



NC

Natural Capital

Grasim’s Natural Capital strategy continues to evolve in response to environmental challenges and growing resource demands. Guided by our philosophy of trusteeship and our commitment to being a *Force for Growth*, we are deepening our role in ecosystem regeneration, biodiversity enhancement, and operational resilience. We recognise the importance of natural resources and biodiversity in sustaining both our operations and the communities around us. Through nature-based solutions, sustainable sourcing, and restoration initiatives, we aim to ensure long-term resource availability while reducing ecological stress. Backed by robust internal policies, we adopt sustainable technologies to optimise energy and water use, increase our reliance on renewables, and promote circularity. These efforts reinforce our responsible stewardship, creating enduring value for the environment, our business, and the communities we serve.

Alignment with SDGs



Stakeholders Impacted



Material Issues

- Energy Consumption and GHG Emissions
- Water and Effluents
- Waste Management
- Responsible Supply Chain
- Climate Change Adaptation
- Resource Efficiency
- Air and Soil Pollution
- Biodiversity and Land Use

Strategic Priorities



Supporting Policies

- Environmental
- Energy and Carbon
- Water Stewardship
- Biodiversity
- Risk Management
- Responsible Supply Chain
- Wood Sourcing

Key Risks

- R4 Compliance
- R6 Sustainability
- ER Emerging

FY 2024-25 Highlights

20% Reduction in Energy Intensity*

20% Reduction in GHG Emission (Scope 1 + 2) Intensity

45% Recycled water to total fresh water withdrawal

93% Waste Managed through Reuse, Recycle, and Recovery

Our Approach

We are focused on translating our environmental vision into action through robust implementation mechanisms across all facilities. By adopting clean, low-impact technologies, enhancing process efficiency, and embedding circular economy models, we aim to reduce dependence on virgin resources. We place particular emphasis on water security, emissions reduction, and waste minimisation. Cross-functional collaboration and digital tools support real-time performance monitoring and adaptive response.

Focus Areas

- 1 Climate Change
- 2 Energy & Emissions Management
- 3 Water Stewardship
- 4 Waste Management
- 5 Biodiversity
- 6 Environmental Compliance

*In terms of revenue

Focus Area 1

Climate Change

Grasim remains firmly committed to addressing the risks and opportunities of climate change through, science-based approach. Each business unit is formulating customised decarbonisation plans tailored to its operations, collectively contributing to Grasim’s Net Zero roadmap for 2050. Oversight is provided by the Board, with implementation supported by cross-functional sustainability teams. Our governance framework continues to evolve in line with global best practices, and our disclosures increasingly align with the recommendations of Task Force on Climate-related Financial Disclosures (TCFD), reinforcing our commitment to transparency and accountability.

Decarbonisation Pathways

We are systematically reducing GHG emissions by improving process efficiency, adopting clean technologies, and integrating renewable energy. Several units have implemented fuel-switch strategies, waste heat recovery, and low-carbon energy transitions to lower energy intensity and decarbonise production, supporting our goal of reducing emissions intensity while enabling responsible growth.

Climate Risk Management

We apply a structured, enterprise-wide framework to assess and manage both physical and transitional climate risks. These insights guide capital investment and operational strategies, helping us to future-proof our value chain. Through these efforts, we remain focused on building climate resilience and pursuing a sustainable, low-carbon growth path.

In FY 2024–25, Grasim extended its climate risk assessment to include its Paints business and strengthen its alignment with the TCFD framework. This assessment was conducted across six key manufacturing sites located in Cheyyar, Ludhiana, Panipat, Mahad, Kharagpur, and Chamrajanagar. The evaluation considered physical and transition risks specific to each location, enabling a more comprehensive understanding of climate-related vulnerabilities.

Climate Action and Grasim’s Commitment

Climate change poses significant risks to operations, supply chains, and long-term value creation. Grasim remains committed to identifying and integrating climate-related risks across its businesses. In alignment with TCFD recommendations, and now aligned with the IFRS S2 framework, we published our first standalone TCFD report in FY 2022–23, covering our core business segments. In FY 2024-25, the framework was extended to include the paints business through a climate risk assessment conducted across six manufacturing sites.

This chapter presents a consolidated view of Grasim’s climate-related disclosures, structured around the four TCFD pillars:

TCFD Pillars

Pillar 1: Governance

Pillar 2: Strategy

Pillar 3: Risk Management

Pillar 4: Metrics and Targets

Pillar 1 Governance

Grasim’s climate governance framework ensures structured oversight with effective implementation of climate-related risks and opportunities across all business verticals. The Risk Management and Sustainability Committee (RMSC) of the Board provides strategic direction and works closely with the Chief Sustainability Officer (CSO) to maintain alignment with Group-level commitments, including the Net Zero ambition. The CSO collaborates with Business Heads and site teams to implement mitigation measures, assess risks, and advance long-term sustainability plans in line with core policies on environment, energy, water, and risk management. Climate responsibilities are integrated into KRAs, business planning, capital allocation, and operational risk management processes across the organisation.

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Pillar 2 Strategy

Grasim recognises climate change as a material risk and opportunity across its value chain and adopts a forward-looking, scenario-based approach to assess both **transition and physical risks**. Aligned with TCFD recommendations, the Company’s strategy supports the goals of the Paris Agreement to limit global temperature rise to well **below 2°C**, preferably **1.5°C**.

Physical Risk Analysis

Grasim undertook a comprehensive assessment of acute and chronic physical climate risks across its operational sites, including the newly launched Paints business. The assessment combined historical climate data with projections based on multiple IPCC AR6-aligned climate scenarios: SSP1–2.6 (low emissions), SSP2–4.5 (intermediate emissions), and SSP5–8.5 (high emissions), across short (0–3 years), medium (4–10 years), and long-term (11–20 years) horizons. Site-level exposure was evaluated using globally recognised tools and datasets, such as the Climate Change Knowledge Portal (CCKP), WRI Aqueduct, ThinkHazard, Indian Metrological datasets, and the Vulnerability Atlas of India.



Pillar 2 - Strategy - Physical Risk Analysis

Acute Risks			
Risk Category	Risk Overview	Impact	Resilience Measures
Heat Wave	A prolonged period of unusually high temperatures, often intensified by urban heat island effects	Workforce productivity loss, health and safety concerns	Provision of rest areas, hydration facilities, basic medical support
Drought	Prolonged periods of low precipitation leading to water scarcity	Limited water availability for operations, increased operational costs	3R water strategy (Reduce, Reuse, Recycle); rainwater harvesting, ZLD systems, alternate water sourcing, desalination
Cyclone	Intense storm systems with strong winds, heavy rainfall, and storm surges, posing acute physical risks	Operational and supply chain disruptions, infrastructure damage	Cyclone response plans, improved drainage systems, drainage, insurance coverage, flood barriers, resilient supply chain arrangements
Flood	Temporary inundation of land caused by heavy precipitation, river overflow or storm surges, representing an acute physical risk	Insurance challenges, facility damage, logistics delays	Flood protection infrastructure, supplier diversification, rainproof storage for raw materials
Chronic Risks			
Risk Category	Risk Overview	Impact	Resilience Measures
Temperature Rise	Long-term increase in average ambient temperatures due to climate change	Increased energy demand, heat stress	Energy-efficient technologies, thermal comfort design, green infrastructure
Precipitation Variability	Variations in regional precipitation patterns and intensity over time	Water logging, transport disruption, increased energy demand	Drainage system upgrades, enhanced logistics planning
Water Stress	Condition where water demand exceeds available supply, often intensified by rising temperatures and shifting precipitation patterns	Increased sourcing costs	Internal water reuse, alternate sourcing systems

Transitional Risk Analysis

Grasim conducted a transition risk assessment to evaluate potential impacts arising from the global shift towards a low-carbon economy. The assessment focused on identifying regulatory, market, reputational, and technology-related risks that could affect the Company’s operations, cost structures, and long-term competitiveness. It was carried out using scenario analysis aligned with the IEA Net Zero Emissions (NZE) 2050 pathway, as well as SSP1–1.9 and SSP1–2.6 climate scenarios, which reflect varying levels of climate ambition and regulatory intensity.

Risk Category	Risk Overview	Impact	Resilience Measures
Regulatory Risk	Stricter regulatory reporting such as BRSR assurance, PAT, coal cess, EU ETS, CBAM	Higher compliance costs, increased exposure to carbon pricing	Decarbonisation targets, renewable energy transition, robust internal compliance systems
Legal Risk	Exposure to litigation and evolving environmental regulations, including VOC emission norms in the paints industry, restrictions in water-stressed regions, and Extended Producer Responsibility (EPR) for plastic packaging	Regulatory non-compliance risks, legal liabilities	ZLD implementation, VOC control roadmap, packaging compliance initiatives, site-level regulatory tracking
Market Risk	Volatility in raw material supply and costs, alongside shifting customer demand for sustainable products	Supply chain disruptions; changes in revenue mix	Use of alternative materials, circular product innovation (e.g., LIVA Reviva, Cavallo)
Reputational Risk	Rising stakeholder expectations and scrutiny on ESG performance	Increased investor pressure, potential loss of goodwill	EU-BAT compliance, proactive stakeholder engagement, transparent ESG targets and disclosures
Technology Risk	Need to adopt low-emission and circular technologies to maintain competitiveness	Business disruption, risk of obsolescence for existing products	R&D in low-carbon technologies, development of traceable sustainable products (e.g., GreenTrack™, LIVA Reviva)

Climate-related Opportunities

Grasim views climate action as an opportunity to drive innovation, enhance resource efficiency, and strengthen long-term competitiveness. The Company is focused on expanding renewable energy use, improving energy and water efficiency, and developing sustainable products through circular design and waste-to-resource strategies. These efforts support in decarbonisation roadmap while positioning the business to meet evolving regulatory requirements and shifting market expectations.

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Pillar 3
Risk Management

Grasim integrates both physical and transition climate risks into its enterprise risk management framework, acknowledging their potential to affect operations, cost structures, and long-term value. A multi-tiered approach is adopted, combining top-down and bottom-up assessments, regular updates to risk registers, and integration into investment and strategic decision-making. Climate risk governance is overseen by the Risk Management and Sustainability Committee (RMSC) of the Board, with implementation led by the Chief Sustainability Officer (CSO), supported by business SPOCs and site-level sustainability teams.

Pillar 4
Metrics and Targets

Grasim monitors and discloses key climate-related metrics, including greenhouse gas emissions, energy and water consumption, renewable energy use, and recycling rates. These indicators are independently assured by an independent third party and are used to track progress on decarbonisation, resource efficiency, and climate resilience. Business-specific climate targets have been defined and are aligned with the Group's Net Zero and broader climate ambition.

[Read more on Page 116](#)

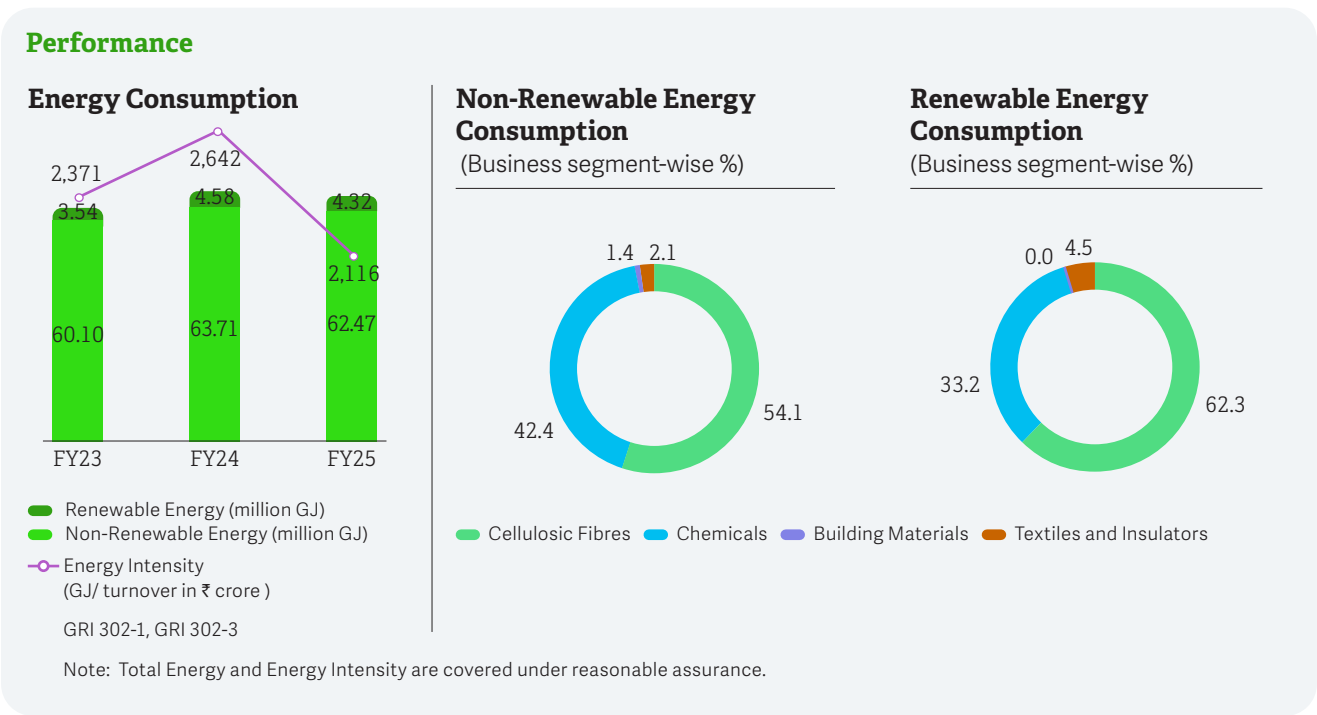
Focus Area 2

Energy and Emissions
Management

Energy Management

Our energy management approach is driven by cleaner technologies, digital monitoring and process innovation. We continue to scale up renewable energy adoption and conduct energy consumption assessments across sites to identify efficiency opportunities. These are addressed through structured action plans and targeted interventions.

Internal policies empower cross-functional teams to lead low-carbon transitions and drive operational excellence. Through focused investments, behavioural awareness programmes, and system upgrades, we aim to reduce energy intensity and enhance reliability. These measures support our Net Zero pathway while aligning with national clean energy ambitions and long-term commitment to environmental stewardship.



In FY 2024-25, Grasim's energy consumption decreased by approximately 2% compared to FY 2023-24. Additionally, energy intensity dropped 20% compared to FY 2023-24. This improvement indicates improved energy-efficiency, driven by operational optimisation and a shift towards less energy-intensive activities. Grasim is steadily increasing use of renewable energy, which increased from 5.57% to 6.51% over the two-year period.

Key Initiatives

1. Reducing LPG Consumption in Insulator Drying Kilns - Rishra

To reduce LPG usage, which is crucial for kiln firing and drying processes, the plant focused on maintaining specific fuel consumption. Process improvements included optimising the cooling exhaust fan, enhancing high-temperature combustion fan efficiency, and using low-specific-heat refractory materials. These low-cost initiatives, implemented without capital investment, led to significant reductions in LPG consumption and GHG emissions.

2. Compressed Air System Optimisation through Pressure Segregation - Veraval

At the SSY plant, the compressed air system was segmented into two pressure circuits, and an old compressor was replaced with two energy-efficient, two-stage compressors with Variable Frequency Drives (VFDs). By aligning air pressure with present process requirements, the plant reduced electricity consumption and header losses, resulting in notable energy savings, lower greenhouse gas emissions, and gaining external recognition from CII.

3. Enhancing Electrolyser Efficiency through Digital Monitoring - Veraval

In the Caustic Soda Plant, digital tools like Central Manufacturing Cockpit (CMC) and Electrolyser Commercial Operation Optimiser software (ECOO) were deployed to monitor electrolyser's performance – key energy consumers accounting for ~90% of the plant's power usage. Real-time data, shift-wise monitoring, and pressure drop analysis enabled timely interventions through historical data analysis of control parameters, improving operational control and reducing electricity consumption.

Optimising Yarn Twist for Operational Efficiency - Veraval

Overview

The Cellulosic Filament Yarn (CFY) manufacturing process, a legacy practice based on imported technology, involved imparting 100 twists per metre (TPM) using Two-for-One (TFO) twisters. However, downstream customers typically apply much higher twist levels, depending on the fabric application. This condition highlighted an opportunity to optimise internal processes by modifying twist levels, thereby improving energy efficiency and production effectiveness without compromising yarn quality.

Solution

We optimised the twist levels in the TFO machines. Initial trials confirmed product integrity both internally and with customers. Following successful validation, the revised process was extended to meet customer requirements.

Impact

- **Improved Energy Efficiency:** Optimal twist levels significantly reduced power consumption across operations, thereby reducing carbon emissions.
- **Cost Savings:** Reduced process waste and improved resource utilisation led to lower operational costs.
- **Enhanced Product Quality:** Increased product value and customer satisfaction.
- **External Recognition:** The initiative earned awards for innovation, sustainability, and operational excellence.

Optimising Exhaust Blower Speed for Energy Efficiency – Kalyan

Overview

In the calcination section of the Spin Bath process, hydrous sodium sulphate is converted into anhydrous sodium sulphate through a high-temperature drying system. The exhaust blower, previously operating continuously at high RPMs, consumed excessive energy and affected operating conditions. In FY 2024–25, the plant initiated an optimisation initiative to reduce blower speed, aiming to improve energy efficiency, enhance process control, and reduce salt emissions.

Solution

A Variable Frequency Drive (VFD) was installed on the calcination exhaust blower, enabling precise control of blower speed. This adjustment reduced airflow velocity, thus improving the operating conditions and increasing the residence time of hot air within the dryer. As a result, drying efficiency improved without affecting throughput.

Impact

- **Energy Efficiency:** Lowered overall power consumption.
- **Improved Process Performance:** Longer hot air retention increased salt temperature and drying efficiency, boosting process stability.

GHG Emission Management

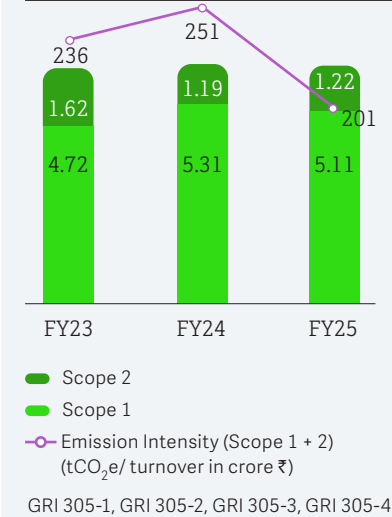
Grasim continues to strengthen its emissions management through structured decarbonisation pathways and improved operational efficiency. Our strategy focuses on reducing Scope 1 and Scope 2 emissions by adopting cleaner fuels, renewable energy, and process improvements. We are also working to reduce Scope 3 emissions across the value chain.

In FY 2024–25, we enhanced GHG monitoring and data systems across business units, building on the Net Zero roadmap established last year. These efforts reflect our commitment to long-term carbon neutrality, embedding accountability and innovation across all operations.

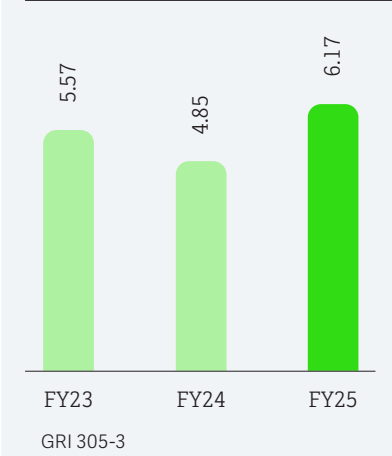


Performance

GHG Emissions
(million tCO₂e)



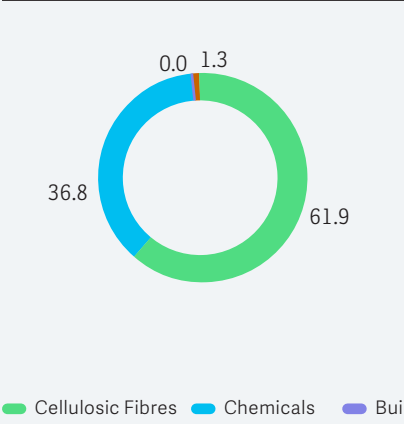
Scope 3
(million tCO₂e)



0.23
Total Biogenic
CO₂ Emission (Million tCO₂e)

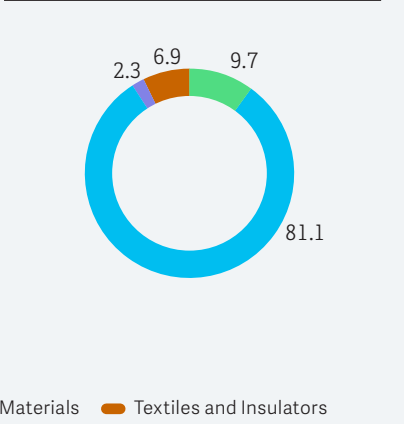
Scope 1

(Business segment-wise %)



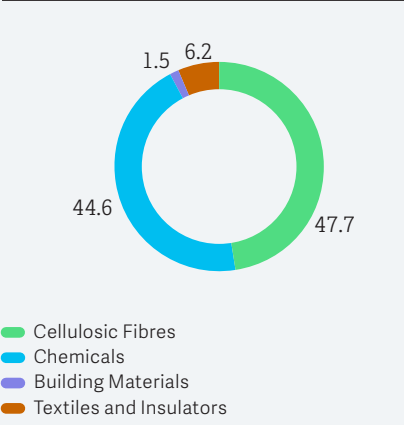
Scope 2

(Business segment-wise %)



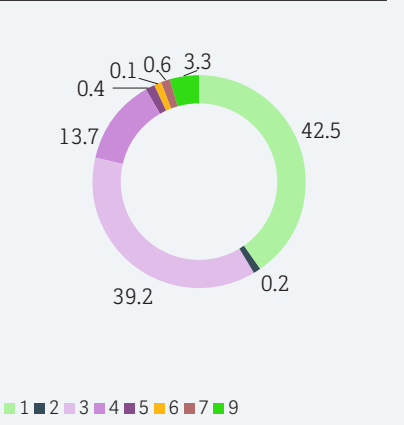
Scope 3

(Business segment-wise %)



Scope 3

(Category segment-wise %)



Note: 1. Scope 1 and 2 data is covered under reasonable assurance. Scope 3 data is covered under limited assurance.
2. Scope 3 data includes category 1, 2, 3, 4, 5, 6, 7 & 9.

In FY 2024-25, Grasim's total GHG emissions (Scope 1 and 2) decreased by approximately 2.6% compared to FY 2023-24. Additionally, emission intensity dropped 20% compared to FY 2023-24. This improvement highlights the effectiveness of business-level climate strategies, resource optimisation measures, enhanced operational efficiency and transition to cleaner energy sources.

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Non-GHG Emissions Management

Grasim actively manages non-GHG emissions such as SOx, NOx, Suspended Particulate Matter (SPM), and Volatile Organic Compounds (VOCs) through advanced abatement systems and operational controls. Pollution control technologies such as electrostatic precipitators, scrubbers, and bag filters are deployed across sites to ensure compliance with regulatory standards. Continuous Emission Monitoring Systems (CEMS) and Ambient Air Quality (AAQ) monitors support real-time oversight. Additionally, the use of cleaner fuels and process improvements further contribute to emission reduction. These efforts reflect our commitment to environmental protection, workplace safety, and community well-being, in line with national environmental regulations.

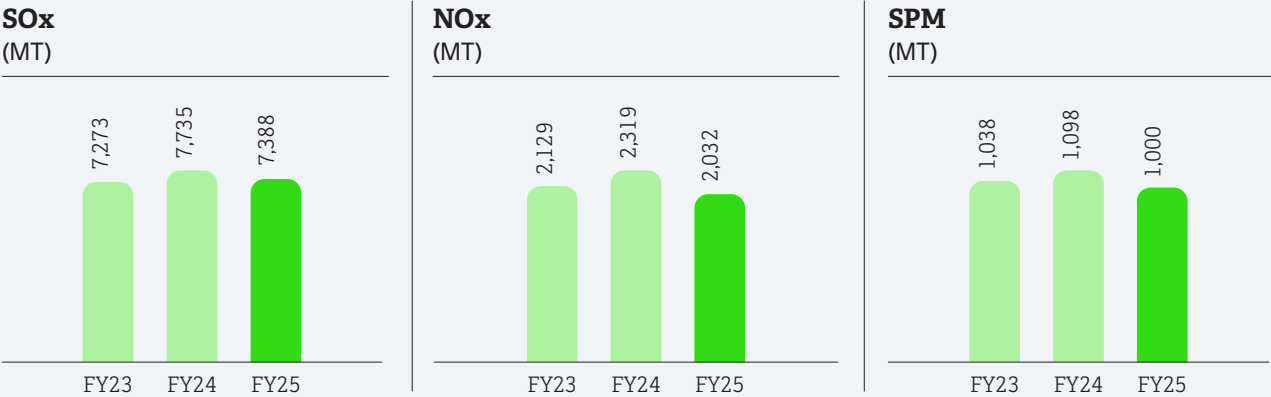


Focus Area 3

Water Stewardship

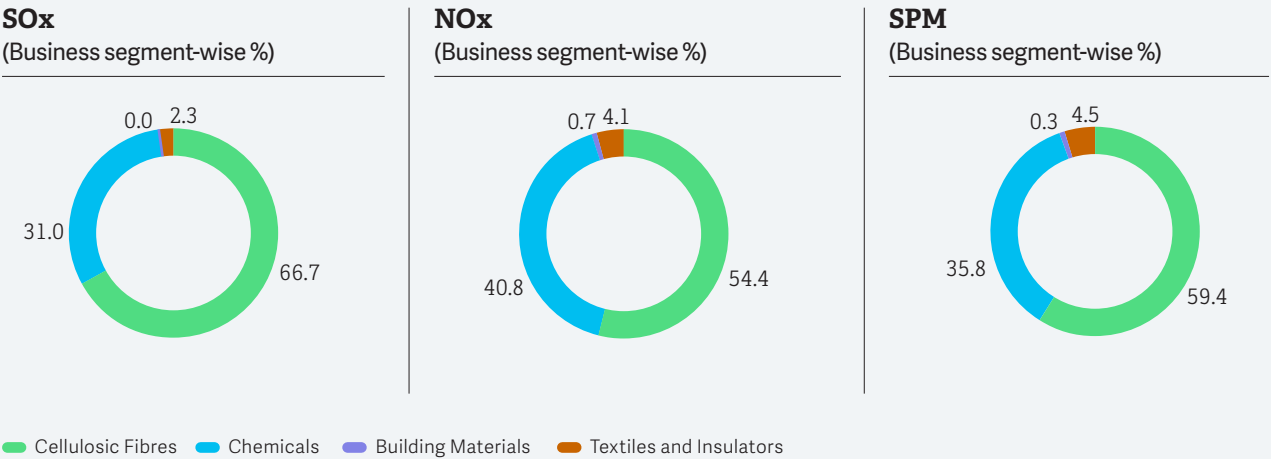
At Grasim, water stewardship is a key pillar of our environmental responsibility. Recognising water as a shared and finite resource, we have adopted a holistic and, forward-looking approach to manage it sustainably across our operations. Our efforts are guided by a well-defined Water Stewardship Policy, which outlines strategic initiatives for efficient water use, treatment, recycling, and discharge. This policy ensures alignment with global best practices and supports our long-term sustainability goals.

Performance



GRI 305-7

Business-wise Non-GHG Emissions



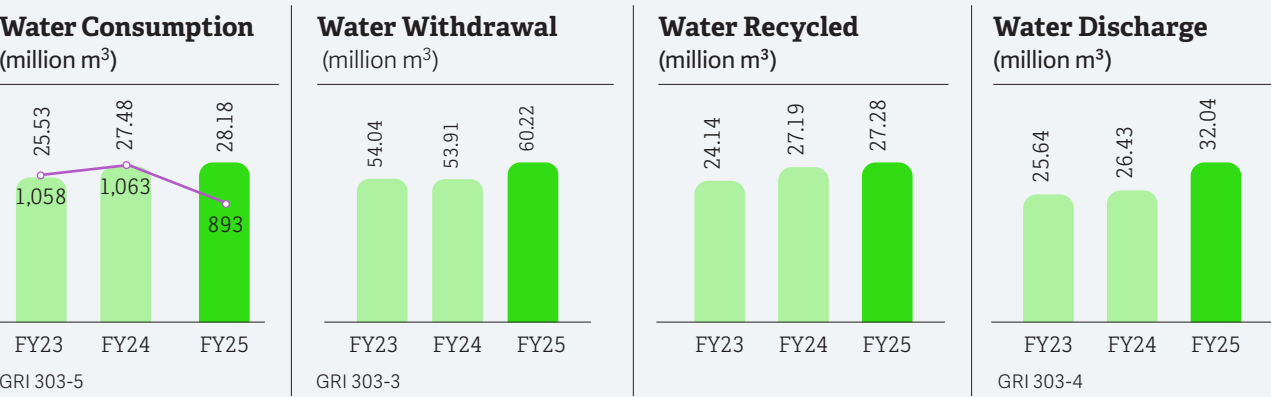
VOC Emissions

0.04 MT*

*Following the addition of the Paints business this year, VOC emissions monitoring has been initiated from this financial year.

Note: Air emissions (other than GHG emissions) data is covered under limited assurance.

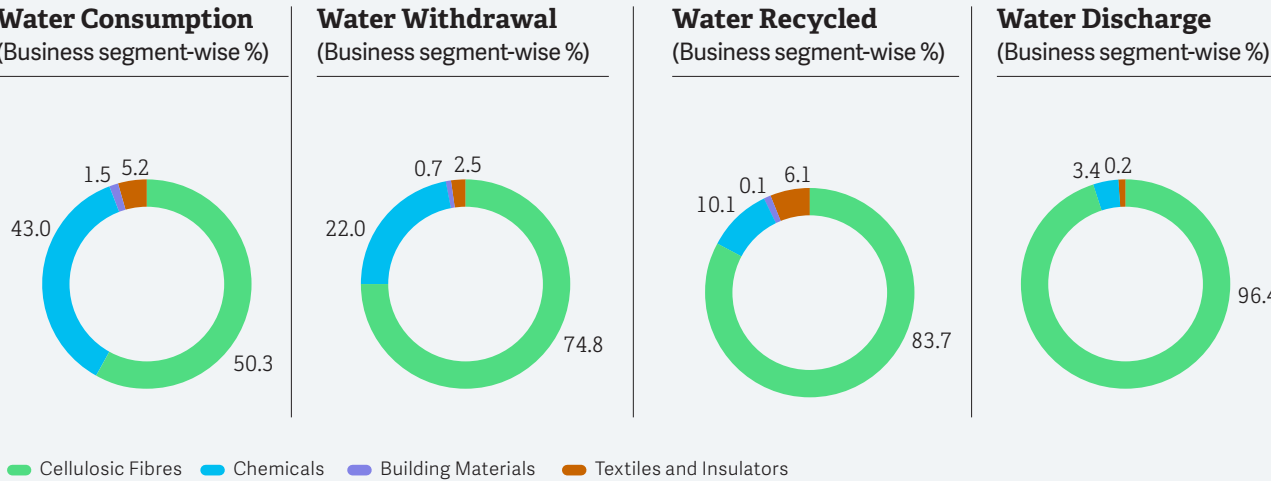
Performance



Water Consumption / Withdrawal / Discharge / Recycled (million m³)
Water Consumption Intensity (m³/turnover in ₹ crore)

27.28 million m³
Of Recycled Water Used

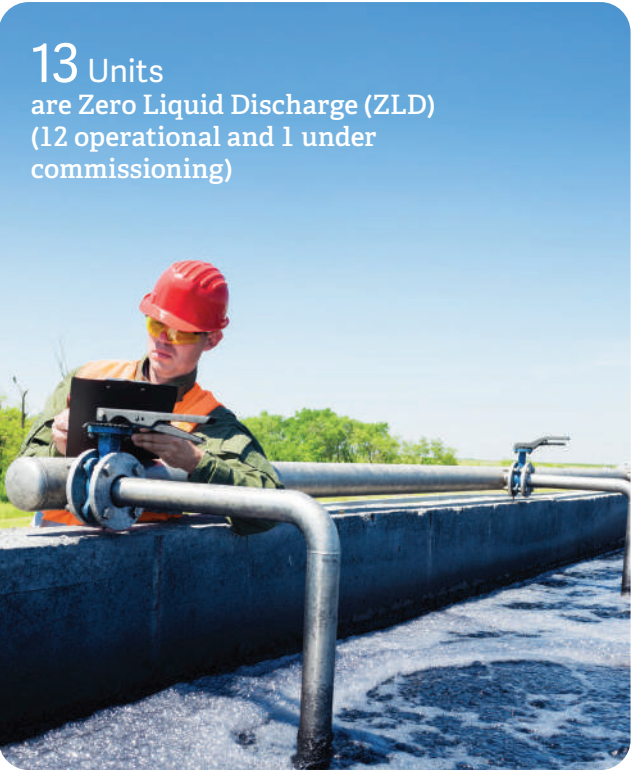
Business-wise Performance



Note: Water consumption, water consumption intensity, water withdrawal and water discharge data is covered under reasonable assurance.

Key Initiatives

1. **Sewage Treatment Plant Capacity Expansion**
At Veraval, the project yielded significant quantitative benefits, including a 100% increase in STP capacity, enhancing water reuse and reducing freshwater demand. Qualitative benefits include enhanced water stewardship, reduced environmental impact, and alignment with circular economy principles. The project reinforces the organisation’s commitment to sustainable water management and resource optimisation.
2. **Condensate Polishing Unit Installation**
At our Veraval power plant, we commissioned a Condensate Polishing Unit along with a heat exchanger system to recycle heat from hot condensate into boiler feed water and recover waste heat. This led to daily steam savings, reduced freshwater intake, and improved energy efficiency.
3. **STP & ETP Water Reuse CSY Plants**
We have utilised the recycled wastewater into our core processes, resulting in annual water savings. This initiative reinforced our commitment to sustainable water management.



CASE STUDY

Revamping Effluent Treatment for Enhanced Compliance and Capacity

Overview
In FY 2024–25, we undertook a major revamp of the Effluent Treatment Plant (ETP) at our Veraval unit to address fluctuating effluent loads and meet increasingly stricter discharge norms. The existing ETP, which relied solely on primary treatment, struggled to maintain compliance, particularly during shock loads. To mitigate environmental and operational risks, we aimed to enhance treatment efficiency, improve effluent quality, and increase plant capacity in line with our sustainability and compliance goals.

Solution
The project involved upgrading the ETP to a higher capacity and integrating advanced treatment technologies to ensure more robust and reliable performance.

Key enhancements included:

- **Add-on Equalisation Tank:** Stabilises influent flow and pollutant load
- **Flash Mixing and Flocculation Tanks:** Improve solid-liquid separation
- **High-Rate Solid Contact Clarifier (HRSCC):** Enhances settling efficiency and reduces suspended solids in the final discharge

Impact

- Ensured consistent compliance with effluent discharge norms.
- Increased treatment capacity and resilience during peak load conditions.
- Improved discharge quality, reducing environmental impact.
- Strengthened operational efficiency and overall sustainability performance.



Water Risk Assessment

To proactively manage evolving water availability challenges, we conduct comprehensive water risk assessments focussing on two key areas: dependency-related and impact-related risks.

Dependency-related Water Risks: We assess our reliance on freshwater sources critical to operations, evaluating regional water availability and the potential impacts of scarcity on production.

Impact-related Water Risks: We analyse how our water use affects local ecosystems and communities, including implications for water quality, availability and broader environmental health.

To support these assessments, we use the Aqueduct tool, which provides insights into baseline water stress, flood frequency, and drought severity, helping us evaluate the sustainability of our water sources.

We have implemented Zero Liquid Discharge (ZLD) systems at 13 facilities, with one unit under commissioning, significantly reducing water discharge and recyclability. Additionally, we are expanding the use of desalinated seawater through Sea Water RO systems, thereby reducing dependence on freshwater sources. These initiatives underscore our commitment to water stewardship and long-term sustainability.

Focus Area 4

Waste Management

Building on our robust system of waste minimisation, recycling, and safe disposal, we are advancing towards a more innovative, technology-driven, and circular economy approach to enhance sustainability and operational efficiency. Our waste management framework prioritises reducing waste at the source by optimising resource use and adopting closed-loop systems that enable the reuse of by-products within manufacturing processes, significantly reducing both raw material consumption and waste output.

Waste audits help identify opportunities to improve efficiency and reduce waste generation, supporting the establishment of quantified waste reduction targets. We implement targeted actions to minimise waste, with a strong focus on innovation and R&D to reduce it at its source.

Efficient waste segregation is institutionalised across all sites, ensuring the proper handling of hazardous and non-hazardous waste in full compliance with regulatory requirements. Continuous employee training promotes best practices in waste handling and reinforces a culture of sustainability. This social dimension also safeguards worker health and supports community well-being by mitigating environmental risks.

We strictly comply with regulations set by the Central and State Pollution Control Boards, and collaborate with authorised agencies for safe waste disposal and treatment, ensuring transparency and accountability. Our landfill diversion efforts are certified by an independent accredited body, validating our commitment to responsible waste management. Regular audits and data-driven reviews help track progress against waste reduction targets and drive continuous improvement.



Extended Producers Responsibility

Plastic plays a vital role in our packaging solutions, and we acknowledge the responsibility for its end-of-life management. In alignment with the Plastic Waste Management Rules, 2016, and subsequent amendments, we are registered as a Brand Owner on the Central Pollution Control Board (CPCB) online portal.

In FY 2024-25, we collected 12,289 MT of plastic packaging waste, achieving 100% recovery of the plastic packaging we introduced into the Indian market in FY 2023-24. Of this, 4,635 MT was recycled, while 7,654 MT was sent for end-of-life disposal in cement plants.

A significant portion of our packaging is recyclable, reflecting our commitment to sustainability. For the remaining non-recyclable packaging, we are exploring energy-recoverable alternatives. This proactive approach supports regulatory compliance, reduces our environmental footprint and advances the circular economy.

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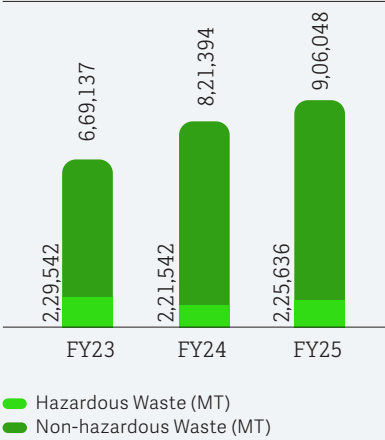
We follow the waste management hierarchy, prioritising reduction, reuse, recycling, and recovery before disposal. Source-level waste segregation is institutionalised across all facilities, with dedicated channels for managing both hazardous and non-hazardous waste streams.

Our operations generate various types of waste, including:

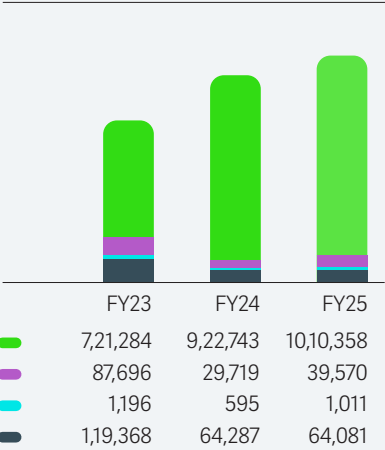
- **Hazardous Waste:** Solvents, chemicals, battery waste, e-waste
- **Non-hazardous Waste:** Plastics, textiles, fly ash, construction and demolition debris.

Performance

Waste Generated (MT)



Waste Disposal (MT)

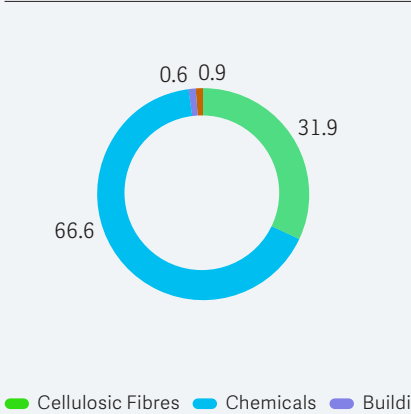


GRI 306-4, GRI 306-5

Reuse and Recycling Other Recovery Incineration Landfill

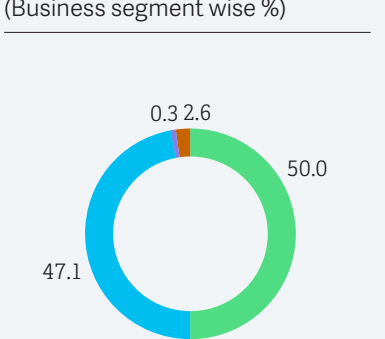
Note: Waste generated, waste diverted from disposal, and waste directed to disposal indicators covered under reasonable assurance.

Hazardous Waste Generation (Business segment wise %)

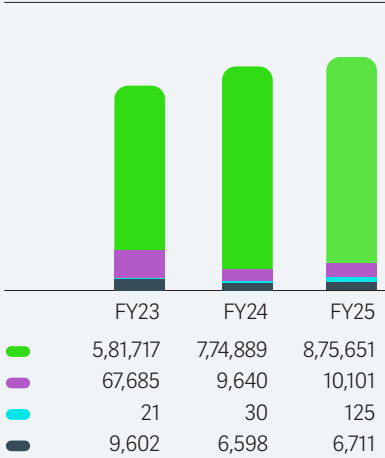


Cellulosic Fibres Chemicals Building Materials Textiles and Insulators

Non-hazardous Waste Generation (Business segment wise %)



Non-hazardous Waste Disposal (MT)



Key Initiatives

1. **Upcycling Silk Waste:** In collaboration with the Central Silk Board, we are pioneering the upcycling of silk waste into sustainable, high-quality products. This reduces environmental impact and creates economic value within the domestic market, lowering reliance on raw waste exports.
2. **Circular Denim Production:** Partnering with Lion Fabric, we developed circular denim using the Reviva-M yarn blend, combining mechanically recycled denim cotton with Birla Excel fibres. This sets new benchmarks in sustainable denim production and reduces landfill waste.
3. **Collaboration with Ka-sha:** Together with fashion label Ka-sha, we launched the Roz collection using the Reviva-M circular yarn blend. This initiative promotes ethical, eco-friendly fashion by repurposing pre-consumer textile waste.
4. **Puneh Yarn Collaboration:** In partnership with Usha Yarns, we created Puneh, mechanically recycled yarns blending Liva Reviva and Birla Spun Shades fibres. This supports circularity in the textile sector.
5. **Sustainable Flushable Wipes:** We introduced Lyocell Short Cut fibres for flushable wet wipes, offering a sustainable alternative to synthetic-based products while aligning with global single-use plastic regulations.
6. **Biodegradable National Flags:** With Prabhavana, we developed biodegradable national flags made from natural fibres, replacing plastic flags and supporting local communities through sustainable practices.
7. **Strategic Partnership with Circ:** Our partnership with Circ advances textile recycling innovation. We have committed to annual procurement of their recycled pulp, enhancing access to sustainable raw materials and supporting a circular textile economy.
8. **Waste to Wealth - PAC Sludge Reutilisation:** We reduced hazardous waste disposal to landfill by reusing PAC sludge in in-house liquid alum manufacturing, aligning with our zero waste to landfill objective.

Note: Initiatives mentioned in our FY 2023-24 Annual Report have continued into FY 2024-25.

Reduction and Utilisation of Brine Sludge

Overview

At our Chlor-alkali manufacturing facility, the generation of brine sludge with high NaCl content posed environmental and compliance challenges due to its disposal in landfill sites. The sludge was unsuitable for reuse and required costly hazardous waste disposal. Our objective was to minimise brine sludge generation and enhance its potential for circular applications, such as in brick manufacturing.

Solution

We used washed salt in the brine preparation process, which significantly reduced the NaCl content in the resulting sludge. A filter press system was installed to improve sludge separation efficiency. Additionally, we optimised process parameters, such as slurry dilution and cake washing time, to further lower residual salt. These improvements ensured the sludge met quality standards for reuse in construction.

Impact

These interventions would lead to a reduction in annual brine sludge generation and ensure compliance with environmental regulations. Further work is going on to render the sludge suitable for brick manufacturing and/or cement co-processing. This initiative reflects our commitment to sustainable waste management and advancing circular economy practices.



Focus Area 5

Biodiversity

We recognise biodiversity as vital to ecosystem resilience and the sustained availability of natural resources that support our operations. Our approach goes beyond regulatory compliance, guided by science-based assessments and focused on maintaining ecological balance and ensuring operational continuity. We aim to achieve 'No Net Loss (NNL)' at our sites through targeted habitat management, restoration initiatives, and site-specific action plans. We have established dedicated policies to address biodiversity-related challenges and adopt appropriate measures for conservation and restoration.

As on FY 2024-25, we have cumulatively planted over 10 lakh trees. These ongoing efforts contribute meaningfully to ecological environment.



"At Grasim, we view biodiversity as more than just a conservation requirement, but as a foundation for long-term resilience. Our teams follow a structured, approach to identify and manage biodiversity risks across our sites. We are committed to achieving NNL at our operational locations, and to enable meaningful coexistence between industry and nature. This is an ongoing journey, shaped by the communities, experts, partners and people we engage with, who help us plan better, act smarter, and stay responsive to the changing environment around us."

Surya Valluri
Chief Sustainability Officer
Grasim Industries Limited

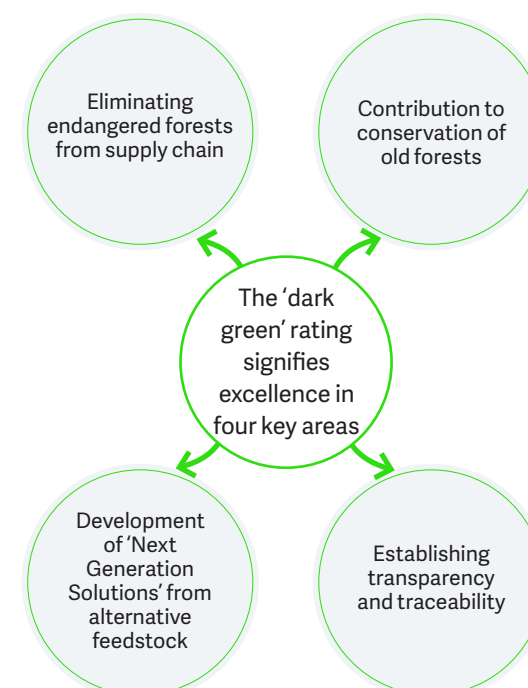


Initiatives

We continue to improve our wood-sourcing practices by prioritising traceable and sustainably managed sources, conserving forest ecosystems, and development of low-impact, high-performance fibres. These efforts reduce the risk of deforestation and provide scalable, nature-based alternative solutions for responsible manufacturing.

Dark Green for the Fifth Year Running - Canopy Hot Button Report

Grasim's Cellulosic Fibres business secured the top global position among MMCF producers in the 2024 Canopy Hot Button Report, earning the prestigious 'Dark Green Shirt' leadership rating for the fifth consecutive year. This recognition underscores our consistent leadership in eliminating ancient and endangered forest fibres and advancing next-generation sustainable textile solutions.

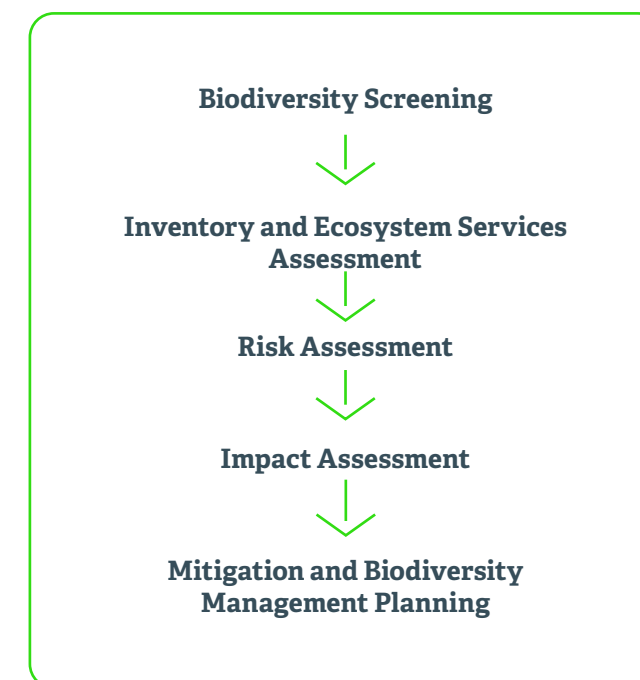


Strengthening Biodiversity Conservation at Grasim

Biodiversity Governance and Strategy

We are committed to achieving No Net Loss (NNL) at all owned and operated sites and are currently in the process of identifying site-specific risks. Our governance framework integrates biodiversity considerations throughout the operational lifecycle. Primary accountability lies with facility management teams, supported by the Board-level Risk Management and Sustainability Committee, Business Sustainability Cells, and the Chief Sustainability Officer. Oversight is further strengthened by the Aditya Birla Group's Biodiversity Working Group.

Each site is classified according to its Biodiversity Importance Category (BIC) and undergoes a structured, five-stage biodiversity assessment:



This process is supported by stakeholder engagement, compliance monitoring, and performance tracking. These inputs inform the development of site-specific Biodiversity Management Plans (BMPs), and where applicable, Biodiversity Action Plans (BAPs), based on the assessed risk levels.

Natural Capital

Biodiversity Impact Assessment

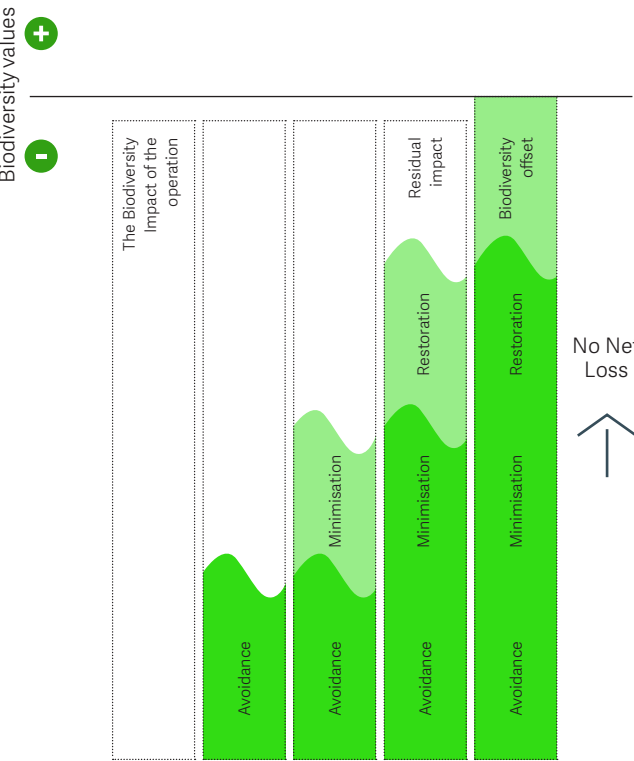
We have adopted a phased approach to biodiversity impact assessments. In FY 2024–25, baseline studies were initiated at three sites Vilayat, Veraval, and Harihar, covering six business units. These assessments are currently underway, focusing on identifying site-specific biodiversity risks and developing corresponding Biodiversity Management Plans (BMPs).

In the next phase, assessments will begin at Nagda, Kharach, and Rishra, covering five units across four businesses. Additional sites will be identified and assessed in subsequent phases, with BMPs developed based on site-level findings.

Steps towards Achieving No Net Loss

Our biodiversity assessments follow the mitigation hierarchy, avoid, minimise, restore, and offset, enabling a structured, science-based response to ecological impacts across the project lifecycle. This approach directly supports our commitment to achieving No Net Loss (NNL) at locations with high biodiversity sensitivity.

Roadmap to No Net Loss



Structured Approach to Impact Assessments

Habitat Mapping

- Conducted using ARC GIS and Google Earth Engine

Species Inventory

- Documenting flora, fauna, avifauna, and aquatic biodiversity

Ecosystem Services Review (ESR)

- Leveraging IBAT tool to assess dependencies and potential impacts

Risk Categorisation

- Using the Shannon-Weiner Index (H') to develop a site-specific Biodiversity Risk Matrix

Site-level BMP

- Site-level targets, timelines and monitoring protocols will be devised

Scope of Impact Assessment

A 5 km buffer zone was considered around each site to evaluate potential ecological impacts.

The table below provides details of the sites covered and their respective areas:

Site	Business	Forest/ Wetland	Unit Area (sq. m)
Vilayat, Gujarat	Cellulosic Staple Fibres, Chemicals	Not located near any designated ecologically sensitive area	5,90,444
Veraval, Gujarat	Cellulosic Fashion Yarn, Chemicals	Falls within the reserve forest areas of Adri and Lati villages	7,13,299
Harihar, Karnataka	Cellulosic Staple Fibres, Pulp	Situated within the Eco-Sensitive Zone (ESZ) of the Ranebennur Blackbuck Sanctuary	2,72,713



Performance Monitoring and Indicators

Performance will be monitored against the targets outlined in each site's Biodiversity Management Plan (BMP), with key indicators including

- Number of species protected or enhanced
- Habitat area rehabilitated or offset
- Stakeholder engagement sessions conducted
- Compliance with biodiversity-related legal requirements

This structured approach enables regular reviews, supports adaptive management, and integrates biodiversity risks into our enterprise-wide risk management systems.

Stakeholder Engagement and Collaboration

We recognise the value of local knowledge and partnerships. In FY 2024-25, we engaged with community stakeholders, biodiversity experts, and conservation NGOs across priority sites. These consultations are informing the design of BMPs and will support the implementation of community-inclusive conservation actions.

Biodiversity Mitigation Actions

BMPs for the three assessed sites are currently under development and scheduled for completion in FY 2025–26. Additional biodiversity assessments will be undertaken in phases at other locations. These efforts aim to deepen site-level understanding of biodiversity risks and opportunities, enabling tailored mitigation actions and enhancing ecosystem resilience.

All BMPs will follow the LEAP approach (Locate, Evaluate, Assess, Prepare), incorporating the mitigation hierarchy avoid, minimise, restore, regenerate, and offset, into biodiversity action planning across the project lifecycle.

Outlook

Looking ahead, our focus will be on expanding biodiversity assessments to all Red and high-BIC category sites, scaling offset initiatives, and strengthening internal capabilities through training on the Biodiversity Indicator Reporting System (BIRS). By embedding biodiversity risks within our ESG governance framework, we aim to support responsible growth while enhancing the ecological resilience of our operations.

Focus Area 6

Environmental Compliance

We strive to uphold high standards of environmental compliance across all our manufacturing units, with dedicated teams ensuring adherence to applicable environmental laws, regulations, and internal policies. Supported by digital tools such as Legatrix, we efficiently track, monitor, and report statutory obligations in real-time. These platforms help identify potential non-compliance risks and enable timely corrective actions.

Regular internal and external audits, along with incident investigations, ensure accountability and drive continuous improvement. Board-approved environmental policies and robust governance frameworks reinforce our commitment to sustainability. We also actively engage with regulatory bodies, industry forums, and multi-stakeholder platforms to stay aligned with evolving norms and global best practices. These efforts go beyond compliance, strengthening our environmental performance and risk management across the value chain.

