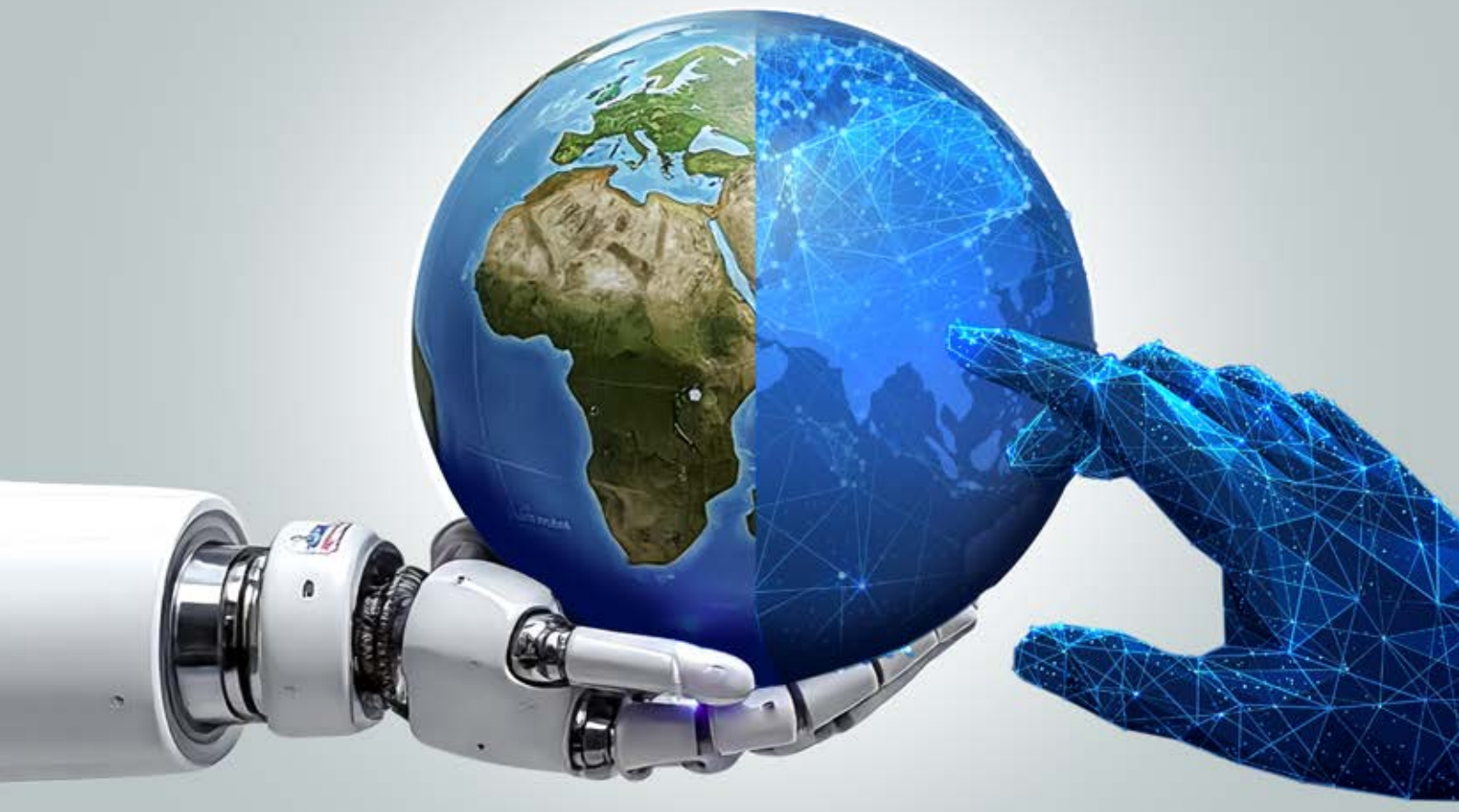
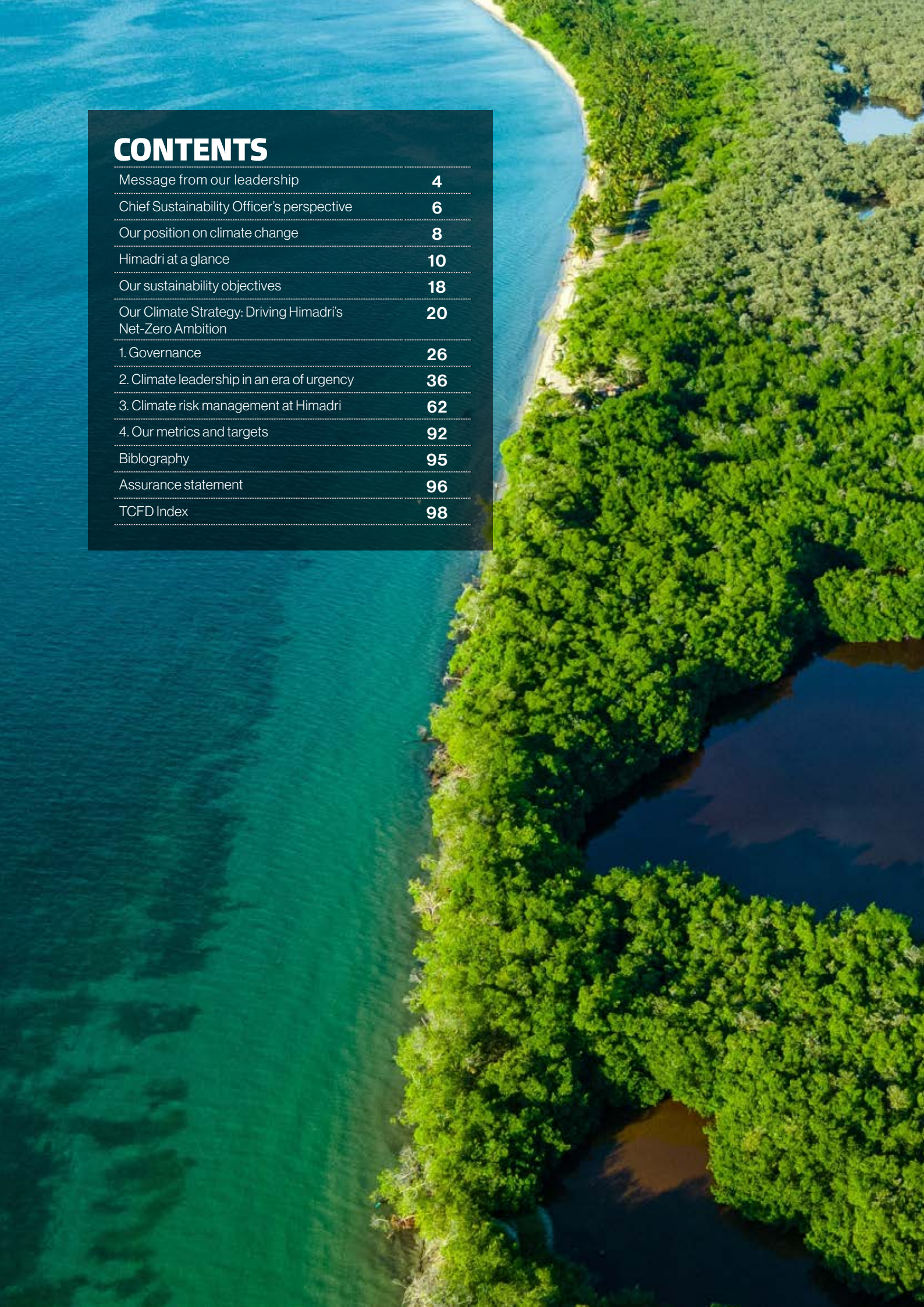
TCFD REPORT 2024-25

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES



Himadri Speciality Chemical Ltd

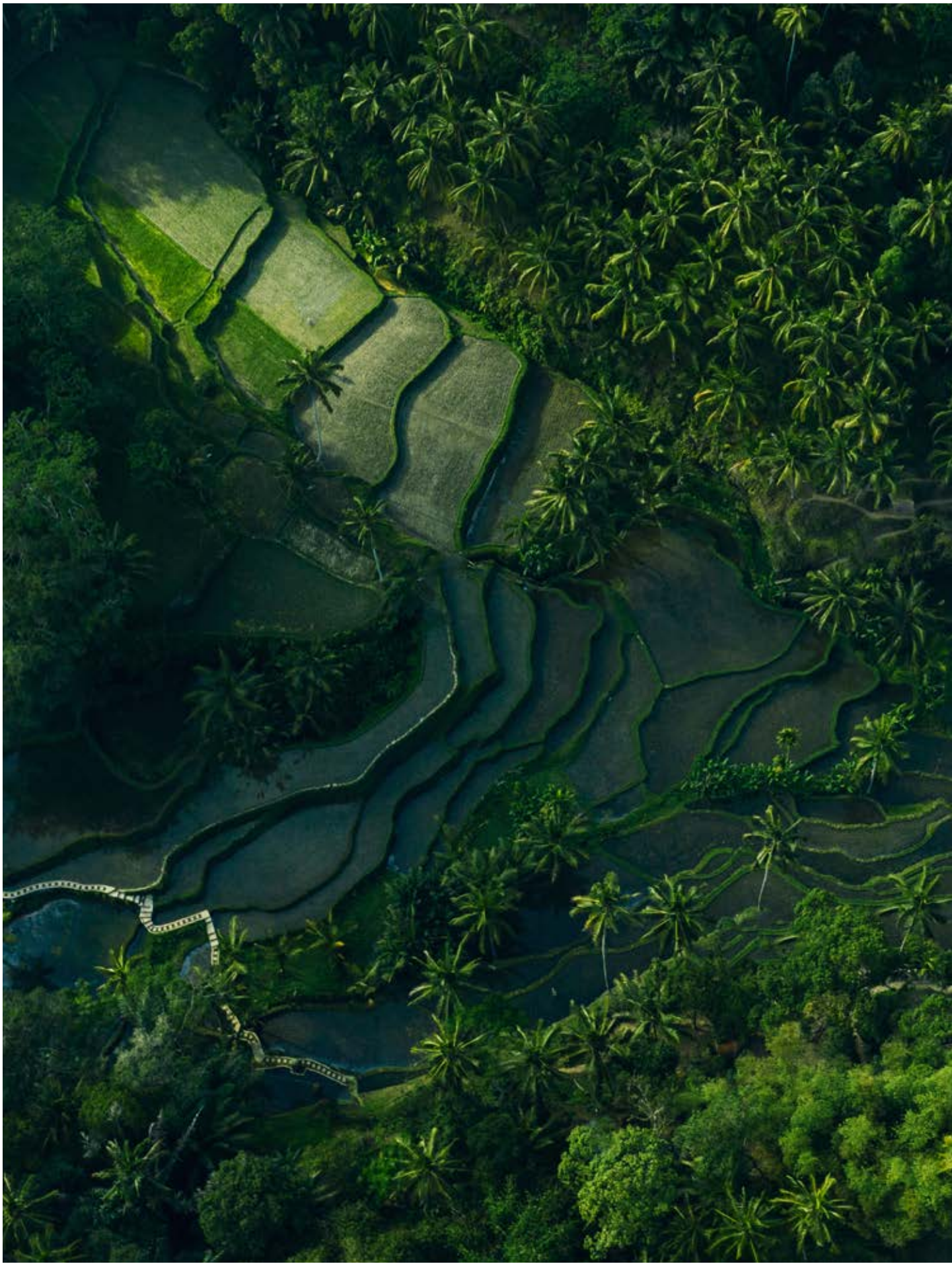
CONTENTS



List of Abbreviations

BRSR	Business Responsibility and Sustainability Report
BU	Business Unit
CDP	Carbon Disclosure Project
CSR	Corporate Social Responsibilities
CSRD	Corporate Sustainability Reporting Directive
DE&I	Diversity, Equity and Inclusion
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortisation
GHG	Greenhouse Gases
GRI	Global Reporting Initiative
Himadri	Himadri Speciality Chemical Limited
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organisation for Standardisation
NAPCC	National Action Plan on Climate Change
NDC	Nationally Determined Contributions
NGFS	Network for Greening the Financial System
LiB	Lithium-ion Battery
LT-LEDS	Long-Term Low-Carbon Development Strategy
KPI	Key Performance Indicator
RCP	Representative Concentration Pathways
SBTi	Science Based Targets Initiative
SEBI	Securities and Exchange Board of India
TCFD	Task Force on Climate-Related Financial Disclosure
UNFCCC	United Nations Framework Convention on Climate Change
UNGC	United Nations Global Compact
ZLD	Zero Liquid Discharge

List of Figures



About this Report

This report represents a step forward in Himadri Speciality Chemical Limited's journey to integrate climate responsibility with business leadership. Anchored in our philosophy of 'Together Towards Tomorrow,' it reflects not just our progress to date but also our determination to embed sustainability into growth, innovation, and value creation.

The report provides a forward-looking account of how Himadri is preparing for a rapidly evolving climate landscape. By deploying advanced scenario analyses, we have assessed the resilience of our business across a range of climate futures, including accelerated transitions toward a 1.5°C world in line with the Paris Agreement. This enables us to stress-test our strategy and capital allocation against physical and transition risks, ensuring that Himadri is equipped to thrive under uncertainty.

A central feature of this year's disclosures is the integration of financial modelling that quantifies the potential impacts of physical risks—such as heatwaves, water stress, and extreme weather events—and transition risks, including policy shifts, market rebalancing, and disruptive technologies. These insights allow us to design targeted adaptation and mitigation pathways, aligning long-term resilience with near- and mid-term operational priorities.

Our disclosures are consistent with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, structured across the four pillars of Governance, Strategy, Risk Management, and Metrics & Targets. Insights from our materiality assessment have shaped the prioritisation of climate-related risks and opportunities, directly informing our operational responses, stakeholder engagement, and strategic roadmap.

To strengthen transparency and credibility, select climate-related disclosures and data presented in this report have been subjected to Limited Assurance by TÜV SÜD South Asia Pvt. Ltd. This independent assurance enhances confidence in the robustness, accuracy, and reliability of our reporting, while reinforcing our commitment to the highest standards of accountability and disclosure.

This report highlights our INR 100 crore decadal sustainability investment plan, which will channel capital into renewable integration, energy efficiency, circular economy projects, and next-generation sustainable materials. Initial progress under this plan demonstrates how disciplined investments can accelerate decarbonisation and create long-term competitive advantage.

Looking ahead, we will continuously strengthen the depth and precision of our disclosures, with an emphasis on the transparent identification, quantification, and the communication of risks and opportunities across the short, medium, and long-term. Our prospective TCFD reports will provide enhanced insights into how these dynamics reshape our strategy and unlock opportunities in speciality chemicals and advanced materials.

At its core, this report reaffirms our conviction that sustainability and profitability are mutually reinforcing. By integrating climate considerations into every dimension of strategic and financial planning, Himadri is positioning itself not merely to adapt to the low-carbon transition but to lead it—delivering solutions that are future-ready, globally relevant, and resilient by design.

Coverage

This report encompasses our operations in India.

Message from our Leadership

Why countering climate change is important to us

Anurag Choudhary
CMD & CEO

FY 24-25 was a year of transformation for Himadri—a period that tested our resilience, reinforced our leadership in speciality chemicals, and accelerated our transition towards innovation and sustainability. What began with operational targets and disciplined execution evolved into a defining chapter, laying the groundwork for 'Himadri Reloaded: The Next Chapter.'

Our FY 24-25 performance stood out for scale and balance our sales volumes rose 16% to 5,52,206 metric tonnes (MT), supported by a robust demand for coal tar derivatives, speciality blacks, and naphthalene-based products. Beyond scale, the year was defined by strategic growth—strengthening margins, driving efficiency, and maintaining a cash-rich Balance Sheet that empowers us to invest in future-focused opportunities without compromising financial stability.

The highlight of the year was not just what we delivered, but what we initiated. 'Himadri Reloaded' is supported by three pillars—diversification, sustainability, and global leadership. Guided by this vision, we committed INR 120 crore to next-generation speciality oils, expanded our speciality carbon black capacity, and invested in circular economy initiatives to convert end-of-life tyres, used oils, and agricultural residues into high-value products. Most notably, our bold entry into lithium-ion battery materials marked a milestone. With a planned 2,00,000 MT capacity for Lithium Iron Phosphate LFP cathodes, Himadri is poised to build one of the first large-scale facilities outside China, positioning us at the heart of the global energy storage and EV revolution.

Our ambition remains inseparable from responsibility. In FY 24-25, we reduced energy intensity by 17.42%, accelerated zero liquid discharge projects, and operated facilities on more than 95% in-house clean energy. Recognition followed: the EcoVadis Platinum Medal placed us in the top 1% of companies worldwide, the ICRA 'Exceptional' rating for Sustainability validated our progress nationally; our maiden CDP participation secured B ratings in Climate Action and Water, and an A in Supplier Engagement Leadership.

Most notably, our bold entry into lithium-ion battery materials marked a milestone. With a planned 2,00,000 MT capacity for LFP cathodes, Himadri is poised to build one of the first large-scale facilities outside China, positioning us at the heart of the global energy storage and EV revolution.

In line with our sustainability roadmap announced last year, we continued to advance our plan to invest INR 100 crore in sustainability initiatives over the next decade. This multi-year programme is designed to strengthen renewable energy adoption, water stewardship, biodiversity conservation, and circular economy projects. The first tranche of investments has already accelerated efficiency, decarbonisation, and community-focused outcomes, while future allocations will support transformative technologies such as carbon capture and advanced recycling. This commitment reflects our belief that sustainability is not only a responsibility but also a driver of innovation, resilience, and long-term value creation.

Looking forward, we see Himadri's journey as a part of a larger transformation. Our strategy aligns with the world's shift from fossil fuels to clean energy, from linear consumption to circular models, and from commodity chemicals to specialised, high-performance solutions. By leveraging our expertise in carbon chemistry, strengthening our innovation pipeline, and embedding sustainability into every decision, we are building a future-ready enterprise.

Together with our teams, partners, and stakeholders, we are shaping not only the future of Himadri but also the future of the sustainable industry.

Guided by purpose, powered by innovation, and aligned with global imperatives, Himadri is committed to creating enduring value while contributing to a cleaner and more resilient world.

Anurag Choudhary
CMD & CEO

Chief Sustainability Officer's Perspective

The year FY 24–25 proved pivotal in Himadri's climate and sustainability journey, marking a phase where ambition translated into measurable outcomes and leadership has been validated by credible external benchmarks. Building on the previous year's foundation, governance strengthened, innovation deepened, and accountability extended across the value chain.

Our progress was reinforced through independent recognition. In our maiden year of full-scale CDP participation, Himadri achieved a rating of B for Climate Action, B for Water, and an A for Supplier Engagement Leadership–positioning the Company among global leaders driving systemic change across their value chains. This validation was complemented by the EcoVadis Platinum Medal, placing Himadri in the top 1% worldwide, and achieved the ICRA 'Exceptional' rating for Sustainability, affirming the resilience of its practices at the national level.

Together, these milestones reflect our ability to compete on both global and domestic benchmarks of ESG excellence.

Aligned with our sustainability objectives our operational progress was equally significant. Energy intensity reduced by 17.42%, supported by advanced process optimisation, digital energy management, and a greater reliance on renewable energy. Several facilities operated on more than 95% in-house clean energy, while a structured Scope 3 roadmap was introduced to engage suppliers through capacity building, measurement, and decarbonisation initiatives. These actions directly contributed to our objectives of reducing GHG intensity, achieving water positivity, and embedding ESG principles across our extended ecosystem.

> The EcoVadis Platinum Medal, placing Himadri in the top 1% worldwide, and achieved the ICRA 'Exceptional' rating for Sustainability, affirming the resilience of its practices at the national level.

Innovation remained central to delivering on our sustainability goals. Carbon capture pilot feasibility studies were advanced, pathways for electrification of core processes were reinforced, and circular economy programmes–waste valorisation to sustainable packaging–were scaled. Concurrently, the development of next-generation energy materials such as LFP cathodes, hybrid anodes, and advanced carbon black products continued to position Himadri at the forefront of the global clean energy transition.

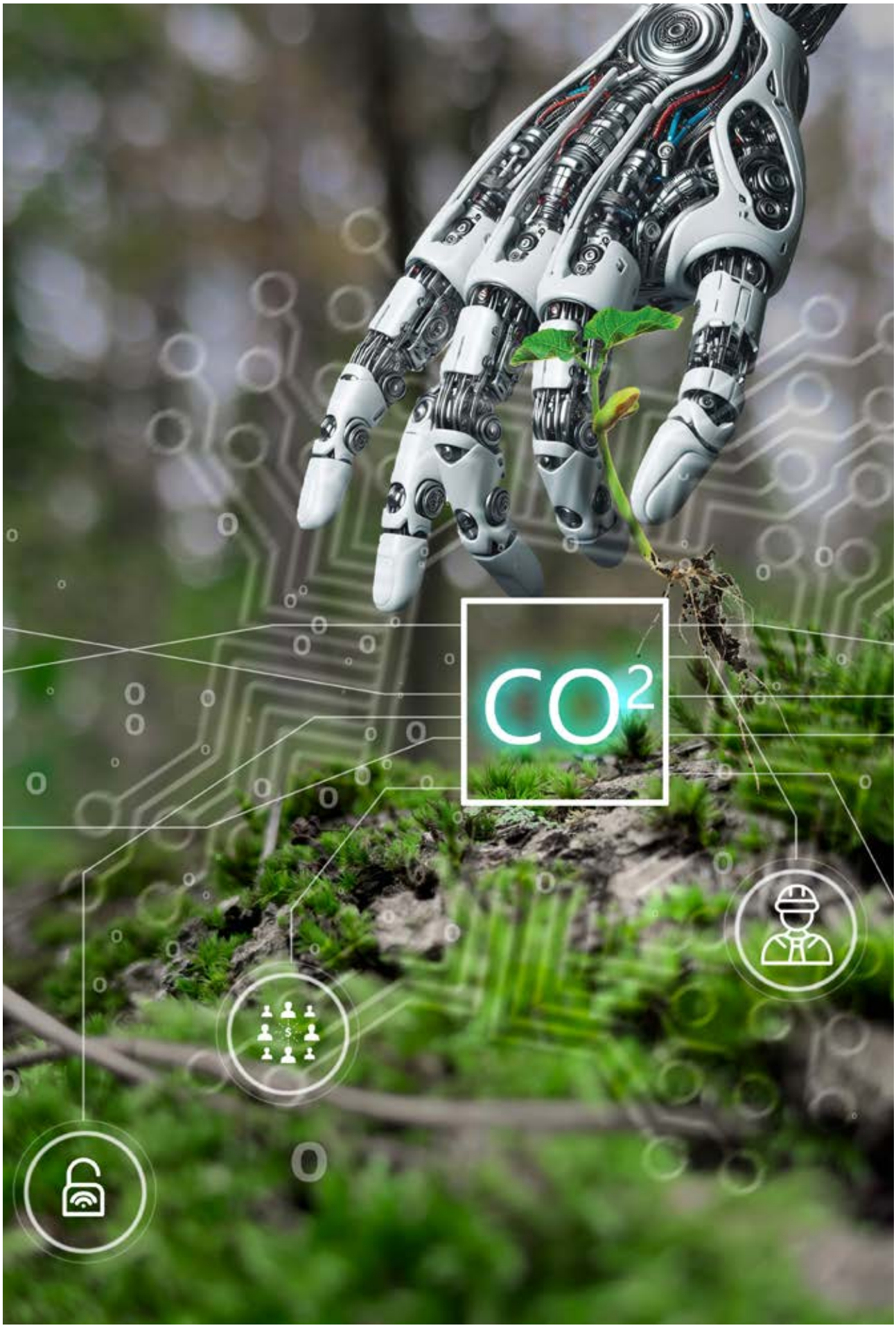
Governance provided the foundation for these achievements. The Board-level ESG Committee, supported by the ESG Council and divisional Sustainability Steering Committees, ensured that climate and ESG objectives were fully integrated into corporate strategy. Climate risks were embedded into enterprise risk management, and performance outcomes were directly linked to leadership performance evaluation, ensuring that sustainability remained central to business excellence.

Looking ahead, Himadri's Net Zero 2050 roadmap is being advanced through near- and mid-term milestones aligned with the Science Based Targets initiative (SBTi). The next phase of our progress will be defined by scaling renewable energy integration, accelerating carbon capture pilots, advancing water stewardship and biodiversity accountability, and deepening our supplier engagements to achieve a greater resilience and Scope 3 reductions.

Together Towards Tomorrow, Himadri will continue to drive growth powered by capabilities aligned with its vision—delivering measurable outcomes, enabling resilient communities, and shaping a future where sustainability and business excellence move forward as one.

Avijit Sasmal

Chief Sustainability Officer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Our Position on Climate Change

At Himadri Speciality Chemical Ltd, we recognise climate change not as a distant challenge, but as one of the most defining imperatives of our time.

The global transition towards decarbonisation is reshaping industries, markets, and societies. We choose to see this shift not as a constraint, but as a powerful catalyst for innovation, responsible growth, and shared prosperity.

With optimism and conviction, we are reimagining a future where industrial excellence and environmental stewardship advance in unison.

Our climate action roadmap is founded on the principle of continuous improvement. It is a strategy that looks beyond short-term targets and embeds long-term resilience into the very fabric of our operations.

Energy efficiency forms the cornerstone of this journey, complemented by the adoption of low-emission and carbon-negative technologies. Equally critical is the integration of climate resilience across every process, product, and partnership we undertake. By aligning efficiency with responsibility, we reinforce our belief that sustainable progress strengthens business performance and community well-being.

At Himadri, sustainability is not a compliance-driven exercise. It is a core value that informs decision-making, inspires innovation, and drives financial resilience. It shapes our responsibility towards maintaining ecological balance while supporting inclusive social development. We believe that every responsible action taken today plants the seeds of prosperity, security, and opportunity for generations to come.

By embedding sustainability into our business model, we align our growth with both national priorities and global climate goals. For us, climate responsibility is a continuous journey, one that seeks to create enduring value, inspire stakeholder trust, and demonstrate that business success and environmental well-being are not divergent paths but converging destinies.

At Himadri, we are committed to enabling a future where people, planet, and progress flourish together.

Himadri Speciality Chemical Limited is one of the most exciting companies in its sector in the fastest-growing major global economy

Background

Himadri stands as a diversified chemical manufacturer with a global footprint and a reputation built on three enduring pillars, innovation, reliability, and responsibility. Since our inception in 1990, we have earned recognition as a trusted partner across industries, anchored by our leadership in carbon-based products and our ability to deliver solutions that anticipate the future.

Strong market position

Coal tar pitch: Over the decades, we have strengthened our market position as India's largest producer of coal tar pitch (CTP), a critical input for the aluminium and graphite industries.

Carbon black: Complementing this leadership, we have sustained a strong presence in carbon black production for more than 15 years, serving the tyre and rubber industries with consistent quality and innovation.

Others: Our portfolio extends well beyond these strengths to include refined naphthalene, speciality oils, advanced carbon materials and performance chemicals, products that power essential sectors spanning infrastructure, energy storage, and industrial applications.

Innovation remains the central thread of our strategy. We continue to invest significantly in research and development to create clean, efficient and future-ready products. This forward-looking approach has enabled us to cultivate a global presence across 56 countries, with exports contributing 26.79% of revenues in FY 24–25, amounting to INR 1,232 crore.

ESG excellence

Our growth story is defined by a strong commitment to environmental, social and governance (ESG) excellence. Himadri's efforts in sustainability and transparency were recognised with a Platinum rating from EcoVadis, placing us in the top 1% of companies worldwide. In our debut submission to the Carbon Disclosure Project (CDP), we secured a 'B' rating, reinforcing our credibility in the area of climate action and related disclosures. As we move forward, Himadri continues to balance industrial leadership with a deep sense of responsibility, shaping a future where progress and sustainability advance together.

Vision, Mission and Values

At Himadri, our vision is to emerge as a global leader in speciality chemicals by driving sustainable innovation, enriching lives, and creating enduring value for every stakeholder.

This vision is powered by a mission to deliver high-quality, cutting-edge chemical solutions through responsible manufacturing, customer-centricity, and a relentless focus on technology and sustainability.

What sets our journey apart is the strength of our values. Integrity, innovation, sustainability, excellence, and collaboration are not just guiding principles, they represent the foundation of our success. In a rapidly evolving world, these values ensure that we operate with transparency, foster trust, and create long-term partnerships that thrive on mutual respect. They remind us that true progress is not measured solely in financial outcomes, but in the ability to uplift communities, protect the environment, and inspire confidence among stakeholders.

Our focus on research, development, and sustainability reflects the practical expression of these values. By embedding responsibility into every decision and action, Himadri has earned recognition as a pioneer in responsible chemical manufacturing. We are equally committed to advancing inclusive growth, nurturing a future-ready workforce, and upholding the highest standards of corporate governance.

At its core, Himadri believes that values are the compass that sustain success. They shape our culture, guide our choices, and align our aspirations with global priorities. Through this unwavering commitment, we continue to drive positive change, creating a legacy of growth that benefits people, planet, and business alike.


CO2

Vision

Himadri harbours a vision to become a global leader in speciality products by adopting appropriate eco-friendly technologies and enhancing core capabilities through continuous product improvement, technical innovation, and customer satisfaction.

Mission

- To be a company that constantly innovates new products and technologies.
- To have an unrelenting customer focus while being customer's clear choice.
- Be a company that attracts, develops individuals to build a proud Himadrian team.
- Stay committed to a sustainable future and to improving the social, economic and environmental well-being of communities in the region of our operations.

Our core values

Integrity

We are thoroughly professional in all our activities with absolute honesty, and we never compromise on our principles in any way.

Excellence

We always strive to achieve the best level of performance in whatever we do and continuously improve ourselves in order to reach that level.

Safety

The safety of our stakeholders employees, suppliers, buyers, and society, is of utmost importance to us, and we never settle for any practice which puts it in danger.

Sustainability

We will continue to carry out all our business activities to positively contribute to the creation of a better tomorrow for our future generations.

Innovating for a low-carbon future

Himadri's diverse product portfolio reflects our commitment to addressing the evolving needs of global industries with solutions that balance performance and responsibility.

From refined naphthalene and speciality oils to advanced new-energy materials, our products enable critical applications in aluminium production, tyre manufacturing, infrastructure, and energy storage. Each offering is defined by reliability, quality, and environmental stewardship powering progress across geographies and sectors.

In line with market trends and stakeholder aspirations, we are actively transitioning towards a low-carbon product portfolio. Our advanced materials include anode and cathode components for lithium-ion batteries, speciality carbon black grades that support energy-efficient tyres and electrical applications, and performance materials designed with an emphasis on sustainability and circularity. These innovations extend beyond products; they represent our vision of enabling industries to grow responsibly while reducing their carbon intensity.

Our solutions directly contribute to decarbonisation in downstream sectors such as transportation, construction, and renewable energy. By embedding sustainability into our innovation process, we are not only responding to global climate imperatives but also creating long-term value for customers, communities, and stakeholders.

Himadri's portfolio is a reflection of today's needs and a blueprint for tomorrow's energy transition.

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Decades of experience	Manufacturing units	Countries of presence and growing	INR Crores, net positive cash balance as on 31 March 2025

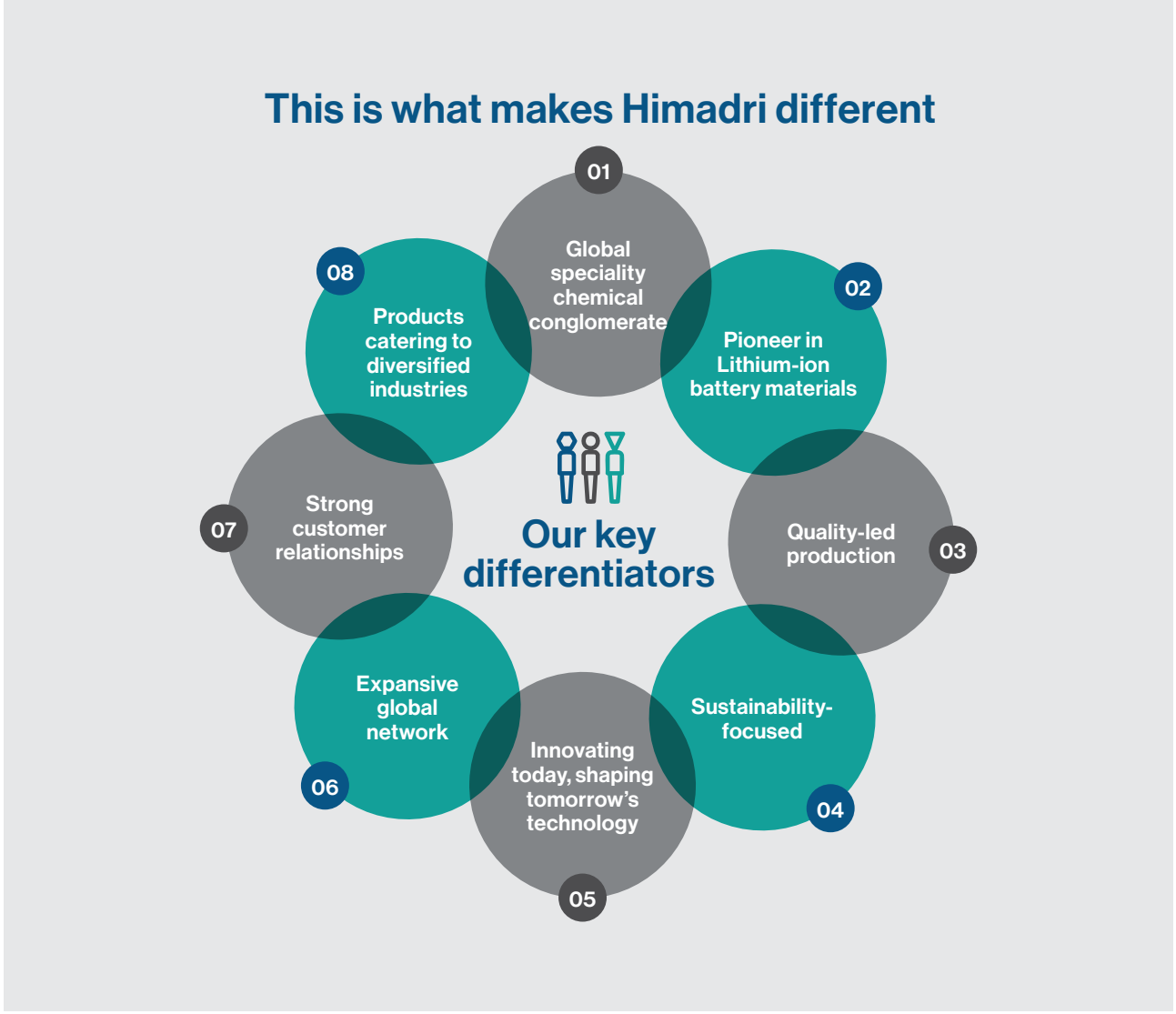


Figure 1: Himadri key differentiators

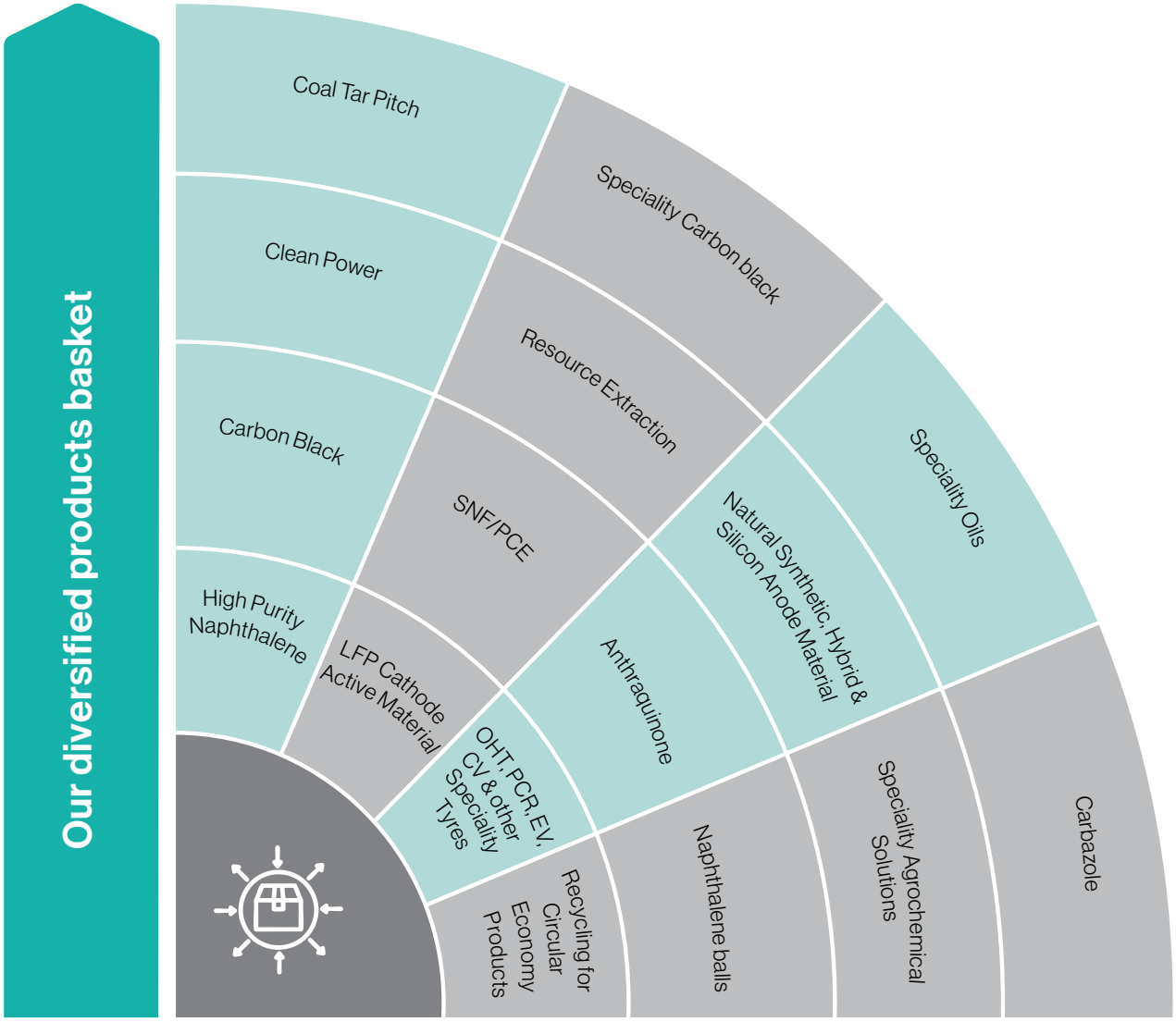


Figure 2: Diversified product basket

Key highlights

- Globally the 1st commercial plant for LFP Cathode Active material, ex-China
- More than doubling speciality carbon black capacity
- Revitalising Birla Tyres
- Leveraging investments in Sicona, Invati and IBC
- Exploring additional growth areas in Value Chain

Himadri Speciality Chemical Limited continues to strengthen its global footprint, exporting to 56 countries. In FY 24-25, exports contributed 26.79% of total revenue, amounting to INR 1,232 crore. This international presence highlights the quality and innovation of Himadri's products, which serve diverse industries such as lithium-ion batteries, tyres and plastics. By catering to global markets, Himadri reinforces its position as a leader in the speciality chemicals sector while enhancing its competitive edge and commitment to sustainable growth.

Our recognitions and industry engagements

Awards and accolades

Awarded the 'Company of the Year' among listed companies at India Chem 2024, organised by the Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Government of India, in partnership with FICCI and E&Y.

Himadri was presented with the DET Hurun Award at the India Manufacturing Excellence Awards 2023, for its significant contribution to India's manufacturing economy.

Recognised in three prestigious categories at the Global CSR Excellence & Leadership Awards 2023:

- Best Corporate Social Responsibility Practices
- Best Workplace Practices
- Carbon Footprint Accounting

EXCEED Green Future Awards 2024

Awarded Eastern India Leadership Award 2024 for the best overall sustainable performance

Accreditations and recognitions

Awarded 'Exceptional' ESG combined rating of 80 by ICRA ESG Ratings Limited

Awarded the prestigious 'Platinum Medal' by EcoVadis. This is a significant achievement as it positions Himadri among the top 1% of over 150,000 companies globally assessed by EcoVadis.

We achieved a **B** rating from CDP for Climate and Water Security, recognising our strong environmental management.

We achieved an **A** rating from CDP for Supplier Engagement Assessment, recognising our strong supplier engagement process.

Mapping our footprints

26.79

% of our revenues derived from exports, FY 24-25

1232.00

INR crore, total revenue from exports

Himadri enjoys a global presence, with our products available in 56 countries. This extensive outreach allows us to connect with industries across continents and ensure that our innovative solutions are accessible wherever needed.

List of countries to whom we export

1. Algeria
2. Australia
3. Austria
4. Bahrain
5. Bangladesh
6. Belgium
7. Brazil
8. Canada
9. Chile
10. China
11. Colombia
12. Czech Republic
13. Ecuador
14. Egypt
15. Ethiopia
16. Finland
17. France
18. Germany
19. Ghana
20. Greece
21. Guatemala
22. Indonesia
23. Italy
24. Japan
25. Malaysia
26. Mexico
27. Morocco
28. Mozambique
29. Nepal
30. Netherlands
31. Nigeria
32. Oman
33. Peru
34. Philippines
35. Poland
36. Portugal
37. Qatar
38. South Korea
39. Saudi Arabia
40. Senegal
41. Serbia
42. Slovenia
43. South Africa
44. Spain
45. Sri Lanka
46. Sweden
47. Thailand
48. Tunisia
49. Turkey
50. UAE
51. UK
52. Uganda
53. USA
54. Uzbekistan
55. Vietnam
56. Venezuela

Figure 3: Mapping our footprints

73.21

% of revenues derived from domestic sales, FY 24-25

3363.53

INR crore, total revenues generated from domestic sales, FY 24-25

Our Sustainability Objectives

Objectives	Measures	Target FY 25-26
Vision Zero accident / incident	By 2025, Loss Time Injury Frequency Rate below 1 (Vs 2021)	< 1
Energy consumption	By 2025, reduce energy intensity per metric tonne of product sold (Vs 2021)	-20%
CO2e emission Intensity (Scope-1 & Scope-2)	By 2025, reduce Scope 1 and Scope 2 CO2e emission intensity per metric tonne of product sold (Vs 2021)	-30%
CO2e emission Intensity (Scope-3)	By 2025, reduce scope 3 CO2e emission intensity per metric tonne of product sold (Vs 2024)	-8%*
Zero Liquid Discharge (ZLD)	All plants must operate with ZLD status (Vs 2021)	100%
Solid waste	Reduce solid waste (hazardous and non-hazardous) to landfill per metric tonne of product sold (Vs 2021)	<1%
Recycle materials	Maintain the proportion of non-virgin raw material from external sources used in production to avoid depletion of natural resources (Vs 2020)	> 95%
Gender diversity	Increase female representation in management team (Vs 2020)	6.5%
Compliance training	Increase percentage of targeted staff, who completed anti bribery and corruption training (Vs 2020)	> 95%
Value chain partner	By 2026, conduct sustainability assessment of our value chain partners (upstream & downstream) covering at least 75% of group spend & sales of FY 24-25	100%
Carbon neutral product	By 2026, introduction of carbon neutral products to customers - X Variants/ X Kg in MT	0.2%
Customer decarbonisation	Introduction of customer-side carbon footprint reduction collaboration project	1

Figure 4: Sustainability objectives

Target FY 24-25	Result FY 24-25	Main domain	UNGC–SDGs
< 1	0	People	
-10%	-17.42%	Planet	
-25%	-36.08%	Planet	
-5%	-22.25%	Planet	
100%	100%	Planet	
<1%	0.01%	Planet	
>95%	> 95%	Planet	
5%	5.56%	People	
>95%	99%	Governance	
85%	88.1% (cumulative objective 75% spend)	Communities	
0.1%	0.1%	Communities	
New Objective	New objective	Communities	

Our Climate Strategy: Driving Himadri's Net-Zero Ambition

Overview

At Himadri, we recognise that climate change is not only the defining challenge of our generation but also an unprecedented opportunity to reshape business, reimagine growth and reaffirm trust.

The world is moving rapidly towards decarbonisation, and we believe industry must lead from the front, through innovation, responsibility, and a willingness to transform. Our climate strategy is therefore not an isolated initiative, but an integral part of our corporate purpose: creating value for all stakeholders, while contributing to a resilient and sustainable planet.

We are committed to advancing on this journey with transparency and accountability. By embedding decarbonisation across our operations, investments, and partnerships, we aspire to set benchmarks for the speciality chemicals sector.

Our ambition is to achieve net-zero emissions by 2050, guided by near- and mid-term targets that align with the Science Based Targets initiative (SBTi) and global climate goals.

A three-tier roadmap to net-zero

Our roadmap is structured around short-term, mid-term, and long-term milestones. Each phase combines pragmatic actions with ambitious goals, ensuring that progress is measurable and resilient to market shifts. This tiered strategy reflects our belief that the pathway to net-zero is not linear, but a journey of innovation, governance and adaptation.

Short-term priorities: Building the foundation

In the immediate term, Himadri has placed an emphasis on energy efficiency and resilience. By diversifying our fuel mix and optimising energy consumption across facilities, we are already reducing Scope 1 and Scope 2 emissions. We have initiated a comprehensive inventory of Scope 3 emissions, recognising that the largest share of our climate footprint lies in our value chain. Mapping these emissions helps us identify hotspots, engage suppliers, and strengthen our roadmap for reduction.

We are taking decisive steps to embed sustainability across the product life cycle. Efforts include exploring end-of-life recycling solutions for key products, expanding renewable energy capacity through solar installations and clean power purchase agreements (PPAs), and piloting carbon capture projects with technology partners. These actions not only reduce our footprint but also future-proof our portfolio against regulatory and market risks.

Governance frameworks are being concurrently strengthened. Climate resilience strategies are mandatory in new projects, while mitigation guidelines ensure energy efficiency, adoption of cleaner fuels, and climate impact reviews are built into every expansion, merger or acquisition. Climate-related Key Performance Indicators (KPIs) have been embedded into executive appraisals, reinforcing accountability at the highest levels of leadership. These initiatives reflect our conviction that climate action, when integrated into operations and governance, creates measurable long-term value.

How we manage related risks

- Integrating climate-related risks into enterprise risk management processes
- Applying quality assurance and compliance standards to climate-related information
- Developing sustainable packaging solutions to eliminate virgin plastic
- Reducing transport-related emissions in upstream and downstream logistics
- Helping customers reduce carbon footprint through new low-carbon products.
- Initiating science-based carbon offset projects
- Embedding ESG KPIs into supplier assessments.

Our 2030 targets

- 30% absolute reduction in Scope 1 emissions.
- 20% intensity reduction in Scope 3 emissions.
- Annual improvements in energy efficiency, water conservation and waste reduction.
- Supplier commitments aligned with Himadri's group-level climate goals.

Our ambitious targets

- **40%** absolute reduction in Scope 3 emissions.
- **50%** of raw material consumption from recycled sources.
- **50%** reduction in freight-related emissions.
- **Elimination** of virgin plastics in packaging.
- Widespread supplier and customer **adoption** of science-based climate targets.

Mid-term strategy: Scaling innovation

Our mid-term roadmap accelerates our momentum by focusing on transformative innovation and collaboration. Recognising that true environmental responsibility extends beyond our gates, Himadri is committed to reducing emissions across its value chain.

The centrepiece of this phase is the transition to next-generation fuels and electrification of operations. By systematically reducing dependence on fossil fuels and integrating renewable power, we aim to lower greenhouse gas emissions while enhancing operational efficiency. We are working towards a future where all Himadri operations are powered by electricity, sourced increasingly from renewables.

Product innovation continues to serve as a catalyst. We are developing low-carbon grades of coal tar pitch and carbon black, expanding offerings of anode and cathode materials for lithium-ion batteries, and focusing R&D efforts on recyclability and circularity. These solutions enable decarbonisation in downstream industries such as transportation, construction, and energy storage, sectors that are critical to the global energy transition.

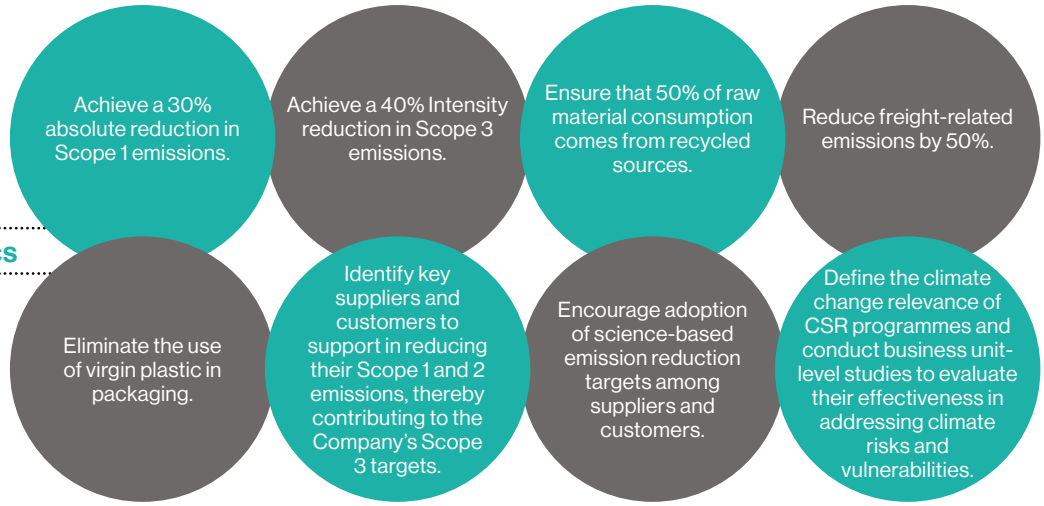
Policy advocacy forms another dimension of our mid-term strategy. Himadri is engaged in dialogues to overcome systemic barriers, from technological constraints to infrastructure challenges in moving away from coal. We are also preparing for the opportunities and responsibilities arising from carbon tax regimes and evolving regulatory frameworks.

By combining product innovation, policy advocacy, and supplier engagement, Himadri seeks to set benchmarks for sustainability leadership in its industry.

Risk management at Himadri

- **Develop** business unit-level adaptation plans based on climate risk assessments and techno-feasibility studies.
- **Engage** external stakeholders along the supply chain to manage climate-related risks.
- **Collaborate** with critical suppliers exposed to high physical and transition risks to build resilience.
- **Assess** and quantify the impact of potential supply chain disruptions caused by climate disasters or low-carbon transitions.
- **Develop** products that support a low-carbon economy.
- **Integrate** carbon removal projects into operations.
- **Progress** towards full electrification of operations.
- **Adopt** science-based offset projects to complement emission reduction efforts.

Targets and metrics



Long-term strategy: Transforming for the future

The long-term vision for Himadri is transformative, embedding sustainability into every aspect of operations, products, and partnerships. This phase is defined by next-generation technologies and digital integration, enabling us to scale climate-positive solutions and create enduring competitiveness.

Advanced digital platforms, automation, and smart systems will enhance efficiency, reduce environmental impact, and unlock new growth opportunities. Clean energy adoption will expand into renewable geothermal solutions, large-scale carbon capture technologies, and advanced recycling systems that eliminate waste.

We are also committed to ensuring a Just Transition, recognising that climate action must be inclusive, equitable, and aligned with social development. This includes supporting communities affected by the transition to low-carbon economies, investing in workforce reskilling, and embedding climate relevance into our CSR programmes.

Risk management in this phase evolves to address emerging threats, from physical climate events to policy shifts. Dedicated climate funds, insurance mechanisms, and resilience planning ensure that the business remains protected against volatility while staying firmly aligned with net-zero goals.

By 2050, Himadri aspires to become a climate-positive organisation, defined not just by reduced emissions but by its ability to empower decarbonisation across industries.

Governance and accountability

Strong governance underpins every aspect of our climate strategy. Climate goals are fully integrated into our annual business planning, with functions required to align their budgets, investments, and operational targets to the net-zero roadmap. Performance on climate KPIs is a key determinant of leadership accountability.

Supplier and partner engagement is central to our strategy. We have piloted a programme with key suppliers to track emissions, build capacity, and align procurement practices with our commitments. At the same time, we are engaging downstream customers to co-develop low-carbon solutions, empowering reductions across their Scope 1 and Scope 2 emissions as well.

Our disclosure practices reflect the same rigour as financial reporting. Climate-related risks are integrated into our enterprise risk management framework, and sustainability data is held to the same quality assurance standards as financial information. This strengthens transparency, builds investor confidence, and ensures that Himadri remains aligned with global reporting frameworks.

Beyond compliance: A culture of leadership

At Himadri, climate action is not about meeting minimum requirements. It is about leadership, demonstrating that industrial growth and environmental stewardship are not conflicting goals, but complementary imperatives. Our 'Platinum' rating from EcoVadis - a top 1% global rating, and a 'B' rating in our first CDP submission, validate our progress and validate our intent.

Through structured targets, innovative solutions, and a culture of responsibility, we are building a company that is resilient, future-ready, and trusted. Most importantly, we are contributing to a world where people, planet, and progress can thrive together.

Conclusion

The path to net-zero is long and complex, but at Himadri, we see it as an opportunity to redefine what responsible industry looks like. Every action from diversifying fuels to developing next-generation materials, from embedding sustainability into governance to engaging communities represents a step towards this vision.

Our commitment is unwavering: to achieve net-zero by 2050, to pioneer innovation that reduces emissions across industries, and to create enduring value for all stakeholders. In doing so, we not only strengthen Himadri's business model but also contribute meaningfully to the global fight against climate change.

Himadri's climate strategy is more than a roadmap it is a declaration of intent, a blueprint for transformation, and a promise to future generations.

Risk management

- Consider insurance or an enhanced climate fund (ICP) for emergency response.
- Implement measures to reduce exposure to identified physical climate risks.
- Strategise and implement a just transition plan.

Targets and metrics

- Revise the climate budget.
- Achieve an absolute Scope 1 reduction of 30%.
- Achieve an Intensity Scope 3 reduction of 30%.
- Establish specific targets for the use of clean technologies.

Himadri's road map:
Net Zero
target by 2050

Achieve
(2023 to 2030)

- Reduction in packaging emissions
- Reduction of upstream and downstream emission
- Lowering the customer's carbon footprint through novel products
- Science based off-set, pilot projects.
- Focus on adding renewable energy source
- Deployment of sustainable procurement framework

Reduction of Scope 3 by 20%

- Introduction of fuel diversification/greener technologies
- Capture and convert carbon emissions
- Recycling initiatives
- Adapt circular economy products.
- Deployment of sustainable procurement framework.
- Consumption of renewable energy
- Reduce waste generated

Reduction of Scope 1 by 30 %

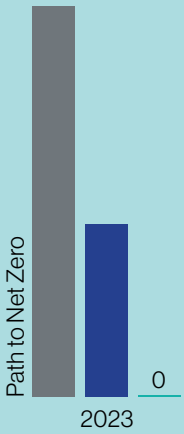
Accelerate
(2030 to 2040)

- Elimination of virgin plastic in packaging by 100%
- Reduction of freight emission by 50%
- Science based off-set, broadening horizon of successful pilot projects.
- Reinforcing sustainable procurement framework to make it more effective & efficient.

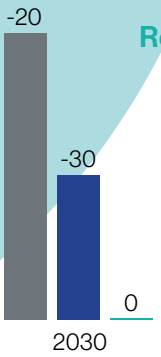
Reduction of Scope 3 by 40%

- Consumption of new generations/ carbon neutral fuel.
- 100% electrification of our operations
- Consumption of recycled raw materials by 50%.
- Carbon removal projects
- Consumption of renewable thermal energy

Reduction of Scope 1 by 30%



+3.3 ° to +2.8 C



+2.8 to +2.4 °C

Scope 1, 2 and 3 targets include science-based projects aligning SBTi tools and MIT-SLOAN En-roads climate simulator.

SBTi : Absolute Contraction Approach has been applied to freeze the target against the timeline.

Figure 5: Hinadri Net zero roadmap

OUR AMBITION

Net Zero By 2050

Scope 3: Baseline Year 2023 (FY 23-24)

Scope 1: Baseline Year 2021 (FY 21-22)

Scope 2 = 0, Baseline Year 2021 (FY 21-22)

Scale
(2040 to 2050)

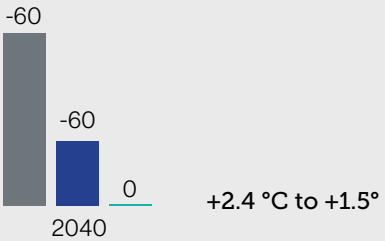
Assumption: India will be regulated carbon market with high tax imposed on conventional Fuel & PLI for clean fuel and technologies

- Scale successful science based offset projects.
- Zero tolerance on sustainable procurement framework and collaboration with value chain partners.

Reduction of Scope 3 by 30%

- Scale carbon capture and utilisation
- Scale renewable thermal energy consumption
- Scale usage of owned recycled plastics as packaging material
- Scale recycled and upcycled raw material input
- Scale usage of renewable fuels and energy for transportation

Reduction of Scope 1 by 30%



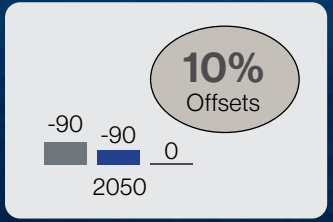


Figure 15: Himadri's Net-Zero Roadmap

Governance: Anchoring sustainability with purpose

At Himadri, Environmental, Social, and Governance (ESG) stewardship is not merely a responsibility it is a defining philosophy that shapes our identity, guides our strategy, and drives long-term value creation. Governance serves as the foundation upon which our environmental and social commitments are built, ensuring that every action reflects integrity, foresight, and accountability.

Our approach to ESG governance is characterised by strong leadership, robust oversight, and a culture that empowers every employee to act as a steward of sustainability. By combining strategic vision at the Board level with disciplined execution by management and employees, Himadri ensures that sustainability is embedded across every layer of the organisation.

Board oversight and strategic direction

The Board of Directors plays a pivotal role in defining Himadri's ESG vision. Climate change is not treated as a peripheral concern, it is recognised as a central governance priority. Discussions on climate risks and opportunities are integral to deliberations on strategy, financial planning, capital deployment, scenario analyses, and enterprise risk management.

The Board brings together diverse expertise in finance, governance, environmental management, and public policy. This depth of knowledge allows it to:

- Anticipate and respond to emerging climate-related risks and opportunities.
- Integrate climate science, regulatory developments, and stakeholder expectations into strategic decisions.
- Direct resources and capital toward building climate resilience and fostering green growth.
- Ensure alignment with global frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD) and India's national climate commitments.

By drawing on external expertise and global best practices, the Board ensures that Himadri's climate strategy remains forward-looking, resilient, and aligned with stakeholder expectations.

Executive leadership and operationalisation

While the Board sets the vision, the responsibility of translating that vision into execution rests with the Chairman & Managing Director (CMD), the Chief Executive Officer (CEO), and the leadership team. Together, they embed ESG priorities into business actions, innovation pipelines, and stakeholder partnerships.

Under their guidance, sustainability is operationalised across all business verticals. From advancing decarbonisation and energy efficiency to promoting inclusive workplace practices and community development, the leadership team ensures that ESG commitments translate into measurable progress. Accountability frameworks are reinforced through performance-linked KPIs, ensuring that every leader and manager is responsible for driving impact.

A culture of ethics, ownership, and inclusion

At Himadri, governance extends beyond compliance, it is lived through culture. Integrity, transparency, and ethical conduct are non-negotiable values, embedded across decision-making processes.

We nurture a workplace culture built on ownership and empowerment, where employees are encouraged to actively contribute to the Company's ESG vision. training, awareness campaigns, and employee engagement programmes ensure that sustainability is understood not as an external obligation but as a shared responsibility.

This inclusive approach also extends to diversity, equity, and community engagement. We believe that sustainable development must be equitable, benefitting not just the business but also employees, partners, and the wider society.

ESG integration and impact

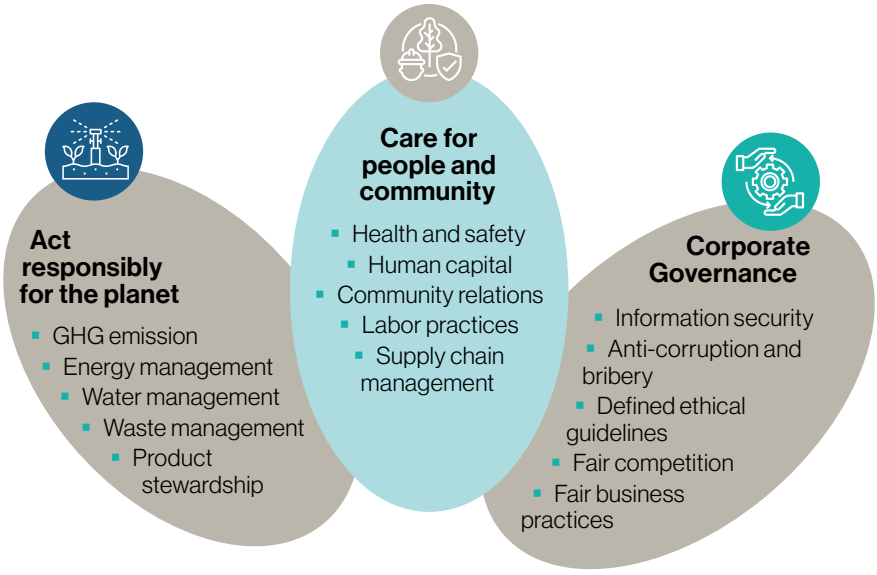
Himadri's ESG governance model is anchored on three strategic pillars:

Environmental leadership: Reducing ecological footprint through clean technologies, energy efficiency, renewable energy adoption, and circular economy practices.

Social equity: Advancing education, healthcare, and inclusive growth within the communities we serve, while ensuring safe and equitable workplaces.

Governance excellence: Upholding ethical conduct, transparency, and accountability across all business practices.

Aligned with the **UN Sustainable Development Goals (SDGs)**, our actions support India's national priorities while contributing to global sustainability targets. Strong governance and oversight mechanisms, led by the CMD & CEO, Board of Directors, and the dedicated ESG Committee, ensure that these principles are embedded across strategy and operations.



HIMADRI'S SUSTAINABILITY PILLARS

Figure 6: Himadri's sustainability pillars

Board-level ESG committee: Purposeful stewardship

The Board-level ESG Committee represents the fulcrum of our sustainability governance. Comprising the CMD & CEO and Selected Directors with diverse functional expertise, the Committee provides strategic direction and ensures effective operationalisation of ESG priorities.

The Committee's composition enables an integrated approach to decision-making, balancing strategic foresight with practical insights. Recognising the complexity of ESG issues, the Committee draws upon directors' expertise in finance, public policy, climate science, and governance to shape Himadri's climate and sustainability agenda.

Our key responsibilities include:

- Providing strategic direction on ESG and climate priorities.
- Advising the Board on regulatory developments and global sustainability trends.
- Evaluating short-, medium-, and long-term ESG targets, including net-zero goals.
- Reviewing progress against targets and recommending corrective measures.
- Promoting advocacy, transparency, and public engagement on ESG issues.
- Embedding sustainability culture through active employee and stakeholder engagement.

Strategic accountability and incentivised leadership

To ensure accountability, the ESG Committee evaluates and approves ESG-linked Key Performance Indicators (KPIs) for Directors and senior executives. These KPIs are integrated into the Long-Term Incentive Plan (LTIP), linking 10% of base salary directly to ESG performance.

This linkage reflects the Board's commitment to aligning executive accountability with sustainability outcomes. Performance is assessed using a balanced scorecard framework, integrating external benchmarks, internal targets, and qualitative insights. During FY 24–25, the Board also approved a structured ESG-linked incentive policy, reinforcing its focus on harmonising business success with environmental and social priorities.

Specialised committees strengthening oversight

The ESG Committee's efforts are reinforced by specialised Board committees, which provide targeted oversight and strengthen governance:

- **Corporate Social Responsibility Committee (CSRC):** Drives social development and community engagement programmes.
- **Stakeholder Relationship Committee (SRC):** Ensures transparent communication and responsiveness to stakeholder concerns.
- **Risk Management Committee (RMC):** Monitors enterprise risks, including those linked to climate change and ESG.
- **Nomination and Remuneration Committee (NRC):** Aligns executive compensation with ESG objectives and long-term priorities.

Together, these committees create a holistic governance architecture, embedding responsibility, transparency, and continuous improvement across the organisation.

Board resolutions: FY 24-25

In FY 24–25, the Company reviewed and ratified several key actions, including:

- Evaluation of climate-related risks and opportunities.
- Approval of mitigation and adaptation strategies.
- Oversight of capital expenditure progress under Himadri's INR 100 crore decadal investment plan for environmental initiatives.
- Assessment of ESG performance across business segments, benchmarked against TCFD disclosures.

The Board conducted a comprehensive analysis of climate change scenarios, focusing on the development of green products.

The Board engaged with a range of climate topics, including the role of industry associations in advocacy.

The Board addressed ESG-related concerns raised by investors, reaffirming its commitment to transparency.

The Board updated group policies and action plans to ensure that projects and operations addressed social, economic and environmental responsibilities.

ESG targets were reviewed, ensuring they remained aligned with stakeholder expectations, timelines and sustainable objectives.

The Board empowered stakeholders to promote sustainability and continuous improvement in sustainability performance.

Institutionalising ESG at the core

Governance at Himadri is not an adjunct; it is the driver of resilient growth, innovation, and stakeholder trust. By placing ESG at the core of decision-making, the Board and leadership ensure that sustainability is not just integrated into strategy but also defined.

As global ESG expectations evolve, Himadri's governance model is designed to adapt with foresight and purpose.

The active involvement of the Board, the rigour of the ESG Committee, and the support of specialised committees together anchor our ambition to become a climate-conscious, ethical, and future-ready organisation.

Conclusion

For Himadri, ESG governance is more than oversight, it is stewardship. It is the discipline of balancing economic performance with environmental responsibility and social equity. It is the confidence of investors, the trust of communities, and the motivation of employees. Most importantly, it is the foundation upon which Himadri builds long-term value for society and for future generations.

Sustainability Governance

Figure 7: Himadri's sustainability governance structure

ESG Governance in action: From oversight to execution

At Himadri, governance is the anchor of our sustainability journey. We believe that responsible growth must be institutionalised through structures that combine vision, accountability, and execution. To this end, our Board-level ESG Committee, ESG Council, Sustainability Steering Committees, and ESG Task Forces form a multi-layered framework that translates strategic ambitions into measurable outcomes. Together, these bodies ensure that sustainability is not an adjunct to business, it is the way we do business.

Responsibilities of the Board-level ESG Committee

The ESG Committee of the Board holds primary accountability for guiding Himadri's sustainability agenda and ensuring responsible business practices across the organisation. It serves as the custodian of our ESG vision, approving policies, setting targets, and monitoring progress through structured reporting by the Chief Sustainability Officer (CSO).

Its oversight extends across a broad spectrum of priorities: Climate change, human rights, health and safety, product stewardship, biodiversity, talent management, responsible sourcing, anti-bribery and anti-corruption compliance, ethical conduct, and diversity. By monitoring these interconnected areas, the Committee ensures holistic progress on our sustainability commitments.

Our key activities:

- Providing strategic guidance on climate-related matters, from policy development to disclosures.
- Advising the Board on regulatory and policy changes in India and international markets.
- Reviewing short-, medium-, and long-term ESG targets and recommending improvements.
- Overseeing progress on our net-zero goals, recommending corrective actions as needed.
- Ensuring transparency and rigour in ESG disclosures.
- Driving advocacy and embedding a culture of sustainability across the organisation.

Through this proactive stewardship, the Committee positions Himadri at the forefront of climate and ESG governance in the speciality chemicals sector.

Enterprise-wide alignment: The ESG Council

Governance at the Board level is translated into operational reality by the ESG Council, a central body that ensures sustainability is integrated across every business unit and corporate function.

Operating under the strategic oversight of the ESG Committee, the Council anticipates emerging risks, identifies opportunities, and aligns sustainability with enterprise-wide decision-making. By serving as a bridge between the Boardroom and the shop floor, it ensures that climate mitigation, adaptation, and resilience are embedded into daily operations.

Core responsibilities of the ESG Council include:

- Implementing ESG-linked KPIs across departments.
- Monitoring performance of sustainability initiatives.
- Conducting risk and opportunity analyses.
- Recommending mitigation and adaptation measures.
- Providing data-driven updates to the Board-level ESG Committee.
- Ensuring disclosures align with global standards such as GRI, SASB, and TCFD.

Meeting monthly, the Council drives accountability, speed, and transparency, enabling swift responses to climate challenges and regulatory changes.

Strategic pillars of the ESG Council

The Council's work is aligned with Himadri's 'material priorities' and sustainability commitments. Its focus areas include:

Driving operational excellence: Sustainability steering Committees

To embed ESG deeply into operations, Himadri has established Sustainability Steering Committees (SSCs) across divisions. These Committees ensure that sustainability priorities flow from strategy into practice, reaching every plant, process, and business unit.

At the apex is the Central SSC, chaired by plant heads and operating under the direction of the CSO. It collaborates with cross-functional teams and external stakeholders to execute Himadri's ESG roadmap. Its responsibilities include:

- Overseeing execution of company-wide priorities.
- Monitoring KPIs at the unit level.
- Reporting progress to the ESG Council and Board.
- Coordinating cross-division initiatives to create synergies.
- Driving innovation and continuous improvement in ESG performance.
- Division-level SSCs translate the central roadmap into tailored local action. They:
- Develop site-specific ESG roadmaps.
- Drive initiatives on carbon, water, waste, and circularity.
- Engage suppliers, customers, and peers for collective progress.
- Build workforce capacity through training and awareness programmes.
- Escalate risks and lessons learned to the ESG Council.

This decentralised yet coordinated structure ensures that sustainability becomes part of daily business decisions, creating ownership across every level of the organisation.

Agile execution: ESG Task Forces

Recognising the need for agility, Himadri has also constituted dedicated ESG Task Forces. These cross-functional teams are designed to deliver on specific priorities with precision and accountability. Each Task Force is led by a senior leader and comprises members from relevant departments, ensuring interdepartmental collaboration.

Operating under the oversight of the ESG Council, Task Forces translate strategy into focused interventions aligned with global frameworks and enterprise ESG goals. Their work spans themes such as energy transition, sustainable procurement, waste management, and climate disclosures.

Central to their mandate is the HARMONISE framework; a model that fosters collaboration, innovation, and accountability. By enabling faster decision-making and targeted execution, the Task Forces ensure that sustainability remains a dynamic, continuously evolving practice rather than a static commitment.

A cohesive governance architecture

The synergy between the Board-level ESG Committee, ESG Council, Sustainability Steering Committees, and ESG Task Forces creates a governance architecture that is both robust and agile. It combines strategic oversight with operational delivery, ensuring that ESG principles are embedded into the Company's DNA.

- The Board-level ESG Committee sets the vision and monitors accountability.
- The ESG Council ensures enterprise-wide alignment and risk management.
- The Sustainability Steering Committees operationalise priorities at the plant and unit level.
- The ESG Task Forces deliver agility, precision, and innovation.

Together, these structures guarantee that sustainability is not only a Boardroom priority but also a shop floor practice, lived daily by employees and partners alike.

Conclusion

Himadri's ESG governance model demonstrates that strong governance is the cornerstone of sustainable business. By combining strategic foresight with disciplined execution, we are building an organisation that is ethical, resilient, and future-ready. Our approach ensures that sustainability is not reduced to a set of targets or disclosures but is a culture of responsibility and innovation, embedded across every decision, process, and partnership.

As we continue on our journey, Himadri's governance framework will remain adaptive, transparent, and stakeholder-focused, anchoring our ambition to be a global leader in speciality chemicals and a pioneer in responsible business.

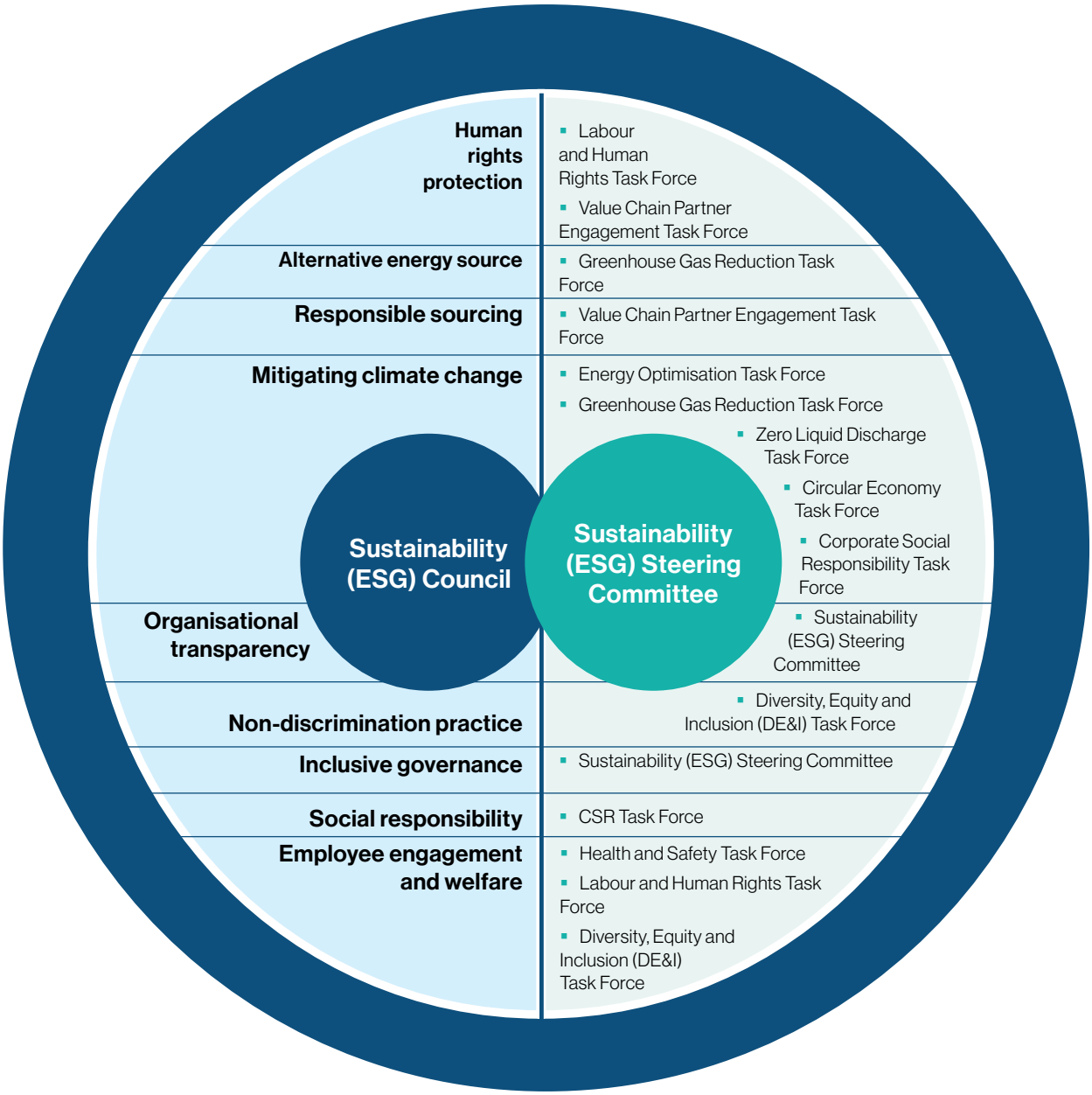


Figure 8: Himadri's Harmonise framework

Strategic mandate and roles of ESG Task Forces

Targeted execution: Converting sustainability strategies into actionable initiatives.

KPI delivery: Driving measurable progress against key ESG indicators.

Intervention design: Developing solutions tailored to business and site-specific challenges.

Data-driven monitoring: Collecting and analysing data to support informed decisions.

Performance reporting: Communicating progress, challenges, and success stories to the ESG Council.

Stakeholder engagement: Partnering with value chain actors and local communities to deliver shared impact.

Task Forces act as catalysts for ESG integration, embedding high-priority actions into daily operations. Their composition and performance are reviewed regularly to ensure adaptability, scalability, and relevance.

Key task forces established in FY 24–25

GHG emission reduction Task Force

- Oversees decarbonisation projects such as carbon capture, renewable energy, and electrified logistics.
- Tracks Scope 1, 2, and 3 emissions and recommends reduction pathways in line with SBTi.

Energy transition Task Force

- Leads the adoption of clean fuels and renewable power.
- Develops capital expenditure plans for solar, energy storage, and fuel diversification.

Circular economy Task Force

- Promotes waste valorisation, recycling, and closed-loop systems.

- Encourages industrial symbiosis and use of secondary raw materials.

Water stewardship Task Force

- Drives Zero Liquid Discharge (ZLD) and water conservation initiatives.
- Conducts water risk assessments and supports watershed regeneration.

Sustainable supply chain Task Force

- Embeds ESG criteria into supplier assessment and onboarding.
- Strengthens transparency, traceability, and supplier capacity building.

Occupational health & safety Task Force

- Implements advanced safety systems and protocols.
- Pursues a Zero Accident Vision through training, audits, and upgrades.

Diversity, equity & inclusion and human rights Task Force

- Strengthens DE&I practices across all locations.
- Enforces Himadri's Human Rights Policy and monitors ethical labour standards.

Driving a culture of accountability and ownership

Each task force operates with clear timelines, defined responsibilities, and measurable outcomes. Regular reviews, collaboration across task forces, and external benchmarking ensure agility, transparency, and continuous improvement. By embedding ESG delivery into cross-functional roles, Himadri is not only reinforcing governance but also fostering a culture of accountability and transformative action.

This decentralised yet integrated model underscores the belief that sustainability is a collective responsibility, advanced through collaboration, innovation, and purpose-driven execution. ESG Task Forces serve as the operational backbone, turning Himadri's climate and sustainability commitments into tangible outcomes across every level of the organisation.

Figure 9: Himadri's Task Force progress

Leadership responsibilities for ESG integration

At Himadri, climate leadership and ESG excellence are championed at the very top. To fulfil our sustainability ambitions, we have created a clear, accountable leadership framework that ensures ESG principles are embedded in every decision, risk assessment, innovation initiative, and business function. Each leader plays a pivotal role in transforming strategy into measurable outcomes, ensuring that sustainability is not only a parallel activity but also the essence of how we operate.

Chairman and Managing Director / Chief Executive Officer (CMD-CEO)

The CMD-CEO holds ultimate responsibility for steering Himadri's ESG vision and ensuring sustainability is central to corporate strategy, capital planning, and enterprise risk management. Acting as the strategic link between the Board and operations, the CMD-CEO:

- Leads the execution of the Board's ESG directives and long-term sustainability roadmap.
- Champions the integration of ESG goals, climate risk assessments, and stakeholder expectations into business priorities.
- Ensures ESG governance structures, including the ESG Committee, ESG Council, and cross-functional implementation teams, are empowered, resourced, and outcome-focused.
- Oversees transparent disclosures and sustained engagement with stakeholders, investors, regulators, and communities.

Through this leadership, sustainability is driven from the top and cascaded across functions, geographies, and value chains, reinforcing trust and accountability.

Chief Sustainability Officer (CSO)

The CSO is the custodian of ESG integration, responsible for transforming strategy into enterprise-wide performance. With a mandate to catalyse change, the CSO:

- Designs and executes the Company's ESG strategy, roadmap, and materiality-based action plans.
- Identifies and manages climate risks while converting them into opportunities for sustainable growth.
- Aligns functions, supply chains, and product innovation through cross-functional leadership.
- Leads ESG disclosures in alignment with global frameworks such as TCFD, CDP, GRI, and IFRS S2.
- Engages investors, regulators, civil society, and communities to co-create shared value.
- Tracks ESG KPIs, supports the ESG Council, and ensures timely responses to emerging issues.

By embedding ESG across the enterprise, the CSO ensures sustainability becomes a driver of resilience, innovation, and long-term stakeholder value.

Chief Financial Officer (CFO)

The CFO plays a pivotal role in aligning sustainability with financial resilience, ensuring climate priorities are embedded in the Company's financial strategy. As the enabler of climate finance, the CFO:

- Integrates climate and sustainability risks into budgeting, forecasting, and investment planning.
- Aligns ESG performance with financial disclosures under IFRS S2, TCFD, and related reporting standards.
- Guides capital allocation towards decarbonisation, clean energy, circularity, and low-carbon innovation.
- Leads scenario analysis, carbon pricing integration, and climate stress testing to safeguard business continuity.
- Collaborates with the ESG Council to translate sustainability goals into financial outcomes and long-term value creation.

Through this integration, the CFO ensures responsible growth and transparency, while reinforcing Himadri's credibility as a sustainable value creator.

Business Presidents

As operational leaders, Business Presidents act as change agents, ensuring sustainability is embedded in day-to-day practices across divisions. They:

- Translate corporate ESG strategies into actionable roadmaps and site-level interventions.
- Champion decarbonisation, energy efficiency, water stewardship, and waste minimisation.
- Ensure compliance with ESG standards, regulations, and independent audits.
- Identify division-specific ESG risks and innovation opportunities.
- Track and report ESG performance to the ESG Council with precision and accountability.
- Build a culture of ownership, inclusivity, and sustainability-driven innovation across teams.

By localising strategy into action, Business Presidents ensure ESG ambitions translate into operational impact and extend seamlessly across the value chain.

A unified leadership framework

This collective leadership architecture ensures that sustainability is not treated as a siloed function but as a strategic enterprise capability. With the CMD-CEO providing vision, the CSO driving transformation, the CFO embedding financial discipline, and Business Presidents operationalising impact, ESG is woven into the Company's DNA.

Together, these leaders ensure that Himadri's growth is responsible, future-ready, and trusted by stakeholders worldwide.

Climate leadership in an era of urgency

Overview

Climate change is no longer a distant abstraction. It is the defining challenge of our time, with deep and measurable consequences for ecosystems, human well-being, business resilience, and national economies. The evidence is in the open: the last decade has been the warmest in recorded history; global average sea levels have risen by 8–9 inches since 1880; India alone has faced more than $87 billion in climate-related economic losses between 2010 and 2020. Glacier retreat, erratic rainfall patterns, and intensifying extreme weather events underline a stark truth : the window for incremental action has closed.

The risks are unevenly distributed. Vulnerable communities, fragile ecosystems, and resource-intensive industries face disproportionate impacts, from disrupted livelihoods to supply chain shocks. Yet, within this urgency lies opportunity. As nations commit to net-zero pathways and clean energy transitions accelerate, the world is pivoting towards a just, inclusive, and sustainable future. For a responsible company like Himadri, the imperative is clear: raise the game, act decisively, and lead through integration..

Himadri's integrated climate strategy

Guided by our corporate philosophy, Together, Towards Tomorrow, Himadri has taken a bold, forward-looking stance on climate action. Our climate strategy is not a bolt-on initiative but is deeply embedded across operations, governance, capital allocation, and stakeholder engagement. This integrated approach strengthens resilience, sparks innovation, builds trust, and creates enduring value.

At its core, our climate strategy is built on three pillars:

Decarbonisation: Reducing greenhouse gas (GHG) emissions across operations, supply chains, and product lifecycles.

Adaptation: Enhancing resilience to manage the physical and transitional risks of climate change.

Stakeholder empowerment: Fostering collaboration, literacy, and accountability across the value chain.

Dual focus: Mitigation and adaptation

A robust climate strategy requires both:

- Reducing emissions through efficiency, clean energy adoption, and circular production.
- Building adaptive capacity to withstand climate shocks and remain future-ready.

Himadri's approach aligns with national priorities under India's Panchamrit climate commitments and international frameworks like TCFD and CSRD. We deploy rigorous scenario analysis to test resilience under multiple climate futures, from gradual transitions to rapid decarbonisation. This ensures agility, foresight, and preparedness for disruption.

Driving measurable performance

Climate-related performance indicators are fully integrated into business planning and performance management systems. Our Double Materiality Assessment identified high-priority themes such as:

- Energy efficiency and renewable integration
- Carbon footprint reduction and offsets
- Circular feedstock usage and industrial by-product valorisation
- Sustainable sourcing and responsible supply chain design

These insights guide capital allocation, R&D investments, and supply chain strategy, while also shaping transparent stakeholder disclosures. By embedding climate considerations into the DNA of our business, we ensure that progress is not peripheral but central to value creation.

Innovation through circularity

Implementing a climate strategy demands cultural change, technology readiness, and long-term commitment. Himadri views these not as hurdles but as opportunities to innovate. For example, by leveraging by-products from carbon-intensive industries, we are advancing a circular economy model that converts waste into high-value, low-carbon products. This is supported by targeted investments in R&D and breakthrough product design, positioning Himadri as a partner in the decarbonisation of downstream industries such as mobility, infrastructure, and energy storage.

Collaboration across the value chain

Climate action cannot be pursued in isolation. Himadri's approach is collaborative, inclusive, and impact oriented. We engage with:

- **Employees** through training and awareness campaigns.
- **Suppliers and customers** through joint innovation and green procurement.
- **Investors and policymakers** through transparent disclosures and advocacy.
- **Communities** through climate literacy and capability-building programmes.

These engagements strengthen environmental awareness, enhance trust, and reinforce our social license to operate.

Raising ambition for the future

Looking ahead, Himadri is intensifying its climate ambition by scaling investments in:

- Low-carbon technologies and process electrification.
- Bio-based feedstocks and renewable energy capacity.
- Digital transformation to enable real-time monitoring and optimisation.
- Emerging technologies such as blockchain for supply chain traceability, AI for energy forecasting, and digital twins for scenario testing.

As India advances toward its net-zero by 2070 commitment, and global investors increasingly reward credible climate performance, the time for incrementalism is over. Companies that adopt an integrated approach today will define the markets of tomorrow. Himadri's strategy is designed not only to meet these expectations but to lead them turning climate urgency into business opportunity, innovation, and shared prosperity.

Executive summary: Climate leadership now

Climate change is the defining challenge of our time, reshaping economies, ecosystems, and business models.

For a company like Himadri, the moment to act decisively is now.

Guided by Together, Towards Tomorrow, we have embedded climate action across operations, governance, and stakeholder engagement.

Our integrated strategy, spanning decarbonisation, adaptation, and stakeholder empowerment aligns with global frameworks and India's Net-Zero Vision.

By advancing circular innovation, low-carbon technologies, and digital solutions, we are transforming risks into opportunities.

Himadri's ambition is clear: Lead through integration, create value responsibly, and turn climate urgency into a platform for resilience and growth.

Climate strategy and the chemical sector: Sectoral imperatives and leadership

The chemical sector sits at the heart of modern industry but is also at the frontline of climate risk. Globally, chemicals account for around 7% of industrial greenhouse gas emissions, largely driven by the sector's energy intensity and reliance on fossil-based feedstocks. Rising carbon prices, stringent disclosure requirements, investor scrutiny, and climate-induced supply chain disruptions make the sector one of the most exposed to transition and physical risks alike.

At the same time, the sector possesses unprecedented potential to shape solutions. From sustainable materials and green chemistry to circular feedstocks and energy storage technologies, the chemical industry can be a cornerstone of the global net-zero transition.

Himadri recognises this dual responsibility. By embedding climate action at the core of its business model, the company is positioning itself as a climate leader within the chemical sector demonstrating that growth and sustainability can reinforce, rather than undermine, each other.

Himadri's climate leadership framework

Himadri's climate roadmap is aligned with regulatory imperatives and voluntary global benchmarks. As climate-related financial disclosures such as TCFD become standard, and as frameworks like SBTi and EU CSRD shape global capital flows, Himadri has taken a future-ready stance: going beyond compliance to deliver measurable outcomes.

Our integrated climate strategy is designed to create resilience, trust, and competitive advantage, while ensuring access to emerging pools of green financing. It delivers:

- Reduced operating costs through energy efficiency and process optimisation.
- Enhanced brand equity and stakeholder confidence through science-based targets.
- Market competitiveness by leading in low-carbon products and circular inputs.
- Resilient supply chains able to withstand volatility in resource and energy markets.
- Access to sustainability-linked loans, bonds, and carbon credits.

At its core, Himadri's framework is anchored in six interdependent pillars:

Decarbonisation: Reducing Scope 1 and Scope 2 emissions via renewable energy, energy efficiency, and carbon capture, utilisation, and storage (CCUS).

Circularity: Shifting to circular, bio-based, and alternative feedstocks to reduce fossil reliance.

Operational efficiency: Leveraging digitalisation, automation, and process re-engineering to optimise resource intensity.

Climate resilience: Investing in infrastructure and systems resilient to heatwaves, flooding, and other extreme weather events.

Stakeholder engagement: Driving awareness, transparency, and shared accountability across the value chain.

Innovation & R&D: Developing next-generation low-carbon materials and energy solutions for future markets.

Why the time is now

Global climate policy is accelerating: more than 90% of global GDP is now covered by net-zero commitments. India itself has pledged to reach net-zero by 2070 and source 50% of its power from renewables by 2030. For the chemical sector, this signals an era of increasing carbon regulation, rising investor expectations, and rapid technology shifts.

For Himadri, the time to raise the bar is now. By embedding science-based targets, integrating climate metrics into business performance systems, and aligning capital allocation with climate priorities, Himadri is building a future-ready enterprise that can:

- Meet investor expectations for TCFD-aligned, transparent reporting.

- Capture emerging low-carbon market opportunities.
- Future-proof operations against carbon taxation, energy volatility, and climate disruptions.
- Lead the transition to a climate-positive chemical industry.

Building a climate-positive future together

Himadri is not merely about responding to climate risks; it is about shaping the sector's future. Our approach demonstrates how industrial growth can be decoupled from carbon intensity through innovation, inclusion, and foresight.

Looking ahead, the company will continue to:

- Scale renewable energy integration and electrification.
- Accelerate adoption of bio-based and circular feedstocks.
- Expand climate-aligned R&D pipelines.
- Deepen climate literacy across the workforce and value chain.

Guided by the ethos of 'Together, Towards Tomorrow', Himadri is committed to advancing environmental stewardship, creating stakeholder value, and enabling sustainable growth for generations to come.

Double Materiality Assessment: Aligning Impact, Insight and Innovation

At Himadri, we view materiality assessment as the cornerstone of a credible sustainability journey. In a world grappling with climate change, biodiversity loss, resource depletion, and shifting demographics, businesses can no longer afford to be reactive. The ability to anticipate and act on material issues is what separates leaders from laggards. Our Double Materiality Approach ensures that we identify, prioritise, and address issues that are most critical both to our stakeholders and to the long-term resilience of our business.

By integrating materiality into strategy, we are not only strengthening disclosure quality but also driving sharper insights, faster innovation, and stronger stakeholder confidence. According to the World Economic Forum, over 70% of investors now demand comprehensive ESG disclosure to guide their decisions demonstrating that responsiveness to material issues has become a defining factor for sustainable value creation.

At Himadri, our purpose-driven innovations in advanced materials, clean technologies, and product stewardship are already reshaping industries from enabling cleaner mobility and advancing energy storage to embedding circular economy practices. With materiality as our compass, we ensure that sustainability is embedded into every choice we make.

Our transformation journey seeks to embed climate neutrality, inclusivity, and circularity across the value chain. Guided by principles of justice and stakeholder empowerment, we ensure that the benefits of decarbonisation and sustainable growth are shared with communities, ecosystems, and future generations.

In FY 23–24, we strengthened this direction by adopting the Double Materiality Assessment (DMA) framework in alignment with the Corporate Sustainability Reporting Directive (CSRD). This globally recognised framework enhances our ability to identify risks, unlock opportunities, and disclose transparently.

Strategic review and stakeholder engagement: A FY 24–25 update

In FY 24–25, Himadri conducted a comprehensive reassessment of material topics to capture evolving stakeholder priorities and emerging sustainability trends. This exercise combined internal analysis with extensive engagement across stakeholders including industry partners, sustainability experts, regulators, employees, and community representatives. The result: A dynamic materiality matrix that reflects today's challenges while anticipating tomorrow's opportunities.

Under the Double Materiality lens, a topic is deemed material when it meets both criteria:

Impact materiality: Demonstrates a significant actual or potential impact positive or negative on people, planet, and prosperity.

Financial materiality: Exerts a material influence on long-term business performance, continuity, and investor trust.

Impact Materiality was assessed by likelihood, severity, and breadth of ESG effects across our value chain and geographies. Financial Materiality was evaluated through the lens of cost structures, regulatory exposure, employee engagement, operational resilience, and strategic risks.

As a result of this robust process, 21 key material topics were validated by the company's senior leadership, shaping the foundation of our ESG priorities, risk frameworks, innovation roadmap, and stakeholder reporting.

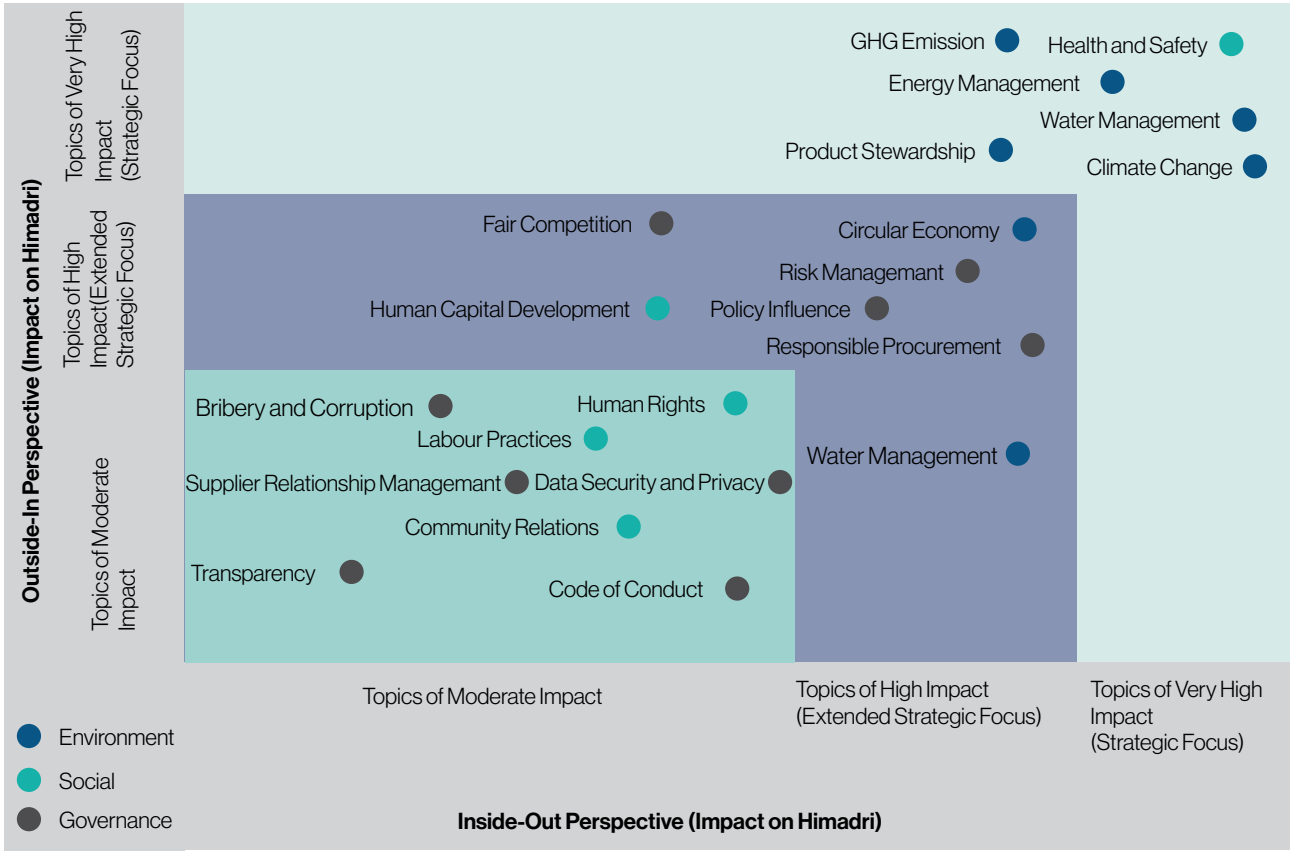


Figure 10: Himadri's Double materiality assessment

Dynamic, evolving, and globally aligned

Sustainability is not static. Our commitment is to revisit and refresh our Double Materiality Assessment periodically, aligning with CSRD, GRI Standards, and ESRS. This ensures our focus remains contemporary, science-based, and value-accretive.

Value chain integration: Climate-related material topics

Himadri integrates materiality across its value chain from responsible raw material sourcing to end-of-life product stewardship ensuring ESG is woven into every stage of business. Our climate-related topics reflect this commitment:

Climate change

Recognised as a strategic priority, climate change represents both a risk and a growth opportunity.

Key benefits

- Reduced financial risks from climate disruptions and regulatory tightening
- Cost efficiency through energy savings and resource optimisation
- Access to carbon credits, subsidies, and green financing
- Resilient supply chains with reduced climate vulnerability
- Expansion into low-carbon market segments
- Strengthened ESG reputation and investor trust

Greenhouse gas (GHG) emissions

Reducing GHG emissions is a transformative opportunity, supported by technology upgrades and sustainable sourcing.

Key benefits

- Lower operating costs from reduced energy use
- Compliance with evolving carbon pricing and disclosure regimes
- Access to sustainability-linked loans and bonds
- Enhanced ESG ratings and investor appeal
- Breakthrough innovation in clean technologies
- Competitive differentiation in green markets

Energy management

Energy efficiency remains central to competitiveness and carbon neutrality.

Key benefits

- Lower energy costs through automation and optimisation
- Eligibility for subsidies and green certifications
- Improved throughput and process efficiency
- Superior ESG performance
- Resilience against energy price shocks

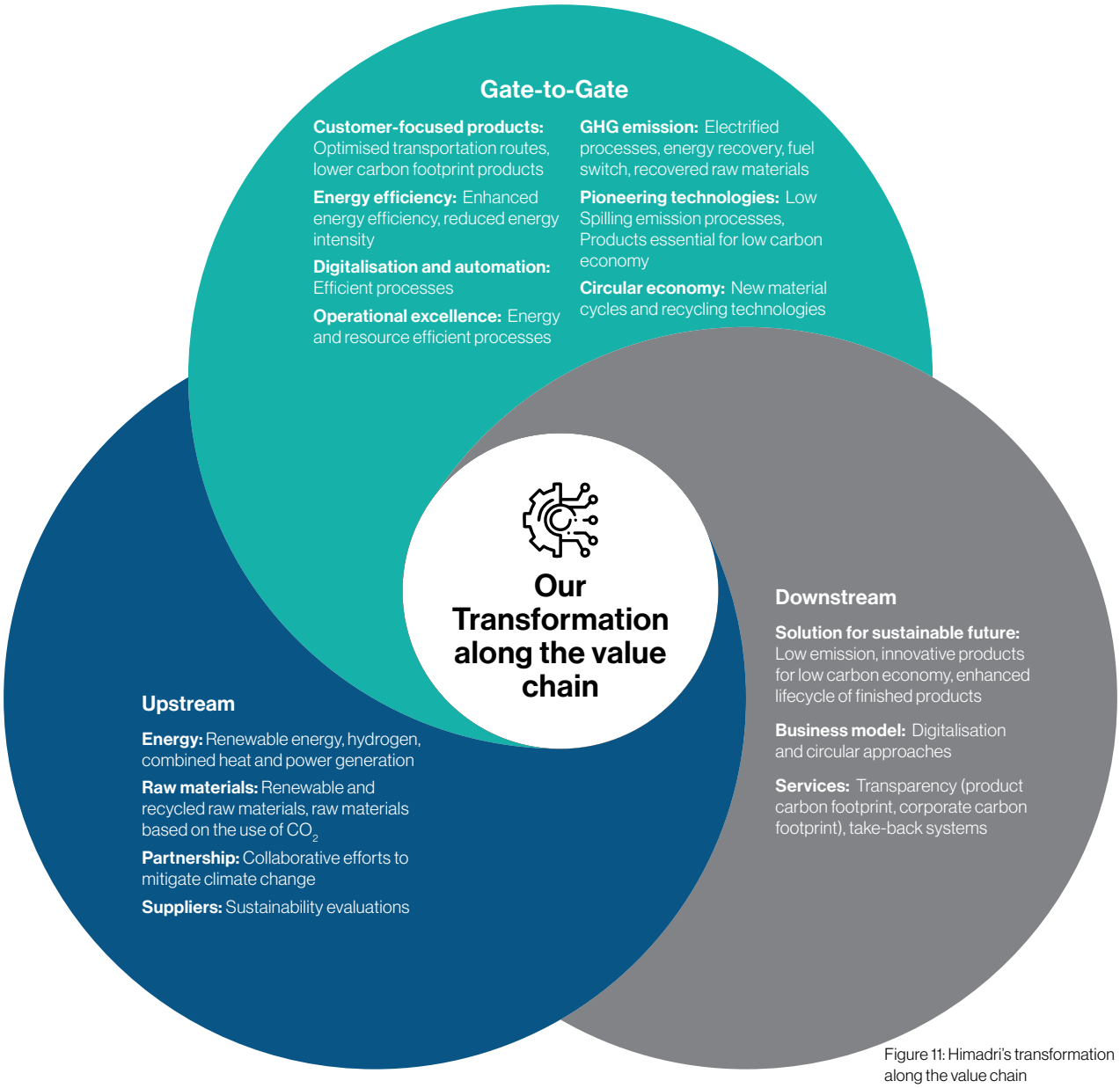


Figure 11: Himadri's transformation along the value chain

Water management

Water stewardship is critical in water-stressed regions, with zero liquid discharge and recycling central to our efforts.

Key benefits

- Reduced freshwater intake and treatment costs
- Stronger regulatory and community trust
- Supply chain continuity in drought-prone geographies
- Protection of ecosystems and compliance with discharge norms
- Positive recognition by sustainable finance institutions

Waste management

Circular waste valorisation transforms liabilities into opportunities.

Key benefits

- Cost savings via reduced disposal fees
- Full regulatory compliance
- Innovation through closed-loop systems
- Enhanced brand reputation in resource recovery
- Revenue from by-product recovery

Circular economy

Circularity underpins future competitiveness and resilience.

Key benefits

- Reduced reliance on virgin raw materials
- New revenue streams from circular business models
- Cost optimisation via resource regeneration
- Higher ESG scores and ratings
- Industry leadership in circular transformation

Product stewardship

Responsibility embedded across product lifecycles ensures long-term trust.

Key benefits

- Lower lifecycle costs with eco-design and recyclability
- Compliance with Extended Producer Responsibility regulations
- Market preference for sustainable products
- New growth opportunities in eco-conscious markets
- Stronger supply chain accountability

Double Materiality: A catalyst for strategy execution

The Double Materiality framework is not just a compliance exercise it is a strategic enabler. It equips Himadri to anticipate risks, capture opportunities, and integrate sustainability into governance, innovation, and value creation processes. By making materiality the foundation of our climate strategy, Himadri transforms ESG from a reporting obligation into a driver of competitive advantage and stakeholder trust.

As we move forward, this framework will ensure our sustainability strategy remains agile, inclusive, and value-driven, helping us shape a climate-positive, innovation-led, and stakeholder-aligned future. Together Towards Tomorrow.

Material topic	Upstream	Gate-to-gate	Downstream
GHG emission			
Energy management			
Water management			
Climate change			
Product stewardship			
Circular economy			
Waste management			
Health and safety			
Human capital development			
Human rights			
Community relations			
Labor practices			
Risk management			
Fair competition			
Policy influence			
Responsible procurement			
Data security and privacy			
Bribery and corruption			
Supplier relationship management			
Code of conduct			
Transparency			
Very High			
High			
Moderate			

"In addition to strong internal governance, Himadri actively participates in global and national industry platforms to shape policy and accelerate low-carbon transitions."

Association and advocacy for climate leadership

Himadri actively engages with industry associations, policy forums, and collaborative platforms to advance climate action and sustainability. Recognising that systemic climate challenges require collective solutions, we contribute to shaping pragmatic policies, standards, and transition pathways for the chemical sector.

We are members of key national and international networks, including CII, FICCI, ICC – Responsible Care, UN Global Compact (UNGC), the Science Based Targets initiative (SBTi), and International Sustainability & Carbon Certification (ISCC). Through these platforms, Himadri advocates for renewable energy adoption, effective carbon markets, stronger disclosure frameworks and just transition principles.

Our leadership team participates in policy consultations and industry dialogues, ensuring Himadri's perspective is represented at multiple levels. By collaborating with partners on low-carbon technologies, circularity models, and energy efficiency, Himadri reinforces its role as both an industry leader and a contributor to a net-zero future.

Our climate commitment: Translating vision into action

At Himadri, we believe that credible climate action begins with bold, integrated, and science-aligned targets. The urgency of the climate crisis is underscored by the IPCC's warning stating global emissions must halve by 2030 to limit warming to 1.5°C. For an energy-intensive sector like chemicals, this makes ambition not optional but existential. Incremental measures will not suffice; only transformative, cross-value chain action can safeguard business continuity, stakeholder trust, and planetary health.

Guided by our philosophy of Together, Towards Tomorrow, we have prepared for this challenge with future-ready strategies, significant capital commitments, and a climate roadmap aligned with global frameworks, including the Paris Agreement, India's Nationally Determined Contributions (NDCs), and leading ESG disclosure standards. Our approach integrates decarbonisation, clean energy transition, resource efficiency, and inclusive resilience-building, ensuring that climate action drives industrial growth while delivering measurable environmental and social impact.

Our climate **commitment**

Net-Zero by 2050

Himadri aims to achieve net-zero carbon emissions by 2050, with interim milestones for 2030 and 2040. These targets are supported by clean technology adoption, operational efficiency measures, and R&D-led innovation to ensure steady and credible progress.

Water management

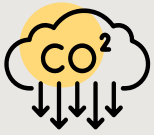
Water is emerging as a frontline climate risk. Himadri targets a 20% reduction in groundwater withdrawal intensity by 2026 (versus 2021 levels) and a 20% reduction in daily water consumption by 2025, supported by zero liquid discharge systems, recycling, and advanced monitoring.

Scope 1 & 2 emissions reduction

We target a 30% reduction in Scope 1 (direct) and Scope 2 (indirect energy-related) emissions by 2030, using 2021 as the baseline. This will be delivered through process electrification, efficiency upgrades, and expanded renewable energy sourcing.

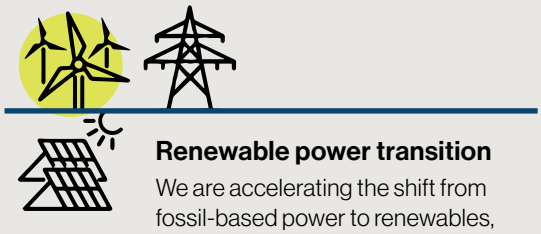
Waste circularity

By 2026, we aim to reduce waste-to-landfill intensity to below 1% and source over 95% of non-virgin raw materials from recycled streams. This strengthens our position as a circular economy frontrunner in the chemical sector.



Scope 3 emissions reduction

Recognising that most emissions lie beyond our operations, Himadri has committed to a 20% reduction in Scope 3 emissions by 2030 (from a 2023 baseline). This includes supplier, logistics and downstream product impacts, achieved through collaborative value chain engagement and innovation in circular solutions.



Renewable power transition

We are accelerating the shift from fossil-based power to renewables, including captive solar, wind, and hybrid projects. This transition will not only cut operational emissions but also protect against future carbon pricing regimes.

Figure 12: Himadri's climate commitment

Value chain emissions accounting

Himadri is instituting systematic tracking and reporting of emissions across the value chain including suppliers and logistics partners embedding transparency and accountability into our climate performance.

Transparent disclosure

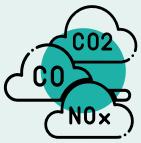
We are committed to robust disclosure under SEBI's BRSR, GRI, CDP, EcoVadis, and TCFD frameworks, ensuring investor confidence, global comparability, and regulatory readiness.

INR 100 crore climate investment Plan

We have earmarked INR 100 crore over the next decade for clean technologies, infrastructure upgrades, and climate innovation – an investment in long-term resilience and leadership.

Clean fuel adoption

Himadri is diversifying its energy mix by adopting biofuels, hydrogen, and synthetic alternatives, reducing reliance on carbon-intensive sources and future-proofing our energy systems.



Supplier GHG strategy alignment

By 2025, all Tier 1 suppliers must submit GHG reduction strategies, and by 2026, they must align with Himadri's climate goals driving shared accountability for net-zero pathways.

Community adaptation and resilience

Through CSR programmes, Himadri advances climate adaptation at the grassroots, promoting water security, disaster preparedness, green skills, and education in vulnerable communities.

Integrated strategy: One vision, multiple levers

Himadri's climate strategy is not a patchwork of isolated goals it is a cohesive framework that integrates emissions reduction, clean energy, sustainable sourcing, digital monitoring, and inclusive development. By combining technology, investment, and partnerships, we have prepared a strategy that is resilient, agile, and forward-looking.

Importantly, these bold commitments are embedded into our business model, capital allocation, and governance systems making climate action inseparable from growth strategy. By doing so, we not only de-risk our operations but also unlock green value creation, attract sustainable finance, and enhance market leadership.

Our commitment in perspective

According to McKinsey, achieving Net-Zero in heavy industry could unlock $4–5 trillion in annual opportunities by 2050 a value pool Himadri is positioning itself to capture.

Studies indicate that companies with science-based targets enjoy 20% higher investor confidence and a lower cost of capital. Himadri's targets are designed with this reality in mind.

With India committed to achieving Net-Zero by 2070, Himadri's 2050 target is ahead of national commitments, reflecting our role as a sectoral climate leader.

Together, Towards Tomorrow, Himadri's climate commitment, is not about adapting to change alone; it is about enabling the solutions that shape a climate-positive, equitable, and innovation-led future.

Forming policies and frameworks according to commitments: Institutionalising the climate ambition at Himadri

At Himadri, sustainability is not an adjunct; it is the organising principle that guides strategy, operations, and stakeholder engagement. The accelerating urgency of climate change has made one truth clear: companies that do not future-proof themselves through robust policies and institutional frameworks risk obsolescence.

The IPCC has underscored that without bold mitigation, climate impacts could wipe out up to 10% of global GDP by 2050. This stark reality elevates climate action from being a moral responsibility to a business-critical imperative. For industrial sectors, where energy intensity and resource dependencies are high, the need for structured, future-ready frameworks is even more pressing.

Himadri has anticipated this shift. The company has developed a comprehensive architecture of climate and sustainability policies that translates our vision into actionable commitments. These policies provide clarity, accountability and consistency, ensuring that climate ambition is hardwired into the way we design products, operate plants, engage suppliers, and serve customers. They also align our strategy with India's National Climate Goals, the Paris Agreement, and the UN Sustainable Development Goals (SDGs), reinforcing our role as a sectoral catalyst for sustainable transformation.

Policy commitments that translate strategy into impact

Energy efficiency and GHG emission management policy

This policy anchors our net-zero 2050 vision. It sets short-, medium-, and long-term decarbonisation milestones to reduce energy intensity and emissions. Initiatives include process electrification, fuel switching, renewable energy integration, and carbon capture and utilisation CCU. Together, these interventions drive us toward a science-based decarbonisation pathway.

Air quality and emission control policy

Designed to reduce SOx, NOx, and particulate matter, this policy ensures our operations meet or exceed regulatory standards. Real-time air quality monitoring, advanced filtration, and stack emission controls enable continuous improvement and healthier local ecosystems.

Water efficiency and preservation policy

Recognising water as a shared resource and climate risk, this policy commits us in achieving zero liquid discharge across all manufacturing sites. Measures include rainwater harvesting, recycling, advanced treatment technologies, and source diversification, strengthening resilience in water-stressed regions.

Responsible consumption and waste management policy

Aligned with circular economy principles, this policy targets Zero Waste to Landfill by 2026. It promotes resource recovery, industrial symbiosis, and closed-loop systems, reducing reliance on virgin materials while generating value from by-products.

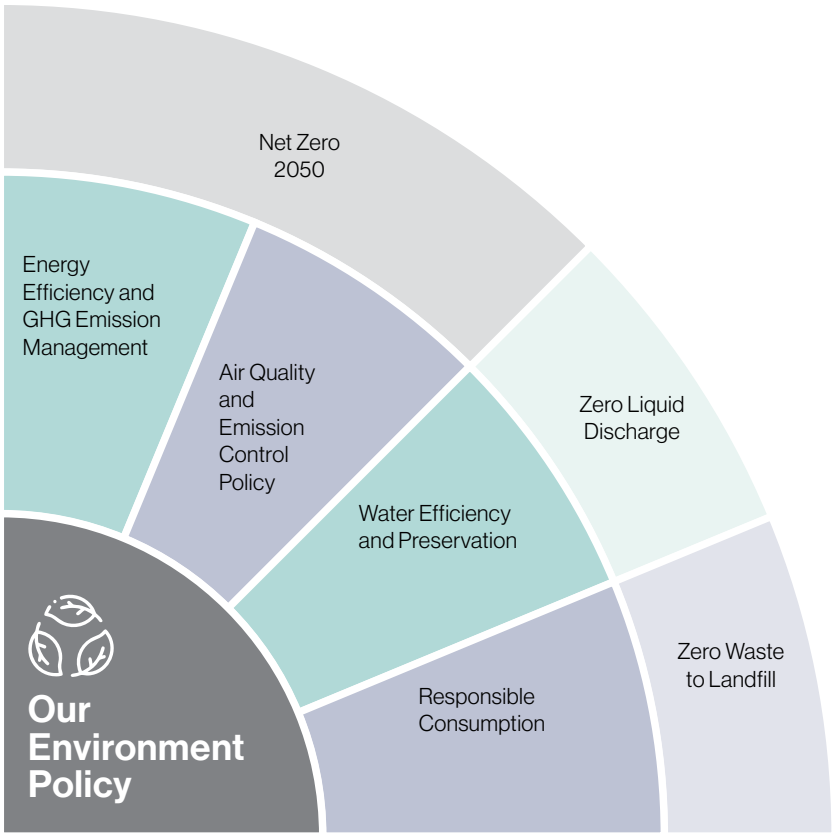


Figure 13: Himadri's environment policy

Management system	Mahistikry	Liluah (I&II)	Korba	Sambalpur	Vizag	Falta	Corporate office
ISO 14001:2015	√	√	√	√	√	√	√
ISO 50001	√	√	√	√	√	√	√
ISO 22301:2019	√	√	√	√	√	√	√
ISO 31000:2018	√	√	√	√	√	√	√
ISO 20400	√	√	√	√	√	√	√

Beyond compliance: Expanding the boundaries of our responsibility

Our ambition extends beyond environmental compliance. Himadri has established integrated frameworks covering:

- Biodiversity conservation in and around operating regions
- Product lifecycle stewardship, embedding sustainability from design to disposal
- Customer health and safety, ensuring products meet stringent global standards
- Responsible advocacy, promoting policies that accelerate low-carbon industrial ecosystems

These initiatives are woven into our ESG governance structure, ensuring accountability, measurable outcomes, and transparent disclosures.

We have also implemented globally recognised management systems across all sites:

- ISO 14001 (Environmental Management) for systematic environmental stewardship
- ISO 50001 (Energy Management) for optimised energy performance and decarbonisation

Together, these systems make Himadri future-ready, aligning us with best-in-class global practices.

Policy as a driver of purposeful transformation

At Himadri, policies are not static documents they are dynamic instruments of change. They provide the scaffolding for innovation, operational excellence, and competitive differentiation. By institutionalising our climate commitments through clear frameworks, we are embedding resilience into our business model and enabling sector-wide transformation in speciality chemicals.

Policies and frameworks also serve as a language of trust with investors, regulators, and communities. Studies show that companies with formalised climate frameworks are 40% more likely to secure sustainability-linked finance, underscoring their role as enablers of capital and credibility.

Looking ahead

Our climate policies represent a living framework: Adaptable, scalable, and science-based. As regulations, technologies, and stakeholder expectations evolve, we will continue to refine these frameworks to ensure that Together, Towards Tomorrow is not just a philosophy but a measurable, future-proof reality.

By doing so, Himadri is not only responding to climate risks it is institutionalising climate ambition as a lever for long-term value creation and global leadership.

Our Policy Framework Pyramid: Institutionalising climate ambition

Himadri's Policy Framework Pyramid reflects how climate ambition is institutionalised across our business. From foundational environmental policies to value chain integration and finally sectoral leadership, the pyramid demonstrates our progression from compliance to transformation. This layered approach ensures that Together, Towards Tomorrow is not just a philosophy, but a structured pathway to resilience, innovation, and trust.

LEADERSHIP AND INFLUENCE

(Policies that extend Himadri's responsibility beyond operations, shaping sectoral and societal transformation)

Biodiversity conservation: Protecting ecosystems in and around operating regions.

Product lifecycle stewardship: Embedding sustainability from design to disposal.

Customer health and safety: Ensuring safe, sustainable products for end-users.

Responsible advocacy: Promoting progressive climate and sustainability policies.

EXPANSION AND INTEGRATION

(Frameworks that embed climate ambition across the value chain and drive innovation)

Supplier GHG strategy alignment: Tier 1 suppliers aligned by 2026.

Circular economy integration: Closed-loop systems, resource recovery, industrial symbiosis.

Community adaptation and resilience: Supporting education, water security, disaster preparedness.

CORE ENVIRONMENTAL POLICIES

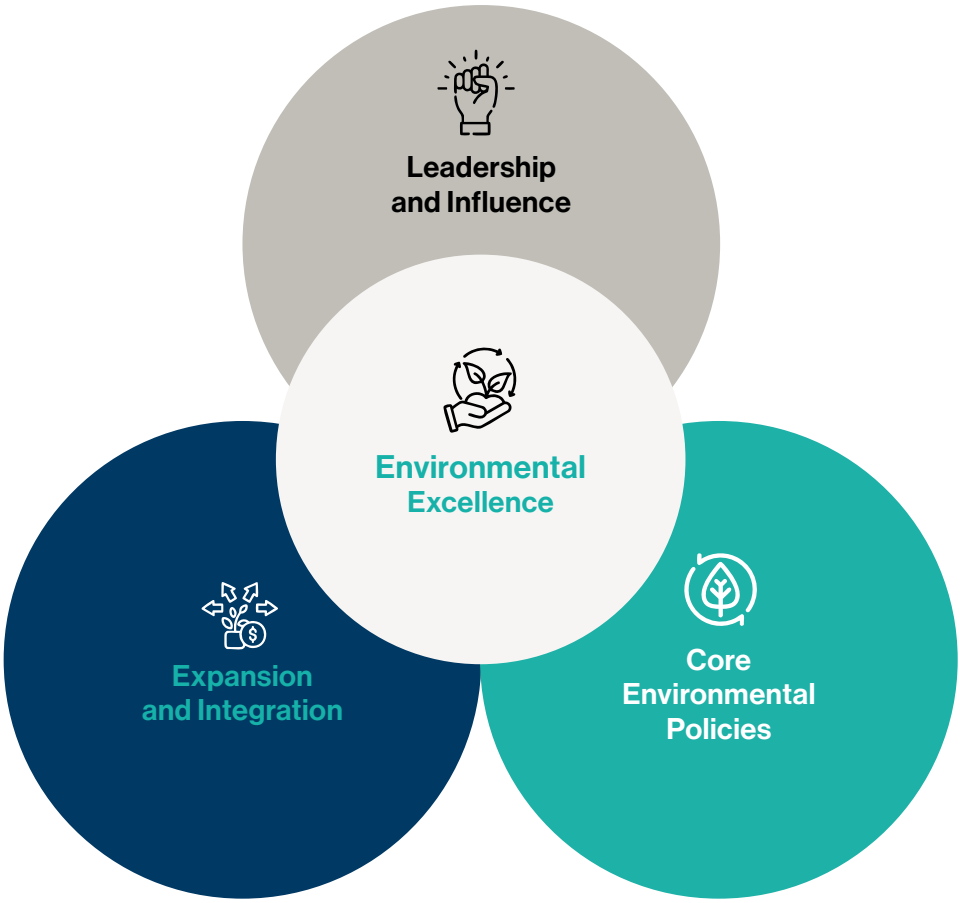
(Foundational policies that ensure operational sustainability and compliance with global standards)

Energy efficiency and GHG emission management: Electrification, fuel switching, renewables, carbon capture.

Air quality and emission control: Real-time monitoring, filtration, stack controls.

Water efficiency and preservation: ZLD targets, rainwater harvesting, recycling.

Responsible consumption and waste management: Zero Waste to Landfill by 2026.



Compliance-driven policies	Leadership-driven frameworks
Energy Efficiency and GHG Policy Ensures compliance with emission norms through electrification, fuel switching, renewables, and CCU.	Supplier GHG Alignment Tier-1 suppliers mandated to align GHG reduction strategies with Himadri's net-zero pathway by 2026.
Air Quality and Emission Control Meets/exceeds SOx, NOx, and PM standards with real-time monitoring and filtration.	Circular Economy Integration Closed-loop systems, resource recovery, and industrial symbiosis embedded into operations.
Water Efficiency and Preservation Achieves Zero Liquid Discharge, rainwater harvesting, and recycling for regulatory compliance	Community Adaptation and Resilience Grassroots projects on water security, disaster preparedness, education, and green skills.
Waste Management Policy Zero Waste to Landfill by 2026, reducing virgin input dependence.	Biodiversity and Advocacy cover protecting ecosystems, promoting responsible policies, and advancing sustainability across the sector.

Himadri's climate framework spans policies that ensure regulatory excellence and frameworks that shape sectoral transformation. This dual approach strengthens compliance while unlocking innovation, resilience, and stakeholder trust, positioning Himadri as a frontrunner in institutionalising climate ambition.

Design and deployment of climate strategy initiatives: A dual approach of investment and cultural transformation

At Himadri, we recognise that climate change is not just an environmental challenge but an existential business risk. According to the World Economic Forum, climate-related disruptions could threaten up to $44 trillion of global economic value by 2050. Companies that fail to embed resilience into their operations risk being left behind. This reality underscores why climate action cannot be confined to incremental compliance; it requires bold investment coupled with deep-rooted cultural transformation.

Himadri's climate strategy embraces this dual approach. On the one hand, we are committing significant capital to future-ready infrastructure, green technologies, and innovation ecosystems. On the other, we are driving a cultural shift that institutionalises sustainability into the organisation's DNA ensuring that policies, frameworks, and behaviours are aligned with a net-zero, climate-resilient future.

This integrated philosophy ensures that sustainability is not a siloed initiative, but the core of our growth strategy, influencing capital allocation, innovation roadmaps, and stakeholder engagement.

Investment in sustainable projects and green infrastructure

Himadri has embedded sustainability into its capital expenditure (capex) priorities, ensuring that every rupee invested today builds long-term climate resilience and competitiveness tomorrow.

Key capex commitments (cumulative) comprise the following:

- INR 100 crores ESG-Investment Plan over 10 years, with approximate INR 13 crore already allocated to emission reduction, water security, and zero-waste initiatives.
- INR 4,800 crores under New Energy Materials (NEM) over five years, including INR 100 crores dedicated to battery materials, green hydrogen, and allied technologies, positioning Himadri as a contributor to India's energy transition.
- INR 400 crores in the tyre business, advancing eco-design, recycling integration, and material efficiency.
- INR 500 crores in the Circular Economy Business, including INR 50 crores for advanced recovery systems, waste valorisation, and low-carbon product innovation.

These investments reflect our conviction that green growth and industrial competitiveness are inseparable. They align Himadri with India's national climate goals and global decarbonisation pathways, while catalysing new revenue pools in energy storage, hydrogen, and circular economy solutions.

Cultural change: Embedding sustainability in organisational DNA

Investment alone cannot deliver systemic change. Policies, frameworks, and cultural transformation are equally critical to ensure climate ambition is institutionalised. Himadri recognises that a true transition requires mindset shifts, stakeholder alignment, and behavioural change across the organisation and value chain.

Alignment with global frameworks: SBTi, UNGC, UNSDGs

United Nations Global Compact (UNGC): In 2024, Himadri became a signatory, aligning with the ten UNGC principles on human rights, labour, environment, and anti-corruption. This commitment enhances our ethical leadership and strengthens accountability in global partnerships.

UN Sustainable Development Goals (UNSDGs): Our roadmap contributes to 13+ SDGs, with highlights including:

SDG 3 & 4: Workplace health, safety, and STEM education for girls.

SDG 5 & 10: Gender equality and reducing inequalities via DEI programmes.

SDG 6 & 12: Zero Liquid Discharge and 98% waste recycling, advancing water positivity and circularity.

SDG 7, 8 & 9: Waste-to-energy projects, R&D-led innovation, safe and growth-oriented workplaces.

SDG 11 & 13: Green infrastructure, resilient product design, and net-zero pathways.

SDG 16 & 17: Transparent governance and multi-stakeholder partnerships.

Science-Based Targets initiative (SBTi): Himadri's validated SBTi targets provide scientific credibility to our net-zero pathway. Rigorous benchmarking ensures data-driven decarbonisation, reducing both climate risk and investor uncertainty.

Driving innovation through low-carbon products

Himadri is re-engineering its portfolio to develop materials that enable the global energy transition.

Low-carbon product highlights:

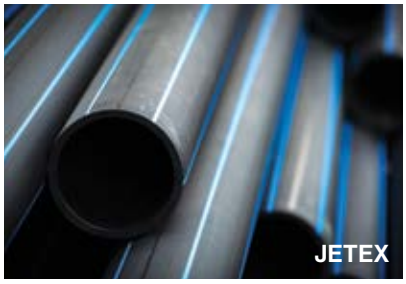
LFP Cathode Active Material (CAM): Designed to power 100+ GWh of lithium-ion batteries using a cost-optimised, eco-friendly Li_2CO_3 process. key benefits include: high safety and thermal stability, longer lifespan than NMC batteries, cost efficiency via abundant inputs (iron, phosphate) and a robust performance across temperature ranges.

LMFP development: Next-generation Lithium Manganese Iron Phosphate materials offers 15–20% higher energy density while retaining safety, enabling faster charging and lighter battery designs.

Battery recycling: In collaboration with the Indo-German Science and Technology Centre, Himadri is pioneering recycling technologies that advance circularity and reduce raw material dependencies.

AI-Led R&D: Artificial intelligence is being deployed to accelerate breakthroughs in energy density, charging speed, and lifecycle efficiency.

Sicona Battery Technologies (SICONA): Strategic partnership supporting cutting-edge anode materials for EV and renewable adoption.



Speciality carbon black innovation

ENERGEX: An engineered conductive powder that improves efficiency and lifespan of batteries and advanced composites.

ELECTRA: A conductive carbon black optimised for cable systems and ESD applications, ensuring safety, reliability, and smooth insulation-conductor interfaces.

JETEX: A pigment black delivering opacity, dispersion, and weather resistance ideal for films, inks, and footwear.

KLAREX: Speciality carbon black for extrusion markets (hoses, profiles, weather stripping), enhancing tensile strength, elasticity, and abrasion resistance.

Policy and culture as enablers of transformation

Policies provide the scaffolding for consistency, accountability, and traceability, while culture ensures that these commitments are lived daily across the organisation. Together, they form the architecture through which Himadri translates climate ambition into measurable performance.

This dual approach anchored in investment and cultural transformation, positions Himadri as a leader ready to navigate the risks of climate change while seizing opportunities presented by the green economy. By embedding policies and frameworks, and by reorienting organisational culture, Himadri is building a climate-resilient, innovative, and future-ready enterprise.

Through, Together, Towards Tomorrow, we are not only preparing for the future; we are shaping it.

Nanotechnology and strategic partnerships

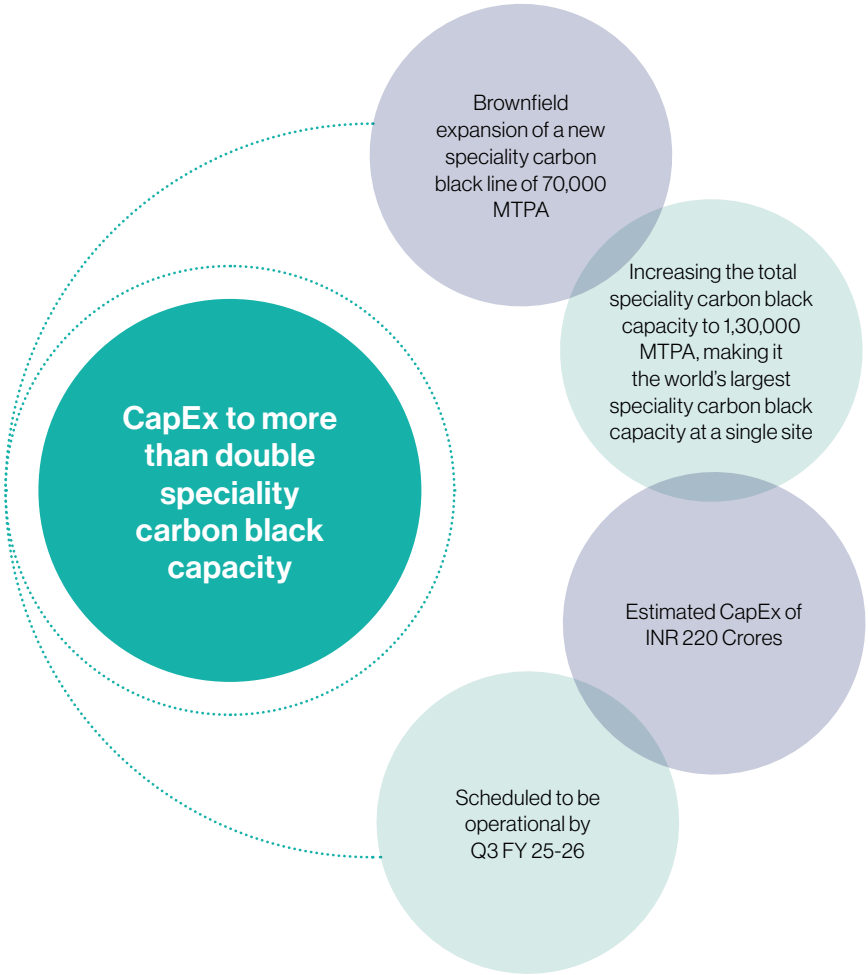
Invati Creations (40% stake): In FY 24-25, Himadri acquired a 40% stake in Invati Creations, a strategic partnership focused on producing high-quality lithium-ion battery (LiB) materials and advancing innovative technologies in the battery materials segment. Invati specialises in engineering lithium-ion electrode materials, with R&D progressing on products that offer higher energy density and longer battery life. Together, Himadri and Invati are conducting extensive research on novel molecules using nanotechnology-enabled formulation techniques. These efforts aim to develop breakthrough solutions capable of addressing complex challenges across industries.

Invati's team holds multiple patents and continues to develop additional patentable technologies for synthesising novel molecules for niche applications.

Patent development: Multiple patents are in progress for new nanotechnology-enabled molecules targeting high-impact applications across the energy and materials sectors.

Scaling climate strategy through cohesive execution

Himadri's climate strategy is integrated and coordinated, combining investments, innovations, cultural transformation, and strategic partnerships that reinforce each other. This approach bridges the gap between vision and execution, enabling leadership in the transition to a low-carbon, resilient industrial ecosystem. By aligning capital commitment with organisational culture, we deliver measurable and lasting sustainable impact that will shape the future of our business, industry, and the planet.



Fuel switch: Advancing circularity and clean energy solutions

At Himadri, the transition to clean fuel sources reflects our commitment to decarbonisation, resource efficiency, and circular economy principles. Our fuel-switch strategy combines advanced recycling, sustainable bio-based alternatives, and forward integration to unlock new value chains while reducing a reliance on fossil fuels.

Innovative recycling: Converting waste oils into high-value solvents

Himadri is pioneering the conversion of used and waste oils, including engine oils, cooking oils, and other hydrocarbon-rich residues, into high-calorific solvents through proprietary technologies. India generates approximately 4.4 lakh metric tonnes of waste oil annually, with nearly 60% derived from the automobile sector. Rather than viewing this as a liability, we treat it as a transformative opportunity.

Our waste oil upcycling process aligns with global clean energy transitions and supports decentralised and low-carbon energy solutions. The recycled solvents act as energy-efficient alternatives to conventional fuels, capable of powering small-scale industrial operations while substantially reducing greenhouse gas emissions.

Biofuel from agricultural residue: Converting a challenge into an opportunity

Himadri is developing breakthrough R&D initiatives to transform agricultural and agro-industrial waste into 100% bio-based fuels. Globally, agricultural residues contribute significantly to biomass burning emissions, with India accounting for over 87 million tonnes of crop residue burned annually. This practice releases CO2 and methane, worsening climate and public health impacts.

Our biofuel technology prevents open burning while providing a clean, scalable, and sustainable energy source. These biofuels can decarbonise rural industry and logistics operations while supporting India's biofuel roadmap. With the global biofuel market projected to grow at a 20% CAGR, reaching 58 million metric tonnes by 2030, Himadri is positioning itself at the forefront of this transformation.

Forward integration into high-value speciality chemicals

Himadri is leveraging its coal tar distillation expertise to forward integrate into niche, high-value speciality

chemicals such as anthraquinone and carbazole. With a capital investment of INR 120 crore, this initiative expands our portfolio, reduces import dependence, and contributes to the 'Atmanirbhar Bharat' vision.

Anthraquinone: Used in the production of hydrogen peroxide, dyes, and paper, offering catalytic and oxidative advantages in industrial processes.

Carbazole: A strategic molecule with applications in pharmaceuticals, agrochemicals, and opto-electronics, empowering innovation in next-generation technologies.

This is the first project of its kind at this scale in India, reinforcing Himadri's position as a technology-driven, future-focused industry leader.

Energy efficiency: Unlocking low-carbon competitiveness

Himadri's commitment to energy efficiency is embedded in our ISO 50001:2018-certified energy management system, implemented across all plant locations. With over 90% electrification of process equipment and a dedicated Energy Optimisation Task Force, we continuously drive systemic improvements aligned with UNGC principles and the UNSDGs.

Operational initiatives

The integration of deaerated hot water into waste heat recovery boilers increased steam generation by 20–30%, improving boiler efficiency.

The enhanced insulation of hot airlines reduced surface temperatures by 20°C, lowering specific energy consumption.

The use of preheated air decreased fan energy demand and fuel consumption in combustors.

The use of Variable Frequency Drives on boiler feed pumps eliminated excess pressure losses.

Timer-based, moisture-sensing zero-loss drains in compressed air systems significantly reduced energy wastage.

Digital energy management

A smart energy management system using L&T's Smart Comm software is operational at the Mahistikry Carbon Black Division.

Digital dashboards, real-time analytics, and predictive monitoring are enhancing energy accountability and optimisation.

Himadri commissioned a captive solar project with an investment of INR 1 crore, strengthening our renewable energy footprint and reducing Scope 2 emissions.

Scope 3 mitigation through deep value chain engagement

Recognising the significance of Scope 3 emissions in our overall GHG footprint, Himadri has moved beyond industry-average estimations to high-resolution, primary data collection. Under the guidance of the Board of Directors, we follow a structured approach to value chain engagement, risk assessment, and collaborative mitigation.

Key elements of our Scope 3 strategy

Partner assessment: All value chain partners complete an ESG-linked self-assessment.

Risk profiling: Responses are analysed to index partners, followed by on-site or virtual audits.

Corrective action plans: Tailored mitigation roadmaps are co-developed with partners.

Collaborative projects: Initiatives, such as replacing diesel with biodiesel for logistics, support India's National Biofuel Mission and reduce indirect emissions.

Data protocols utilised

- IPCC Guidelines (2006)
- GHG Protocol (Scope 1, 2, 3)
- EcoInvent 3.9.1
- DEFRA and US EPA databases

Through these initiatives, Himadri is building a low-carbon, responsible, and inclusive value chain that reflects our internal sustainability ethos.

Scope 3 Reduction initiatives

Scope 3 category	Himadri's activities	Initiatives to reduce (Transition steps)	
		Retrofit	**Replacement**
Category 1: Purchased goods & services	Goods & services purchased during the Financial year	Himadri uses its process fuel internally, yield has increased	Himadri is focusing on bio based fuel
Category 2: Capital goods	Capital goods purchased during the Financial year	Energy efficient equipment and machinery	Renewable powered energy efficient equipment and machinery, low carbon products.
Category 3: Fuel- and energy-related activities not included in Scope 1 and Scope 2	Fuel & energy not accounted in Scope 1 and Scope 2	Bio diesel consumption in tankers. Himadri uses in-house fuel oils in interdepartmental processes and intradepartmental processes	
Category 4: Upstream transportation & distribution	Fuel consumed during upstream transportation & distribution	Live GPS tracker in tankers to monitor and optimise the route	Himadri is focusing on EV cars aligning with Government of India's EV policy
Category 5: Waste generated in operations	Emission from third-party waste disposal & treatment procedures	Third party value added recycling	H2ICE (Subjected to public sector infrastructural development)
Category 6: Business travel	Travels regarding business via road, railway, and Airlines	Online meetings are given priority also we are prioritising travelling via railway in place of cars and airlines where it is possible	We are focusing on EV car in company provided transportation
Category 7: Employee commuting	Communication among the employees	Company provided transportation to the employees and focusing on Bio diesel.	We are focusing on EV car in company provided transportation
Category 9: Downstream transportation & distribution	Fuel consumed during downstream transportation & distribution	Live GPS tracker in tankers to monitor and optimise the route	Himadri is focusing on EV cars aligning with Government of India's EV policy

Internal carbon pricing

Himadri has institutionalised carbon-conscious decision-making by embedding environmental impact assessments into every capital expenditure evaluation. Recognising the long-term sustainability implications of these investments, we apply an internal carbon price for Scope 1 and Scope 2 emissions in payback calculations for all projects requiring CMD-CEO's approval.

During project evaluation, potential CO_2 emissions (Scope 1 and Scope 2) are quantified, and an internal carbon price our 'shadow price' is applied to compute a carbon cost that influences overall cost–benefit analysis. This ensures that lower-emission alternatives are financially more attractive. This mechanism aligns with global best practices and helps internalise environmental costs in strategic decision-making, reinforcing our commitment to the Paris Agreement and positioning us ahead of India's emerging carbon compliance trajectory. Critically, it actively supports our target of reducing 30% Scope 1 and 2 emissions by 2030 and is reinforced by our Environment and Energy Efficiency Policies.

Objectives

- Incentivise emission reductions: Favor low-carbon investments for Scope 1 and 2.
- Future-proof regulatory compliance: Pre-align with emerging carbon regulations.
- Internalise environmental costs: Factor carbon as a tangible financial metric.
- Identify low-carbon opportunities: Surface sustainable investments via carbon-inclusive analysis.
- Enhance transparency: Clarify and embed carbon accountability across investments.

Calculation methodology

- Emissions quantified: Scope 1 and 2 in metric tonne CO_2e.
- Baseline carbon price: Benchmarked using global carbon price scenarios such as:
  - US$250/t: IEA's Net Zero Emissions (NZE) scenarios
  - Scenario range from US$102–200/t (RCP 2.6), US$50–100/t (RCP 3.4)
- Peer benchmarking: Internal price calibrated against industry-leading practices. For instance, SwissRe applies $123–200/t, and Mahindra & Mahindra uses $10/t in India .
- Dynamic refinement: Price periodically revisited and adjusted to reflect market and policy evolution.

Underlying assumptions

- The necessary emission-reducing technologies are available and deployable.
- Market conditions remain stable; no sudden carbon price volatility.
- Regulatory frameworks evolve in line with modeled scenarios.

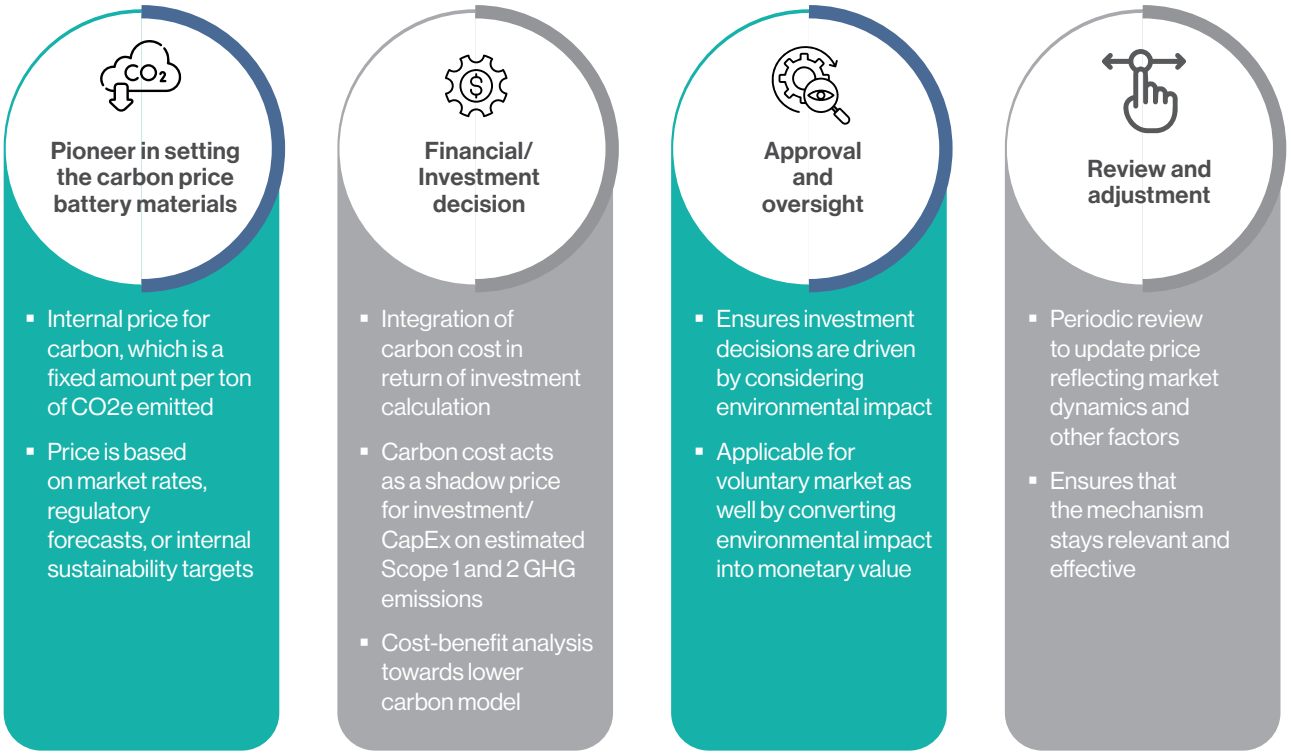


Figure 14: Himadri's internal carbon pricing

Monitoring, Evaluation, and Reporting

Monitoring framework

- **Emission tracking:** Continuous measurement of Scope 1 and 2 emissions across all facilities.
- Use of advanced monitoring systems for accuracy and timeliness.
- **Carbon price review:** Annual update using the latest scenario data.
- **Financial integration:** Carbon cost embedded in financial reporting and budget planning.

Evaluation framework

- **Performance tracking:** Ongoing assessment against emission reduction goals and financial targets.
- **Regulatory compliance:** Ensure alignment with local/ global carbon regimes and adapt strategies accordingly.
- **Technology assessment:** Measure efficacy of emission-reducing technologies; invest in next-gen improvements.

Reporting cadence

- **Internal:** Monthly and quarterly reports on emissions, carbon cost, and progress towards targets. Updates to the Sustainability Committee and executive leadership.
- **External:** Detailed annual disclosures in sustainability reports on carbon price application, emissions performance, and the financial impact of carbon integration.

Global context and strategic relevance

Internal carbon pricing (ICP) is gaining momentum worldwide. Over 1,200 companies, including Microsoft, SwissRe, and Infosys, have adopted forms of ICP. It is a recognised tool to shift investment decisions toward low-carbon options, reduce emissions, and mitigate future regulatory risks. Companies using ICP have seen 13.5–15.7% reductions in emissions per employee and per revenue, respectively.

Globally, carbon price levels are expected to rise substantially. The IPCC indicates that effective pricing may need to reach $135–$5,500/t by 2030 to align with a 1.5°C pathway. Our current shadow pricing aligns well with these projections, placing Himadri among forward-looking industrial players.

Circularity and cohesive impact

Himadri's shadow carbon pricing is not just a financial overlay; it is integral to our circular, sustainable execution. It ensures that low-carbon and sustainable projects are more than ethical choices; they are financially optimised. Combined with our broader climate actions like fuel switching, energy efficiency, and Scope 3 engagement this mechanism helps lift the entire organisation towards a truly resilient, future-ready industrial model.

Training and awareness

At Himadri, we believe that sustainability transformation is only as strong as the people who drive it. Recognising the pivotal role of individual preparedness in organisational success, the Company has invested significantly in comprehensive training programmes designed to cultivate a culture of diversity, equity, inclusion, and environmental responsibility across all levels of the organisation extending even to key external stakeholders.

Equal access to learning opportunities is the cornerstone of our approach. Every employee from senior leadership to frontline staff benefits from structured, inclusive, and role-specific development initiatives, ensuring that sustainability awareness and capability are embedded into the very fabric of the organisation.

100% Participation through blended learning

Continuous improvement through assessment and feedback

To ensure effectiveness, regular assessments measure comprehension, while feedback loops enable continuous content refinement. Training is not static; modules evolve with changing global climate priorities, technological advances, and regulatory frameworks.

Environmental responsibility is a central focus area. Modules highlight issues such as waste reduction, energy conservation, and resource efficiency. On-site sessions at manufacturing facilities go further helping employees address real-world operational challenges in energy-intensive sectors through practical, scenario-based learning.

Global best practices and ISO Standards

Himadri ensures that training aligns with globally recognised management systems and frameworks:

ISO 14001 (Environmental Management Systems): Training delivered by internal experts and external specialists to strengthen competencies in environmental stewardship.

ISO 50001 (Energy Management Systems): Building capability to reduce energy intensity and align with global decarbonisation pathways.

This ensures that employees are not only equipped to meet compliance requirements, but also empowered to advance best-in-class environmental performance.

Governance, KPIs, and reporting

Progress is tracked through defined ESG-linked KPIs, reported to the ESG Council, and disclosed in Himadri's Sustainability Reports. Employee engagement, comprehension, and feedback are systematically analysed to continuously improve training effectiveness.

Training highlights

- ISO 14001 (EMS) training conducted by internal and external experts.
- On-site modules focused on waste, energy, and water management.
- Digital modules customised to specific job functions.
- Role-based workshops and interactive webinars across geographies.

KPIs and governance

- All programmes monitored through ESG-linked KPIs.
- Regular feedback loops inform updates to training content.
- Outcomes reviewed by the ESG Council and integrated into Sustainability Reports.

Through these multifaceted initiatives, Himadri reinforces its belief that every employee is a stakeholder in the climate journey. Our people are well-informed, inspired, and equipped to lead change, ensuring that sustainability is not an initiative but a lived culture.

Environmental Performance Monitoring and Transparent Reporting: Strengthening Accountability for a Sustainable Future

At Himadri, environmental stewardship is central to our sustainability strategy. We are committed to continuously improving environmental performance through rigorous monitoring, transparent disclosure, and adherence to global standards. This reinforces our ambition to build a low-carbon, resource-efficient, and climate-resilient enterprise.

ISO-Based Management Systems: Integrated Oversight for Continuous Improvement

To institutionalise accountability and drive systemic performance, Himadri has deployed ISO-certified management systems across all manufacturing sites and corporate offices:

- ISO 14001:2015 for Environmental Management
- ISO 50001:2018 for Energy Management

These frameworks provide structured oversight, real-time monitoring, and systematic improvement cycles, including periodic audits, internal reviews, and corrective action plans. Beyond compliance, they foster operational efficiency, innovation, and stakeholder trust.

Environmental Metrics Monitoring: Data-Driven Performance

We continuously track and analyse key environmental indicators against science-based targets and regulatory benchmarks. Core metrics include:

- Energy consumption (absolute and specific)
- GHG emissions (Scope 1, 2, and 3)
- Water withdrawal and recycling rates
- Waste generation and diversion from landfill

This data informs our decarbonisation roadmap, which integrates:

- Clean fuel transitions
- Process electrification
- Lifecycle-based product design
- Low-carbon manufacturing practices

Scaling Circularity in a Resource-Intensive Sector

Even as it is a part of an energy- and resource-intensive sector, Himadri has made targeted capex investments in clean technologies, efficiency upgrades, and circular economy initiatives. By embedding resource circularity and emission reduction into core operations, we are ensuring that every tonne of material, every litre of water, and every unit of energy is optimised for long-term sustainability.

Globally, companies that embed sustainability training and robust environmental monitoring systems have been shown to reduce operational emissions intensity by up to 15–20% over five years (World Bank & CDP, 2024). Himadri's holistic approach, combining employee empowerment with data-driven environmental management positions us among forward-thinking leaders committed to a climate-positive, transparent future.

Capability & Accountability Framework

Embedding sustainability through people, systems, and transparency

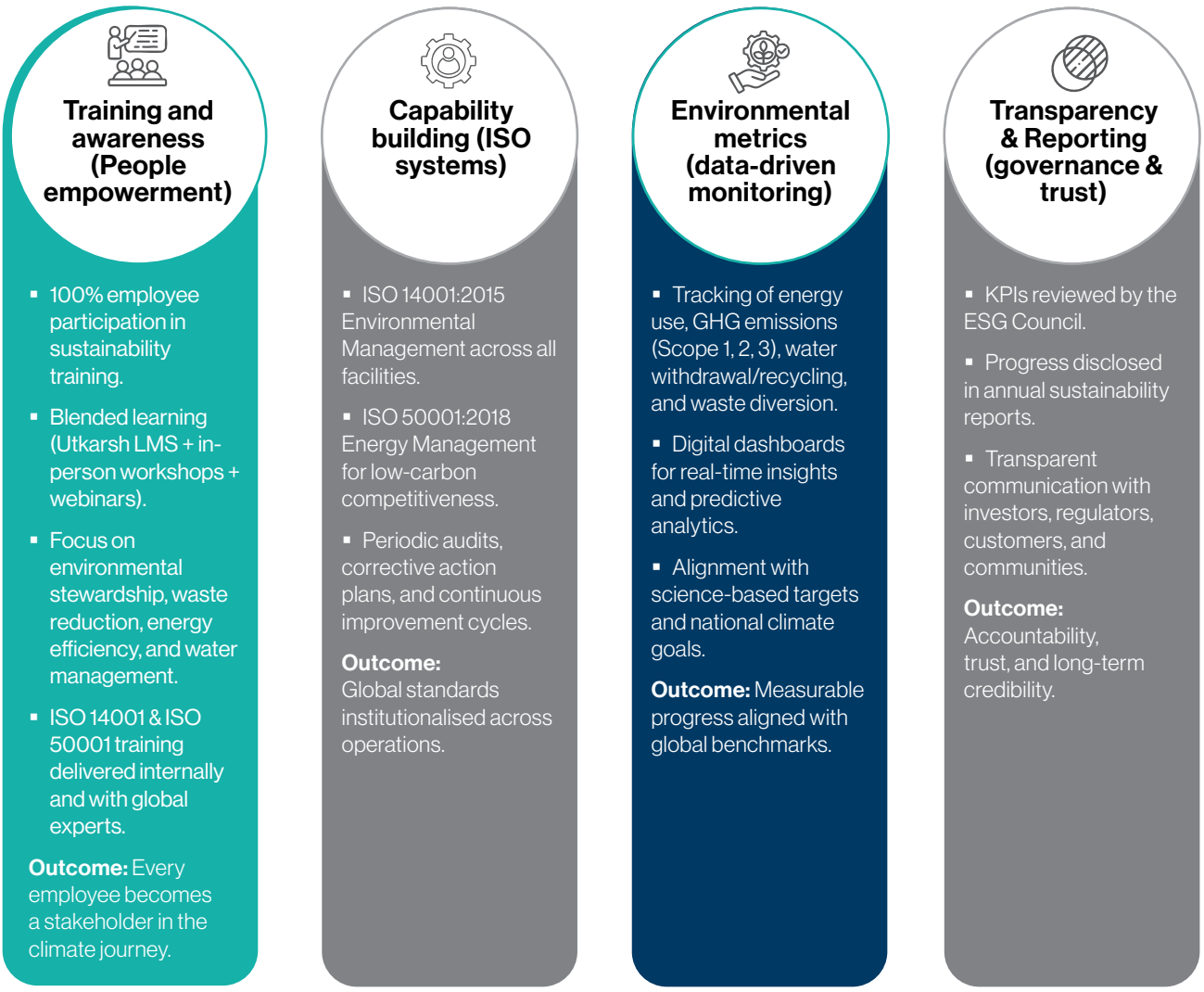


Figure 15: Himadri's capability and accountability framework

'Capability builds accountability. Accountability builds trust. Together, they drive Sustainable Transformation.'

Himadri's sustainability journey is powered by a closed loop of capability and accountability. By training people, institutionalising ISO systems, tracking data with precision, and reporting transparently, we ensure that 'Together, Towards Tomorrow' is more than a philosophy; it is a disciplined pathway to sustainable transformation.

Ensuring data integrity and credibility

To strengthen reliability and comparability of disclosures, Himadri's ESG Council, in collaboration with cross-functional teams, ensures data rigour through:

- Third-party assurance of reported KPIs.
- Standardised data collection protocols across plants and functions.
- Benchmarking against peer companies and global leaders in the chemical and materials sector.

According to the CDP Global Disclosure Insight Report (2024), over 90% of institutional investors consider transparent ESG reporting a critical factor in portfolio decisions. Himadri's disclosure strategy directly supports this expectation, reinforcing stakeholder trust while positioning the Company in line with climate-conscious capital flows that are projected to exceed USD 50 trillion in ESG assets by 2030.

Transparency in ESG Reporting: Building trust through disclosures

Transparency is the foundation of Himadri's environmental governance. We believe that credible disclosures are not just compliance obligations but strategic levers to build trust, accountability, and long-term investor confidence.

To this end, Himadri has adopted a multi-framework reporting approach, aligning with the most respected international and national sustainability standards, including:

Global Reporting Initiative (GRI): Ensuring globally comparable disclosure of ESG performance.

Task Force on Climate-related Financial Disclosures (TCFD): Integrating climate risk and opportunity assessments into corporate reporting.

SEBI-mandated Business Responsibility and Sustainability Report (BRSR): Aligning with India's regulatory framework and investor expectations.

Every year, Himadri publishes a comprehensive Sustainability Report detailing progress across material topics such as climate action, energy efficiency, circularity, biodiversity, and social inclusion. Our reports do not merely list achievements they highlight milestones, address gaps with honesty, and set forward-looking commitments.

Advancing environmental accountability

Through systematic monitoring, ISO-certified processes, and best-in-class disclosure practices, Himadri ensures that environmental stewardship goes beyond compliance. Our reporting framework enables us to:

- Address today's climate challenges with agility.
- Prepare for tomorrow's risks and opportunities.
- Build confidence among regulators, investors, customers, and communities.

Looking ahead, Himadri is committed to:

- Expanding reporting granularity across Scope 1, 2, and 3 emissions.
- Enhancing digital monitoring with AI-driven energy and emissions analytics.
- Accelerating progress toward science-based climate goals.

This proactive approach positions Himadri as a leader in responsible, performance-led environmental management one that is resilient, transparent, and future-ready.

"In line with our focus on circular economy and downstream responsibility, Himadri has embedded Extended Producer Responsibility (EPR) and Product End-of-Life Stewardship into its strategy.

Product end-of-life stewardship

Himadri integrates sustainability principles across the full product lifecycle, with a strong focus on end-of-life management. Recognising the environmental challenges posed by speciality chemicals and materials, we are committed to promoting circularity, resource recovery, and responsible disposal practices.

Our approach includes a compliance with Extended Producer Responsibility (EPR) regulations, ensuring accountability for the collection, recycling, and environmentally sound disposal of products after their use phase. Himadri supports tyre and carbon material recycling initiatives, develops sustainable anode materials for lithium-ion batteries, and partners downstream users to facilitate reuse and recovery.

Through alignment with International Sustainability & Carbon Certification (ISCC) and adherence to Responsible Care® principles, we promote traceability, minimise waste, and foster circular value chains. In addition, we collaborate with industry stakeholders, research bodies, and customers to advance waste valorisation, energy recovery, and closed-loop systems, reducing environmental impacts and enhancing resource efficiency.

By embedding end-of-life stewardship and EPR compliance into our innovation strategy, Himadri reinforces its role in enabling a net-zero and circular economy future.

A Future-ready Climate Strategy for Resilient Growth

Himadri's Climate Strategy and Adaptation Plan represents a bold, comprehensive, and forward-looking approach to managing the risks and opportunities of climate change. Structured across short-, medium-, and long-term horizons, the plan provides a clear roadmap for environmental sustainability, operational resilience, and a net-zero transition by 2050. It integrates ambition with execution, aligning business objectives with global climate goals while delivering measurable impact across environmental, economic, and social dimensions.

Short-term: Accelerating decarbonisation and building foundations

- Immediate focus on emissions reduction through solar projects, carbon credit trading, and a carbon capture pilot.
- Climate-linked KPIs embedded into executive appraisals, driving leadership accountability.
- Stakeholder engagement and employee training as catalysts for cultural transformation.
- Transparent disclosure of environmental data to create shared value across the ecosystem.

Medium-term: Unlocking green business opportunities and climate resilience

- Investments in energy storage technologies, low-carbon products, and resilient infrastructure.
- Policies on energy efficiency and raw material use aligned with global frameworks.
- Climate-resilient facilities capable of withstanding environmental shocks, ensuring business continuity.
- Diversification into new green product lines tapping into markets projected to expand rapidly (e.g., the global green chemicals market, expected to reach USD 98 billion by 2030).

Long-term: Net-Zero trajectory and adaptive risk management

- Refinement of the Net Zero 2050 Plan based on evolving science and market dynamics.
- Deeper decarbonisation via renewable fuels, electrification of transport, and advanced low-carbon technologies.
- Proactive risk management, including climate insurance for critical infrastructure.
- Integration of next-generation technologies to stay competitive in a climate-conscious economy.

Governance, task forces, and strategic investments: Driving systemic change

Himadri's climate strategy is reinforced by robust governance and clear accountability structures:

- ESG Council and Board-level ESG Committee providing oversight.
- Task Forces dedicated to GHG reduction, circularity, and energy transition, ensuring a strategy-to-execution alignment.
- Leadership integration through the CSO, CFO, and CEO embedding sustainability into financial and operational planning.
- A Investment plan of INR 100 crores over the next decade for climate innovation, capacity building, and systemic transformation.

Embedding sustainability for long-term impact

Himadri's climate strategy and adaptation plan reflects a systemic, future-ready approach that balances ambition with action. By addressing immediate risks, pursuing medium-term innovation, and embedding long-term resilience, we are building a Company that is:

Climate-aligned: Net-zero trajectory by 2050.

Competitive: Leveraging low-carbon innovation for new market leadership.

Agile: Continuously adapting to regulatory, market, and climate dynamics.

Stakeholder-centric: Building shared value through transparency and accountability.

Continuous monitoring, transparent reporting, global-standard frameworks, and active stakeholder engagement will accelerate our journey. Guided by science, governance, and people, Himadri is charting a resilient, inclusive, and climate-secure future living up to our philosophy of Together, Towards Tomorrow.

From Urgent Action to Lasting Resilience - Shaping a Net-Zero Future

Short-term (2025–2027)

'Act Now: Fast-Track Decarbonisation'

- Solar projects, carbon credits, and carbon capture pilots launched.
- Climate-linked KPIs and 100% employee ESG training.
- Transparent data disclosure to build trust.

Medium-term (2028–2035)

'Scale Smart: Green Growth & Resilience'

- Energy storage, low-carbon products, and resilient facilities.
- Efficiency-focused policies and circular economy initiatives.
- Market diversification into global green opportunities.

Long-term (2036–2050)

'Lead the Future: Net-Zero & Beyond'

- Net-zero 2050 Plan refined with next-gen technologies.
- Renewable fuels, electrified logistics, adaptive risk management.
- Climate insurance and governance to secure continuity.

Climate Risk Management at Himadri

Himadri on Climate Risks: Building Resilience

At Himadri, we recognise that climate change is far more than an environmental issue. It represents one of the most significant, complex, and urgent challenges facing humanity, industries, and institutions worldwide. It is reshaping ecosystems, influencing patterns of economic growth, and redefining the way businesses ensure continuity and maintain stakeholder trust. In line with the United Nations' call for transformative climate action, we believe the decisions taken today will determine the resilience, sustainability, and prosperity of both our business and society for generations to come. We view climate responsibility not as a peripheral obligation but as a strategic imperative that drives resilience, innovation, and value creation across all dimensions of our enterprise. This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to net-zero by 2070.

To address this challenge, Himadri has adopted a forward-looking, multidimensional approach to climate-related risks, built on strategic insight and operational preparedness. Our framework classifies climate risks into two primary categories: Physical risks and transition risks. This structured approach allows us to identify risks comprehensively, assess their impact, and implement agile mitigation strategies. It supports risk prevention while strengthening adaptive capacity across operations, supply chains, investment decisions, and the broader stakeholder ecosystem.

Physical climate risks: Preparing for environmental impacts

Physical risks refer to the direct and indirect consequences of climate change that affect our assets, infrastructure, processes, and surrounding communities. These risks manifest in both acute and chronic forms, each requiring distinct strategies for anticipation, prevention, and long-term resilience. This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to net-zero by 2070.

1. Acute physical risks

Acute risks arise from sudden and extreme weather events, which are becoming more frequent and severe due to global warming. Examples include: severe cyclones and windstorms, intense flooding caused by heavy rainfall or river overflow, prolonged heatwaves impacting infrastructure and human health and forest cum wildfires near operational zones.

Though short in duration, such events can cause significant disruption to logistics networks, manufacturing operations, employee safety, and local ecosystems. Himadri addresses these risks through continuous climate surveillance, regularly updated emergency response protocols, and climate-resilient infrastructure designs.

2. Chronic physical risks

Chronic risks emerge from long-term shifts in climate patterns. These include: rising average surface temperatures, gradual sea-level rise threatening coastal facilities, changes in rainfall patterns affecting freshwater availability and prolonged droughts impacting agriculture-based supply chains.

While their onset is gradual, the cumulative effect of these risks is substantial, influencing water sourcing, energy demand, and thermal regulation. Himadri integrates these long-term variables into strategic planning, engineering design, and risk forecasting to ensure resilience is built into every level of the organisation.

Transition climate risks: Managing the shift to a low-carbon economy

Alongside physical risks, the transition to a low-carbon economy presents another dimension of climate-related challenges. Transition risks stem from changes in policy, technology, markets, and stakeholder expectations as the world accelerates toward decarbonization. These risks can influence financial performance, raise compliance and operational costs (for example, through carbon taxes), and affect the competitiveness of carbon-intensive business models. Himadri addresses these challenges proactively by investing in renewable energy, advancing research in low-emission technologies, and developing sustainable products. This positions the company to remain agile, relevant, and competitive in a rapidly evolving landscape.

Transition risk drivers	Business implications
Policy & regulatory changes	Introduction of stricter emissions caps, implementation of carbon pricing, mandatory ESG disclosures
Technological evolution	Increased pressure to adopt cleaner technologies and decarbonize existing industrial processes
Market realignment	Evolving customer preferences for sustainable and ethically sourced products and services
Stakeholder expectations	Rising investor and consumer demand for climate-conscious and ESG-compliant business models

Climate change as a driver of innovation and value creation

This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to net-zero by 2070.

At Himadri, we do not perceive change as a threat. We view it as an opportunity to innovate, strengthen resilience, and lead in sustainability. Our initiatives in decarbonization, climate-smart manufacturing, and ESG stewardship extend beyond compliance. They are designed to create lasting value for stakeholders and contribute meaningfully to global climate goals. We view climate responsibility not as a peripheral obligation but as a strategic imperative that drives resilience, innovation, and value creation across all dimensions of our enterprise.

By embedding climate risk management into strategic planning, enterprise risk frameworks, and capital allocation processes, Himadri is building a future-ready, climate-resilient business. We are committed to thriving not in spite of change, but because of it.

Himadri's Climate Risk Management: Building a Resilient Future

At Himadri, we believe that understanding, anticipating, and addressing climate risks is both a responsibility and a strategic advantage. Climate risk is not viewed in isolation but as a core component of business resilience, stakeholder confidence, and long-term sustainability. Our climate response is built around a structured management framework that enables proactive and adaptive measures, aligned with evolving global best practices. We view climate responsibility not as a peripheral obligation but as a strategic imperative that drives resilience, innovation, and value-creation across all dimensions of our enterprise.

1. Comprehensive risk assessment

Our climate risk framework is anchored in scientific rigour, continuous learning, and operational integration.

Identifying climate-related risks: We systematically assess vulnerabilities across our operations using historical climate data and incident records, scientific models projecting future climate trends, Geographic Information Systems and site-specific vulnerability maps. This approach covers physical and transition risks, enabling us to identify potential exposures across plants, supply chains, logistics corridors, and community interfaces.

Assessing potential impacts: Through scenario-based modelling and both qualitative and quantitative analysis, we evaluate how climate events and policy shifts could affect: operational and structural integrity of assets, cost and availability of raw materials and water, energy demand and efficiency as well as workforce safety, health, and community resilience. These insights guide our prioritisation, policy decisions, and contingency planning at both the business unit and corporate levels.

Prioritising key risks

Not all risks are equal in frequency or consequence. We use a risk materiality matrix based on: likelihood of occurrence, supported by scientific and empirical evidence; magnitude of financial, operational, and reputational impact.

For financial categorisation, risks above INR 50 crore are classified as High, those between INR 20–50 crore as Medium, and those below INR 20 crore as Low. This provides a clear decision-making framework, ensuring proportionate responses that protect business continuity and stakeholder value.

Prioritising key opportunities

We apply a structured methodology to identify and prioritise climate-related opportunities that drive value creation. Using a materiality matrix for opportunities, we assess the likelihood of realisation, based on market intelligence and scientific insights and the magnitude of potential benefit in terms of financial performance, efficiency, and reputation.

Opportunities with financial benefits above INR 20 crore and up to INR 30 crore are classified as High, those between INR 10–20 crore as Medium, and those below INR 10 crore as Low. This ensures resources are directed toward the most promising initiatives, maximising long-term value.

2. Mitigation and adaptation: Dual pillars of climate resilience

Once risks are identified, Himadri addresses them through two complementary strategies, mitigation and adaptation. Together, these pillars ensure both immediate responsiveness and long-term resilience.

Mitigation: Reducing emissions at the source

Our mitigation strategies are designed to decouple business growth from environmental impact.

Key initiatives include:

Energy transition: Gradually shifting toward renewable and low-emission energy sources, including biomass, electrification, and green hydrogen.

Process decarbonisation: Integrating low-carbon technologies in core operations with a focus on efficiency, heat recovery, and precision controls.

Carbon sequestration and offsets: Exploring reforestation, greenbelt development, and technology-led solutions such as carbon capture, utilisation, and storage (CCUS).

Regulatory alignment: Proactively engaging with carbon markets, voluntary reporting, and Science Based Targets initiative (SBTi) guidance to ensure transparency and accountability.

By embedding emission reduction into product innovation and operational excellence, Himadri is setting new benchmarks for sustainable industrial practices.

Adaptation: Strengthening systemic resilience

Adaptation strategies are focused on strengthening our ability to withstand and recover from climate impacts. These include:

Infrastructure resilience: Designing and retrofitting facilities to withstand extreme weather, temperature fluctuations, and flooding.

Water stewardship: Enhancing rainwater harvesting, protecting nearby water bodies, and implementing Zero Liquid Discharge (ZLD) systems.

Emergency preparedness: Developing site-specific early warning systems, conducting drills, and building employee and community capacity in disaster response.

Community-centric adaptation: Partnering with local institutions to support vulnerable groups and build inclusive climate resilience.

Adaptation at Himadri is treated as a continuous, evolving process that ensures business continuity, workforce safety, and long-term stakeholder trust.

3. Addressing emerging climate challenges

We recognise that climate risk management is dynamic, shaped by scientific uncertainties, financial considerations, and systemic dependencies. Himadri adopts a pragmatic and collaborative approach to navigate these challenges, converting complexity into actionable strategies and scalable solutions.

Key challenges	Himadri's proactive response
Limited availability of granular climate data and uncertainty in projections	Continuous investment in localised climate data analysis, digital risk modelling tools, and AI-powered forecasting platforms
High capital and resource intensity of risk mitigation technologies	Internal alignment of sustainability budgets with risk priorities; pursuit of green financing, ESG-linked loans, and incentives
Fragmented climate action across sectors and value chains	Industry collaboration through forums, co-innovation platforms, supplier engagement, and cross-sector working groups
Need for internal cultural transformation and awareness across the organisation	Leadership alignment, capacity-building programs, and integration of climate KPIs into employee performance metrics

4. Himadri's vision for climate leadership: Turning challenges into opportunities

For Himadri, climate leadership goes beyond compliance. It is about embracing change, driving innovation, and enabling shared progress. We are unlocking value from the climate transition through three pathways:

Driving innovation and technological advancement

- Deployment of AI-driven forecasting tools, GIS-based hazard mapping, and advanced climate modelling for real-time intelligence.
- Investment in low-carbon R&D, including next-generation battery materials, circular economy solutions, and alternative fuels.
- Pilots in CCUS, bio-based feedstocks, hydrogen combustion, and electrified transport logistics

Strengthening climate policy alignment and ESG governance

- Active engagement with regulators, standard-setters, and industry associations to shape climate policies and carbon markets.
- Integration of climate considerations into enterprise risk registers, board-level ESG oversight, and strategic investment planning.
- Transparent disclosures in line with TCFD, CDP, and BRSR frameworks to strengthen investor and stakeholder trust.

Fostering public awareness and multi-stakeholder engagement

- Advocacy of sustainable practices and climate-smart innovations across industry platforms
- Collaboration with schools, communities, and governments to raise awareness and promote adaptation
- Engagement with suppliers and customers to build circular value chains and embed ESG maturity

5. Enterprise risk integration

In FY 24–25, Himadri conducted an enterprise-level climate risk evaluation, strengthening our governance framework. Our bottom-up risk identification process captures both physical and transition risks at the operational level and consolidates them into a Group Risk Register. This enables centralised oversight, informed capital deployment, and proactive resilience planning.

Risk level	Climate and sustainability risk capture
Corporate Risk	Climate-related risks identified in Group Risk Register; embedded in internal controls and reporting systems
Business Risk	Climate and ESG risks documented in Business Unit registers and aligned with corporate risk aggregation
Project Risk	Climate vulnerabilities assessed at the project planning stage, with controls for short-term climate exposure

Building a future-ready Himadri

Climate change is a defining challenge of our time. Himadri is committed to shaping a future-ready business that thrives in a low-carbon economy. By embedding climate risk management into our strategy, governance, and culture, we are protecting our assets and operations while contributing to global sustainability goals. This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to net-zero by 2070.

Our aspiration is clear: to co-create a climate-smart, net-positive future that delivers enduring value for people, planet, and prosperity.

Identification of climate risks

In alignment with global best practices, Himadri has carried out a comprehensive assessment of climate-related risks, both physical and transition, using internationally recognised climate modelling frameworks and scenario tools. This initiative reflects our commitment to future-proofing our business strategy by anticipating the evolving impacts of climate change across geographies and time horizons. This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to Net-Zero by 2070.

To achieve this, Himadri applied tools such as the IEA Net Zero Emissions (NZE) 2050 Scenario and the MIT Sloan En-ROADS Climate Simulator to model multiple Representative Concentration Pathway (RCP) scenarios. These were supported by credible regional climate data from authoritative sources including the Government of India's Meteorological Database, the ThinkHazard platform developed by the Global Facility for Disaster Reduction and Recovery (GFDRR), and advanced scientific modelling platforms such as En-ROADS.

The assessment covered a wide spectrum of risks:

Physical risks such as drought, extreme heatwaves, cyclones, wildfires, erratic rainfall, and flooding.

Transition risks arising from policy shifts, legal and regulatory requirements, technological disruptions, market reconfigurations, and reputational factors.

This risk mapping exercise covered at the operational facilities of Himadri, including the primary manufacturing site in West Bengal and additional facilities in Odisha, Chhattisgarh, and Andhra Pradesh, ensuring comprehensive coverage across our business footprint.

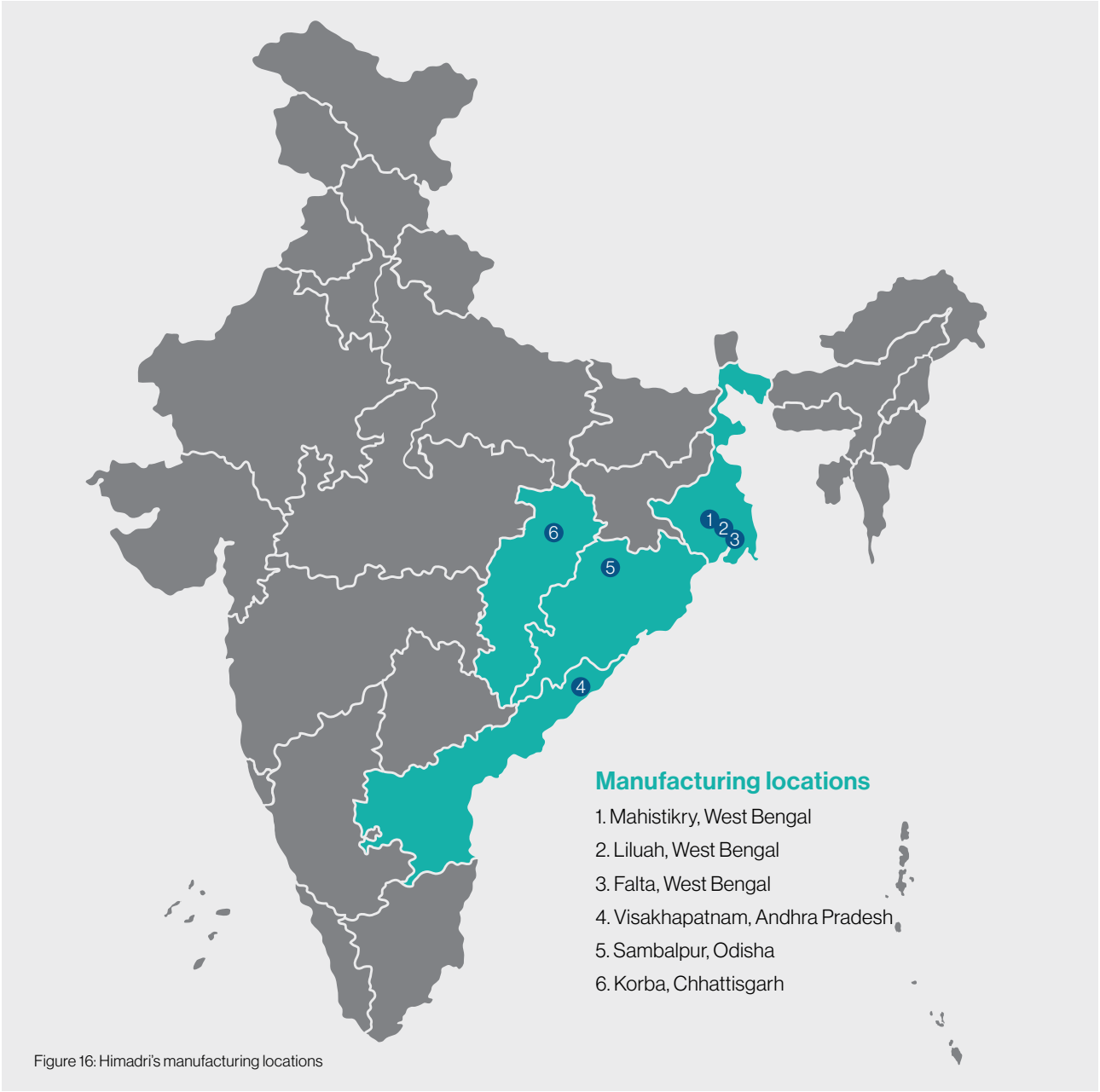


Figure 16: Himadri's manufacturing locations

Scenario analysis

Scenario analysis is a cornerstone of Himadri's climate risk strategy. By exploring alternate future pathways under different emissions trajectories, we assess potential implications for our operations, value chain, and long-term competitiveness. For FY 24–25, we adopted a combination of IEA NZE 2050 along with RCP 1.9, RCP 2.6, and RCP 3.4 to capture a broad spectrum of climate futures and action levels.

IEA NZE 2050: A normative pathway for global decarbonization

Himadri has adopted the IEA Net Zero Emissions by 2050 (NZE 2050) scenario as a foundational element of its climate risk and opportunity assessment. This science-aligned pathway outlines how the world can achieve net-zero CO_2 emissions by 2050, with advanced economies reaching the target earlier.

The NZE 2050 scenario aligns with a 1.5°C trajectory as highlighted in the IPCC's Sixth Assessment Report, providing more than 50% probability of limiting global temperature rise. It represents systemic transformation across energy supply, industrial processes, financial flows, and policy frameworks while remaining consistent with the UN Sustainable Development Goals (SDGs).

Importantly, NZE 2050 highlights the strategic role of Carbon Capture, Utilisation, and Storage (CCUS) in decarbonizing hard-to-abate sectors. Himadri is proactively assessing the integration of CCUS into its operations, reinforcing our commitment to climate leadership and innovation.

Key assumptions of NZE 2050

- Global net-zero achieved by 2050
- Increase in carbon pricing USD 130/ tCO_2 by 2030 and USD 250/tCO_2 by 2050
- Renewable energy dominates the global energy mix
- Stringent environmental regulations implemented globally
- Full electrification of industrial operations
- Phase-out of internal combustion vehicles by 2050

Limitations

NZE 2050 assumes significant behavioural change and widespread CCUS deployment. If these do not materialise, particularly where bioenergy resources are limited, the transition becomes more expensive and delayed, especially in hard-to-abate sectors such as cement.

RCP 1.9: The Most Ambitious Climate Pathway

RCP 1.9 represents the most aggressive mitigation pathway under the IPCC framework, aiming to limit warming to below 1.5°C by 2100. This is consistent with the aspirational goals of the Paris Agreement.

Himadri has adopted RCP 1.9 as a strategic reference in scenario planning, aligning with our science-based targets and net-zero commitments. This pathway requires deep and immediate emissions reductions, technological breakthroughs, and strong global cooperation.

We view CCUS as a critical enabler of this pathway and have prioritised related projects in our climate roadmap.

Key assumptions of RCP 1.9

- Net-zero CO_2 emissions by mid-century
- Temporary overshoot of 1.5°C before stabilisation
- Socioeconomic alignment with SSP1 (sustainability and reduced inequality)
- Widespread adoption of renewable energy and efficiency technologies
- Major land-use changes, including global-scale reforestation
- Behavioural changes to reduce consumption and emissions

Limitations

This pathway depends on Integrated Assessment Models (IAMs) that may not fully capture uncertainties in future technology development or societal transitions.

RCP 2.6: A Progressive but Attainable Path

RCP 2.6 envisions a proactive but realistic mitigation pathway that limits global warming to well below 2°C. Radiative forcing peaks mid-century at approximately 3 W/m², declining to 2.6 W/m² by 2100.

This pathway requires: rapid reduction in GHG emissions, large-scale adoption of renewable energy and bioenergy, early deployment of CCUS, BECCS, and afforestation and strong reductions in air pollutants.

Himadri uses RCP 2.6 to shape strategies around regulatory, market, and technological developments, guide product innovation, and set emissions reduction roadmaps.

Key assumptions of RCP 2.6

Socioeconomic alignment with SSP1 (sustainable development and cooperation)

Net-zero CO_2 emissions achieved between 2050 and 2070

Technological breakthroughs in carbon-negative solutions

Limitations

The pathway relies heavily on CCS and BECCS technologies, which are not yet commercially mature, and creates financial challenges for developing economies transitioning to low-carbon systems.

RCP 3.4: A moderate transition outlook

RCP 3.4 represents a middle-ground pathway, situated between ambitious mitigation and weaker transition scenarios. It anticipates global temperatures rising by approximately 2.0–2.4°C by 2100, with emissions peaking around 2040.

For Himadri, RCP 3.4 provides a useful benchmark to stress-test our GHG targets in moderate policy environments, assess risks associated with slow technological adoption, and plan resilience strategies.

Key assumptions of RCP 3.4

- Gradual renewable energy transition
- Moderate efficiency improvements and land-use changes
- Limited but growing deployment of CCUS and nature-based solutions

Limitations

Although RCP 3.4 may reflect a realistic trajectory for many economies, it risks failing to prevent irreversible tipping points within the global climate system.

Comparative assumptions overview

Parameter	IEA NZE 2050	RCP 1.9	RCP 2.6	RCP 3.4
Energy efficiency	High priority	Critical	Important	Moderate
GHG reduction target	Net-Zero by 2050	Below 1.5°C	Below 2°C	Stabilize 2°C–2.4°C
Sustainable practices	Strong emphasis	Robust measures	Integrated management	Transforming by-products
Carbon capture role	Exploring and piloting	Promoting projects	Advancing initiatives	Scaling applications

Figure 17: Scenario analysis-comparative assumptions overview

Tools: Enhancing climate risk identification through science-based analytics

Himadri recognises that building long-term climate resilience requires robust, science-based, and data-driven tools. These tools not only evaluate current vulnerabilities but also anticipate future uncertainties. Accordingly, Himadri has adopted a suite of globally recognised climate risk assessment platforms to guide strategic planning, investment decisions, and sustainability governance.

By leveraging these platforms, we are able to assess the interaction between environmental hazards, infrastructure vulnerabilities, operational continuity, and stakeholder expectations across both physical and transition risk categories. Integrating such tools enables us to embed foresight into our climate governance framework, ensuring business continuity, resource efficiency, and forward-looking climate stewardship.

AQUEDUCT

WRI Aqueduct: Advancing water risk resilience

Water scarcity and hydrological volatility are emerging as some of the most pressing sustainability challenges worldwide. Climate change is intensifying these risks by disrupting hydrological cycles, accelerating glacier melt, increasing drought frequency, altering rainfall patterns, and triggering unpredictable flood events. These impacts directly threaten water security for industries, ecosystems, and communities. This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to Net-Zero by 2070.

To proactively address such challenges, Himadri uses the Aqueduct suite of tools developed by the World Resources Institute (WRI). These tools are open-source, peer-reviewed, and underpinned by rigorous scientific methodologies, which ensures credibility and transparency.

Key Aqueduct tools applied by Himadri

Aqueduct water risk atlas: Used to map and evaluate baseline and projected water stress across operational regions. It highlights high-risk zones for scarcity, seasonal variability, and quality degradation, enabling targeted mitigation measures.

Aqueduct floods: Assesses risks from coastal and riverine flooding, supporting informed decisions on flood defense investments and disaster preparedness.

WRI's approach emphasises equity, inclusiveness, and alignment with global development priorities, particularly SDG 6: Clean water and sanitation. Himadri is committed to adopting water stewardship practices that extend beyond compliance and deliver shared value to both our operations and the surrounding communities.

Assumptions

Future scenarios account for variables such as economic growth, infrastructure improvements, policy shifts, and demographic changes.

Hydrological models are based on average climatic trends, which may not fully reflect rapid or extreme variations.

Limitations

Insights are provided at the macro level and may lack precision for highly localised assessments.

Models are periodically updated and may not always reflect the latest ground-level changes.

Certain indicators focus more on exposure than on adaptive capacity or resilience strategies.

ThinkHazard!

Identify natural hazards in your project area and understand how to reduce their impact

ThinkHazard: Proactive hazard screening for resilient infrastructure

Himadri recognises the importance of embedding disaster and hazard resilience into existing operations and future projects. For this purpose, we apply ThinkHazard, a global screening tool developed by the Global Facility for Disaster Reduction and Recovery (GFDRR). This tool offers a rapid assessment of natural hazard exposure and provides clear risk categorisations with actionable insights.

Key features and applications

Provides classification of multiple hazards:

Hydrometeorological: coastal, riverine, and flash floods

Geophysical: earthquakes, landslides

Climatic: cyclones, droughts, wildfires

Uses a simple risk scale (Very Low, Low, Medium, High)

Offers guidance on mitigation strategies for integration into project design and site planning

By integrating ThinkHazard into our enterprise risk management framework, Himadri strengthens its ability to protect people, assets, and supply chain continuity. This tool supports climate-smart infrastructure development and enhances overall adaptive capacity.

Assumptions

Relies on historical hazard data, assuming past events are indicative of future risks.

Risk levels are based on regional datasets and geospatial models.

Assumes static exposure conditions such as current land use and infrastructure, without factoring in future urbanisation or adaptation.

Limitations

Provides high-level screening, which must be supplemented by detailed engineering studies for specific sites.

Climate change-induced shifts in hazard frequency or intensity may not be fully represented. This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to net-zero by 2070.

Evaluates exposure rather than vulnerability or response capacity, limiting its standalone application.

Precision is reduced in regions where hazard data is incomplete or scarce.

Despite these limitations, ThinkHazard serves as a valuable first-tier tool that helps integrate hazard awareness into project planning, ESG due diligence, and infrastructure resilience.

EN-ROADS

MIT Sloan En-ROADS climate simulator: policy impact forecasting at global scale

To assess the global policy and market implications of climate action, Himadri applies the MIT En-ROADS Climate Simulator. Developed in collaboration with Climate Interactive, this interactive model demonstrates how policy interventions influence long-term global temperature outcomes.

Designed for decision-makers, the tool allows users to test strategies across energy, land use, transport, and economic systems. It provides real-time feedback on global temperature projections through the year 2100, making it a powerful instrument for scenario planning.

Key features

Interactive interface with adjustable policy levers (such as carbon pricing, renewable investment, and transport electrification)

Immediate projection of global temperature pathways up to 2100

Integration of energy, land use, economic, and emissions data in a unified systems model

Built on peer-reviewed science and aligned with IPCC assumptions

This simulator helps Himadri assess macroeconomic and policy drivers that shape business resilience, investment strategy, and climate alignment over the medium to long term (25–75 years).

Assumptions

Based on simplified Integrated Assessment Model (IAM) logic:

Models assume immediate implementation of global policy changes with no time lags

Assumes climate sensitivity within the IPCC's established range

Applies uniform global policies without regional differentiation

Limitations

Does not model geographic variations or country-specific trajectories

Excludes potential climate tipping points such as permafrost thaw or ice sheet collapse

Simplified financial assumptions limit analysis of market-specific impacts

Static demographic and land-use assumptions may overlook evolving social transitions

Focuses primarily on mitigation levers, with limited insight into adaptation strategies

While not exhaustive, En-ROADS is an invaluable tool for evaluating systemic risks and opportunities, allowing Himadri to anticipate regulatory shifts, market transformations, and stakeholder expectations under diverse global climate futures.

Strategic integration of tools into risk governance

Together, the WRI Aqueduct, ThinkHazard, and MIT En-ROADS platforms provide a comprehensive framework for climate risk analysis. They enable Himadri to:

Quantify environmental and climate hazards at both macro and operational levels

Align infrastructure planning and capital investment with climate science

Anticipate emerging risks from policy, regulation, and market dynamics

Prepare proactively for low-carbon and climate-resilient growth

These tools are further supported by continuous monitoring of datasets, consultations with stakeholders, and expert insights. Their outputs feed into Himadri's enterprise risk register and ESG governance framework, ensuring that climate resilience is embedded in decision-making at the highest levels of the organisation.

Integrated environmental dependency and impact management approach

Impact–aspect mapping: Apply an impact–aspect methodology to systematically evaluate how dependencies on natural resources translate into measurable environmental impacts.

Scenario-based risk analysis: Use scenario analysis to examine how different environmental risk profiles could exacerbate or mitigate impacts, drawing on historical event–impact correlations to identify recurring patterns.

Opportunity-dependency mapping: Identify opportunities that can reduce reliance on critical resources, prioritising initiatives that deliver multiple benefits across impacts and dependencies.

Stakeholder engagement and validation: Conduct targeted workshops and consultations with internal and external stakeholders to capture insights, validate findings, and identify additional interdependencies.

Integrated strategy development: Develop strategies that address multiple environmental interconnections simultaneously, optimising positive outcomes while reducing exposure to risks.

Action plan implementation: Design detailed implementation roadmaps with clear timelines, roles, responsibilities, and resource allocations to operationalise strategies.

Scenario preparedness: Embed scenario planning within strategic frameworks to ensure resilience under a range of future environmental conditions.

Performance monitoring: Define key performance indicators (KPIs) to track the impact of integrated actions on dependencies, risks, impacts, and opportunities, supported by structured data collection.

Adaptive management: Establish continuous feedback loops to incorporate new data, insights, and stakeholder input, ensuring strategies remain dynamic and responsive to change.

Risks review: Building a climate-resilient business model

In FY 23–24, Himadri achieved a significant milestone by publishing its first TCFD report. This marked the foundation of an integrated and forward-looking climate risk management strategy. Guided by the ESG Council and overseen by the Board-level ESG Committee, we conducted a comprehensive enterprise-wide assessment of physical and transition climate risks.

Through this structured, data-driven approach, Himadri identified four priority physical climate risks, evaluated them based on likelihood and potential impact, and implemented a set of targeted mitigation measures. At the same time, we initiated preventive actions to address transition risks, applying a phased risk horizon approach across:

This time-bound framework strengthens resilience in an adaptive manner, ensuring continuity of operations, sustainability of the value chain, and preservation of stakeholder trust in an evolving climate landscape.

Physical risks overview: Securing infrastructure against climate extremes

Himadri's manufacturing network is spread across key industrial hubs in India, including our flagship facility in West Bengal and production plants in Odisha, Chhattisgarh, and Andhra Pradesh. These sites are central to value creation; and protecting them against intensifying climate risks is a pillar of our sustainability strategy.

Our physical risk assessment applies a comprehensive framework that evaluates:

Exposure: The degree to which a site is subject to climate-related hazards,

Sensitivity: The extent of operational vulnerability to those hazards,

Adaptive capacity: The ability to anticipate, absorb, and recover from climate impacts.

Key physical risks identified across operational locations:

- Drought
- Extreme heatwaves
- Flooding
- Rainfall variability
- Cyclones
- Wildfires

Each risk has been evaluated for likelihood and severity across short, medium, and long-term timeframes under multiple climate scenarios, including IEA NZE 2050, RCP 1.9, RCP 2.6, and RCP 3.4.

To make these insights actionable, Himadri has developed a normalised risk index, ranging from 1 (low risk) to 100 (high risk). This index is derived through a dual-factor analysis of:

- The probability of the climate hazard occurring, and
- The magnitude of its potential impact on operations, assets, and employees.

This scientific and scenario-informed methodology enables Himadri to design tailored resilience measures for each location and timeframe, embedding climate considerations into business continuity planning, infrastructure development, and capital allocation.

Operational impact considerations

Water stress is among the most immediate risks. Seasonal or intermittent water scarcity can affect productivity and treatment plant operations, especially in heatwave-prone regions. In such cases, reliance on third-party water procurement may become necessary, raising operational costs.

Cyclones and wildfires also pose threats of infrastructure damage, disruption of utilities, and potential shutdowns, resulting in downtime and financial implications.

Health and safety considerations

Extended heatwaves and rising temperatures can impact human-intensive operations. Prolonged exposure may cause heat stress or illness, triggering regulatory interventions such as mandated rest breaks and reducing productive work hours. To address this, Himadri has enhanced its heat management protocols with a strong focus on employee safety.

Financial planning implications

Climate-related events can disrupt production timelines, logistics, and energy infrastructure. Damaged roads, ports, or power supply interruptions may delay raw material deliveries and finished goods dispatch. Such disruptions increase reliance on external resources, raising production costs and affecting revenue predictability.

Value chain resilience impacts

Natural disasters such as floods and cyclones can damage transport infrastructure, including roads, bridges, and ports. This creates delays in

shipments, disrupts supply chain continuity, and adds complexity to logistics scheduling and inventory management. Himadri has integrated these risks into supply chain mapping and resilience-building initiatives.

Climate scenario-based physical risk matrix

A visual summary of site-level risk exposure under different climate pathways has been developed to guide adaptation planning and inform strategic decision-making.

This robust understanding of risk allows Himadri to take proactive, site-specific measures and reinforces our readiness to operate safely, sustainably, and efficiently in an increasingly volatile climate environment.

Identified physical risks at our Mahistikry location

Unit Name	Time horizon	Risk description	RCP 1.9	RCP 2.6	RCP 3.4
Mahistikri	Short	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Medium	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Long	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			

Identified physical risks at our Liluah location

Unit Name	Time horizon	Risk description	RCP 1.9	RCP 2.6	RCP 3.4
Liluah	Short	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Medium	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Long	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			

Identified physical risks at our Korba location

Unit Name	Time horizon	Risk description	RCP 1.9	RCP 2.6	RCP 3.4
Korba	Short	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Medium	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Long	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			

Identified physical risks at our Vizag location

Unit Name	Time horizon	Risk description	RCP 1.9	RCP 2.6	RCP 3.4
Vizag	Short	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Medium	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Long	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			

Identified physical risks at our Sambalpur location

Unit Name	Time horizon	Risk description	RCP 1.9	RCP 2.6	RCP 3.4
Sambalpur	Short	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Medium	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Long	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			

Identified physical risks at our Falta location

Unit Name	Time horizon	Risk description	RCP 1.9	RCP 2.6	RCP 3.4
Falta	Short	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Medium	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			
	Long	Draught			
		Heatwave			
		Flood			
		Rainfall			
		Wildfire			
		Cyclone			

Physical Climate Risks: Preparing for Environmental Impacts

Physical risk identified and material to the Himadri operations are heatwave, Cyclone, Flood, Wildfire, water scarcity and extreme rainfall. Himadri faces significant climate-related physical risks at its material site (MTK), with heat waves, cyclones, and floods projected to be the most severe threats, causing substantial operational and financial disruption over the short to long term. Below table gives detailed data of the material risk of Himadri.

Liklihood Score		Score
Very Low	<1-10%	10
Low	11-30%	20
Medium	31-50%	30
High	51-90%	40
Very High	>90%	50

Severity Score		Score
Very Low	Insignificant impact with neglible business disruption	10
Low	Minimal impact with minimal business disruption	20
Medium	Medium impact with recoverable business disruption	30
High	Major impact with significant busineses disruption	40
Very High	High impact with severe business disruption	50

Risk Exposure Scale	
Very Low	1-500
Low	501-1000
Moderate	1001-1500
High	1501-2000
Extreme	2001-2500

Short-term scenario analysis: Time horizon (0-3 years)

RCP	Risk	Likelihood	Severity	Impact	Risk Exposure	Methodology
1.9	**Water Scarcity**		As our operation is not water intensive, water scarcity does not pose any substantive business impact	Very Low. Business operation is not supposed to be impacted by draught considering remote possibilities.		Risk exposure has been derived aligning the EN-ROADS scenarios, "Paris Agreement"
1.9	**Heat Wave**			High. Hot ambient condition at workplace can lead to productivity loss at human centric processes as well as it can affect health condition of people directly engaged at shopfloor where temperature is not regulated. Further continuous exposure to heatwave can lead to acute and chronic effect in terms of heat stress and heat stroke.		Risk exposure has been derived aligning the EN-ROADS scenarios, "Paris Agreement". Vulnerability assessments have been conducted basis of recent heatwave events in the defined geography
1.9	**Flood**		As our existing infrastructures are mostly above-the-ground pipelines and furnaces	Very Low. Business are not exposed to flood hazards.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection
1.9	**Extreme Rainfall**		Most of the work areas are under industrial sheds. However, water logging may disrupt in some extreme cases. Geographic reference vulnerability assessment	Very Low. Business are not exposed to untimely and heavy rainfall hazard.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection
1.9	**Cyclone**			Moderate. Cyclones can impact production and production related infrastructure which may disrupt the normal business operation. Additionally, cyclone can impact transportation sector leading disruption in value chain.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection
1.9	**Wildfire**		The plant area does not have wildfire prone bushes which minimises the risk severity	Low. The business is not prone to wildfire risk		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection

Medium- and Long-term scenario analysis: Time horizon (3-15 years)

RCP	Risk	Likelihood	Severity	Impact	Risk Exposure	Methodology
2.6	**Water Scarcity**		Himadri has already initiated certain mitigation measures like expanding our ZLD capacity from 850KLD to 1200KLD, and building up rainwater harvesting techniques. Therefore, severity of water scarcity is projected to be less impactful	Very Low. Intake water quality will be affected which may affect water treatment plants and process impacting cost of water process. 3rd party water purchase will be an additional cost.		Risk exposure has been derived aligning the EN-ROADS scenarios, "Paris Agreement"
2.6	**Heat Wave**			Moderate. Hot ambient condition at workplace can lead to productivity loss at human centric processes as well as it can affect health condition of people directly engaged at shopfloor where temperature is not regulated. Further continuous exposure to heatwave can lead to acute and chronic effect in terms of heat stress and heat stroke. Available production hours may decrease due to increase in break-timing regulated by local authorities.		Risk exposure has been derived aligning the EN-ROADS scenarios, "Paris Agreement". Vulnerability assessments have been conducted basis of projected heatwave events in the defined geography
2.6	**Flood**		As our existing infrastructures are mostly above-the-ground pipelines and furnaces"	Very Low. The business is not exposed to flood hazard		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection
2.6	**Extreme Rainfall**		Most of the work areas are under industrial sheds. However, water logging may disrupt in some extreme cases. Geographic reference vulnerability assessment	Very Low. The business is not exposed to untimely and heavy rainfall hazard.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection
2.6	**Cyclone**		As Himadri has already initiated cyclone-resilient measures like reinforcing our infrastructures, conducting structural integrity studies for key assets	Low. Cyclones can impact production and production related infrastructure which may disrupt the normal business operation. However, with adequate adopting efforts cyclone risks can be mitigated.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection
2.6	**Wildfire**		Plant area does not have wildfire prone bushes which minimises the risk severity. Additionally Himadri is constituting a dedicated team to fight fire which further minimises the hazards.	Very Low. The business is not prone to wildfire risk and mitigation measures are already at place.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection
3.4	**Water Scarcity**			Low Standard productivity will be affected due to shortage of water. Intake water quality will be affected which may affect water treatment plants or processes. Third party water purchase will be an additional cost.		Risk exposure has been derived aligning the EN-ROADS scenarios, "Paris Agreement"

RCP	Risk	Likelihood	Severity	Impact	Risk Exposure	Methodology
3.4	**Heat Wave**			High. Hot ambient condition at the workplace can lead to productivity loss at human centric processes as well as it can affect health condition of people directly engaged at shopfloor where temperature is not regulated. Further continuous exposure to heatwave can lead to acute and chronic effect in terms of heat stress and heat stroke. Available production hours may decrease due to increase in break-timing regulated by local authorities.		Risk exposure has been derived aligning the EN-ROADS scenarios, "Paris Agreement". Vulnerability assessments have been conducted basis of projected heatwave events in the defined geography.
3.4	**Flood**		Our existing infrastructures may be ineffective for repetitive flooding	High. The business is critically exposed to flood hazard.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection.
3.4	**Extreme Rainfall**		Most of the work areas are under industrial sheds. However, water logging may disrupt in some extreme cases. Geographic reference vulnerability assessment	Very Low. The business is not exposed to untimely and heavy rainfall hazard.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection.
3.4	**Cyclone**		As frequency of such extreme events increases, adaptation measures must be restrategised.	High. Cyclones can impact production and production related infrastructure which may disrupt the normal business operation. Additionally, cyclone can impact transportation sector leading disruption in value chain. Utility disruption like power may impact our captive power plant which in turn can affect the entire production process.		Risk exposure score has been calculated on the basis of stakeholder consultation and site inspection.
3.4	**Wildfire**		Temperature variability may occur with the rising global warming which in turn may cause wildfire	Moderate. With rising global temperature wildfire may pose a significant threat to assets.		The risk exposure score has been calculated on the basis of stakeholder consultation and desk based research.

Figure 18: Physical climate risks - Short, medium and long-term

Himadri faces significant climate-related physical risks at its material site (MTK), with heat waves, cyclones, and floods projected to be the most severe threats, causing substantial operational and financial disruption over the short to long term. The calculated business impact of these climate events includes asset damage, direct business interruption, and productivity loss – with a projected total physical risk impact of approximately INR 733 crore, of which asset damage and revenue loss are the largest components, potentially representing up to 16% of annual revenue for FY 24-25.

Estimating Physical Risk Impact:

The physical climate-related business and financial impact for Himadri has been modelled using a structured, scenario-driven approach, leveraging recent company financials and established climate risk assessment methodologies.

Modelling Process Overview

1. Establishing the Financial Baseline

- Financial results for FY 24-25 (revenue, EBITDA, PAT, asset values, workforce numbers) were sourced from the company's audited accounts and Annual Report, providing the reference point for impact quantification.

2. Climate Hazard Identification and Risk Rating

- Material hazards (heatwave, cyclone, flood, etc.) were identified for the MTK facility, which provides ~80% of Himadri's revenue.
- Risk scores (likelihood, severity, total risk exposure) were assigned based on physical climate projections, local hazard data (e.g., Thinkhazard, DST India map, IMD), desk research, and stakeholder consultations.
- Scenarios include time horizons (short, mid, and long-term) with climate pathway (RCP), assessing worst-case physical impacts.

3. Financial Impact Calculation

Direct asset damage: Calculated as total assets multiplied by facility exposure %, and by calibrated climate hazard 'damage ratio %' (sourced from scientific literature such as JRC flood depth-damage studies, FEMA HAZUS hurricane guidelines, and recent global climate-economic models).

Business interruption: Estimated using average daily revenue, multiplied by projected climate-related downtime (e.g., 17.5 days from World Bank India profile) and revenue exposure percentage.

Productivity, health & safety: Derived from the share of employees likely to be impacted, average revenue per employee, and estimated productivity loss or health cost rates.

All key formulae and parameters are referenced to global/national studies (Bloomberg/riskthinking.ai, World Bank, Nature climate studies), peer-reviewed literature, and disclosed sources in the model spreadsheets.

Transition risk overview: Adapting to a low-carbon economy

As the global economy accelerates its transition toward net-zero emissions, Himadri recognises that transition risks arising from regulatory, technological, market, and reputational changes are becoming increasingly material to long-term business strategy.

Our transition risk assessment applies the same level of rigour as physical risk evaluation. Using a quantitative risk index (1–2500), we prioritise exposure across different time horizons. This consistent methodology enables cross-functional integration of climate risk into strategic planning, compliance, product innovation, and capital allocation.

Specialised tools help spatially visualise regulatory risk hotspots and anticipate operational impacts from evolving policies and carbon pricing regimes.

Scenario pathways such as IEA NZE 2050 and RCP frameworks provide the lens to explore:

- Regulatory tightening
- Technology disruption
- Fossil fuel substitution
- Shifting stakeholder preferences

Policy and legal risks

Operating in a complex regulatory environment, Himadri acknowledges that emerging climate policies during and after India's first NDC cycle (2020–2030) will present both challenges and opportunities.

Our circular business model, which upcycles by-products from industries already on a decarbonisation path such as steel and petrochemicals, provides an inherent buffer. While direct exposure to carbon pricing remains limited, upstream cost pressures or supply chain levies may modestly increase operating expenses.

We continue to engage with policymakers, peers, and industry bodies to remain informed and to contribute to frameworks that support a fair and effective climate transition.

Market risks

Himadri's portfolio includes products that are highly relevant to the low-carbon economy, such as speciality carbon black, coal tar derivatives, and energy materials. While demand in traditional sectors like thermal power and petroleum refining may decline under stringent climate pathways, we anticipate strong growth in areas such as:

- Electric mobility (battery-grade carbon)
- Energy storage systems
- Lightweight composites for green manufacturing

Market competitiveness will increasingly depend on carbon intensity, traceability, and lifecycle impacts. To strengthen our position, Himadri is investing in green product development, digital traceability, and enhanced customer engagement.

Technology risks

The global shift toward decarbonised processes and clean technologies presents both risks and opportunities. Himadri foresees that the advancement of low-emission technologies, carbon capture solutions, and circular feedstock alternatives will reshape industry dynamics.

Although retrofitting legacy assets may require significant investment, our strategy is centred on:

- Integrating CCUS technologies into operations
- Collaborating on research for green chemistry and alternative feedstocks
- Driving digitalisation for operational efficiency and emissions monitoring

This proactive approach positions us to remain ahead of the technology curve and capture opportunities in next-generation product leadership.

Reputational risks

With rising awareness among investors, customers, regulators, and civil society, ESG transparency and climate accountability have become essential. Himadri understands that any delay or inadequacy in addressing environmental impacts such as emissions, effluents, and resource use could lead to reputational risks.

To address this, we maintain strong ESG disclosure practices, invest in stakeholder awareness, and align with global standards such as GRI, CDP, and SBTi. We view reputation not only as a risk but also as a strategic asset, built through leadership in climate-positive, socially responsible, and ethically governed business practices.

A summary of how our business location may impacted by physical risks due to climate change

	CLIMATE CHANGE RELATED TRANSITION RISKS	Time Horizon	Potential impact on business						Potential financial impacts				Potential opportunities		
			Loss of Competitive Edge	Regulatory Curtailment	Reduced Production	Increased Operating Cost	Reputational Damage	Reduced Demands for Products	Revenue	Expenditures	Assets	Capital Cost	More Efficient Production	Increased Market Share	Integration of New Technologies
Policy & Legal	Regulatory Change (Cap & Trade)	Mid-term		■	■	■				■		■	■		■
	Regulatory Change (Carbon Price)	Short				■				■			■		
	Regulatory Change (Energy Policy)	Short				■					■	■			
	Fossil Fuel Taxed	Long			■	■		■	■	■			■		
	Renewable Energy Subsidies	Short	■								■	■			■
Market	Change in Energy Mix	Short		■						■		■			
	Decreased Availability of RM	Long	■						■	■					
	Alternative Greener Product	Mid-term	■					■	■		■	■	■	■	
	Changes in Prices	Short	■					■							
Technology	Rise of Technology Disruption Impacting Competitive Edge	Mid-term	■					■	■		■	■			■
	Opportunity to Reduce Resource Consumption	Mid-term									■		■		■
	Opportunity to Use Sustainable Feedstocks	Long								■			■	■	■
	Integration of Next Generation Technologies	Long					■	■		■	■	■		■	■
Reputation	Change in Customer Reputation	Long					■	■	■					■	
	Change in Investor's Reputation	Long					■				■			■	

Scenario analysis

For medium and long-term scenarios, Himadri faces substantial transition risks driven by regulatory changes, market shifts, disruptive technologies, and reputational pressures—all of which could impact competitive positioning, operating costs, and asset valuation.

Medium-term scenario (3-15 Years)

- Key risks include cap and trade policy adoption, carbon pricing, energy policy shifts, technology disruption, market demand for greener products, and opportunities for greater resource efficiency.
- Transition risk impact is projected at approximately INR 519 crore in FY 24-25, primarily from increased carbon and energy costs, with potential for elevating capital expenditure if new technologies or feedstock solutions are pursued.
- These risks and opportunities could lead to higher operating costs and potential loss of competitive edge, but also drive integration of sustainable feedstocks and improved production efficiency mitigating some financial strain.

Long-term scenario (15+ Years)

- Long-term risks include fossil fuel taxation, reduced raw material availability, full-scale technology integration, and reputational shifts with both customers and investors.
- Transition impacts are expected to increase, threatening revenue and asset values while necessitating strategic capital investment in sustainable practices and advanced technologies.
- Sustained adaptation, new product lines, and market positioning will be critical to maintain market share and respond to changing stakeholder expectations, with financial exposure set by persistent carbon and energy costs and potential regulatory curtailment.

Overall, the projected transition risk impact totals over INR 519 crore for the most recent year, likely rising over time unless proactively managed through investment in decarbonization, efficiency and technology upgrades.

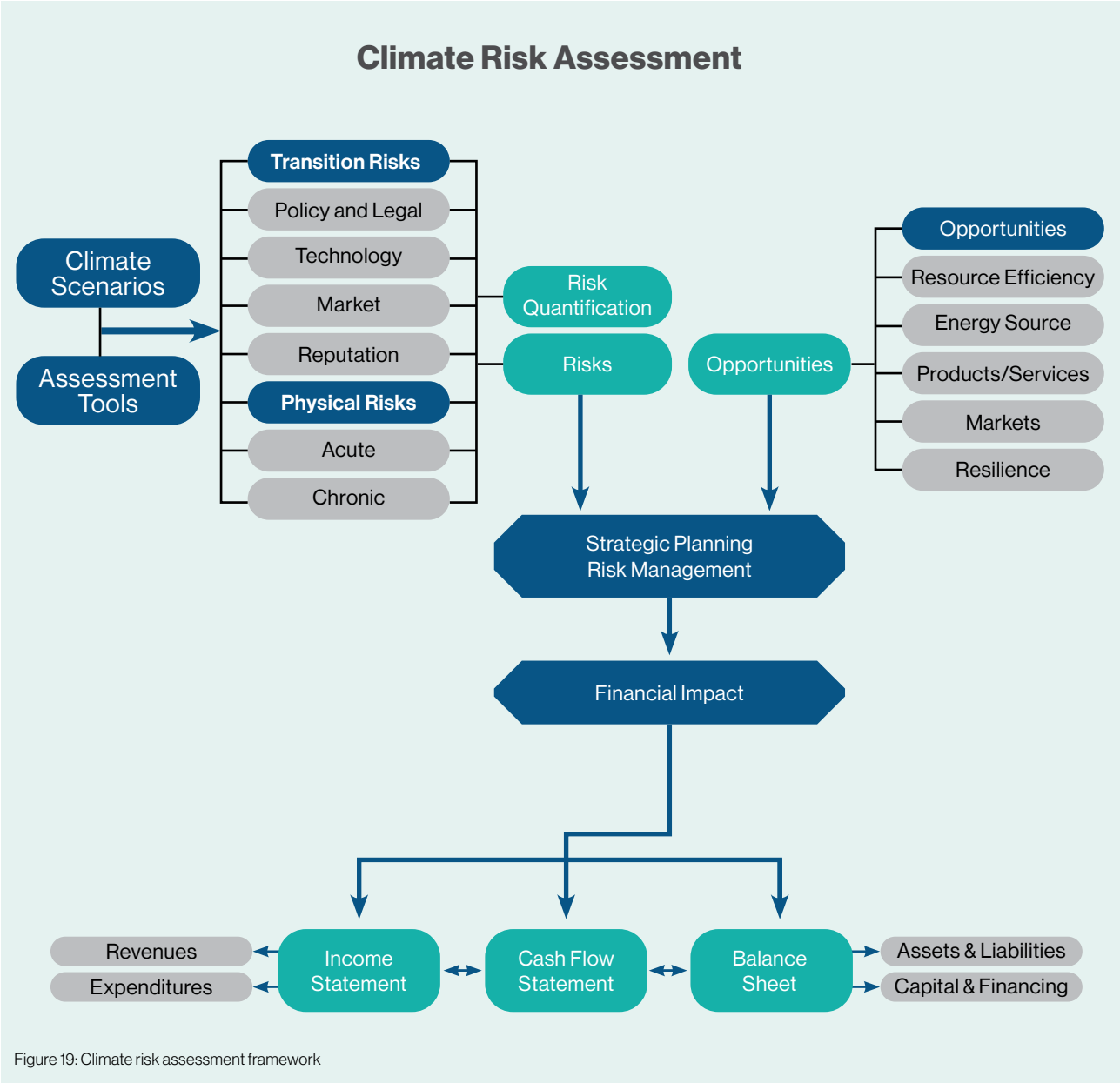


Figure 19: Climate risk assessment framework

Mitigation of climate risks: Strengthening resilience through action

The impacts of climate change are no longer distant possibilities but present realities. For Himadri, physical manifestations of a changing climate, ranging from heatwaves to cyclones and water scarcity, pose tangible risks to operations, assets, people, supply chains, and financial performance. At the same time, these risks act as catalysts for innovation and transformation, driving us to build a future-ready and climate-resilient enterprise. This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to Net-Zero by 2070.

Guided by the TCFD framework and global best practices, Himadri has developed a multi-tiered climate risk mitigation strategy that addresses both site-specific vulnerabilities and system-wide resilience. Our measures are informed by data-driven assessments, field insights, and scenario-based evaluations aligned with Representative Concentration Pathways (RCPs) and the IEA Net Zero Emissions (NZE) 2050 scenario. Oversight from the ESG Council, combined with the efforts of cross-functional teams, ensures that these initiatives are embedded into capital planning, operational protocols, and workforce welfare programmes.

Physical risk mitigation: Proactive interventions for operational resilience

Himadri's physical risk profile includes heatwaves, cyclones, wildfires, and droughts, each with distinct impacts. Our response strategy is built on a structured five-step approach:

- Site-level vulnerability mapping
- Risk index scoring (1–2500)
- Materiality classification by time horizon
- Custom mitigation planning
- Financial provisioning (capex and opex)

The following sections outline our mitigation strategies for each physical climate risk, with a focus on both preventive and adaptive measures.

Heatwave risk mitigation

Heatwaves present a high-frequency, high-impact risk across operating regions. Rising ambient temperatures affect worker health, reduce equipment efficiency, and strain energy systems.

Key interventions and outcomes

Enhanced thermal insulation: Installation of 10mm Armagel over LRB layers has reduced hot surface skin temperatures by 40–45°C, lowering thermal radiation and improving workplace conditions.

Air pre-heater optimisation: Replacement of soot-prone fin tubes with stud-type tubes has increased heat exchange efficiency, reducing stack temperatures to 170–180°C and cutting excess heat emissions.

Passive roof ventilation: Roof monitors enable buoyancy-driven ventilation, improving indoor air circulation.

Wind ventilators: Thirty passive rotary ventilators were installed across sheds have enhanced airflow and lowered internal temperatures.

Worker hydration support: Seasonal provision of glucose, ORS, and structured hydration breaks safeguards health and productivity during heat stress.

Cyclone risk mitigation

Cyclones can cause significant infrastructure damage, operational halts, and supply chain disruptions, particularly in coastal and near-coastal units.

Key interventions and outcomes

Weatherproof infrastructure: Aluminium roofing sheet joints sealed with silicone prevent water seepage and protect stored products.

Resilient structural design: Facilities constructed using IS 2062 steel and IS 875 (Part 3) standards incorporate strong wind-load bracing systems.

Flood-proofing measures: Elevated MCC panels, critical instruments, and reinforced drainage systems reduce storm-related water ingress.

Cyclone-resistant warehousing: Warehouses designed to withstand cyclonic wind speeds protect materials from water damage.

Disaster preparedness systems: Early warning systems, emergency drills, and evacuation protocols are regularly tested and updated.

Wildfire risk mitigation

Though less frequent, wildfires pose a significant threat to facilities in Korba and Sambalpur during dry seasons.

Key interventions and outcomes

Perimeter fire sprinklers: Automated sprinklers in vulnerable zones provide rapid suppression capability.

Fire-resistant construction: Use of fire-retardant panels and heat-resistant cladding enhances structural safety.

On-site emergency teams: Specialised fire squads are trained and stationed with mobile units, also supporting nearby communities if required.

Fire prevention systems: Firebreaks, smoke detectors, thermal cameras, and monitored no-smoking zones reduce ignition risks.

Rainwater storage: Collected rainwater is stored to ensure water availability for firefighting during dry months.

Drought risk mitigation

Water scarcity, particularly acute in Sambalpur, has the potential to disrupt operations and safety systems.

Key interventions and outcomes

Rainwater harvesting infrastructure: Systems capture and store monsoon runoff to build reserves.

Effluent treatment and reuse: Advanced ETPs recycle process water, reducing dependence on freshwater.

Closed-loop cooling systems: Recirculating systems introduced in select operations improve water efficiency.

Employee awareness campaigns: Internal initiatives promote responsible water use and conservation culture.

Budgeting for water security: Targeted Capex and Opex allocations support upgrades and periodic water audits.

Physical risk mitigation measures

Integrated Physical Risk Dashboard

Physical risk	Cost implications	Impact potential	Short term	Medium term	Long term
Heatwave	Energy, downtime	High	High	High	High
Cyclone	Repairs, insurance	High	High	High	High
Wildfire	Asset damage, response	Medium	Medium	Medium	Low
Drought	Operational overhead	Moderate	Moderate	High	High

Heatwave

Objective: Reduce heat stress on workers, improve energy efficiency, and minimise equipment strain.

Thermal insulation upgrade: A 10mm Armagel insulation layer was added over existing LRB layers.

Result: Reduced wall skin temperature of hot surfaces by 40–45°C, lowered radiation loss, improved energy efficiency, and enhanced worker comfort.

Passive cooling solutions: Installed 30 wind ventilators across sheds to improve natural air circulation and maintain tolerable internal temperatures.

Air pre-heater (APH) optimisation: Replaced soot-prone fin tubes with stud-type tubes, increasing surface area and spacing for soot passage.

Result: Reduced stack temperature to 170–180°C, enabled efficient heat recovery, and lowered environmental heat discharge.

Worker hydration support: Provided glucose supplements and ORS to workers to prevent fatigue, maintain hydration, and sustain productivity under high-temperature conditions.

Passive roof design: The Line 5 warehouse was designed with a roof monitor system to release hot air and draw in cooler air.

Result: Continuous airflow helped reduce internal heat build-up.

Cyclone

Objective: Enhance structural and operational resilience to cyclonic events.

Waterproofing measures: Aluminium sheet joints were sealed with silicone to prevent water leakage.

Result: Reduced the risk of rainwater damage.

Structural reinforcement: Plant structures were designed with IS 2062 steel and IS 875 (Part 3) standards, incorporating wind-load bracing and reinforced joints.

Flood-proofing: Control panels, MCCs, and critical equipment were placed on elevated platforms and stormwater drainage systems were reinforced.

Cyclone-resistant warehousing: A dedicated warehouse shed was constructed to safeguard products from moisture exposure.

Result: Preserved product quality, eliminated post-rain drying requirements, and reduced operational downtime.

Disaster preparedness: Early warning systems, emergency drills, and evacuation protocols were established to ensure readiness.

Wildfire

Objective: Reduce ignition risk, improve firefighting capacity, and protect plant operations.

Perimeter water sprinklers: Installed along plant boundaries to keep surrounding areas damp and minimise the risk of fire spread.

Rainwater harvesting: Systems were deployed to capture and store rainwater for firefighting use during dry seasons.

Emergency firefighting team: Dedicated teams were trained and equipped to respond quickly within the plant and extend support to nearby communities if needed.

Fire safety practices: A strict no-smoking policy was enforced with security monitoring.

Fire prevention and preparedness: Regular fire risk assessments, firebreak zones, advanced detection and suppression systems, and routine emergency drills and training strengthened overall resilience.

Drought

Objective: Secure water resources and enhance water efficiency.

Surface runoff harvesting: Systems were implemented to capture and store monsoon water for use during drought periods.

Effluent treatment plants: Advanced systems were deployed to treat and recycle process water, reducing dependence on freshwater resources.

Closed-loop cooling systems: Introduced in select operations to reuse water and minimise wastage.

Awareness campaigns: Employees were sensitised on responsible water use to foster a culture of conservation.

Future-proofing Himadri with climate-resilient infrastructure

Our approach to physical risk mitigation is deeply integrated with Himadri's business strategy, capital investment cycles, and organisational culture. These interventions go beyond regulatory compliance; they signal our commitment to climate leadership, operational excellence, and sustainable growth. As climate patterns intensify, we will continue to evolve our methodologies, embrace innovation, and embed resilience at the heart of everything we build, operate, and deliver. By anticipating tomorrow's risks today, Himadri is charting a path toward a more secure, adaptive, and sustainable industrial future.

Himadri's overall annualized cost of response to material climate physical risks is estimated at approximately INR 9.67 crore per year, based on current adaptive measures for heatwave, cyclone, wildfire, water scarcity, rainfall, and flood events. This cost represents about 1.3% of the projected physical risk impact (INR 732.7 crore), highlighting strong financial prudence and alignment with the company's strategic commitment to invest INR 100 crore over decade in resilience and adaptation.

Policy and Legal Risks: Adaptive Policy responses and financial implications

1. Regulatory change – Cap & Trade

Himadri views Cap & Trade mechanisms as a financial risk and a transformative lever. Under the IEA NZE 2050 scenario, aggressive taxation on carbon emissions could restrict production output and profitability. To mitigate this, we have instituted Internal Carbon Pricing (ICP) across Scope 1 and Scope 2 emissions to simulate 'carbon cost' and guide investment decisions. This proactive measure aligns with our broader decarbonisation goals while enabling better preparedness for future carbon market dynamics.

Opportunities

- Accelerated adoption of energy-efficient and clean technologies
- Entry into carbon markets via carbon credit trading
- Expansion of low-emission product lines and customer segments
- Knowledge sharing with industrial peers and government bodies

2. Regulatory change – Carbon pricing impact

With global carbon prices projected to rise to USD 130/tCO2 by 2030 and USD 250/tCO2 by 2050, we anticipate a sharp increase in operational expenditures unless emissions are rapidly curtailed. Based on our annual Scope 1 and Scope 2 emissions (~401,152.63 tCO2e) and an assumed carbon tax of USD 130/tCO2 by 2050, the projected financial liability could amount to over INR 433 crore annually.

Strategic responses

- Accelerated deployment of carbon abatement technologies (e.g., CCUS)
- Shift to bio-based and circular feedstocks (e.g., pyrolysis oil)
- Electrification of operations and deeper process integration
- Review of product pricing and procurement strategies to sustain margins

Parameter	Assumption
Carbon tax	$130/tCO$_2$e (aligned with IEA NZE 2050 by 2050)
Exchange rate	$1 = INR 83 (approximate as of 2024)
Emissions considered	Scope 1 + Scope 2 (direct and energy-related emissions)
Annual emissions (actual)	~401,152.63 tCO$_2$e per year (reported in Annual Report for FY 24-25)
Operational emissions price effect	Direct financial liability based on carbon tax applied to emissions
Timeframe	Assuming carbon tax is fully implemented in 2050 with progressive increase

Cost impact of Carbon Tax on Himadri

i. Total Tax Cost=Emission (tCO$_2$e)×Carbon Tax=401,152.63×130=US$ 52,149,841.9

ii. In INR (Rs.): 52,149,841.9 USD×83 = 4,32,84,36,877.7 =INR 433 Crores annually

Area of impact	Implication
Opex surge	Operational expenditure will increase significantly unless emissions are reduced
Profit margin pressure	If tax is passed on as a cost, margins will compress unless countered with pricing power
Capital planning	Need for increased capex in decarbonisation technologies (e.g., CCUS, energy efficiency)
Competitiveness risk	High-carbon products will become more expensive compared to low-carbon alternatives
Product pricing	Risk of price increase for coal tar pitch, carbon black, and related products unless emissions are offset or embedded emissions are minimised
Investment attractiveness	Green investment appeal improves if emission intensity is reduced; otherwise, risk perception rises

3. Regulatory change (Energy Policy)

Strong regulations on non-renewable fuels, Capex will increase due to more investment on Renewable energy equipment, energy efficiency technologies need to be modernised opex will increase as such, retirement of old equipment, decrease in the use of fossil fuels, decrease in the oil and gas use, opex will increase due to carbon credit purchase as requirement, more invest in clean energy. For these -capex-opex will increase, a few asset will retire.

Opportunities

- Integration of modern and more energy efficient technologies,
- Clean energy technology deployment and innovation
- In-house renewable generation
- Energy efficiency enhancements across processes and utilities
- Development of clean energy-based product lines

4. Electrical Energy Impact

Himadri has assessed the transitional risks associated with electricity consumption and energy costs for FY 24-25.The company's total electricity consumption for the reporting year stood at 3,64,597.60 GJ, equivalent to 101,277 MWh (101,277,111 kWh). At an average grid tariff of INR 8.5 per kWh, the total expenditure on electricity amounted to approximately INR 86.09 crore. This represents a material operational cost and highlights the company's exposure to potential fluctuations in energy pricing, regulatory changes on fossil-based electricity, and carbon pricing mechanisms that may be introduced as part of India's climate transition policies.

Opportunities

- Invest in renewable energy generation,
- Sustainable product portfolio

5. Renewable energy subsides

Renewable energy sources are expected to dominate the global energy mix by 2050, with nearly 90% of electricity generation coming from renewables. The impact of this can be- CapEx-OpEx will increase due to installing of renewable energy equipment, Retirement of old equipment, Less consumption of fossil fuel, Renewable energy in place of non-renewable oil combustion, Increase in the cost of the products.

Opportunities

- Inclining towards Renewable energy more,
- Environment protection
- Sustainable product portfolio

Market risks: Supply chain and portfolio transformation

1. Shift in global energy mix

The phasing out of fossil fuels will affect energy prices, input availability, and equipment lifecycles. To stay competitive, Himadri is investing in:

- Renewable energy infrastructure
- Electrified plant operations
- Enhanced energy storage and demand response systems

Renewable energy sources are expected to dominate the global energy mix by 2050, with nearly 90% of electricity generation coming from renewables. According to this the CapEx-OpEx will increase due to installing of renewable energy equipment, Retirement of old equipment, Less consumption of fossil fuel, Renewable energy in place of non-renewable oil combustion, and increase in the cost of the products.

2. Decreasing availability of fossil-based raw materials

Himadri sources key raw materials such as:

- Coal tar (a by-product of coke ovens in the steel industry)
- Carbon-rich feedstock (from petrochemical and oil refining industries)
- Green petcoke, anthracene oil, and other fossil-derived intermediates

Key inputs like coal tar and carbon-rich petrochemicals are under pressure due to:

- Decarbonisation in the steel sector (EAF replacing coke ovens)
- Decline in oil refining due to EV transition
- Electrification of industrial processes and fuel shifts

Structural change	Effect on Himadri's raw materials
Rapid decarbonisation of steel industry	Shift to Electric Arc Furnaces (EAFs) reduces coal use » lower coal tar availability
Decline in oil refining	Refiners cut operations due to EV growth » reduced availability of carbon feedstocks
Electrification of industrial processes	Reduced use of coke and fossil fuels » disrupts by-product generation
CCUS and Green Hydrogen Adoption	Changes production technologies » alters process waste streams

Impact matrix:

Impact area	Projected impact by 2030 to 2040
Raw material cost	↑ 25–50%
CapEx (process redesign)	INR 100–200 crore
Working capital	↑ (due to stockpiling)
Product price pressure	Likely transfer to customer

Mitigation measures

- R&D on feedstock substitution and green chemistry
- Flexible process design to accommodate alternative inputs
- Strengthened supplier diversification and contract renegotiation

Opportunity

- Scope in R&D,
- Sustainable product portfolio

3. Alternative greener product

According to the IEA's Net Zero Emissions by 2050 (NZE) scenario, a key alternative greener product is bioenergy, particularly from sustainable sources like short-rotation woody crops and managed forestry plantations. Low-emissions fuels, such as liquid biofuels, biogases, hydrogen and hydrogen-based fuels, are also highlighted as crucial components of the transition.

Greener product transitions (e.g., biofuels, hydrogen derivatives) and renewable-centric operations may introduce cost volatility, requiring:

- Long-term hedging strategies
- Cost-plus pricing models for sustainable products
- Targeted R&D for scalable, affordable alternatives

4. Changes in prices

As we will be focusing on the greener product, there will be a change in the energy mix, we will align more towards renewable energy. So, there can be changes in prices of the equipment, electricity, and there will be more investment in R&D.

Technologies

1. Rise of technology disruption impacting competitive edge

New technological equipment will be implemented in accordance with the requirement, this will increase the Capex value and also a few assets can get discarded as well.

Next-generation clean technologies could render existing assets obsolete. Himadri is actively assessing:

- Digitalisation of legacy processes
- Modular and upgradeable equipment designs
- Retirement pathways and recycling of old equipment

2. Opportunity-driven technological investment

- Deployment of smart sensors, predictive analytics, and AI for process optimisation
- Adoption of CCUS and green hydrogen technologies
- Integration of low-carbon fuels across manufacturing footprints

Reputational risks: Stakeholder expectations and brand equity

As stakeholder expectations intensify, maintaining a leadership position in sustainability is a brand imperative. Himadri views reputation not as a vulnerability but as an asset to be cultivated. Himadri being an environmentally concerned company with a futuristic approach, we will align our vision to the global requirement as accordingly. We will invest in CCUS, to R&D regarding sustainable product. So, this is an opportunity to us in place of risk for us.

Key actions

- Transparent disclosures under TCFD, BRSR, and CDP frameworks
- Investments in low-carbon technologies
- Continuous stakeholder engagement and brand positioning
- ESG-linked financing and green bond opportunities

Transition risk		Financial drivers	Financial impact	Impact level on business (Time period basis)		
				Short	Medium	Long
Policy and legal	Regulatory change (Cap and trade)	Opex will increase, Degradation of fixed asset		High	High	High
	Regulatory change (Carbon price)	Opex will increase Potential revenue loss		High	High	High
	Regulatory change (Energy/policy)	Opex will increase		Low	Low	Medium
	Fossil fuel taxed	Opex will increase		Low	Medium	Medium
	Renewable energy subsides			Low	Low	Low
Market	Change in energy mix	Capex will increase, Opex will increase		Low	Low	Medium
	Decreased availability of RM	Opex will increase, Potential revenue loss		Low	Medium	Medium
	Alternative greener product	Potential revenue loss		Low	Low	Medium
	Changes in prices	Potential revenue loss		Low	Low	Low
Technology	Rise of technology disruption impacting our competitive edge	Capex will increase Asset will retire		Low	Low	Low
	Opportunity to reduce resource consumption	Cost will decrease, Potential market gain resulting increase in revenue		High	High	High
	Opportunity to use sustainable feedstock	Cost will decrease, Potential market gain resulting increase in revenue		High	High	High
	Integration of next generation technology	Capex will increase		High	High	High
Reputation	Change in customer reputation	Opex will increase		Low	Low	Low
	Change in investor's reputation	Opex will increase		Low	Low	Low

Financial impact categorisation — High — Medium — Low — Opportunity

Figure 20: Transition risks

Transitioning towards leadership in a low-carbon future

Himadri approaches the global low-carbon transition not as a compliance obligation but as a strategic opportunity to reimagine its business model, enhance operational resilience, and unlock new growth avenues. Through strategic foresight, disciplined execution, and innovation-led decarbonisation, we are redefining value creation in the era of climate-conscious industry. Our transition risk mitigation framework is continuously evolving with emerging scientific insights, policy developments, and market signals, enabling us to lead proactively in building a sustainable future.

Key opportunities

- Product differentiation through green innovation
- Operational efficiency and resource circularity
- Enhanced stakeholder confidence and ESG performance
- Access to sustainable financing instruments

Opportunities: Building resilience through innovation and sustainable growth

Himadri's proactive approach to climate risk management goes beyond mitigating threats. It focuses on capturing opportunities that accelerate our transition to a low-carbon, resource-efficient, and innovation-driven future. Strategic interventions in technology, feedstock innovation, and resource efficiency are reimagining value creation for a changing world.

Opportunity 1: Reducing resource consumption for a circular, efficient economy

Minimising resource consumption is a cornerstone of our climate strategy. By optimising material and energy usage, we reduce environmental impact while lowering operational costs.

Energy efficiency: Energy-efficient technologies, including LED lighting, optimised motors, and automation solutions, are deployed across all manufacturing sites. Process re-engineering ensures reduced idle loads and maximised energy recovery.

Water conservation: We implement rainwater harvesting, zero liquid discharge systems, and wastewater recycling. Water-smart utilities, such as drip irrigation for green belt development, reflect our commitment to water-positive operations.

Material efficiency: We embrace reduce, reuse, and recycle principles. Recycled materials are integrated into production, yields are optimised, and product life cycles extended. Examples include secondary use of scrap carbon materials and sustainable packaging initiatives.

Opportunity 2: Embracing sustainable feedstock for future-fit manufacturing

Sustainable feedstock reduces lifecycle emissions and strengthens supply chain resilience while enabling lower-carbon production pathways.

Bio-based inputs: Evaluating adoption of sustainably sourced biomass and plant-derived additives as alternatives to fossil-based intermediates.

Recycled feedstock: Post-industrial and post-consumer recycled materials are integrated into select product lines, including recovered metals and thermoplastics.

Circular procurement: Supply chain partners are engaged to meet traceability, sustainability, and circularity requirements for all critical inputs.

Opportunity 3: Integration of next-generation technologies to future-proof operations

Next-generation technologies are central to decarbonising and digitalising operations.

Renewable energy transition: Solar, wind, and hybrid renewable sources are being integrated through both captive and grid-based solutions. Initiatives include floating solar arrays, offshore partnerships, and clean hydrogen pilots.

Smart grids and digitised utilities: Advanced control systems, real-time monitoring, and demand-response technologies optimise energy distribution and renewable integration.

Carbon capture and storage: Exploratory studies for CCS solutions are underway, including potential industrial symbiosis with cement and steel sectors.

Circular economy platforms: Closed-loop systems recover, regenerate, and repurpose materials. Investments in blockchain-based traceability and digital product passports enhance circular transparency.

R&D as an enabler of sustainable opportunity realisation

Himadri's R&D function drives opportunity-led growth through innovation in products, processes, and business models. Investments target next-generation chemistry, clean technologies, and circular solutions. Ongoing projects include novel carbon derivatives, advanced energy storage materials, and environmentally friendly chemical intermediates.

Estimating Transitional Risk Impact

The transition risk assessment for Himadri has been modelled using a bottom-up, data-driven process, integrating company financials with credible market and policy assumptions to quantify the business and financial impact from climate-related transition factors.

Modelling Process Overview

1. Anchoring in actual financials

- The starting point is company-specific data: annual revenue, energy usage, production levels, and other key financial parameters derived from audited financial statements and Annual Reports.

2. Identification and segmentation of transition risks

- All material transition risk drivers are mapped using TCFD categories: Policy & Legal (carbon pricing, cap & trade, fossil fuel taxes), Market (energy mix shift, price changes, RM availability), Technology (resource efficiency, next-gen tech), and Reputation.
- Time horizons are explicitly tagged as 'Medium term' (for foreseeable, policy-driven market shifts and tech adoption) and 'Long term' (for paradigm changes like green feedstocks and technology integration).

3. Calculation of direct financial impacts

Energy cost: Total electricity consumption (in GJ, converted to KW) is modelled with market price/unit cost assumptions to quantify baseline and incremental transition cost due to potential tariff or supplier mix shifts.

Carbon cost: Direct carbon costs are projected using assumed price per ton of emissions, consistent with emerging carbon markets or policy proposals, and multiplied by estimated emission volumes (sourced from operations or sector benchmarks).

Total risk impact: These are summed to yield a total transition risk cost of approximately INR 519 crore for FY 24-25, encompassing both business-as-usual cost and incremental exposure from decarbonization mandates and market changes.

4. Source credibility and conservatism

- All conversion factors, unit costs, and scenario drivers are based on published sector benchmarks, peer-reviewed studies, and established financial modelling best practices.
- Whenever possible, modelling draws on credible references such as IEA databases, national/state policy papers, Bloomberg, and other climate transition guidance to ensure practical and defendable risk quantification.

Cost of response

Himadri's strategic response to transitional climate risks is robust and forward-thinking, with an annualised cost of response of INR 10 crore per year (total INR 100 crore over 10 years)—demonstrating a strong and proactive commitment to resilience and low-carbon transition. Though the modelled annual transitional risk impact is INR 519 crore, this investment ensures continual progress in decarbonization, energy efficiency, and technology readiness, and positions Himadri for competitive advantage through risk mitigation and regulatory compliance.

The annualised response cost (INR 10 crore/year) is about 1.9% of this potential impact, reflecting disciplined budget planning while leaving headroom to scale up mitigation as regulations or market factors require.

This ongoing investment, while a fraction of the headline risk, underlines Himadri's sectoral leadership, capacity for continuous improvement, and effectiveness in leveraging innovation, process upgrades, and energy solutions for sustainable growth.

Conclusion: Advancing climate-positive leadership

Himadri's comprehensive climate risk analysis provides an actionable roadmap for the next three decades. Our strategies align with global and national climate goals while addressing physical and transition risks, supported by relevant metrics, targets, and governance structures.

At the heart of our strategy is the vision of 'Together, Towards Tomorrow', reflecting a commitment to sustainability, safety, inclusivity, and innovation.

Environmental stewardship: Responsible resource use, pollution prevention, and climate action are embedded across our operations.

Workplace safety: Rigorous safety standards, training programmes, and emergency protocols promote a zero-harm culture.

Inclusive development: Programmes empower diverse talent and strengthen local communities through skill-building, education, and entrepreneurship.

Strong governance: World-class governance practices ensure transparency, stakeholder engagement, and responsible leadership.

Himadri is not only responding to climate change challenges but shaping their solutions. Our innovation-led, resilient strategy converts climate risks into competitive advantages. Through this approach, we are committed to a long-term value creation and shared prosperity. This challenge underscores the urgency for science-based, collaborative, and forward-looking responses that align with global frameworks such as the Paris Agreement, IPCC pathways, and India's own commitment to net-zero by 2070.

Future-ready Himadri: Strategic pillars

Future-ready culture: Values-led organisation embracing ethics, diversity, equity, inclusion, and dignity at work.

Future-ready handprint: Transition to a low-carbon economy supported by progressive market policies.

Future-ready footprint: Innovation-driven transformation in products, processes, and operations.

Future-ready leadership: Market and ESG leadership across domestic and global segments.

Through these pillars, Himadri is building a resilient and sustainable future—**Together, Towards Tomorrow.**

Our metrics and targets

At Himadri, we have embedded climate-related risks and opportunities across our financial planning, operational strategies, technological innovation, and ESG (Environmental, Social, and Governance) performance frameworks. Climate action is not treated as a separate initiative but as a fundamental driver of sustainable business growth and long-term value creation.

To assess the holistic implications of climate change, we use a comprehensive set of performance metrics and indicators. These allow us to monitor progress, identify emerging risks, and seize opportunities.

Alignment with a net-zero ambition

Himadri established science-based targets for reducing emissions across operations. These goals are at the core of our climate risk management strategy, enabling us to address physical and transition risks while unlocking growth opportunities.

Our emission reduction efforts are designed not only to meet compliance requirements but also to enhance our efficiency and competitive advantage. By managing emissions, we are positioning ourselves as a thought leader addressing the environmental landscape.

In doing so, Himadri is building a future-ready, climate-resilient enterprise that delivers shared value.

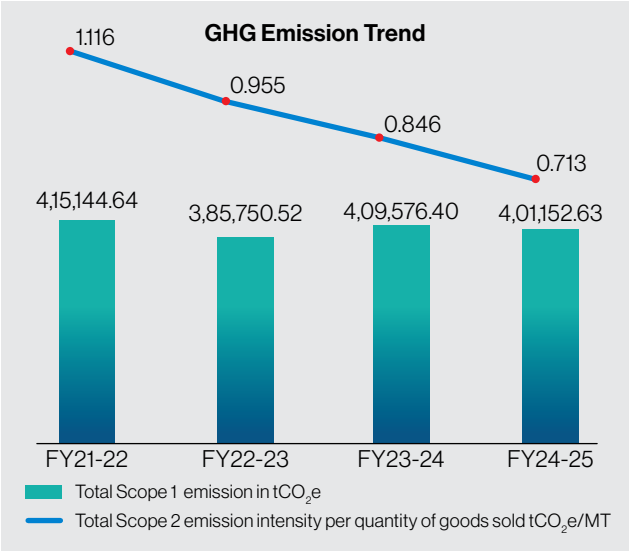
GHG emissions

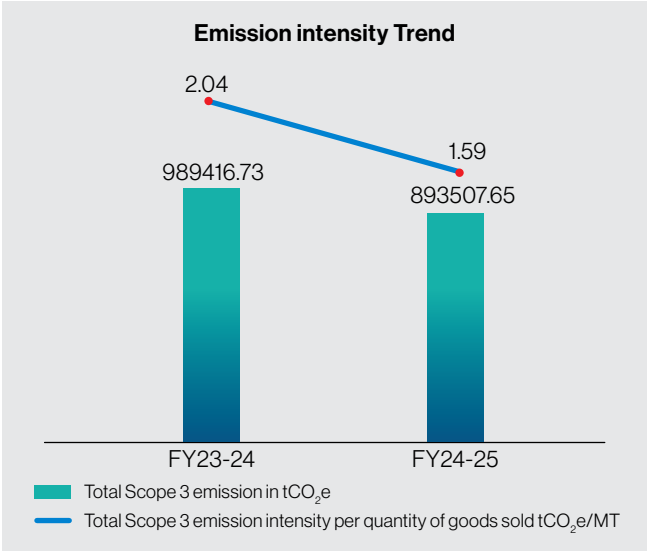
We track and report Scope 1, Scope 2, and Scope 3 emissions in line with the GHG Protocol Standard. Our methodologies for data collection and emissions calculation are based on internationally recognised frameworks, including:

- IPCC Guidelines for National Greenhouse Gas Inventories (2006)
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: Scope 1, 2, and 3 Guidance
- EcoInvent 3.9.1 Database
- DEFRA Database
- United States Environmental Protection Agency Database

GHG emission trend

In FY 24–25, Scope 1 and Scope 2 emissions from our operations aggregated 401,152.63 metric tons of CO2e. Scope 2 emissions declined to zero as Himadri became a net exporter of electricity generated from waste gas recovery in carbon black production through our captive power plants. Emissions intensity decreased due to initiatives such as steam recovery and energy efficiency programmes.



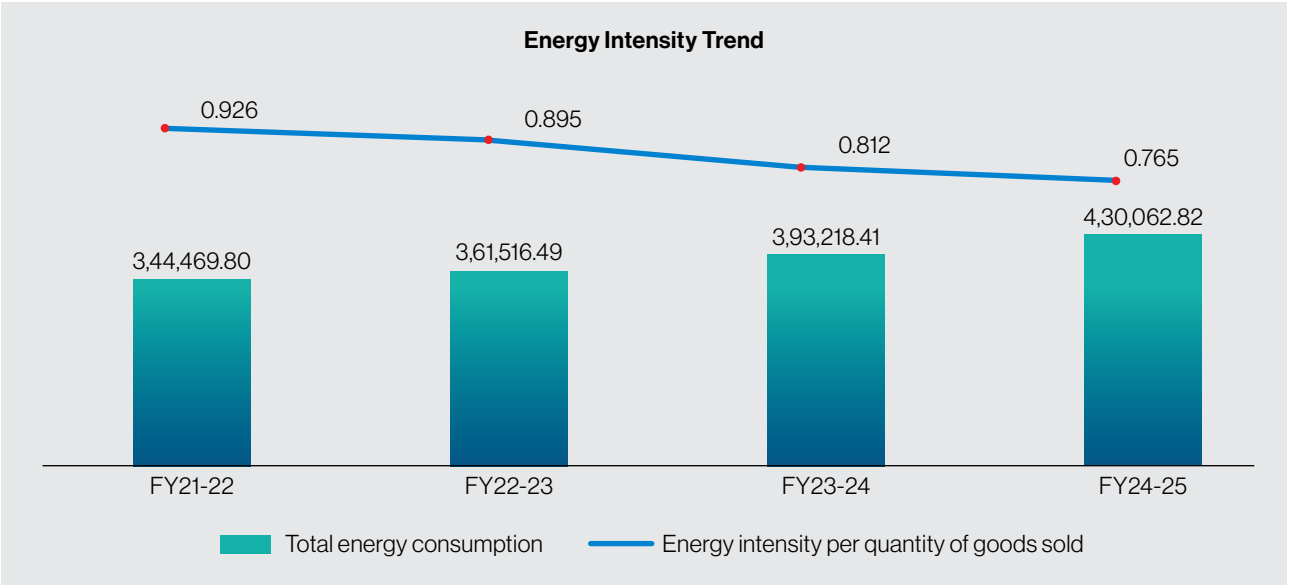


36.08% reduction in Scope 1 and 2 emission intensity from baseline year FY 21-22

22.25% reduction in Scope 3 emission intensity from Base line year FY 23-24

Energy intensity trend

Himadri's total energy consumption increased from 344,469.80 GJ in FY 21–22 to 430,062.82 GJ in FY 24–25. Despite this increase, our energy intensity improved from 0.926 to 0.765 during the same period. This reduction was driven by the deployment of a digital energy management system, enhanced waste heat recovery, and yield optimisation.

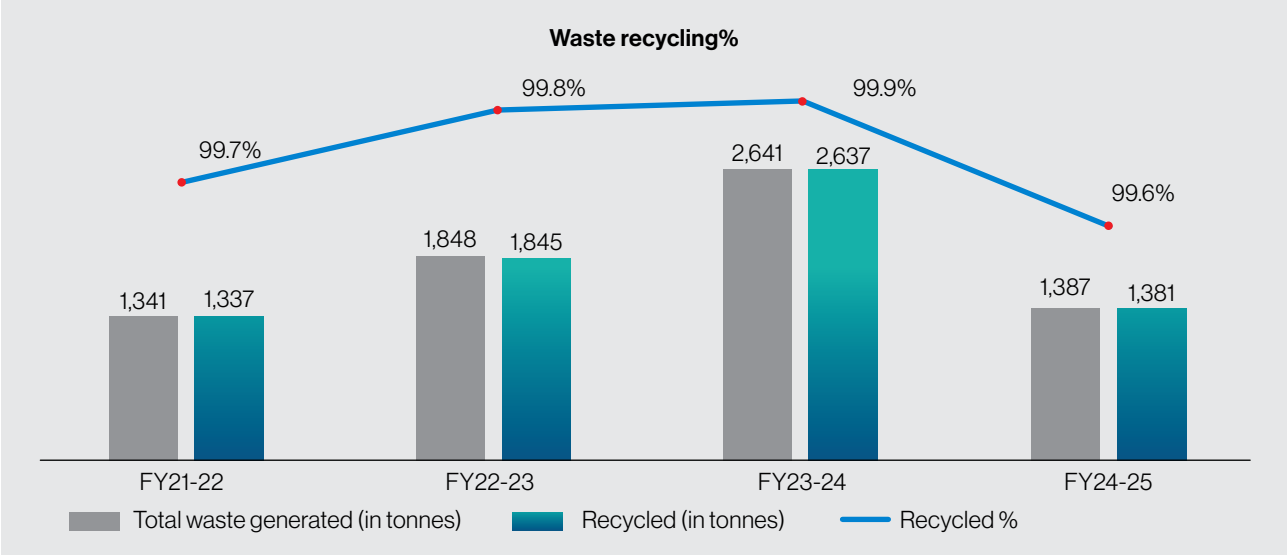


17.4% reduction in energy intensity from baseline year 2021-22

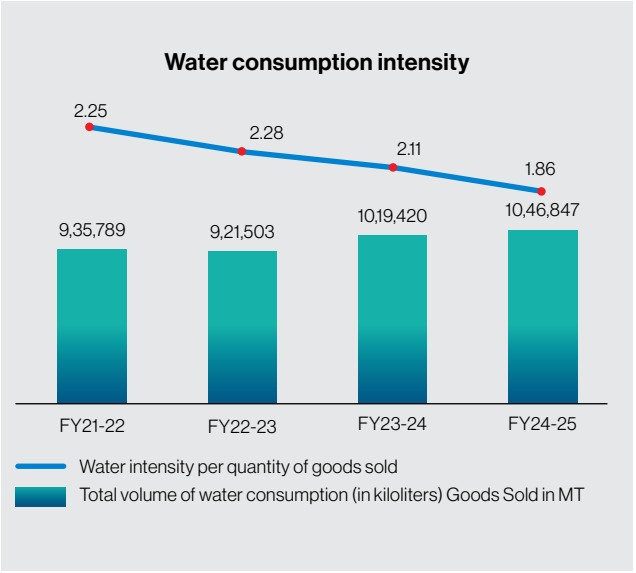
Figure 21: Metrics and targets (graphs)

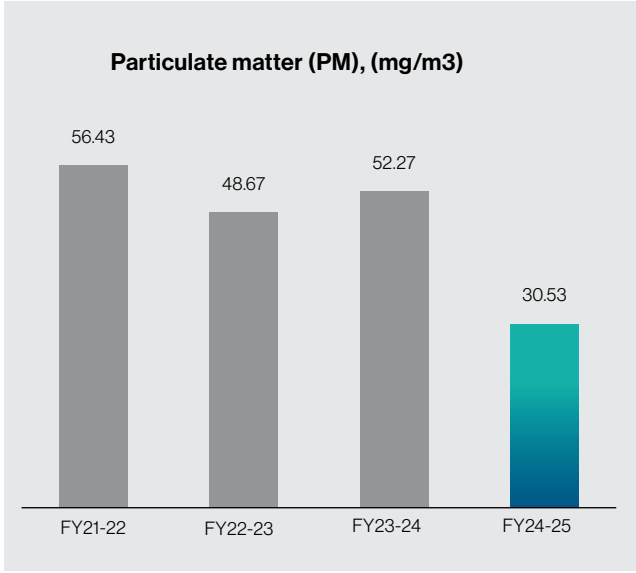
Other metrics

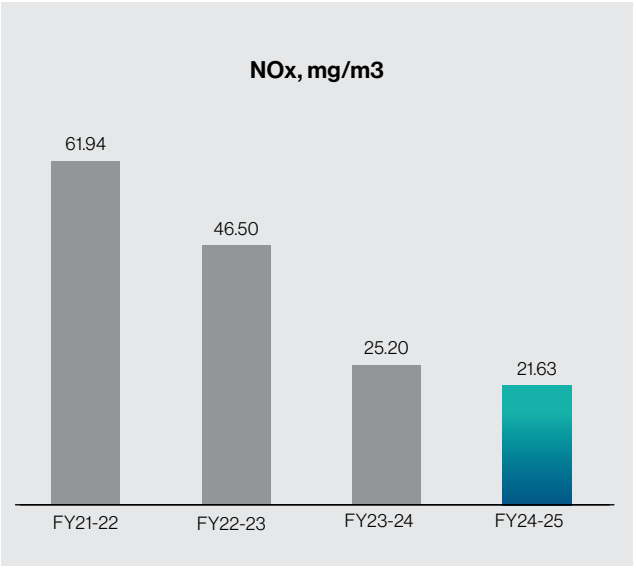
Beyond GHG emissions, Himadri monitors performance in energy use, water management, and waste reduction. In line with TCFD recommendations, we outlined targets and also strengthened our ability to identify risks, address opportunities, and reinforce our commitment to build a resiliently sustainable enterprise.

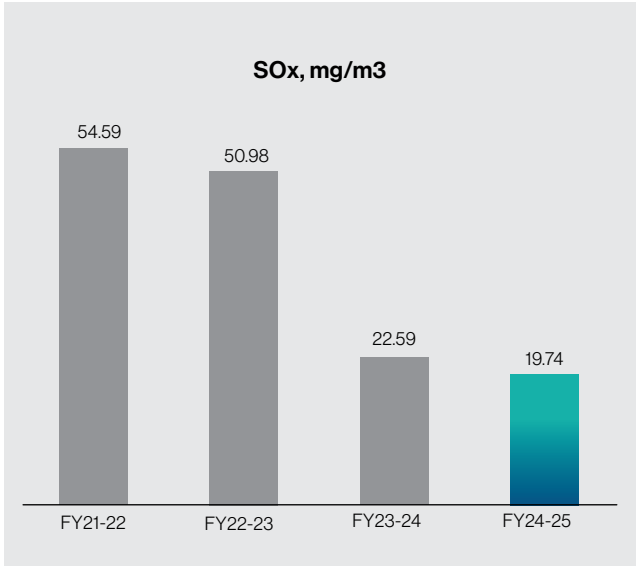


54.5% reduction in waste intensity from previous financial year









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Assurance statement on third-party verification of sustainability information

To,

The Management,

Himadri Speciality Chemicals Ltd.

Unique identification no.: **3153169630**

TÜV SÜD South Asia Pvt Ltd. (hereinafter TÜV SÜD) has been engaged by, **Himadri Speciality Chemicals Limited, Ruby House, 8, India Exchange Place, 2nd Floor, Kolkata- 700 001** (hereinafter "Company") for the period from 27-08-2025 to 10-09-2025.

The verification was carried out according to the steps and methods described below.

Scope of the verification

The third-party verification was conducted to obtain independent assurance about whether the climate related information is prepared in reference to Task Force on Climate-related Financial Disclosures (TCFD) Recommendations.

Reporting standard/framework

The disclosures have been prepared by Himadri Speciality Chemicals Ltd., in reference to climate-related financial disclosures included in the scope of our assurance engagement for the reporting period Financial Year (FY) 2024–2025 as listed below:

We have performed our engagement to provide a limited level of assurance on the disclosures prepared in alignment with the TCFD pillars of Governance, Strategy, Risk Management, and Metrics & Targets.

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the TCFD reporting, and accordingly, we do not express a conclusion on this information.

It was not part of our engagement to review product- or service-related information, references to external information sources, expert opinions, or future-related statements in the Report.

Responsibility of the Company

The management of the Company is responsible for the preparation of the climate-related financial disclosures in reference to the TCFD Recommendations. This responsibility includes, in particular, the selection and application of appropriate methodologies for the measurement, calculation, collection, and compilation of information, as well as the formulation of appropriate assumptions or, where necessary, estimates. Furthermore, the management is responsible for establishing and maintaining adequate internal controls to enable the preparation of a TCFD-aligned report that is free from material — intentional or unintentional — misstatements or omissions.

Verification methodology and procedures performed

The verification engagement has been planned and performed in reference to the TCFD Recommendations, applying the verification methodology developed by the TÜV SÜD Group, which is based on the ISAE 3000 assurance engagement standard and ISO 17029.

Level of Assurance

A limited level of assurance has been provided for the climate-related financial disclosures prepared in reference to the TCFD Recommendations.

The verification was based on a systematic and evidence-based assurance process, limited as stated above. The selection of assurance procedures is subject to the auditor's professional judgment.

- Inquiries of personnel who are responsible for stakeholder engagement and materiality assessment to understand climate-related reporting boundaries and relevance.
- Evaluation of the design and implementation of the systems and processes for compiling, analysing, and aggregating climate-related risk and opportunity information, as well as for related internal controls.
- Inquiries of the company's representatives responsible for collecting, preparing, and consolidating climate-related disclosures and performing internal controls.
- Analytical procedures and inspection of climate-related financial and sustainability information as reported at group level, limited to material locations identified as significant for climate-related risks and disclosures.
- Assessment of local data collection and management procedures, as well as control mechanisms, through a sample survey conducted at selected material locations identified as significant for climate-related reporting.

Conclusion

Limited level of Assurance – TCFD Recommendations

On the basis of the assessment procedures carried out & evidence we have collected during 01-09-2025 to 05-09-2025, the climate-related financial disclosures of Himadri Speciality Chemical Ltd for FY 2024–2025 are, in all material respects, prepared in reference to the TCFD Recommendations.

Limitations

The assurance process was subject to the following limitations:

- The subject matter information covered by the engagement is restricted to the scope of engagement described in this statement. Assurance on further information contained in the company's TCFD reporting was not performed. Accordingly, TÜV SÜD does not express a conclusion on this additional information.
- The assurance scope excluded forward-looking statements, product- or service-related information, external information sources, and expert opinions.

Use of this Statement

The Company must reproduce the TÜV SÜD statement and possible attachments like Assurance report in full and without omissions, changes, or additions.

This statement is by the scope of the engagement solely intended to inform the Company as to the results of the mandated assessment. TÜV SÜD has not considered the interest of any other party in the selected sustainability information, this assurance report or the conclusions TÜV SÜD has reached. Therefore, nothing in the engagement or this statement provides third parties with any rights or claims whatsoever.

For transparency and direct traceability, the Company has made the final TCFD Report available at the following webpage link: [https://www.himadri.com/ESG_Disclosures_new.php]. This assurance statement should be read together with the disclosures provided at this link.

Independence and competence of the verifier

TÜV SÜD South Asia Pvt Ltd. is an independent certification and testing organization and member of the international TÜV SÜD Group, with accreditations also in the areas of social responsibility and environmental protection. The assurance team was assembled based on the knowledge, experience and qualification of the auditors. TÜV SÜD South Asia Pvt Ltd. hereby declares that there is no conflict of interest with the Company.

Place, Date: Kolkata, 11-09-2025

Name: Prosenjit Mitra

General Manager- Verification, Validation and Audit

Management System Assurance

Name: Prarthana Chand

Verification Team Leader, TÜV SÜD

Management System Assurance

TCFD Index with Page References

TCFD Pillar	Recommended Disclosure	Himadri Reference	Page Reference
Governance	Board oversight of climate-related risks and opportunities	Board-level ESG Committee structure and mandate; CMD/CEO's Desk Message; CSO Perspective; Annual Report – Board Terms of Reference and meeting frequency	Page 4, 6 and 29
Governance	Management's role in assessing and managing climate-related risks and opportunities	CSO's leadership of the ESG Council and Sustainability Steering Committees; Role of CFO, Business Presidents, and C-suite; Integration of ESG into leadership performance evaluation	Page 31-35
Strategy	Climate-related risks and opportunities identified over the short, medium, and long term	TCFD scenario analyses; Risk-adjusted revenue contribution across sites; Emerging opportunities: LFP cathode project, hybrid anodes, circular economy initiatives	Page 66-68
Strategy	Impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning	Net-zero 2050 roadmap; INR 100 crore sustainability investment plan; 'Himadri Reloaded'; Carbon pricing integration into ERP for CapEx	Page 24-25, 44-45 and 54-55
Strategy	Resilience of strategy under different climate-related scenarios	Stress testing and financial impact modelling in TCFD exhibits; Integration of IPCC RCP pathways into risk assessment	Page 67-68
Risk Management	Processes for identifying and assessing climate-related risks	Enterprise Risk Management framework; Materiality assessments; Use of NAPCC, NDCs, NGFS scenarios	Page 72-78
Risk Management	Processes for managing climate-related risks	Role of ESG Council; ZLD projects; Renewable integration; Water stewardship; Supplier engagement on Scope 3	Page 78-80
Risk Management	Integration into overall risk management	Climate risks embedded in enterprise risk register; ESG-linked capital allocation; Independent third-party reviews and audits	Page 83-90
Metrics and Targets	Metrics used to assess climate-related risks and opportunities	Scope 1, 2, and 3 GHG emissions; Energy and water intensity; Circular economy outcomes; Biodiversity stewardship indicators	Page 92-94
Metrics and Targets	GHG emissions (Scope 1, 2, and 3)	Scope 1 and 2 intensity reduction: 36.08%; Scope 3 reduction: 22.25%; Renewable energy share; ZLD coverage	Page 92-94
Metrics and Targets	Targets used and performance against them	Net-zero 2050 commitment; Near- and mid-term targets; Energy intensity reduction (17.42% achieved FY 24-25); INR 100 crore sustainability investment plan	Page 92-94

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