



# TNFD Report 2024

In accordance with  
Taskforce on Nature-related Financial Disclosure Framework



# INDORAMA VENTURES'S WAY FORWARD

## Mobilizing for Action

The decline in biodiversity and ecosystem functions is widely recognized as an emerging and urgent risk, as highlighted in the World Economic Forum's Global Risk Report 2024-2025. Protecting and restoring biodiversity is critical, as its decline threatens both the planet and human well-being, while also impacting the majority of the UN Sustainable Development Goals (SDGs). Our most effective approach is to shift from nature-negative to nature-positive activities, with the ultimate goal of halting and reversing biodiversity loss.



## A Win–Win Approach

Indorama Ventures firmly believes that biodiversity-related risks can be transformed into opportunities. By taking meaningful action, we not only contribute positively on a global scale but also strengthen our business for the long-term. Healthy biodiversity enhances the stability and resilience of ecosystems – factors essential for sustainable raw material sourcing, supply chain security, and uninterrupted operations. The increasing demand for eco-friendly solutions also drives innovation and opens new business opportunities. Our efforts help generate a self-sustaining positive feedback loop, building goodwill among local communities, suppliers, customers, consumers, and employees. In doing so, we reinforce our mission: “Reimagining chemistry together to create a better world.”

## Fostering Collaborations

Effectively addressing biodiversity risks requires close collaboration between governments (through policies and regulations), the private sector (through investments), suppliers (through sustainable sourcing), and end consumers (through changes in habits and behaviors). We recognize that our business activities are not isolated – they are part of a broader ecosystem essential to long-term sustainability. We are committed to continuing our research and taking a leadership role in implementing responsible and sustainable practices. We invite all stakeholders to join us in acting responsibly for the well-being of our planet.

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# INTRODUCTION

The World Economic Forum's Global Risks Report 2024 warns of a significant escalation in environmental and technological risks over the next decade. Biodiversity loss and ecosystem collapse are projected to become among the most severe global risks, rising to third place among long-term threats over a 10-year horizon. This underscores the urgent need to address biodiversity loss alongside other critical Earth system challenges, such as climate tipping points and natural resource shortages.

While climate change has traditionally received the most attention, the report emphasizes the deep interconnection between biodiversity and climate systems. Neglecting biodiversity could undermine climate action, as healthy ecosystems play a vital role in regulating the climate and building resilience. Indorama Ventures recognizes its responsibility in conserving biodiversity and is committed to protecting ecosystems in the areas where it operates.

The Taskforce on Nature-related Financial Disclosures (TNFD) provides a framework for organizations to identify and disclose their dependencies and impacts on nature, as well as to manage associated risks and opportunities. In alignment with this global initiative, Indorama Ventures is applying the TNFD framework to assess its nature-related risks and integrate biodiversity considerations into its strategy, operations, and disclosures.





# INTRODUCTION

## About Indorama Ventures

Indorama Ventures is one of the world's leading petrochemicals producers with a presence in 31 countries, with 150 manufacturing facilities, 28,000+ employees, and a consolidated revenue of US\$ 15.4 billion in 2024. It's headquartered in Bangkok, Thailand.

Indorama Ventures is an industry-leading global sustainable chemical company. Our diversified, international businesses are integrated across our petrochemical value chain. Our footprint spans manufacturing operations at 150 operational sites in 31 countries, with market-leading positions in Asia-Pacific, Africa, Europe, and the Americas.

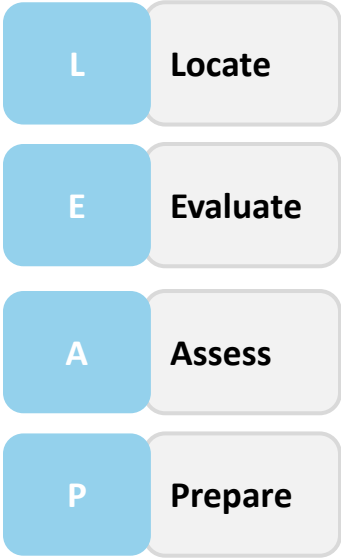
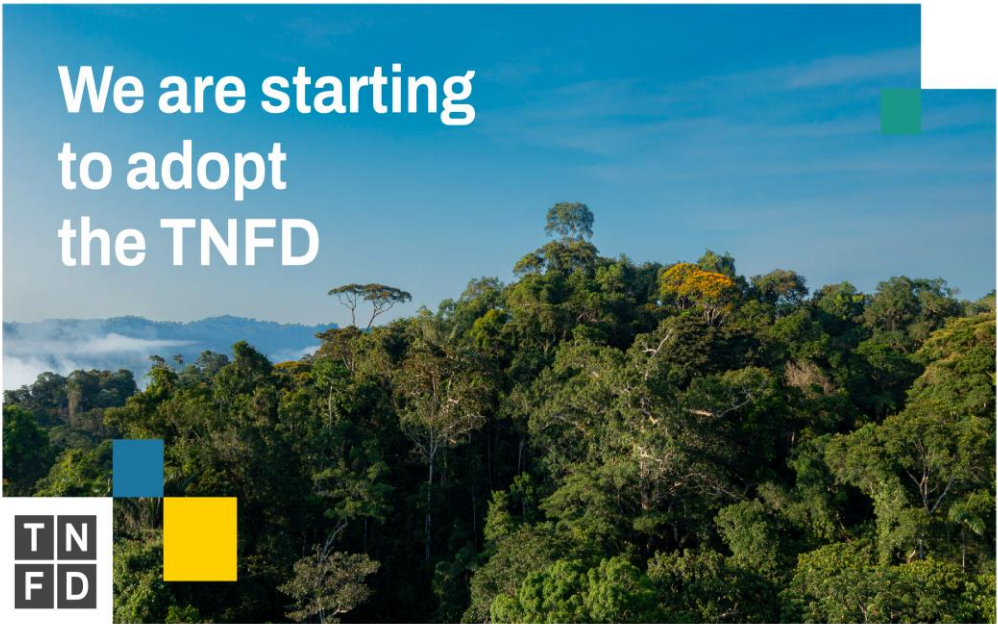
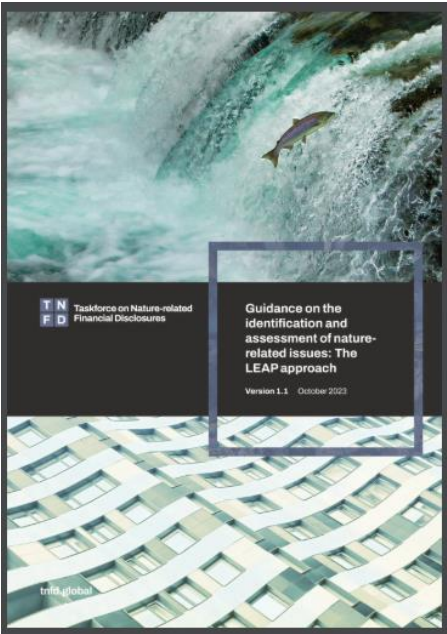
We deliver indispensable chemistry to our customers, including major household brands, to produce daily consumer necessities that touch billions of lives every day. Our business segments – Combined PET and Packaging, Indovinya, and Fibers – serve customers in diverse growth markets, including food and beverages, automotive, pharmaceutical, textile, home and personal care, and agrochemicals.

To support the UN Sustainable Development Goals (SDGs), Indorama Ventures is aware of the importance of biodiversity loss and the aim to minimize its impacts on the ecosystem. Addressing biodiversity loss risk is essential for achieving the SDGs holistically and Indorama Ventures is committed to making a positive impact.



# INTRODUCTION

Indorama Ventures recognizes the critical importance of biodiversity and ecosystem services to our operations and the broader value chain. We adopted the TNFD's recommendations in our inaugural report in 2022, and this year, we are deepening our approach by applying the LEAP framework. This structured methodology enables us to systematically identify, assess, and manage our nature-related dependencies, impacts, risks, and opportunities across the business.



# GOVERNANCE



## ESG and Sustainability Governance

### Board Oversight

The board of directors plays a crucial role in the ESG and sustainability governance. The board meets on a quarterly basis where related issues are discussed.

The Sustainability and Risk Management Committee (SRMC), sub committee of the Board Level, oversees the ESG and sustainability strategy and actions, including climate change and biodiversity, reviews the implementation of strategies, monitors ESG and sustainability risks, mitigation plans and scenario analyses.

Meeting quarterly, the SRMC is chaired by the Group CEO and includes the Deputy Group CEO and Chief Financial Officer, Chief Strategy and Transformation Officer, Chairman of the ESG Council, two independent directors, executive president of three business segments (CPET, Fibers, and Indovina).

More information on the SRMC is available [here](#).

### Management Oversight

The management works closely with the SRMC to ensure that risk and opportunity that are highlighted are managed effectively. Management level governance are addressed by three bodies;

- Indorama Management Council (IMC),
- Manufacturing Excellence Council (MEC)
- ESG council

# GOVERNANCE

Table 1. Key committee structure and their roles and responsibilities

	Governing Structure	Roles and Responsibility	Meeting Frequency
Board Level	Board of Directors	<ul style="list-style-type: none"> <li>Oversee sustainability-related risks and opportunities</li> <li>Ensure sustainability-related strategies are aligned with the company's business strategy</li> </ul>	5 times/year
	Sustainability and Risk Management Committee (SRMC)	<ul style="list-style-type: none"> <li>Oversee and review sustainability, activities and performance</li> <li>Monitor key business risks</li> </ul>	Quarterly
Management Level	Indorama Management Council (IMC)	<ul style="list-style-type: none"> <li>Ensure sustainability initiatives are implemented as planned</li> </ul>	Quarterly
	Manufacturing Excellence Council (MEC)	<ul style="list-style-type: none"> <li>Execute and implement sustainability initiatives across sites</li> <li>Oversee and manage environmental stewardship efforts</li> <li>Monitor emerging technologies necessary for our operations</li> <li>Evaluate financial feasibility of sustainability initiatives for management approval.</li> </ul>	Quarterly
	ESG council	<ul style="list-style-type: none"> <li>Advocate for and push policies and sustainability initiatives to ensure progress</li> </ul>	Quarterly
Operation Level	Sustainability Department	<ul style="list-style-type: none"> <li>Assist SRMC in monitoring sustainability performance.</li> <li>Relay ESG data</li> <li>Collaborate with MEC to manage key environmental aspects (energy, GHG, air emissions, waste, water, climate change and biodiversity).</li> </ul>	Monthly



# STRATEGY – Biodiversity Risk Frameworks

In 2024, Indorama Ventures applied the TNFD framework to guide the assessment and disclosure of nature-related risks across 150 operational sites in more than 30 countries. The framework offers methods and guidelines for evaluating risks to biodiversity and ecosystem services. As part of this process, we utilized the Integrated Biodiversity Assessment Tool (IBAT), the WWF Biodiversity Risk Filter, and the ENCORE tool. Together, they provide a comprehensive understanding of our nature-related risks and help inform our global biodiversity and sustainability strategies.

This year, we adopted the LEAP approach recommended by the TNFD to conduct a more in-depth analysis of biodiversity-related issues. This approach supports organizations of all sizes and sectors in identifying, assessing, managing, and disclosing nature-related risks and opportunities. It offers a structured process that enables internal teams to:

- L** **Locate** interactions with nature - Identify where our business interacts with nature across operations, supply chains, and investment locations, especially in ecologically sensitive areas.
- E** **Evaluate** dependencies and impacts - Analyze how our business depends on nature (e.g., water, soil, biodiversity) and the impacts it has on ecosystems and natural resources.
- A** **Assess** related risks and opportunities - Assess the risks (e.g., regulation, physical damage) and opportunities (e.g., innovation, market shifts) linked to our nature-related dependencies and impacts.
- P** **Prepare** appropriate responses and disclosures in line with TNFD guidance – Develop targeted responses and report on material nature-related issues, aligning with TNFD recommendations and integrating findings into strategic planning and risk management processes.

## STRATEGY – Biodiversity Risk Frameworks

We utilize beneficial tools to comprehensively identify and analyze our biodiversity risk for Indorama Ventures.

### Integrated Biodiversity Assessment Tools (IBAT)

The Integrated Biodiversity Assessment Tool (IBAT) is a rapid screening tool that helps identify areas of high biodiversity value and assess potential nature-related risks. Developed through a collaboration between IUCN, BirdLife International, UNEP-WCMC, and Conservation International, IBAT consolidates authoritative global biodiversity data to support conservation and risk management decisions. Species risk assessments in IBAT are based on the IUCN Red List, which uses standardized criteria to evaluate extinction risk from threats such as habitat loss and climate change. These assessments are updated periodically, typically every five to ten years, allowing organizations to track changes in species status over time and adapt their biodiversity strategies accordingly.

### The WWF Biodiversity Risk Filter

An online screening tool designed to help companies and financial institutions identify and assess biodiversity-related risks across their operations, supply chains, and investments. It is structured around three active modules: Inform, Explore, and Assess. A fourth module, Respond, is currently under development. The tool uses global spatial datasets such as species distributions, ecosystem integrity, and habitat conversion. It evaluates 33 biodiversity-related indicators and calculates risk scores based on the local condition of biodiversity and the sector's dependency and impact. This allows users to screen for physical and reputational risks at specific locations and supports alignment with frameworks such as the Taskforce on Nature-related Financial Disclosures and the Science Based Targets for Nature. By providing actionable insights, the tool helps prioritize areas for biodiversity risk mitigation and supports more informed sustainability decisions.

### ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure)

ENCORE is an online tool developed by the Natural Capital Finance Alliance (NCFA) and the UN Environment Programme (UNEP) to help organizations understand how environmental change can impact the economy. It links economic sectors with the natural capital they depend on and the environmental pressures they create, enabling users to assess which ecosystem services are material to their operations. By identifying sector-specific dependencies and impacts on nature, ENCORE supports businesses and financial institutions in evaluating potential risks, guiding nature-related decision-making and sustainable resource management.

# LEAP approach: Locate – Interface with Nature

Indorama Ventures operates over 150 sites across more than 30 countries. To assess ecologically sensitive areas, we utilized the WWF Biodiversity Risk Filter. Through this assessment, we identified 14 sites in four countries that are located in or near areas of physical risk. These locations will be prioritized for further action planning.



Table 2. Sites Located in Areas of Relatively High Biodiversity Risk, by Country (Physical Risk Assessment)

Country	Number of sites identified
Thailand	9
United States	2
China	2
Vietnam	1



## LEAP approach: Evaluate – Dependencies and Impacts

ENCORE tool is utilized to identify our nature-related dependencies and impacts. This regularly reassessment has helped us better understand how ecosystem service degradation and impact pressures could disrupt our operations. We selected the manufacturing sector, specifically the division for the manufacture of chemicals and chemical products, under the group/class of manufacture of other chemical products.

To identify our nature-related dependencies and impacts, we used the updated version of the ENCORE tool. This reassessment has helped us better understand how ecosystem service degradation and impact pressures could disrupt our operations. Current result based on the latest updated version in 2024 provides more granular details of dependency and impact assessments.

Table 3. Impacts and Materiality Rating on our Business based on the ENCORE analysis.

Impact	Materiality rating
Disturbances (e.g noise, light)	Very high
Emissions of toxic pollutants to water and soil	Very high
Volume of water use	High
Emission of GHG	Medium
Emissions of non-GHG air pollutants	Medium
Generation and release of solid waste	Medium
Area of land use	Low

Table 4. Dependencies and Materiality Rating on our Business based on the ENCORE analysis.

Dependencies	Materiality rating
Rainfall pattern regulation services	Medium
Soil and sediment retention services	Medium
Water purification services	Medium
Water flow regulation services	Medium
Flood mitigation services	Medium
Storm mitigation services	Medium
Water supply	Medium
Local climate regulation services	Low
Solid waste remediation	Low
Dilution by atmosphere and ecosystems	Low
Global climate regulation services	Very low
Air filtration services	Very low
Noise attenuation services	Very low
Mediation of sensory impacts (other than noise)	Very low



# LEAP approach: Evaluate – Dependencies and Impacts

WWF Risk Filter tool provides nature-related dependencies and impacts for us which cover ESG aspects, especially social impacts to labor, indigenous people, local communities, as well as human rights.

Table 5. Direct Impacts and Rating on our Business based on the WWF Risk Filter tool analysis.

Direct impacts	Rating
Pollution	Very high
Protected/Conserved Areas	Medium
Indigenous People, Local Communities, Lands and Territories	Medium
Key Biodiversity Areas	Low
Other Important Delineated Areas	Low
Ecosystem condition	Low
Labor/human rights	Low
Financial Inequality	Low
Resource Scarcity: Food, Water and Air	Very low
Land, Freshwater and Sea Use Change	Very low
Forest Canopy Loss	Very low
Range Rarity	Very low

Table 6. Direct Dependencies and Rating on our Business based on the WWF Risk Filter tool analysis.

Direct Dependencies	Rating
Water availability	High
Water Condition	Medium
Air Condition	Medium
Landslides	Medium
Wildfire Hazard	Medium
Extreme Heat	Medium
Tropical Cyclones	Medium
Limited Wild Flora & Fauna Availability	Very low

## LEAP approach: Evaluate – Number of IUCN Red list of threatened species

In 2023, we conducted species identification across all operational sites using the IUCN classification through desktop research. The assessment utilized the IUCN Red List of Threatened Species to analyze biodiversity within a 50 km radius of each site. This process covered a wide range of species located within and around our sites, including those in or near protected areas and zones adjacent to Key Biodiversity Areas (KBAs). Using the Integrated Biodiversity Assessment Tool (IBAT), we identified and quantified species classified as Critically Endangered (CR), Endangered (EN), and Vulnerable (VU). These insights support our TNFD 2023 disclosure and help guide our biodiversity action plan.

Table 7. Identification of species based on the IUCN classification for site

Number of IUCN Red list of threatened species (CR, EN, VU Category) within 50 km.	Number of sites
> 400	0
321 - 400	5
241 - 320	7
161 - 240	20
81 - 160	49
< 80	68



# LEAP approach: Evaluate – Number of Site Operation Risks in Relation to Nearby Protected Areas and Key Biodiversity Areas

Table 8. Assessment of Site Operation Risks in Relation to Nearby Protected Areas and Key Biodiversity Areas (<30 km) of Indorama Ventures in 2023

Risk arising from site operations		Protect Areas & Key Biodiversity Areas		
		< 10 km (Number of sites)	< 20 km (Number of sites)	< 30 km (Number of sites)
Low	The site impacts indicate that such impacts are significant with a negligible risk.	N/A	N/A	143
Moderate	The nature of the site impact suggests that the impact is significant with moderate risk	N/A	N/A	2
High	The nature of site impacts suggests that the impacts are significant with a high-level of risk.	N/A	N/A	2
Very high	The nature of site impacts suggests that the impacts are significant with a high-level risk.	N/A	N/A	2

# LEAP approach: Assess – Risks and Opportunities

For Indorama Ventures, it is significant to consider the potential impact on the ecosystem and species, and thus, our dependencies and impacts are highlighted in Tables 3 and 4.

Although nature-related risks often overlap with non-financial and financial aspects and interdependencies. Below are the major risks and opportunities identified for Indorama Ventures at the group level.

Table 9. Nature-related Risks and Opportunities

Nature-related Risks	
Physical	<ul style="list-style-type: none"><li>• Increase severity of extreme weather events such as cyclones, droughts, and floods, and natural disasters will affect acute disturbance of operation, resulting in acute disturbance.</li><li>• Increase in vulnerability of ecosystem will have effects on business activities.</li><li>• Raw material cost, operational cost, and management cost.</li></ul>
Transition	<p><u>Regulatory</u></p> <ul style="list-style-type: none"><li>• Expanding number of policy interventions</li><li>• Requiring additional disclosure specifications</li><li>• Risk of current and future legislation leading to restriction of operations at certain sites of operation or delays to specific projects.</li><li>• Risk of forthcoming regulation leading to new standards</li><li>• Clean up and compensation costs.</li><li>• Biodiversity-related taxes, fees, and charges e.g., Taxation like Carbon Emission tax, Prohibition on resource extraction and utilization like water and land</li><li>• Licensing to continue to operate.</li></ul>





# LEAP approach: Assess – Risks and Opportunities

Nature-related Risks	
Transition	<p><u>Operational</u></p> <ul style="list-style-type: none"><li>• Resource dependency, scarcity, and quality: reduced availability of natural resources and raw materials (from both renewable and non-renewable)</li><li>• Operational and supply chain disruption</li><li>• Potentially higher costs of doing business.</li></ul>
	<p><u>Market</u></p> <ul style="list-style-type: none"><li>• Loss of consumer demand and investor security.</li><li>• Getting green investments and loans or having higher cost of capital.</li><li>• Risk of production due to input price and its cost due to restrictions on sourcing and decline of global abundance of resources.</li><li>• End of life of product would have the cost on collection and recycling.</li><li>• Declining brand value.</li></ul>
	<p><u>Reputational</u></p> <ul style="list-style-type: none"><li>• Increasing pressure from stakeholders</li><li>• Reputation damage from environmental and social impacts</li><li>• Social Unrest</li><li>• Affecting to social license to operate.</li></ul>

## LEAP approach: Assess – Risks and Opportunities

### Nature-related Opportunities

#### Compliance and Transparency

- Proactively aligning with evolving regulations
- Demonstrating commitment to responsible practices
- Integrating the identified biodiversity risks into multidisciplinary company-wide risk
- Engaging in dialogue with regulatory authorities can provide opportunities to support policies and regulations development.
- Potentially attracting government incentives or grants.

#### Operational Excellence

- Implementing Biodiversity Risk Assessment
- Implementing operational eco-efficiency measures e.g., modern technologies, circular value chain
- Management processes
- Enhancing emergency response capabilities business continuity management that can minimize operational disruptions and associated costs

#### Investment, Expansion and New Market

- Developing innovative and sustainable products e.g., lower carbon footprint, circularity
- Attracting investors
- Biodiversity-linked Sustainable Finance

#### Reputational

- Embracing innovative technologies and processes that promote sustainability and biodiversity.
- Engaging and creating opportunities for dialogue with stakeholders

## LEAP approach: Prepare – Response and Strategic integration

For the Prepare phase, we adhere to several best practices and implement the following actions to deliver real results.

Avoid creating impacts from the outset/No deforestation for business operations

Minimize the duration, intensity and/or extent of impacts that cannot be completely avoided and assess the potential risks, impacts, and financial implications of our activities

Rehabilitate or restore degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimized

Offset any residual adverse impacts after fully implementing the previous three steps of the mitigation hierarchy

For more details of our response and strategic integration, please see in Risk and Impact management section.

# Risk and Impact management

Indorama Ventures implements several tools to identify and evaluate potential nature-related impacts and dependencies associated with its operations. While climate related tools can be found in our [TCFD analysis](#), specific biodiversity related tools include [IBAT](#), [WWF Biodiversity Risk Filter](#), and [ENCORE](#)

- **IBAT** - incorporates the IUCN Red List, information on Protected Areas (PAs), and Key Biodiversity Areas (KBAs) to assess the potential impact on biodiversity and prioritize conservation efforts.
- **WWF Biodiversity Risk Filter** - is used to evaluate physical risks related to ecosystem services, helping to identify potential vulnerabilities and develop strategy, action plan and mitigation measure.
- **ENCORE** - identify our nature-related dependencies and impacts, helping us to understand how ecosystem service degradation and impact pressures could disrupt our operations.

From the outcomes of the WWF Biodiversity Risk Filter assessment, we identified 14 sites facing relatively high biodiversity physical risk. These sites have been continuously monitored, and we analyzed the potential nature-related financial risks particularly under scenarios where severe impacts could result in plant shutdowns or business disruptions.

While no significant biodiversity-related impacts occurred in 2024, we proactively estimated the potential financial consequences should such events arise. This analysis includes projected losses in production and EBITDA, based on 2024 data. Further details are provided in the table below.

Table 10. Estimate EBITDA Loss of sensitives sites that have potential biodiversity risk impacts

Number of sites with relatively high biodiversity physical risk	Production Loss (Million tons)	EBITDA Loss (\$ Million )	Estimate EBITDA Loss from Shutdown (\$ Million)		
			30 Days	60 Days	90 Days
14	0.23 (1.39% Total production)	24.57	2.02	4.04	6.06

Note: In 2024, total actual production was 16.35 million tons and total EBITDA was \$ 1.50 billion.



# Risk and Impact management

## Action Plan of Indorama Ventures

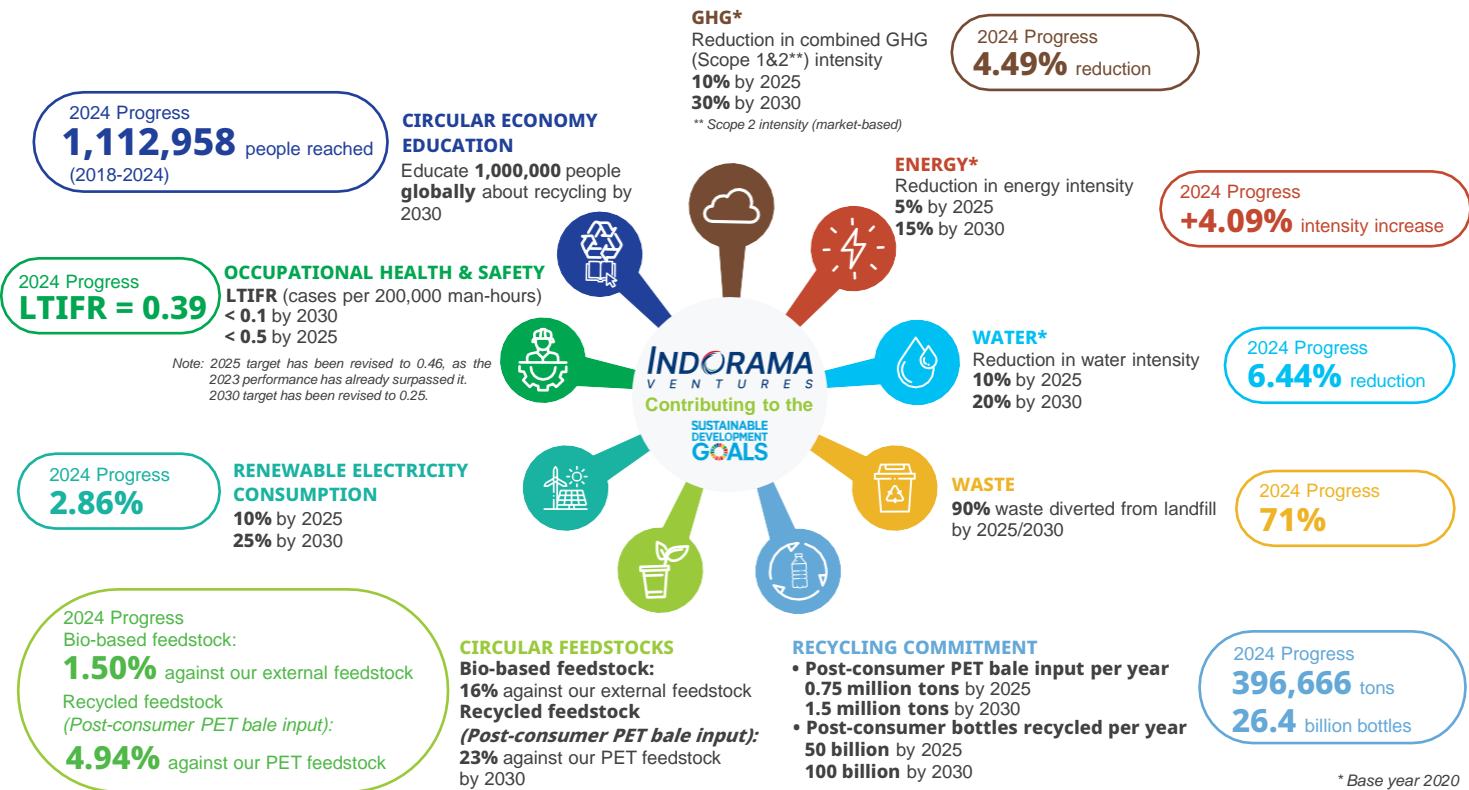
Based on our research and assessment, we have identified the following short, medium, and long-term actions for Indorama Ventures in the context of biodiversity risk management. We are in the process of integrating biodiversity-related risk, which is a new initiative, into our company strategy to develop the action plans and response strategies. We have initiated this process with climate indicators, aligning with our decarbonization strategies and will subsequently extend our focus to other indicators that will support the company’s vision and strategy.

Table 11. Nature Risk Management Roadmap

Goals	Short-term (0-5 years)	Mid-term (6-10 years)	Long-term (11-30 years)
To enhance assessment of biodiversity risks in sites with relatively high biodiversity physical risk to existing operations and new coming projects	<ul style="list-style-type: none"><li>• Educate our employees about biodiversity awareness and best practices</li><li>• Collaborate with the risk team to establish a biodiversity strategy</li><li>• Develop Biodiversity Risk Mitigation Action Plan (BRMAP) for relatively high biodiversity physical risk sites</li><li>• Reassessment biodiversity risks every two years</li></ul>	<ul style="list-style-type: none"><li>• Conduct biodiversity assessment covering more metrics</li><li>• Develop Biodiversity Risk Mitigation Action Plan (BRMAP) for all Indorama Ventures sites</li><li>• Set biodiversity targets</li><li>• Develop a global policy to support biodiversity and deforestation regulations</li></ul>	<ul style="list-style-type: none"><li>• Monitor progress and data reporting to see if we are on track for our targets</li><li>• Identify and take mitigation action for impacts and dependencies of our suppliers and our products</li></ul>

# Metrics and Targets

The protection and restoration of biodiversity assume paramount importance as we are to collectively achieve our sustainability goals. We are committed to protecting nature and natural resources by actively supporting green projects which leads to the mitigation of climate change and biodiversity conservation. Our Target are in align with mitigation strategy and action plan.



For more details on activities related to each topic, please visit the [Sustainability website](#) and our [Sustainability Report](#).

# Metrics and Targets

## Drivers of Nature change (In accordance with the SBTN Methodology)

To ensure that biodiversity loss is prevented within Indorama Ventures, it's crucial to implement strategies that address the following key factors, which are the 5 drivers of nature change

**1. Land-use change:** This includes preserving and restoring natural habitats, adopting sustainable land management practices, and minimizing the conversion of natural ecosystems for industrial use. We are committed to a no-deforestation policy for our current operations as well as for future expansions and new projects.

### Case study

#### Reforestation Initiative

Our PET plant (IVEM) in Jalisco, Mexico, hosted a reforestation event in collaboration with Bosque Urbano, an organization dedicated to urban tree cultivation. A total of 100 trees were planted by 70 participants, including employees and their families, to promote local biodiversity and support long-term sustainability. This initiative contributes to our land-use change objectives by increasing green cover, encouraging the planting of native species, and enhancing carbon absorption at the site level.

**2. Climate change:** Indorama Ventures can prevent biodiversity loss by reducing greenhouse gas emissions, improving energy efficiency, transitioning to renewable energy sources, and adopting climate-resilient business practices. A key priority is to continuously seek opportunities to replace fossil fuels with renewable energy across our operations.

### Case study

#### Advancing Carbon Capture and Utilization Initiatives

We are actively pursuing innovative opportunities with our technical partners to invest in projects that capture and utilize CO<sub>2</sub>. Notably at our Indorama Ventures Polymers Mexico site, we are exploring capturing CO<sub>2</sub> from heaters, with the potential to reduce emissions by 29,000 tCO<sub>2</sub>e. Additionally, we are investigating carbon capture at our Port Neches site, which could mitigate up to 650,000 tCO<sub>2</sub>e annually.

## Metrics and Targets

**3. Natural resource use and exploitation:** This can be addressed by implementing sustainable resource management practices, adopting circular economy principles to reduce waste and promote resource efficiency, and ensuring responsible sourcing of raw materials.

### Case study

#### Responsible Biogenic Waste Recycling at IVMP, Puebla, Mexico

In 2024, Indorama Ventures' Air Bag Plant in Puebla (IVMP) made significant strides in natural resource stewardship by voluntarily engaging in a government-certified biogenic waste recycling initiative. Through collaboration with a local recycler, whom IVMP helped train and certify, cardboard and wood waste were properly segregated, processed, and sent to authorized facilities.

As a result, IVMP received monthly government-issued certificates recognizing the environmental benefits of its efforts. By year-end, the site had saved 5,374 mature trees, equivalent to 145,098 kilograms of carbon dioxide absorption annually, based on standard tree carbon sequestration rates.

This initiative, which began in November 2023 and earned its first certification in April 2024, not only supports biodiversity by preserving tree cover but also contributes to local efforts to postpone carbon tax implementation in Mexican states by promoting formalized recycling systems. The IVMP team played a key role in educating and developing the recycler's environmental procedures, demonstrating how industrial sites can positively influence broader ecosystem and policy outcomes.



## Metrics and Targets

**4. Pollution:** Measures to mitigate pollution include implementing pollution prevention technologies, improving waste management practices, reducing chemical usage, and implementing wastewater and air quality monitoring programs

### Case study

#### Zero Liquid Discharge

Six sites have achieved Zero Liquid Discharge, ensuring that 100% of water returned to the source of extraction are at similar or higher quality as raw water extracted. These sites include Avgol Nonwovens India Private Limited, Indorama Petrochem Limited (PET), PT. Indorama Ventures Indonesia (PET), PT. Indorama Ventures, Indonesia (Fibers), Schoeller Kresice s.r.o and IVL Dhunseri Petrochem industries Private Limited (Karnal site)

**5. Invasive species and diseases:** Indorama Ventures can implement measures to prevent the introduction and spread of invasive species and diseases, such as implementing biosecurity measures, conducting risk assessments for new projects, and collaborating with stakeholders to monitor and control invasive species and diseases.

### Case study

#### Renova Mamona project

As part of our commitment to regenerative practices and sustainability, Indorama Ventures is implementing the Renova Mamona Project in the Quilombola community of Cordoaria, Camaçari, Brazil. While not initiated due to the recent identification of biodiversity as a material topic, the project directly supports biodiversity through the development of agroforestry systems (SAFs). In 2024, the project achieved a 68.57% increase in organic matter content and an 80% increase in plant species diversity within the SAFs. These outcomes contribute to improved ecosystem health, which may help reduce vulnerability to invasive species and plant diseases over time.

## CONCLUSION

Indorama Ventures demonstrates an unwavering commitment to understanding and mitigating the consequences of its business activities on ecosystems and nature at large. The company places significant emphasis on measuring and transparently reporting its environmental impact, proactively managing risks, and continually enhancing its sustainability performance. For more information on our biodiversity-related commitments, please refer to our [Biodiversity Statement](#).

In accordance with the recommended disclosures from TNFD, Indorama Ventures has conducted an assessment of nature impacts, dependencies, risks, and opportunities. Data was gathered utilizing the ENCORE tool, IBAT, and the WWF Biodiversity Risk Filter. The findings reveal that there are 14 sites across four countries with potential biodiversity physical risk impact on Indorama Ventures. Based on this comprehensive analysis, an action plan will be developed in the subsequent phase. We acknowledge the long-term implications of present decisions and actively strive to comprehend the interconnectedness of its business activities with biodiversity and the broader ecosystem.

Moving forward, Indorama Ventures pledges that any future production sites will adhere to the mitigation hierarchy and remediate any significant impacts on biodiversity loss within our ecosystem. By embedding sustainability considerations into its business practices, Indorama Ventures aims to significantly contribute to the preservation of biodiversity and foster a harmonious relationship between business and nature. In achieving success in nature conservation necessitates collaborative efforts from players in value chain. Indorama Ventures is resolutely committed to taking responsible action and mitigating the impact of its operations on ecosystems and nature.

Indorama Ventures is committed to ensuring that all future production sites comply with the mitigation hierarchy and address any significant impacts on biodiversity within our ecosystems. By integrating sustainability into its core business practices, Indorama Ventures aims to make substantial contributions to biodiversity conservation and promote joint efforts from all stakeholders in the value chain to take responsible actions and minimize the ecological impact of its operations.

# Appendix

## List of abbreviation is used

BRMAP - Biodiversity Risk Mitigation Action Plan

ENCORE - Exploring Natural Capital Opportunities, Risks and Exposure

IBAT - Integrated Biodiversity Assessment Tool

TNFD - Taskforce on Nature-related Financial Disclosure

TCFD - Taskforce on Climate-related Financial Disclosure

SDGs - Sustainable Development Goals

WWF – World Wildlife Fund





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**Thank you**