MITSUBISHI ELECTRIC
Changes for the Better

Mitsubishi Electric Group

TNFD Report 2025

Message from the Officer in Charge of Sustainability

Our Purpose states that “We, the Mitsubishi Electric Group, will contribute to the realization of a vibrant and sustainable society through continuous technological innovation and ceaseless creativity.” In line with this, the Group places the realization of sustainability at the center of its management. Our focus is on offering solution services across business fields by capitalizing on the strengths gained through our dedication to components, such as air conditioners and semiconductors, and leveraging the Serendie® Digital Platform. In fiscal 2024, we also started full-fledged efforts to create a “Trade-On (mutual benefits)” business that combines solving social and environmental issues with growing our business. For example, we engage in the development of direct ocean capture (DOC), a technology for the direct removal of CO_2 from seawater, and the application of plastic recycling technology. By pursuing carbon neutrality and promoting resource circulation through these initiatives, we aim to contribute to enhancing the sustainability of the global environment.

Furthermore, to address ever-worsening environmental issues, we are also strengthening global open innovation projects jointly pursued by industry, academia, and government, as well as collaboration with overseas sites. In June 2025, we joined the G7 Alliance on Nature Positive Economies (G7ANPE), a forum aimed at promoting investments in global environmental conservation and nature-positive economies. The Group will further enhance exchanges with all stakeholders, including through such international frameworks. As a leader in the nature-positive area, the Group will accelerate its efforts to create businesses and enhance the business foundation in this domain.

The purpose of preparing the TNFD report was to accurately understand how the Group’s businesses relate to nature and explore the direction we should take. The series of evaluations and analyses conducted according to the LEAP approach have brought us a renewed recognition of the need for more action on water use and GHG emissions in certain regions and businesses. These insights will be incorporated into our Environmental Plan 2030, which will be launched in fiscal 2026, and are expected to help the Group implement more effective environmental measures and strengthen its business foundation to enable sustainable growth. Going forward, we are determined to deepen trust relationships with stakeholders even more by promoting integration with governance, risk management, and environmental information disclosures such as TCFD, as well as by expanding the scope of evaluation to the entire supply chain and sophisticating the metrics for monitoring.

We appreciate your interest in the first TNFD report published by the Mitsubishi Electric Group. We hope that this report will create more opportunities for dialogue with you and become a first step toward our new value creation centered on coexistence with nature.

Seiji Oguro

Executive Officer (Associate)

Vice President, Sustainability Innovation Group

Contents

1. General Requirements

Item	Content
Application of materiality	The Mitsubishi Electric Group has set forth the clear course of action it will take through the year 2050 in its Environmental Sustainability Vision 2050. The Group is working hard to contribute to realizing a sustainable global environment based on an environmental policy that outlines how the Group will contribute to the environment. This report identifies material issues for natural capital, and discloses and reports relevant dependencies, impacts, risks, and opportunities in accordance with the double materiality approach, which assesses materiality in terms of impact and finance.
Scope of disclosures	This document covers the entire direct operations (the Group's business operations in Japan and abroad) and holistically describes how each segment is related to nature. In addition, those locations that are determined to be material as a result of evaluation and analysis are subjected to an in-depth analysis of nature-related issues. Going forward, we will consider analyzing how our value chains are related to nature.
Location of nature-related issues	For the Group's production sites in Japan and abroad, this document describes the results of evaluation on whether each of them should be classified as a sensitive location, based on nature-related metrics for the region, by using the TNFD's evaluation and analysis methods. In addition, those locations that are determined to be material are subjected to an in-depth study of nature-related issues. The Group also recognizes that its value chains for materials procurement and other purposes have material dependencies and impacts on nature. Initiatives for sustainable procurement are already underway, and going forward, we will consider analyzing how our value chains are related to nature.
Integration with other sustainability-related information disclosures	This document discloses information on natural capital in line with the TNFD's recommendations. In addition to environmental information disclosures in accordance with the disclosure framework, such as this report, we are expanding integrated ESG information disclosures in view of meeting internationally harmonized disclosure standards, typically those set by the International Sustainability Standards Board (ISSB). Going forward, we will consider integrating these with climate-related disclosures based on the TCFD's recommendations.
The time horizons considered[1]	Short-term: Two- to three-year period starting from the current fiscal year (period of the environmental plan and the medium-term management plan) Medium-term: Period through fiscal 2031 Long-term: Period through fiscal 2051 (final year of the Environmental Sustainability Vision 2050)

[1] As of December 2025

Engagement with Indigenous Peoples, Local Communities and affected stakeholders	We are aware that in any part of the upstream and downstream value chains, the Group's business model would be infeasible without nature-derived resources. Recognizing the importance of the human rights of its stakeholders, the Group has built a system for human rights due diligence that encompasses the supply chains. The Group also engages with suppliers through initiatives such as evaluating and improving the suppliers' activities in line with the Mitsubishi Electric Group Supply Chain Code of Conduct and the Green Accreditation Guideline. As part of these efforts, in procurement of materials related to natural capital, the Group takes care to protect the human rights of Indigenous Peoples and people in Local Communities who could be affected, by reducing associated risks.

2. Governance

Sustainability promotion framework

The policies and planning for the sustainability activities of the Mitsubishi Electric Group are decided by the Sustainability Committee, which is appointed by the Executive Officers' Meeting of Mitsubishi Electric. These decisions are made in consideration of risks and opportunities for the global environment, including natural capital, and the establishment, implementation, and monitoring of associated targets. The Sustainability Committee is chaired by the Executive Officer in charge of Sustainability, and is composed of the chief officers in charge of specific functions in the corporate divisions, as well as the executive officers in charge of the business divisions.

The discussions of the Sustainability Committee, which meets every quarter, are reported to the Executive Officers' Meeting and the Board of Directors. The Board of Directors treats the status of the various sustainability initiatives as one of the Group's key agenda items. It holds full discussions, considering risk management and profit-generating opportunities, while also supervising the status of initiatives by executive officers. Nature-related issues discussed there are incorporated in materiality reviews and action plans for short-term targets. The promotion of sustainability initiatives is one of the compensation indicators for executive officers, and the achievement of performance indicators in non-financial areas such as sustainability and ESG-related areas is reflected in incentive compensation.

Sustainability issues that involve multiple divisions are addressed via subcommittees and projects established under the Sustainability Committee. Specific initiative areas such as ethics and compliance, quality assurance and improvement, environmental protection activities, social contribution activities, and communication with stakeholders are carried out under the responsibility of the relevant divisions.

The policies and plans established by the Sustainability Committee and the specific initiatives promoted by subcommittees and projects are shared with all the internal divisions and associated companies in and outside of Japan. The entire Group works together to solve issues.

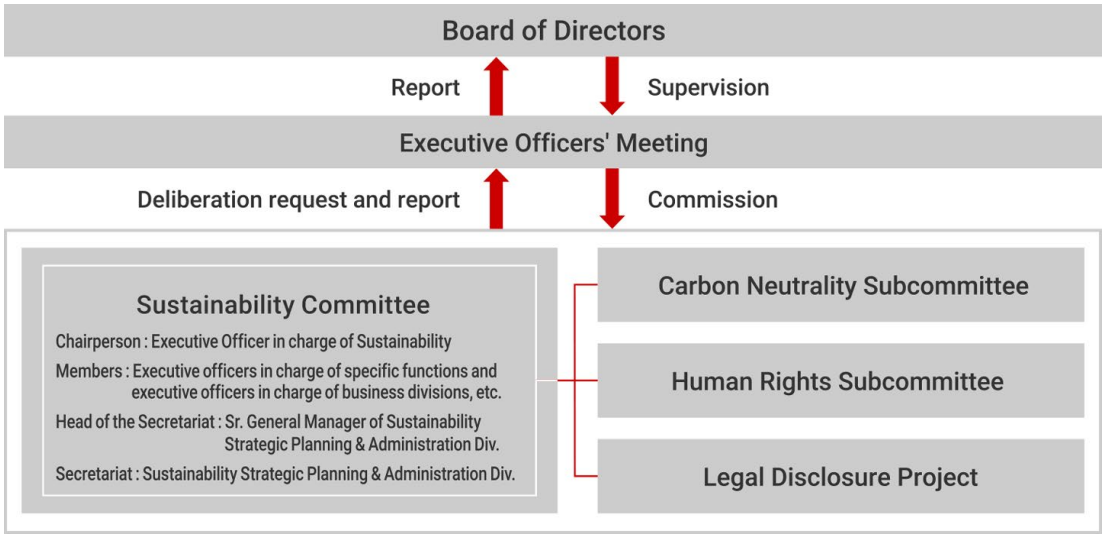

Figure 1: Sustainability promotion framework[2]

[2] As of December 2025

The Sustainability Innovation Group was formed in fiscal 2025 as an organization dedicated to sustainability and takes the initiative in assessing and managing nature-related risks and opportunities. The head of the team assumes responsibility and authority over the Mitsubishi Electric Group’s environmental issues under the direction of the President & CEO.

Concept of respect for human rights

Policy on respect for human rights

It is imperative for the Mitsubishi Electric Group's business activities to endorse internationally agreed standards in the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, and to protect and support human rights. Accordingly, as members of the Group, we recognize our duty to prevent any complicity with human rights violations.

The Mitsubishi Electric Group has established its Human Rights Policy in accordance with the spirit of the Group's "Purpose" and "Our Values." By conducting its activities in accordance with this Policy, the Group will respect the human rights of all people involved in its business activities and contribute to the realization of a society in which there is respect for all people.

Mitsubishi Electric Group Human Rights Policy

Under the Human Rights Policy established in 2017, the Mitsubishi Electric Group has been working to respect human rights based on international norms.

We revised the Human Rights Policy in August 2024, based on our belief that it is necessary to regularly review it and promote appropriate initiatives for respect for human rights in view of changes in the social environment relating to human rights.

In crafting the 2024 revision, we considered external opinions and suggestions, including a review with the knowledge of an external human rights expert (BSR) and those obtained through a high level third-party discussion about the updated policy with human rights experts from Japan (Mori Hamada & Matsumoto) and overseas (Pillar Two) during the expert guidance session facilitated by the UNDP (United Nations Development Programme).

This policy clearly states that the Mitsubishi Electric Group respects the human rights of not only Group employees and supply chain employees, but also customers, consumers and local communities. For example, human rights considerations for local communities include respect for local rights concerning land, water, and resources; prohibition of land theft from local residents and indigenous people and illegal evictions; and control of changes that may damage the foundation of nature and harm people, such as soil and water pollution. These efforts to respect human rights will be made effective through dialogues.

In accordance with this policy, the Mitsubishi Electric Group respects the human rights of all those involved in our business activities, requires the entire supply chain to comply with this policy and contributes to the realization of a society where all people are respected.

Related links

Mitsubishi Electric Group Human Rights Policy (Japanese version)

Human rights due diligence

The Mitsubishi Electric Group is committed to human rights due diligence (human rights DD) in accordance with the United Nations Guiding Principles on Business and Human Rights. The Group periodically carries out Human Rights Impact Assessments in order to assess the impact of the Group's business activities on human rights and also strives to enhance the management of identified risks.

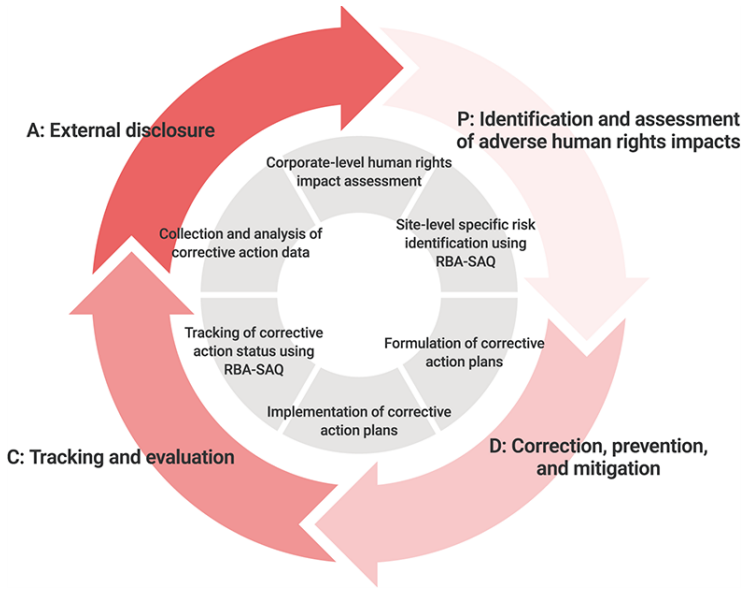

Figure 2: Human rights due diligence cycle

Management system related to respecting human rights

In order to undertake human rights due diligence and other measures based on the United Nations Guiding Principles on Business and Human Rights, etc., the Mitsubishi Electric Group has been implementing the Plan-Do-Check-Act (PDCA) cycle. As a part of this effort, the Sustainability Committee and its subordinate organization, the Human Rights Subcommittee (standing), confirm the results of human rights initiatives and review and approve policies and plans. Since human rights issues relate to a wide range of fields, the responsible division is identified first to work on specific issues, while the Human Rights Subcommittee discusses and decides which direction to take with respect to issues of concern to the entire company. A system is in place to report progress or request deliberation to the Sustainability Committee and the Executive Officers' Meeting, to report progress to the Board of Directors, and to have the executive officers and directors provide supervision.

The Human Rights Subcommittee is chaired by the Senior General Manager of the Sustainability Planning Division and consists of the heads of the relevant divisions.

In addition, the Human Rights Working Group, which is composed of Section Manager-level members from the divisions that make up the Human Rights Subcommittee, examines the practical implementation of various human rights-related initiatives.

In fiscal 2025, the Human Rights Subcommittee met three times, while the Human Rights Working Group met ten times.

Figure 3: Management system related to respecting human rights

Identifying and assessing negative impacts on human rights (human rights impact assessment)

Since fiscal 2024, the Group has worked with Business for Social Responsibility (BSR), a United States-based organization that promotes sustainability, to implement human rights impact assessment based on global standards. The impact assessment involved desktop research followed by identification of potential risks in the Mitsubishi Electric Group's value chain through interviews with each corporate department and prioritization of human rights issues from the perspectives of importance, likelihood of occurrence, and relevance to business. As a result, the Group identified the priority human rights issues among potential issues that could impact its stakeholders, as shown in the figure below.

Furthermore, to identify human rights risks at the site level, an assessment based on RBA-SAQ[3] has begun at production sites owned by the Group.

Category / Priority	Employee	Supply Chain	Product & Service
The most salient human rights issues	Working Environment	Suppliers & Labor Standards	Privacy & Information Security
	Occupational Safety & Health	Forced, Slave & Debt Labor	
		Child Labor	

Figure 4: Human rights issues that may be affected by the Mitsubishi Electric Group's business activities

[3] Responsible Business Alliance - Self Assessment Questionnaire

Correcting, preventing, and mitigating negative impacts on human rights

BSR provided recommendations on the human rights issues identified in the previous section to prevent them from occurring. The Mitsubishi Electric Group has formulated improvement measures to address these recommendations and commenced initiatives in fiscal 2025. Table 1 shows major activities conducted in fiscal 2025.

Table 1: Initiatives Addressing Significant Human Rights Issues: FY2025 Achievements and FY2026 Key Initiative Plans

	Recommendations by BSR (major items extracted)	Overview of fiscal 2025 initiatives	Future initiatives (priorities for fiscal 2026)
Cross-cutting issues	The Human Rights Policy established in fiscal 2018 should be reviewed in light of changes in the social environment.	Reviewed the Human Rights Policy with the knowledge of an external human rights expert (BSR) and published the revision in August 2024 under the name of the President	Consider reviewing the process from grievance acceptance at the contact desk to remedy implementation and establishing rules for the process, with reference to the eight requirements set forth in the United Nations Guiding Principles on Business and Human Rights
	The grievance handling mechanism should be improved.		
Employees' human rights	Activities to identify and respond to labor and human rights issues should be enhanced at the global level.	Personnel divisions gathered information on efforts related to occupational safety and health at associated companies overseas and discussed ways to organize it and prepare shared materials for occupational safety and health training	Identify human rights risks at the Group's sites, including those located overseas, and discuss ways to build a human rights promotion system to improve the situation
		Conducted RBA-SAQ surveys at the Group's production sites and commenced risk identification activities	
Supply chain human rights	Supply chain should be strengthened by using the RBA tool.	Applied the RBA-SAQ to suppliers in Japan in fiscal 2025	Fully implement corrective actions on the high-risk suppliers identified through the RBA-SAQ in fiscal 2025
			Apply the RBA-SAQ to suppliers in China and Thailand
Human rights of consumers and communities	AI ethics checklist items and associated processes should be reviewed to build a system through which human rights-related risks can be fully identified.	The AI Strategy Project Group worked on AI management systems, AI risk management, AI regulations and standardization, etc.	Enhance the activities described to the left

Tracking and evaluating human rights initiatives

The Human Rights Subcommittee periodically verifies the status of activities to address the BSR recommendations. The risk status of the working environment at Mitsubishi Electric Group manufacturing bases and suppliers is verified using the RBA-SAQ.

Grievance handling mechanism

Human rights contact desk

The Mitsubishi Electric Group has set up multiple contact points for human rights grievances, including JaCER,[4] an external option. These channels handle inquiries concerning the Mitsubishi Electric Group's business activities from all

[4] The Japan Center for Engagement and Remedy on Business and Human Rights (JaCER) provides a nonjudicial platform for addressing grievances in accordance with the United Nations Guiding Principles on Business and Human Rights.

stakeholders, such as employees, business partners, customers, consumers, and local residents. These are available 365 days a year and accept even anonymous reporting.

Responding to human rights grievances

In response to individual reports on human rights risks, the responsible division shall promptly confirm the facts of the case in accordance with the consultation content. In the event that a human rights violation or other problem is identified to have resulted from the Mitsubishi Electric Group’s business activities, we shall promptly implement corrective and remedial measures as well as take appropriate actions, including responding to victims and considering disciplinary measures for those who committed such violations, etc. The Mitsubishi Electric Group’s main point of contact shall share the details of each consultation with the division in charge of resolving the problem. Nevertheless, efforts shall be made to minimize information sharing among the parties concerned.

No whistleblower shall be retaliated against by any company or individual for making a report.

3. Strategy

The TNFD recommends the LEAP approach, which is proposed for the identification and assessment of nature-related issues and involves four phases: Locate, Evaluate, Assess, and Prepare. Based on this approach, we evaluated and analyzed major nature-related issues in the Group's businesses and value chains.

In this evaluation and analysis, we started with the Evaluate phase, where we evaluated dependency/impact issues in each business segment and identified material dependencies/impacts connected to business activities. In the subsequent Locate phase, we set evaluation items and metrics for each of the material dependencies/impacts, based on the results obtained in the Evaluate phase, and evaluated the locations of operations and identified priority locations.

In the Assess phase, we identified nature-related risks and opportunities for each of the material dependencies/impacts, based on the results from the Evaluate phase, and performed materiality assessment using the results from the Locate phase, to identify material risks and opportunities. Four scenarios were considered for this identification, and materiality assessment results were taken into account for each scenario.

Nature-related dependencies and impacts (Evaluate)

Evaluation process

The TNFD-recommended ENCORE tool was used to evaluate the dependencies/impacts that the Group's business has on nature. In practice, we categorized the Group's business segments into the Class-level economic activities defined by the International Standard Industrial Classification (ISIC), evaluated them with ENCORE's five-level rating system (VL, L, M, H, VH), adjusted the results based on the situation specific to the Group, and compiled the results into a heat map.

Table 2: Heat map (dependencies)

H, VH High, M Medium, L, VL Low

Segment	Subsegment	Product sector	Provisioning services	Regulating & maintenance services									Cultural services[5]
			Water supply	Global/Local climate regulation	Rainfall pattern regulation	Air filtration	Soil quality regulation	Soil and sediment retention	Solid waste remediation	Water purification	Water flow regulation & flood/storm mitigation	Noise attenuation	Recreation & visual amenity
Infrastructure	Public Utility Systems	Transportation/ Public					-			M	M		-
		Telecommunications					-			M	M		-
	Energy Systems	Energy			M		-			M	M		-
	Defense & Space Systems	Defense/Space	M				-			M	M		-
Industry & Mobility	Factory Automation Systems	Industrial Factory Automation					-			M	M		-
	Automotive Equipment	Automotive Equipment	M				-	M		M	M		-
Life	Building Systems	Buildings					-			M	M		-
	A/C System & Home Products	A/C & Refrigeration Systems	H, VH				-			M	M		-
		Home Products	H, VH		M		-		M	M	M		-
Semiconductor & Device			H, VH				-			M	M		-
Digital Innovation						-	-		-	-		-	-

[5] Services such as recreation and tourism opportunities. Humans can receive them through contact with nature.

Table 3: Heat map (impacts)

H, VH High, M Medium, L, VL Low

Segment	Subsegment	Product sector	Resource use & replenishment		Land/freshwater/ocean-use change		Climate change		Solid waste generation & release				Invasive alien species
			Water usage	Other biotic resource extraction (e.g., fish, timber)	Area of land use	Area of freshwater/seabed use	Emissions of GHG	Emissions of non-GHG air pollutants	Emissions of toxic pollutants to water & soil	Emissions of nutrient pollutants to water & soil	Solid waste generation & release	Disturbances (e.g., noise, light)	Introduction of invasive species
Infrastructure	Public Utility Systems	Transportation/ Public		-		-		M	M	-		M	-
		Telecommunications		-		-			M	-		M	-
	Energy Systems	Energy		-		-	H, VH		M	-		M	-
	Defense & Space Systems	Defense/Space	M	-		-			M	-		M	-
Industry & Mobility	Factory Automation Systems	Industrial Factory Automation		-		-			M	-		M	-
	Automotive Equipment	Automotive Equipment	M	-		-	H, VH		M	-		M	-
Life	Building Systems	Buildings		-		-	M	M	M	-		M	-
	A/C System & Home Products	A/C & Refrigeration Systems	H, VH	-		-	H, VH	M	M	-		M	-
		Home Products	H, VH	-		-	H, VH		M	-		M	-
Semiconductor & Device			H, VH	-		-	H, VH		H, VH	-		M	-
Digital Innovation				-		-				-		M	-

Results of identification of material dependencies and impacts

Dependencies on nature

- Water resources are used in the manufacturing of all products. Water intake is particularly high for the A/C system & home products and the semiconductor & device segments, suggesting their potential dependency on water resources (water supply).

Impacts on nature

- The A/C system & home products and the semiconductor & device segments can have a significant impact on water usage due to their high water intake.
- The manufacturing of all products can have an impact on greenhouse gas emissions. This impact can be particularly high in the energy systems, automotive equipment, A/C system & home products, and semiconductor & device segments.
- The semiconductor & device segment can have a significant impact on the emissions of toxic pollutants.

Interconnections between dependencies and impacts

We recognize that the Group’s manufacturing can have impacts on the state of nature through water intake activities and that deterioration of the status of local nature will highly likely make ecosystem services, including water supply, unavailable.

Priority nature-related locations (Locate)

Evaluation overview

Priority location identification process

Priority locations were identified from among the 166 consolidated production sites (as of 2023) of the Group, based on the location information.

Evaluation items used for the locations of operations were the dependency-related items of ecosystem integrity (general dependency) and water stress (water supply) and the impact-related items of biodiversity importance (general impact), water stress (water usage), and water pollution (emissions of toxic pollutants to water and soil). Evaluation targets varied by business segments and were limited to those related to dependencies and impacts that had been determined to be material in the Evaluate phase.

Next, priority locations were identified based on the evaluation results for the locations of operations. With respect to water usage, we followed the methodology of Science-Based Targets (SBTs) for Nature and considered the level of our own pressure on nature (water intake).

The results were evaluated for each evaluation metric with the five-level rating system (VH, H, M, L, VL), while taking into account the situation specific to the Group.

Definition of priority locations with reference to the tools, data sources, and evaluation metrics used

Table 4 shows the evaluation tools and metrics used. In this evaluation, the locations rated “H” of “VH” in the five-level rating were determined to have the likelihood of creating material environmental risks and thus identified as priority locations.

Table 4: Evaluation tools and metrics

Item	Evaluation tool	Evaluation metrics	Relations with the Evaluate phase
Biodiversity integrity	WWF Biodiversity Risk Filter v2.0	Ecosystem condition: It indicates whether the natural environment is intact and connected with scores calculated separately for terrestrial, freshwater and marine areas.	Dependency
Biodiversity importance	IBAT	$STAR_T$ (Species Threat Abatement and Restoration for Threat Abatement): The score is a sum of the proportions of habitats of different species, weighted according to the IUCN Red List of Threatened Species.	Impact
Water availability	(1) WRI Aqueduct 4.0 (2), (3) WWF Water Risk Filter v2.0	Evaluation is based on the maximum value among the scores of the following three metrics, which are included in the tools used in SBTs for Nature: (1) Baseline Water Stress: The ratio of total water intake to available renewable surface and groundwater supplies. (2) Water Depletion: The ratio of total water consumption to available renewable surface and groundwater supplies. (3) Blue Water Scarcity: The ratio of blue water[6] footprint to total blue water availability.	Dependency/ Impact
Water pollution	WWF Water Risk Filter v2.0	Surface Water Quality Index BOD (with corrections made for certain locations based on measured data): The score is calculated based on the Biological Oxygen Demand (BOD) of surface water.	Impact

[6] Fresh surface and groundwater, in other words, the water in freshwater lakes, rivers, and aquifers.

Identified priority locations

Table 5 shows our priority locations identified from the evaluation results.

Table 5: Identified priority locations

	Dependency	Impact		
	Water supply	Water usage	Emissions of GHG	Emissions of toxic pollutants to water & soil
Japan	●	●	●	●
China	●	●	●	●
Thailand	●	●		
Malaysia		●	●	
India	●	●		
Mexico	●	●		
Turkey	●	●		
Italy		●	●	
Hungary	●			

The results indicate that water supply may become unavailable at a plurality of the locations where the Group operates and that these sites highly likely have impacts on water resources and greenhouse gas emissions. Another finding from the results is that the Group may have impacts on the emissions of toxic pollutants in Japan and China.

Although these evaluation results suggest the need for attention in some of the locations where the Group operates, the Group implements measures and initiatives to address environmental risks to reduce or avoid impacts on nature.

Based on the current evaluation, which covered the Group’s production sites, we intend to gradually extent the scope of evaluation to the overall value chain, including non-production sites, and analyze the results in detail through local investigations and other activities.

Nature-related risks and opportunities in the short, medium, and long terms (Assess)

Evaluation overview

During the Assess phase, while considering the findings in the Evaluate and Locate phases, we listed nature-related risks and opportunities along with the qualitative assessment of their materiality, and summarized activities that can contribute to reducing material risks or creating material opportunities.

Risk and opportunity categories

Risks and opportunities were categorized and sorted in accordance with the TNFD's framework (v1.0).

Time horizons for risks and opportunities

The same time horizons as used for the Company's TCFD disclosures apply.

<Period[7]>

Short term: Two to three years (period of the environmental plan and the medium-term management plan)
Medium-term: Period through fiscal 2031
Long-term: Period through fiscal 2051 (final year of the Environmental Sustainability Vision 2050)

Risk pathways

The physical risks we have identified are those related to material dependencies as such risks arise from the degradation of ecosystem services on which the Group's business segments depend.

The transition risks we have identified are those related to material impacts as such risks arise from social changes intended to avoid or reduce the impacts of the Group's business segments on nature.

Opportunity pathways

The opportunities created through risk avoidance, reduction or management we have identified are those related to material dependencies and impacts as such opportunities arise from the avoidance, reduction or management of risks related to the degradation of nature and ecosystem services on which the Group and society depend.

The opportunities we have identified as being created through the strategic transformation of products, services, etc., that solves nature-related issues are those irrespective of material dependencies and impacts as such opportunities arise from activities such as restricting the loss of nature and implementing nature-based solutions.

Nature-related risks and opportunities

The Group's nature-related risks and opportunities resulting from its business activities were identified and summarized for every dependency/impact rated as "H" or "VH" in the Evaluate phase.

We also summarized risks and opportunities arising from initiatives related to business activities that are irrelevant to dependencies/impacts but influence or contribute to nature and/or biodiversity.

[7] As of December 2025

This list has been created with reference to the TNFD nature-related risk and opportunity registers (December 2024 version) published by the TNFD.

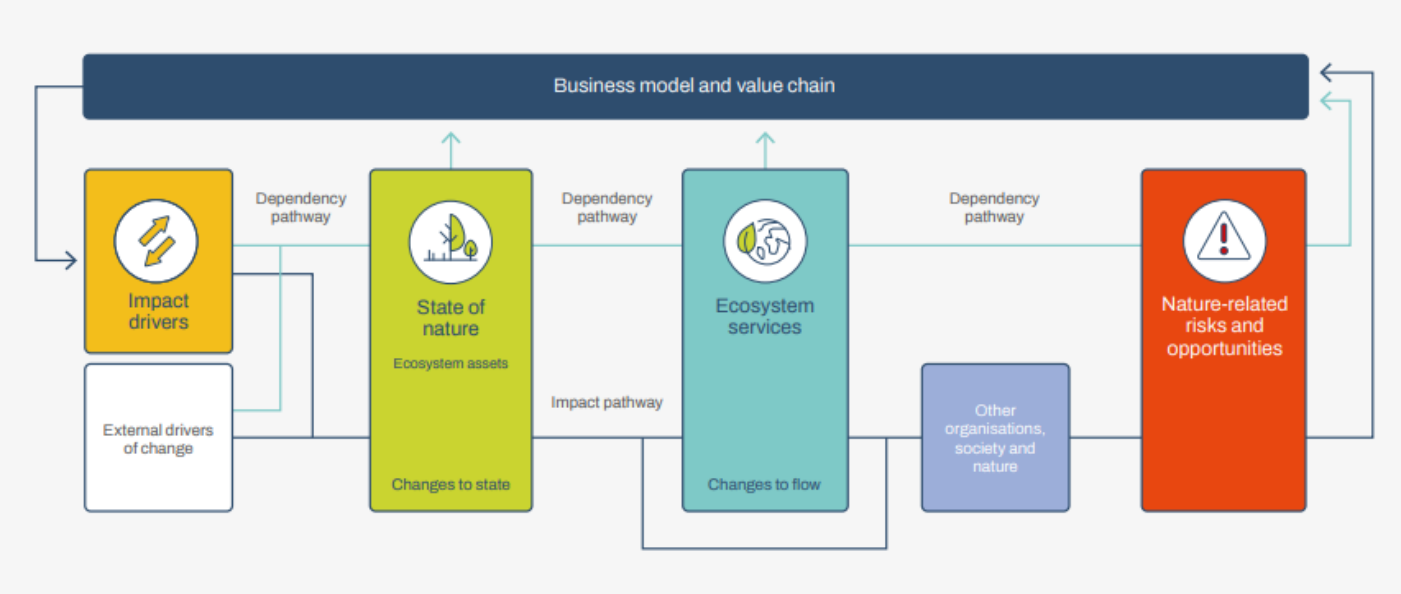

Figure 5: Connections between dependencies and impacts on nature and nature-related risks and opportunities – Impact and dependency pathways[8]

[8] Guidance on the identification and assessment of nature-related issues: the LEAP approach https://tnfd.global/wp-content/uploads/2023/08/Guidance_on_the_identification_and_assessment_of_nature-related_Issues_The_TNFD_LEAP_approach_V1.1_October2023.pdf?v=1698403116#page=108

Resilience to nature-related risks and opportunities based on scenario analysis (Assess)

Evaluation overview and scenario analysis results

The TNFD's framework recommends a scenario analysis approach that uses four quadrants for which two critical uncertainties—ecosystem services degradation and the alignment of market and non-market forces—serve as the two axes. Our materiality assessment is based on this approach.

In this scenario frame, the horizontal axis represents ecosystem service degradation—the further to the right, the more severe the situation, and the further to the left, the more moderate/restored the situation. The vertical axis represents alignment of market and non-market forces—the higher the position, the stricter the regulations and the higher the awareness among consumers and investors, and the lower the position, the weaker the regulations and the lower the interest among consumers and investors.

Each scenario was defined with a PEST analysis, which is commonly used for analyzing the external environment for a company or business, with the E (Environment) factor added to the parameters to be considered.

Figure 6 shows the details of each scenario.

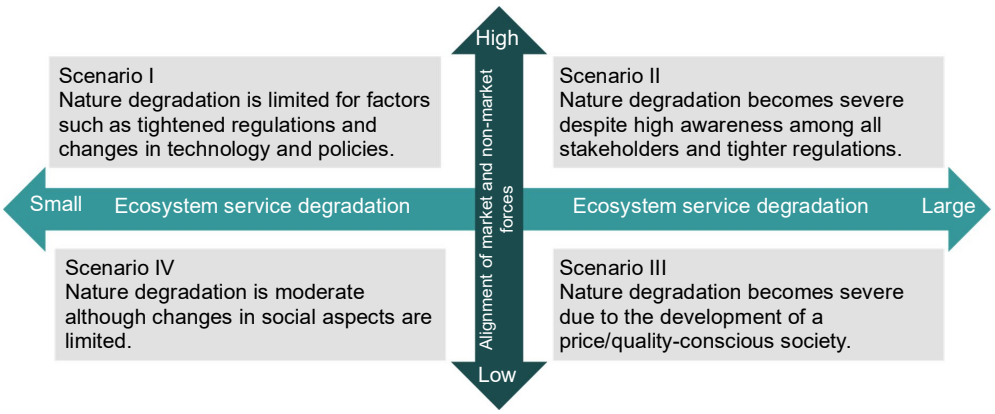

Figure 6: Four-quadrant scenario (Created by the Company with reference to the TNFD's guidance[9])

For each scenario, materiality of nature-related risks and opportunities was assessed based on their likelihood and the magnitude of the effects risks. For risk assessment, risks were categorized into two types: (1) risks originating from the locations of operations and (2) risks resulting from global social trends. Likelihood and the magnitude of effects were determined for each of them. For opportunity assessment, opportunities were categorized into two types: (1) opportunities created through risk avoidance, reduction, or management and (2) opportunities created through the strategic transformation of products, services, etc., that solves nature-related issues. Based on the likelihood and the magnitude of effects determined as a result of these assessments, material risks and opportunities were identified through the comprehensive assessment of materiality.

The results show that although the Mitsubishi Electric Group's businesses are exposed to various nature-related risks, environmental management initiatives, such as biodiversity preservation activities around the Group's sites, as well as the development of businesses for solving nature-related issues, help the Group acquire opportunities in nature-positive areas. Table 6 shows particularly material risks and opportunities that were identified by factoring in dependencies/impacts and the scenario analysis. The potential risks and opportunities indicated by the scenario analysis results will be considered in determining the Company's materiality as well as future strategies and activities for the next environmental plan and other programs.

[9] Taskforce on Nature-related Financial Disclosures (TNFD) Recommendations https://tnfd.global/wp-content/uploads/2023/08/Recommendations-of-the-Taskforce-on-Nature-related-Financial-Disclosures.pdf?v=1734112245#page=74

Table 6: Nature-related risks and opportunities

Dependency /Impact		Major category	Medium category	Small category	Item	Time	Likelihood	Magnitude of effects
Dependencies	Water supply	Risk	Physical	Acute	Suspension of business due to degradation of water supply services	Short to long	Medium to high	Large
				Chronic	Declined production due to degradation of water supply services	Medium to long	Medium to high	Large
		Opportunity	Sustainable use of natural resources		Enhanced business continuity and avoidance/reduction of effects on business activities due to technology development conducive to stable water supply	-	Medium to high	Large
			Ecosystem protection, restoration and regeneration		Enhanced business continuity through reliable availability of water supply services	-	Medium	Large
Impacts	Water usage	Risk	Transition	Policy	Lost opportunity to expand production and declines in production due to tightened regulations on water use for relevant products	Short to long	Medium	Medium to large
		Opportunity	Market		Avoidance or reduction of effects from tighter water use regulations (lost opportunity to expand production, declines in production, and penalties/fines for violations of law)	-	Medium	Medium to large
			Reputational		Increased brand value due to positive information dissemination and favorable ratings by external organizations	-	Small to medium	Small to medium
			Sustainable use of natural resources		Enhanced business continuity and avoidance/reduction of effects on business activities due to technology development conducive to stable water supply	-	Small to medium	Small to medium
	GHG emissions	Risk	Transition	Policy	Lost opportunity to expand production and declines in production due to tightened regulations on GHG emissions for relevant products	Short to long	Medium	Medium to large
		Opportunity	Market		Avoidance or reduction of effects from tighter GHG emissions regulations	-	Medium	Medium to large
	Water pollution	Risk	Transition	Policy	Lost opportunity to expand production and declines in production due to tightened regulations on water pollution for relevant products	Short to long	Medium	Large
		Opportunity	Market		Avoidance or reduction of effects from tighter water pollution regulations	-	Medium	Large
Common		Opportunity	Sustainable use of natural resources		Enhanced business continuity through stable resource supply based on waste recycling	-	Medium	Medium to large

To address the identified material risks and opportunities, the Mitsubishi Electric Group implements the following measures at the dependency/impact level.

Water supply/usage

- Appropriately managing and reducing water intake
- Evaluating water risks and addressing high-risk sites
- Promoting the use of rainwater and recycled water
- Introducing water reprocessing equipment
- Satoyama Woodland Preservation Project
- Mitsubishi Electric Outdoor Classroom
- Preserving biodiversity at business sites (including registering Nationally Certified Sustainably Managed Natural Sites)
- Conducting tree-planting activities

GHG emissions

- Reducing GHG emissions across the value chain
- Managing product-related environmental data
- Improving energy efficiency in buildings and facilities
- Expanding the introduction of renewable energy
- Reducing CO_2 emissions from product usage
- Contributing to reducing CO_2 emissions by product usage

Water pollution, etc.

- Managing water quality based on voluntary standards
- Managing chemical substances at site and product levels
- Strategically reducing chemical substances
- Specifying and disposing of hazardous waste
- Reducing the use of disposable packaging materials
- Closed-loop recycling of plastic
- Developing new sustainability-related businesses

Nature-related measures (Prepare)

Response to dependencies, impacts, risks, and opportunities

The Mitsubishi Electric Group aims to contribute to the sustainable development of society by recognizing and avoiding/reducing negative impacts and risks that can arise from its business activities while creating opportunities that can bring positive impacts. Specific initiatives are described below.

Environmental Sustainability Vision 2050

Recognizing environmental contribution as a priority management issue, the Mitsubishi Electric Group has established Environmental Sustainability Vision 2050,[10] which sets forth the Group's long-term environmental management vision. It sets Mitsubishi Electric's future course toward 2050 in the form of the Environmental Declaration, Three Environmental Action Guidelines, and Key Initiatives.

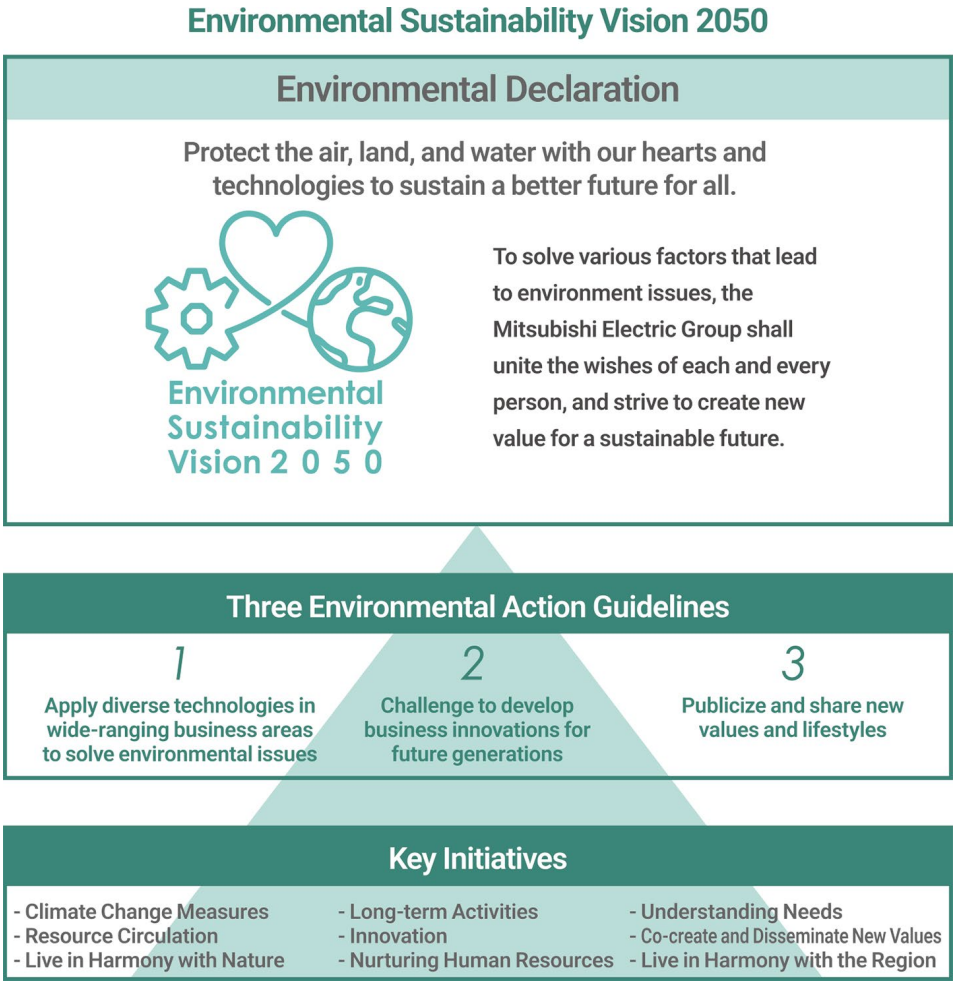

Figure 7: Environmental Sustainability Vision 2050

[10] Mitsubishi Electric Corporation, Environmental Sustainability Vision 2050 (full text): https://www.mitsubishielectric.com/en/sustainability/environment/vision/ev2050/

Environmental Plan

The Mitsubishi Electric Group's environmental plan is a medium-term plan developed for the fulfillment of Environmental Sustainability Vision 2050. In view of the goals set forth in that plan, each business site establishes and implements its own environmental implementation plan for every fiscal year.

Biodiversity Action Guidelines

The Mitsubishi Electric Group has established Biodiversity Action Guidelines which define the role its business activities will play in preserving biodiversity. We are committed to taking action to help build a sustainable world.

Related links

Biodiversity Action Guidelines

Biodiversity preservation measures at business sites

The Mitsubishi Electric Group has set forth three courses of action for preserving biodiversity as guidelines for its business sites. They are: (1) reducing negative impact on living creatures; (2) aiming for more fruitful symbiosis with living creatures; and (3) restoring the relationship between employees and nature in the working environment. At each business site, action plans provide for the preservation of local indigenous species, control of alien species, and development of green space in consideration of the surrounding ecosystem, to ensure these initiatives are steadily addressed in all businesses.

Related links

Creating a society in tune with nature: Preservation of Biodiversity at Business Sites

- Topics: Pursuit of certification as Nationally Certified Sustainably Managed Natural Sites

To contribute to the achievement of the 30by30 target[11] through the biodiversity preservation activities at its business sites, Mitsubishi Electric is working to obtain certification of its sites as Nationally Certified Sustainably Managed Natural Sites.[12]

Our business sites certified as Nationally Certified Sustainably Managed Natural Sites (as of October 2025)

- Power Distribution Systems Center (Marugame City, Kagawa Prefecture)
- Shizuoka Works (Shizuoka City, Shizuoka Prefecture)
- Sagami area (Kamakura City, Kanagawa Prefecture)

[11] An international initiative to conserve 30% of the world's land and sea areas by 2030
[12] Areas where biodiversity conservation is promoted through private-sector initiatives or other efforts, or areas where implementation plans certified under the Act on Promoting Activities to Enhance Regional Biodiversity established by the Ministry of the Environment are underway

- Information Technology R&D Center (Kamakura City, Kanagawa Prefecture; Japanese only)
- Kobe Works (Kobe City, Hyogo Prefecture)

Initiatives at the Power Distribution Systems Center

1. Working with experts to conserve species

   A rare plant species called *kogama* (*Typha orientalis C.Presl*) was found on the grounds of the Center and replanted in its biotope. The plant is still preserved there. Other activities at the site include collecting *itomoroko* (*Squalidus gracilis gracilis*), a freshwater fish species, and *oomizusumashi* (*Dineutus orientalis*), a water bug species, in the nearby Doki River system and releasing them into the biotope under the supervision of experts. The populations of both species have been sharply declining in Kagawa Prefecture, where the site is located. The Center also uses its black pine forest around the biotope to conserve the following native insect species, which are at risk of population decline in some areas: *haru-zemi* (*Yezoterpnosia vacua*) and *shirosuji-kogane* (*Polyphylla albolineata*).

2. Providing ecosystem services[13] through the biotope

   The biotope has nesting platforms and perches, along with open water areas favored by dragonflies, to attract wild birds and insects for resting and nesting. Native plant species have been planted around the area to promote harmony with the local environment. The Center holds nature-related events, such as nature observation events for children in a nearby day nursery. These are intended to give local children and employees' children opportunities to learn about living creatures.

[13] Benefits and functions that the natural environment offers to people and communities

Figure 8: Activities at different business sites

Coexistence with the global environment

The Mitsubishi Electric Group conducts environmental protection activities that are led by employees in cooperation with government offices and communities, and operates outdoor classrooms for children to foster the attitude of respecting nature.

Since the launch in October 2007, the Satoyama Woodland Preservation Project has been driven by the Mitsubishi Electric Group's employees to restore nature around them, such as parks, forests, and rivers in the vicinity of our business sites. The project is intended to repay nature for nurturing diverse living things and offering various blessings, as well as to contribute to the communities where we operate. Under the key words "simple" and "sustained," these activities are ongoing in many parts of Japan in cooperation with local governments and NPOs, considering the local needs.

Forests improved by our employees and their families through the Satoyama Woodland Preservation Project are then used as places for the Mitsubishi Electric Outdoor Classroom. This encourages participating children even more to deepen their understanding of how wonderful living creatures are and how circulation occurs in nature, thus helping to foster their environmental awareness.

Related links

Satoyama Woodland Preservation Project (Japanese version)

Mitsubishi Electric Outdoor Classroom (Japanese version)

- Topics: Mitsubishi Electric Thai Foundation's activities[14]

Mitsubishi Electric Thai Foundation has been working with 11 Mitsubishi Electric Group companies in Thailand, as well as local government agencies, to support independence of local communities and to prevent global warming through initiatives to reduce greenhouse gas emissions and promote carbon sinks, based on environmental protection activities by volunteers from employees and others.

1. Community Water Management Project

The project supports activities to construct reservoirs for villages sustaining damage from drought and flooding. The project, working with Utokapat Foundation, received an award from Her Royal Highness Princess Sirindhorn in January 2024 for its accomplishments.

Figure 9 (left): Reservoir built by the project, Figure 10 (right): Receiving the award

[14] Mitsubishi Electric Corporation's Philanthropic activities, Mitsubishi Electric Thai Foundation https://www.mitsubishielectric.com/philanthropy/fndn/metf/index.html

2. Tree-planting activities

Every year, Mitsubishi Electric Thai Foundation organizes volunteer activities in Thailand as a joint event with the Mitsubishi Electric Group. In fiscal 2025, more than 500 Group employees participated to plant trees and maintained nature trails. During these activities, participants pray for the promotion of environmental protection across the globe, including the Thai region, by following local people's traditional ritual for forest preservation.

Figure 11 (left): Participants in the event, Figure 12 (right): Tree Ordination (ritual for forest preservation)

The Group's businesses accelerating nature-positive

The Mitsubishi Electric Group is accelerating "Trade-On (mutual benefits)" activities that both solve social challenges on a global scale and grow our business. Believing that there are business opportunities for the Mitsubishi Electric Group in areas that combine carbon neutrality, the circular economy, and the nature positive initiative, we extensively roll out and expand sustainability businesses across the realms surrounding society—land, ocean, freshwater, and atmosphere. Some of these businesses are described below.

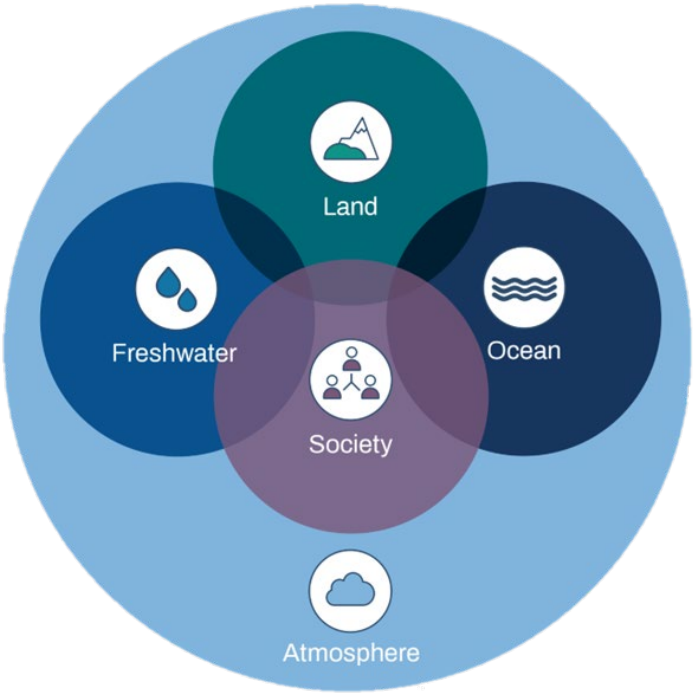

Figure 13: Nature's four realms – Land, ocean, freshwater, and atmosphere[15]

GIST (Global Initiative for Sustainable Technology) Project

The Mitsubishi Electric Group established the GIST Project in 2023 to drive new business creation and enhancement from a global and sustainability-based perspective. Under the GIST Project, we are striving to become the frontrunner in nature-positive action and exploring business opportunities that initially focus on the ocean. Efforts are accelerating through co-creation with other companies and open innovation between industry, government, and academia.

- Topics: Joint Development of Technology for Direct Capturing of CO_2 from Oceans

In October 2024, we signed a memorandum of understanding (MOU) with VTT Technical Research Centre of Finland Ltd. ("VTT") to collaborate on the development of key nature-positive technologies. Currently, with the goal of establishing technologies for actively removing and capturing CO_2 to mitigate the global climate crises, the project focuses on the development of DOC (Direct Ocean Capture), a technology for the direct removal of CO_2 from seawater. With DOC technology, which is also expected to help eliminate ocean acidification, we aim to contribute to realize both carbon neutrality and a nature-positive. Going forward, Mitsubishi Electric will strive to accelerate development activities aimed at implementing DOC technology as early as practical and advance a wide range of related technology initiatives in collaboration with VTT, ultimately to address global environmental issues.

[15] Taskforce on Nature-related Financial Disclosures (TNFD) Recommendations https://tnfd.global/wp-content/uploads/2023/08/Recommendations-of-the-Taskforce-on-Nature-related-Financial-Disclosures.pdf?v=1734112245#page=24

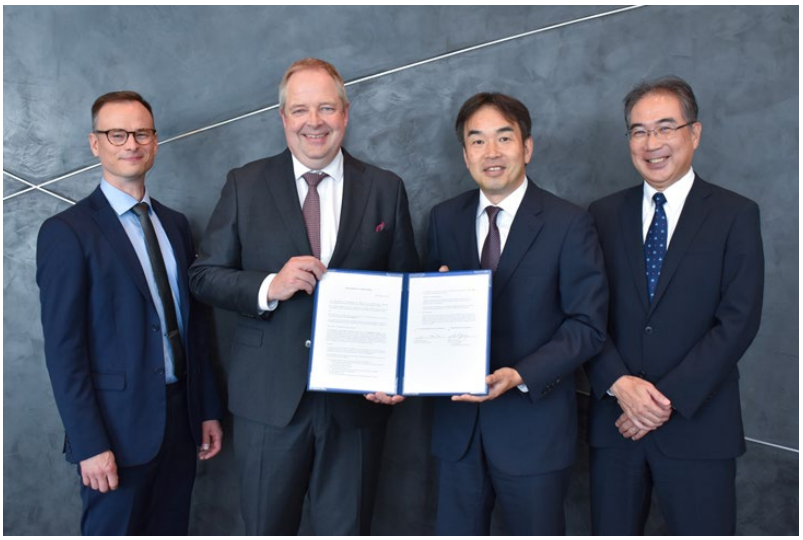

Figure 14: MOU signing ceremony

Related links

Mitsubishi Electric and VTT of Finland to Develop Technology for Direct Capturing of CO_2 from Oceans

Ozone generator (Ozonizer)

Mitsubishi Electric was the first in Japan to develop and market an ozone-based water treatment system in 1968. More than 1,800 units of the product, called Ozonizer, have been delivered to the Japanese and overseas markets. The Ozonizer is available in wide varieties and used in a broad range of fields in Japan and abroad, including water purification plants, sewage plants, factory effluent treatment facilities, aquariums, and swimming pools. At these facilities, ozone treatment is combined with treatment with activated charcoal, allowing the operators to remove odors in water and sewage without using conventional chemicals and even suppress the formation of harmful degradation by-products, making the treatment process safer.

Figure 15: Ozonizer installation example

Related links

Mitsubishi Electric's ozone generator Mitsubishi Ozonizer (Japanese version)

Global Observing SATellite for Greenhouse gases and Water cycle (GOSAT-GW)

Mitsubishi Electric has developed and manufactured satellites for the GOSAT project to monitor concentrations of greenhouse gases, such as carbon dioxide and methane. Through these satellites, which enable important observations, such as monitoring greenhouse gas emissions and absorptions, the Company has contributed to advancement in prevention of natural disasters worldwide that are associated with climate change and global warming. The GOSAT-GW[16] satellite, the latest in the project, was launched in June 2025. It continues on the mission

[16] JAXA IBUKI GW (GOSAT-GW)
https://www.satnavi.jaxa.jp/files/project/gosat-gw/en/

of observing greenhouse gases in a more advanced way than its predecessors—GOSAT, launched in 2009, and GOSAT-2, launched in 2018. A new feature of GOSAT-GW is a built-in sensor to monitor microwaves naturally emitted from the land and ocean surfaces and the atmosphere. With the added ability to observe snowfall and high-layer water vapor, the satellite is expected to help elucidate how water and energy cycles influence climate systems and to play a role in climate change monitoring.

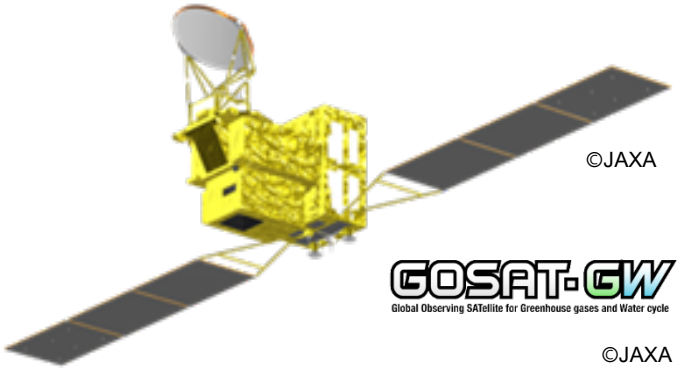

Figure 16 (left): GOSAT-GW

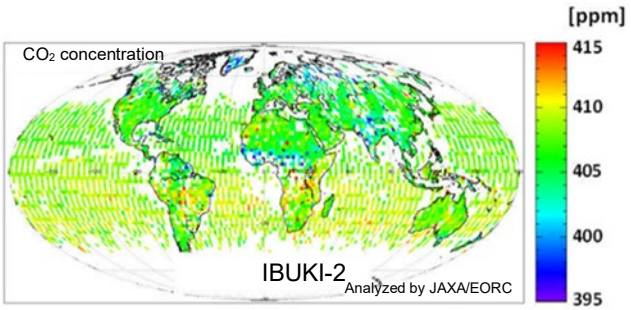

Figure 17 (right): CO_2 concentrations observed by GOSAT-2 (September 2019)[17]

Smart Plastic Separation DX Solution CIRCUENGINE

Leveraging technology cultivated in the home appliance recycling business, the Mitsubishi Electric Group plans to offer equipment that embodies RaaS[18], a concept oriented toward a resource recycling-based society, and an escort-type operation support service called CIRCUENGINE, by making the utmost use of its advanced plastics separation technology using static electricity (electrostatic separation) and digital technology.

The CIRCUENGINE service allows recycling operators to gather data on factors affecting electrostatic separation (e.g., the feedstock composition and input volume of mixed plastic chips) with sensors and then perform AI-based advanced analysis. Based on the results, divider positions in the collection boxes for the separated plastic chips and the voltage applied are automatically controlled. This smart and digitally automated approach to electrostatic separation eliminates the need for skilled workers and enables the stable and accurate sorting of wide-ranging mixed plastics, contributing to the production of recycled plastic materials with high purity and quality.

The Mitsubishi Electric Group will expand the circle of resource circulation with the aim of realizing a circular economy (CE) by offering this service to customers in a variety of industries beyond the home appliance industry.

[17] JAXA Greenhouse gases Observing SATellite-2 “IBUKI-2” (GOSAT-2) https://global.jaxa.jp/projects/sat/gosat2/
[18] Recycle as a Service

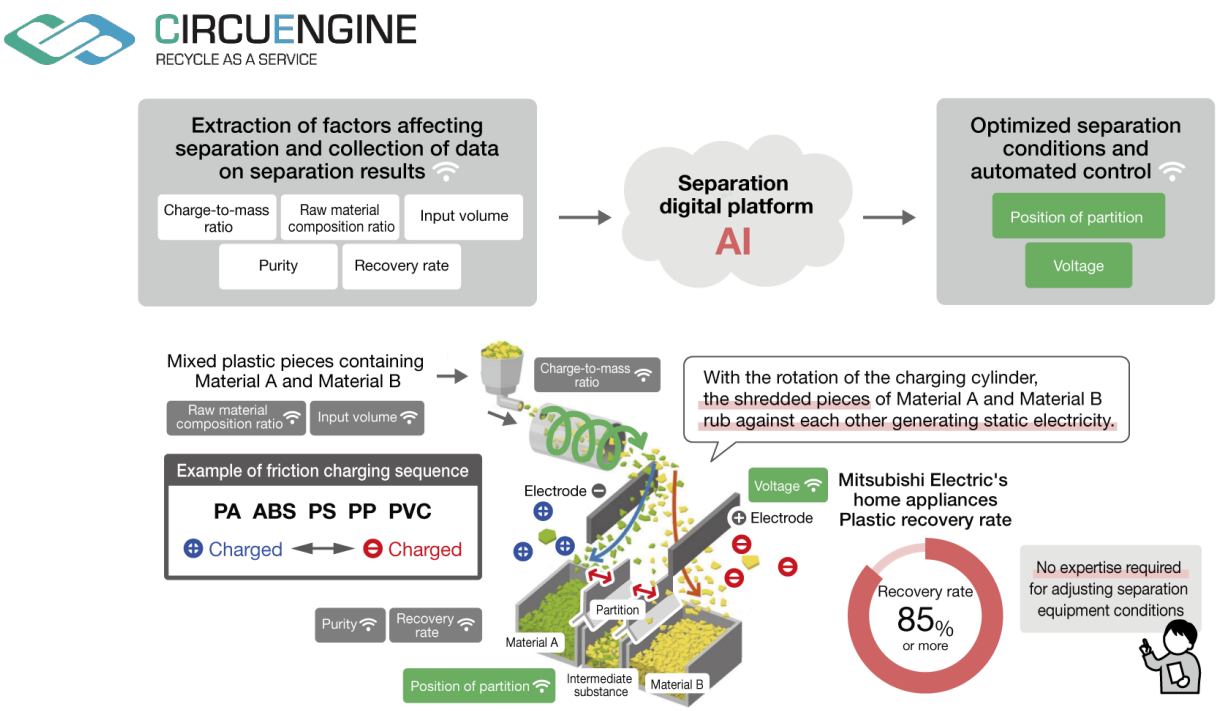

Figure 18. Conceptual image of the service

4. Risk and Impact Management

Processes for addressing nature-related risks and opportunities

The Mitsubishi Electric Group uses its own business strategy decision-making process and a comprehensive risk management process to identify, assess, and manage risks and opportunities related to the global environment, including natural capital.

Each of Mitsubishi Electric's departments (business groups and corporate divisions) and associated companies in Japan and overseas identify nature-related risks that are relevant to them, consider how to respond to such risks and turn them into opportunities, and proactively incorporate them into their business and divisional strategies.

At the same time, as part of the Mitsubishi Electric Group's comprehensive risk management process, we identify, assess, and properly manage issues that have significant impacts on management in various risk areas, including nature-related risk management.

The Group risk management system and positioning of global environmental risks

The Group's global environmental and other risks, including risks related to natural capital, are primarily managed by each corporate division of Mitsubishi Electric and its associated companies in Japan and overseas. In addition, under the leadership of the Chief Risk Management Officer (CRO), the corporate division (i.e., the division in charge of risk management) identifies, assesses, and manages risks based on its knowledge in each area of expertise.

Risks in each specialty area identified and assessed by the division in charge of risk management are consolidated by the Corporate Legal & Risk Management Group, and their impacts on group management are evaluated through relative comparisons among each risk, etc. The Risk Management and Compliance Committee, chaired by the CRO, makes management decisions.

Risks comprehensively assessed through the above process are shared with relevant parties, including management. The Group considers global environmental risks, including natural capital, to be highly material because they have significant impacts on the realization of a sustainable global environment, one of the Group's material issues.

Management process for risks related to the global environment

Global environmental risks, including natural capital-related risks, are identified, assessed, and managed by the Executive Officer in charge of Sustainability and the Sustainability Innovation Group, which is the division in charge of risk management, under the leadership of the CRO, in accordance with the Mitsubishi Electric Group risk management system described above.

Based on the results of such comprehensive risk assessment, the Executive Officer in charge of Sustainability and the Sustainability Innovation Group identify and assess risks by subdividing global environmental risks into smaller risks, taking into account legal trends, technological trends, market trends, external evaluations, and other factors. Based on the results, the Executive Officer and the Group formulate an environmental plan as a medium-term risk management measure and an environmental implementation plan as a one-year measure.

Each group organization (business group, associated company, etc.) formulates its own annual environmental implementation plan based on these plans and reports the results to the Executive Officer in charge of Sustainability and the Sustainability Innovation Group.

The Executive Officer in charge of Sustainability and the Sustainability Innovation Group then review the results of the identifying and assessing of global environmental risks, taking into account the results of each organization and social trends, and in turn report the results to the Corporate Legal & Risk Management Group and, if necessary, revise the environmental plan and reflect the results in the environmental implementation plan for the following fiscal year.

5. Metrics and Targets

Table 7 shows the Mitsubishi Electric Group's metrics aligned with the TNFD core global disclosure metrics.

Table 7: Core global disclosure metrics

Metric	Driver of nature change	Indicator	Metric and description
TCFD	Climate change	GHG emissions	Refer to TCFD[19]
C1.0	Land/freshwater/ ocean-use change	Total spatial footprint	Measurement of the area before and after land-use change
C1.1		Extent of land/freshwater/ocean-use change	Area of the Group's Nationally Certified Sustainably Managed Natural Sites: 3.865 ha
C2.0	Pollution/ pollution removal	Pollutants released to soil split by type	Adherence to the Soil Contamination Countermeasures Act of Japan or equivalent laws[20]
C2.1		Wastewater discharged	Discharges split by destination and treatment conditions[21]
C2.2		Waste generation and disposal	Amounts of hazardous and non-hazardous waste generated, recycled, and sent to direct landfill[21]
C2.3		Plastic pollution	Total weight of product packaging materials used (sum of the weights of disposables and returnables)[21]
C2.4		Non-GHG air pollutants	Emissions of VOC, NOx, and SOx[21]
C3.0	Resource use/ replenishment	Water withdrawal and consumption from areas of water scarcity	Identification of water risks and management of water withdrawal/discharge and intensity split by high-risk sites[21]
C3.1		Quantity of high-risk natural commodities sourced from land/ocean/freshwater	Not applicable
C4.0		Measures against invasive alien species	Identification and removal/control of invasive alien plants affecting the vegetation at business sites
C5.0	State of nature	Ecosystem condition	Analysis following the LEAP approach
		Species extinction risk	
C7.0	Risk	Value of assets, liabilities, revenue and expenses that are assessed as vulnerable to nature-related transition risks (total and proportion of total).	Under calculation
C7.1		Value of assets, liabilities, revenue and expenses that are assessed as vulnerable to nature-related physical risks (total and proportion of total).	
C7.2		Description and value of significant fines/penalties received/litigation action in the year due to negative nature-related impacts.	Not applicable[20]

[19] Mitsubishi Electric Corporation, Climate Change Initiatives (TCFD-Based Disclosure) https://www.mitsubishielectric.com/en/sustainability/environment/carbon-neutrality/tcfd/

[20] Mitsubishi Electric Corporation, Preventing Environmental Incidents https://www.mitsubishielectric.com/en/sustainability/environment/management/#anc01

[21] Mitsubishi Electric Corporation, Environmental Data https://www.mitsubishielectric.com/en/sustainability/environment/environmental-data/

C7.3	Opportunity	Amount of capital expenditure, financing or investment deployed towards nature-related opportunities, by type of opportunity, with reference to a government or regulator green investment taxonomy or third-party industry or NGO taxonomy, where relevant.	Under calculation
C7.4		Increase and proportion of revenue from products and services producing demonstrable positive impacts on nature with a description of impacts.	