

Our Planet, Our Tomorrow

At Hikal, sustainability is embedded into the way we operate, guiding our efforts to reduce environmental impact across the value chain. By advancing green chemistry practices, optimising resource use, conserving energy and water, managing emissions, and minimising waste, we aim to create measurable environmental value while supporting a healthier planet for all.

Material Topics Covered

 Energy Efficiency and Carbon Emissions	 Waste Management
 Air Pollution	 Green Chemistry
 Water and Effluent Management	 Biodiversity Protection

Highlights for 2025-26

1,050,176 GJ
Total renewable energy consumption

INR 22.17 Million
Annual savings attributable to energy efficiency investments

21%
Reduction in Waste Generation as compared to 2022-23 baseline

Contribution to UNSDGs



Energy Efficiency and Carbon Emissions

Our integrated energy management approach is centred on maximising efficiency, minimising waste, and expanding the use of renewable energy. By advancing solar and wind projects, upgrading boiler burners, and enhancing chiller performance, we are reducing our carbon footprint while strengthening operational efficiency and long-term sustainability.

Energy Efficiency

Guided by our Corporate-level Energy Conservation Committee (EnCon), we continued to advance energy efficiency initiatives across our operations. Through process optimisation, strategic equipment upgrades, and the adoption of advanced energy management systems, we enhanced our ability to monitor, manage, and optimise energy consumption in real time. These initiatives helped improve operational efficiency, reduce energy wastage, and deliver measurable energy savings.

During 2025-26, our total energy consumption from renewable and non-renewable sources was 1,345,295 GJ, of which 1,050,176 GJ was derived from renewable sources. Renewable energy contributed 78% of our overall energy consumption, reflecting our sustained focus on integrating cleaner energy sources and advancing our decarbonisation journey.

INR 0.62 Million
Yearly investments in energy efficiency and process optimisation measures

50,294,842 kWh
Total Non-Renewable Electricity Consumption

58,370,759 kWh
Total Renewable Electricity Consumption

40,820 MT CO₂e
Net absolute scope 1 & 2 emission reduction from 2022-23 baseline

Measures

Crop Protection Division

- Use of turbine for cogeneration of electricity using high pressure steam from briquette boiler resulted into saving of 91,880 kWh & INR 1,088,488 in 2025-26
- Elimination of CHW supply pump (P-155018) which resulted into stoppage of one pump and yearly saving of 79,368 kWh energy & INR 682,565
- Power saving of 291,060 kWh achieved through compressed air supply from crop utility to MPAH Plant resulting in saving of INR 2,791,858
- Briquette boiler Steam Fuel Ratio (SFR) was improved through briquette quality and temperature control in the boiler operation which resulted in the briquette quantity saving of 62,124 kg annually and corresponding saving was INR 589,564

Pharmaceutical Division

- Efficiency improvement of brine chilling plants BRU-1114 and BRU-1402 in utility-01 & BRU-1111 and BRU-1113 in utility-02 which resulted into 603,900 kWh & INR 4,465,714 savings
- VFD installed for PB 02 exhaust blower, that achieved 129,600 kWh and INR 1,010,880 savings
- Energy efficient motion sensor installation at employee canteen, OHC and EHS office, that achieved 4,723 kWh and INR 64,471.68 savings

Pune Research and Technology (R&T)

- Replaced 100 nos. of 36W CFL lights with 18W LED lights, reducing annual energy consumption by 6,480 kWh and resulting in savings of INR 64,800
- Trimmed the hot oil circulation pump impeller size from 160 mm to 141 mm to achieve the desired flow, reducing annual energy consumption by 4,608 kWh and resulting in savings of INR 46,080

Carbon Emissions

Across our manufacturing locations, we continue to deploy cleaner technologies and efficiency-led initiatives, including biofuel-based boilers, solvent recovery systems, and real-time emissions tracking, to reduce our carbon footprint and enhance environmental performance.

For 2025-26, Scope 1 emissions were 11,261.57 MTCO₂e, Scope 2 emissions were 42,449 MTCO₂e, and Scope 3 emissions were 217,145 MTCO₂e with our emissions reduction initiatives contributing to a reduction of 40,820 MTCO₂e in scope 1 & 2 emissions during the reporting year from 2022-23 baseline.

Decarbonisation Roadmap

We are committed to reduce Scope 1 and Scope 2 emissions by 30% by 2027-28 from the base year 2022-23. We have developed a structured decarbonisation roadmap anchored to our baseline emissions. The roadmap prioritises energy efficiency improvements, greater renewable energy integration, and enhanced waste heat recovery to lower our carbon footprint.

Decarbonisation Plan

GHG Scope 1 and 2 Decarbonisation Levers

1. Increasing renewable energy adoption and implementing energy efficiency measures are critical to achieving decarbonisation and emissions reduction targets
2. Conducting detailed energy maturity assessments is essential to identify, evaluate, and prioritise the feasibility of available decarbonisation levers for Scope 1 emissions reduction
3. Transitioning boilers to cleaner fuels or electrification will further accelerate decarbonisation efforts and remains critical from a long-term perspective. Currently, boilers account for approximately 75% of total Scope 1 emissions

GHG SCOPE 3 Decarbonisation Levers
Identify Key Suppliers

- Identify Tier 1 suppliers for material sub-categories
- Prioritise suppliers based on available spend data, emissions contribution, and their maturity

Assess Maturity of Suppliers

- What are your Tier 1 suppliers' sustainability ambitions and emission reduction targets?
- Can you expect their Scope 1, 2, and 3 emissions from the suppliers?
- To be assessed based on publicly available information

Calculate Scope 3 Emissions

- Calculate an accurate Scope 3 footprint for top sub-categories/ products, based on supplier-specific information (and industry-average information where needed)
- This will make the emissions inventory more precise

Identify Scope 3 Reduction Levers

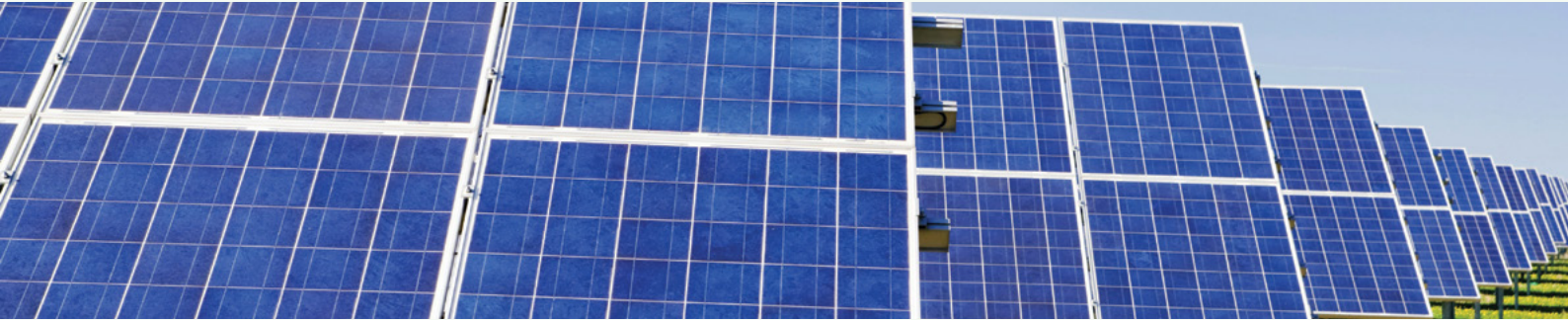
- Low-carbon alternatives such as green products
- Ask suppliers for EPD with carbon profile of products/equipment
- Supplier emission reduction targets
- Select high-efficiency devices and equipment
- Integrate sustainability aspects into the tendering/ procurement process

Renewable Energy

We strengthened our renewable energy portfolio through PPAs and hybrid wind-solar projects at the manufacturing sites. Renewable energy continues to power operations across our Mahad, Taloja and Panoli Jigani plants, supporting our transition to a cleaner energy mix. We are also advancing the conversion of our LSHS boiler to renewable biomass fuel using briquettes made from agricultural residues and wood waste, further reducing our reliance on conventional fuels and supporting our decarbonisation journey.

Panoli site outsourced 46,298 MT of steam, that is produced from briquettes made of agricultural residue, to increase the share of renewable energy by 128,695 GJ.

We switched steam generation from CNG to biofuel based steam to increase renewable energy in our operation at Panoli. We signed agreement with common utility company in 2024-25 to supply steam at Panoli site which is generated from biofuel.



Air Pollution

We manage air emissions through a technology-driven framework built on real-time monitoring, robust control systems and continuous process improvements. Ozone-depleting substances are included in our GHG calculations, strengthening the accuracy and completeness of our emissions inventory.

During 2025-26, air emissions included 3.96 MT of NO_x, 4.68 MT of SO_x and 6.33 MT of particulate matter (PM). Our efforts remain focused on reducing emissions through cleaner technologies and operational efficiencies.

- Real-time emissions and air quality monitoring supported by independent assessments from MoEF-approved laboratories
- Advanced emission control systems, including scrubbers, bag houses and electro static precipitator deployed across key operations

2.9MW
Renewable energy capacity at Panoli unit

3MW
Renewable energy capacity at Mahad unit

INR 153.57 Million
Total cost savings

8MW
Renewable energy capacity at Taloja unit

3.5MW
Renewable energy capacity at Jigani unit

- Continuous air quality monitoring at pharmaceutical facilities and regular ambient air monitoring at Crop Protection sites
- Reduced reliance on diesel generators through the implementation of express feeder systems, lowering associated emissions while ensuring reliable power supply

Metric	2025-26
Scope 1 Emissions (MT CO ₂ e)	11,261.57
Scope 2 Emissions (MT CO ₂ e)	42,448.85
Scope 3 Emissions (MT CO ₂ e)	217,144.57
GHG Emission (scope 1+2) intensity (MT CO ₂ e / INR million Revenue)	3.14
GHG Emission (scope 1+2) intensity (MT CO ₂ e / MT of Production)	4.75



Waste Management

We follow a disciplined and compliant approach to managing hazardous, non-hazardous, e-waste and biomedical waste. We have corporate guideline for effective waste management at all operation, maximum of our waste is sold under rule 9 of hazardous waste management rule 2016, incinerable waste is diverted to pre-processing and co-processing. Plastic waste generated from raw material packaging is decontaminated at the reused or recycled through authorised vendors. We continuously improve waste management practices, drive resource efficiency and reduce our environmental footprint across operations.

74%
Waste recycled

2.5%
Waste reused

Waste Generated

During 2025–26, we generated 0.55 MT of e-waste, 310.87 MT of plastic waste, 0.022 MT of biomedical waste, 4,989.97 MT of other non-hazardous waste and 42,896.80 MT of hazardous waste. In line with our circularity objectives, 1,203.77 MT of waste was reused and 35,516.45 MT recycled safely disposed through approved treatment and recovery methods such as pre-processing.

As a result, only 20% of waste was sent to landfill during the year, reflecting our continued focus on resource efficiency, responsible waste management and circular economy principles.

Waste Collection and Disposal

At Hikal, waste management is anchored in the principles of reduce, reuse and recycle, supported by responsible segregation, treatment and disposal practices. Through our 'Wealth from Waste' initiative, we recover and reuse organic solvents and co-process suitable waste streams with the cement industry.

A dedicated laboratory drives waste treatability studies and supports the conversion of select by-products into useful intermediates, strengthening circular resource use. E-waste and plastic waste are routed to authorised recyclers, while the adoption of ISO-standard tankers in place of drums has enhanced logistics efficiency and reduced environmental impact.

We also maintain compliance with EPR requirements and ensure that hazardous waste is managed through authorised recyclers and CHW-TSDFs, supporting safe and environmentally sound disposal practices.



Water and Effluent Management

Recognising water as a vital input to our manufacturing processes, we focus on responsible water management through efficient sourcing, conservation and reuse. We procure water through authorised industrial bodies and comply with all applicable groundwater regulations. Technologies such as Zero Liquid Discharge (ZLD) and steam recovery help reduce freshwater dependence and support our commitment to sustainable water stewardship.

Water audit was conducted in 2024-25 to identify the risks and opportunities that includes reduction of fresh water consumption, reduction the wastage of waste, and enhancement of recycling and rainwater harvesting.

510,513_{kL}
Freshwater consumption

32%
Absolute reduction in
freshwater consumption
compared to 2022-23 baseline

35%
Reduction in freshwater intensity
in terms of physical output (KL/ MT)
from baseline 2022-23

20%
Reduction in freshwater intensity in terms
of economic output (kL/ INR Million) from
baseline 2022-23

Water Consumption

Responsible water stewardship remains a key priority across our operations. During 2025-26, total water consumption was 5,10,513 kL, sourced through authorised third-party suppliers, including industrial estates such as MIDC, KIADB, and GIDC. Through focused conservation and efficiency initiatives, we continued to optimise water use across our facilities.

Our water intensity for the year stood at 29.81 kL per INR million of revenue from operations, underscoring our commitment to efficient and sustainable water management.

Water Conservation and Recycling Initiatives

- Leveraged Multi-Effect Evaporators (MEEs) at pharmaceutical sites to improve water recovery and reuse
- Recycled process water for washing applications at Crop Protection facilities
- Operated Zero Liquid Discharge (ZLD) systems to maximise water circularity at our three sites ZLD
- Utilised reverse osmosis (RO) systems to recover and reuse treated water from ETP outlets
- Optimised manufacturing processes to reduce water consumption per batch
- Expanded water conservation efforts through rainwater harvesting initiatives
- Improved water-use efficiency by reducing boiler and cooling tower blowdown through enhanced treatment practices
- Strengthened water stewardship through employee training and awareness programmes

Zero Liquid Discharge

Our water stewardship efforts are centred on reducing freshwater dependence through ZLD systems, steam recovery and advanced wastewater treatment. The Pune R&T, Jigani 1 and Jigani 2 facilities operate ZLD plants, while ETPs and STPs function across other locations, supporting extensive water recovery and reuse.

Real-time monitoring of effluent quality is enabled through Online Continuous Emission and Effluent Monitoring Systems installed at ETPs. We also utilise Mechanical Vapour Recompression (MVR) technology to recover water from condensate streams, improving recycling efficiency while significantly lowering evaporation-related energy consumption.



Green Chemistry

Green chemistry is integral to our innovation approach, shaping the development of safer, more efficient and sustainable manufacturing processes. At our R&T Centre, Green Chemistry Principles, supported by Design of Experiments (DoE), simulation and mechanistic analysis, help improve yields, enhance process efficiency and strengthen effluent treatability.

Waste treatability assessments are conducted during the laboratory stage to support sustainable process design before commercialisation. We are championing sustainable pharmaceutical practices, driving product differentiation, reducing environmental impact and enhancing supply chain resilience.

We continue to expand our sustainable product portfolio, optimise manufacturing processes and strengthen green chemistry metrics to advance transparency and sustainable growth.

Biodiversity Protection

Biodiversity conservation remains an important aspect of our sustainability agenda. We support this commitment through green belt development, environmental assessments and ongoing stakeholder engagement, ensuring responsible growth alongside environmental stewardship.

Our manufacturing sites are situated within designated industrial zones, away from sensitive ecological areas, and are supported by continuous environmental monitoring. At our Jigani facility near Bannerghatta National Park, we maintain all required regulatory approvals and engage regularly with local stakeholders. Green belt development across our facilities further contributes to enhancing biodiversity and ecological balance in surrounding areas.

845

Trees planted by sites in 2025-26



CASE STUDY

Nurturing a Culture of Environmental Stewardship World Environment Day 2025: Turning Awareness into Action

At Hikal, environmental responsibility extends beyond compliance—it is embedded in our culture and reflected in the collective actions of our employees. To commemorate World Environment Day 2025, all Hikal locations came together to celebrate, educate and inspire meaningful environmental action.

The celebrations commenced with employees taking a pledge to protect and preserve the environment, reaffirming their commitment to sustainable practices. Interactive quizzes and awareness activities highlighted the significance of environmental conservation and encouraged participants to reflect on their role in creating a greener future.

Greening our Campuses

Tree plantation drives formed a key part of the celebrations across locations. In Pune, employees actively participated in planting saplings and contributed to enhancing the site's green cover. The initiative was complemented by the distribution of plants to employees under the 'Plant Parent' programme, encouraging them to nurture and care for nature beyond the workplace.

Similarly, at Mahad, employees participated in a tree-planting activity near the residential area, planting a variety of saplings and reinforcing the importance of biodiversity and ecological restoration.

Engaging Employees Through Environmental Awareness

At Taloja, the 53rd World Environment Day was observed over two days, from June 5–6, 2025, with a series of activities designed to deepen environmental awareness among employees and contractors. The programme included environment-themed banners, badge distribution, pledge-taking ceremonies and tree plantation activities.

To encourage participation and creativity, environmental poster, slogan and elocution competitions were organised across departments. The response was overwhelming, with 213 employees actively participating throughout Environment Week. The enthusiasm and quality of entries reflected a strong sense of ownership towards environmental protection. Winners were recognised and rewarded for their contributions.

Upcycling Waste into Opportunity

As part of the ongoing #PledgeForGreenChange campaign, we launched the 'Upcycle with Hikal' initiative across all locations. Plastic waste collection kiosks were installed to encourage responsible waste disposal and recycling. The collected plastic waste was channelled to EcoKari, where it was transformed into durable and colourful pencil pouches.

The initiative successfully demonstrated the potential of circular economy practices by converting waste into useful products while promoting environmental awareness among employees.

Creating Impact Beyond our Boundaries

Extending the initiative's impact to the community, employees at Mahad visited a local Zilla Parishad school under Hikal's CSR programme and distributed the upcycled pencil pouches to students. The initiative not only provided useful educational supplies but also introduced young learners to the importance of recycling and sustainable living.

Impact at a Glance

- World Environment Day celebrated across all Hikal locations
- Tree plantation drives conducted at all manufacturing sites
- 'Plant Parent' initiative encouraged employees to nurture plants at home
- 213 employees participated in environmental competitions during Environment Week at Taloja
- Plastic waste collection kiosks installed across locations
- Recycled plastic transformed into pencil pouches through partnership with EcoKari
- Upcycled school supplies distributed to students through a CSR outreach programme

Through these initiatives, we strengthened environmental awareness, fostered employee engagement and demonstrated how small collective actions can create a meaningful and lasting impact on communities and the environment.

