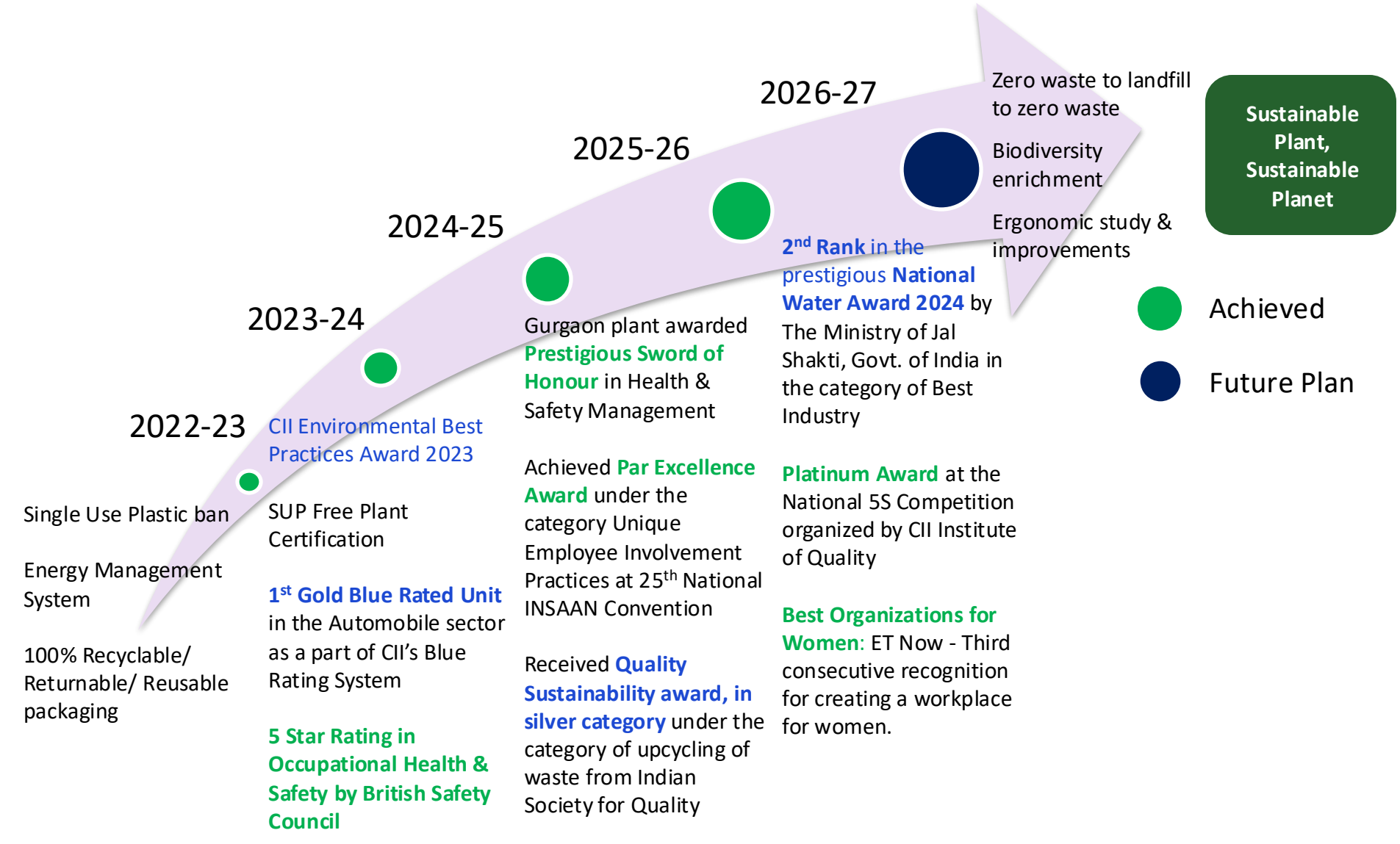


10. Major learnings from the project implementation

1. Investing in modern waste processing infrastructure can significantly improve the efficiency of waste management systems and reduce environmental impact.
2. Producing raw material for other industries resultant in supporting the SDG12 Responsible Consumption and Production.
3. Deep understanding of recycling of waste and achieving benefits from them.
4. Better utilization of the waste management team to save their time and increase their productivity.
5. Positive cultural effect to rethink and redesign how products are created, bought, used, and eventually disposed of.
6. Assists in lowering waste management costs and significantly reduces greenhouse gas emissions globally.
7. **Enhance Cost consciousness among team**.
8. Enhanced Competency of team resulted more sustainability initiatives water positivity, carbon neutrality etc.
9. Important learning from this project is, It is a need of time to expand focus area of business from just commercial benefits to Sustainability benefits. From this project it is learnt that along with commercial benefits, environmental benefits can also be achieved if awareness is built
10. Sharing of Upcycling of waste initiatives Globally in all facilities and supply chain.

Hero

Thanks


2022-23
Single Use Plastic ban
Energy Management System
100% Recyclable/ Returnable/ Reusable packaging
2023-24
CII Environmental Best Practices Award 2023
SUP Free Plant Certification
1st Gold Blue Rated Unit in the Automobile sector as a part of CII's Blue Rating System
5 Star Rating in Occupational Health & Safety by British Safety Council
2024-25
Gurgaon plant awarded Prestigious Sword of Honour in Health & Safety Management
Achieved Par Excellence Award under the category Unique Employee Involvement Practices at 25th National INSAAN Convention
Received Quality Sustainability award, in silver category under the category of upcycling of waste from Indian Society for Quality
2025-26
2nd Rank in the prestigious National Water Award 2024 by The Ministry of Jal Shakti, Govt. of India in the category of Best Industry
Platinum Award at the National 5S Competition organized by CII Institute of Quality
Best Organizations for Women: ET Now - Third consecutive recognition for creating a workplace for women.
2026-27
Zero waste to landfill to zero waste
Biodiversity enrichment
Ergonomic study & improvements
Sustainable Plant, Sustainable Planet
Achieved
Future Plan