NYK Group

# TNFD Report 2025

- A Passion for Planetary Wellbeing -


NYK GROUP

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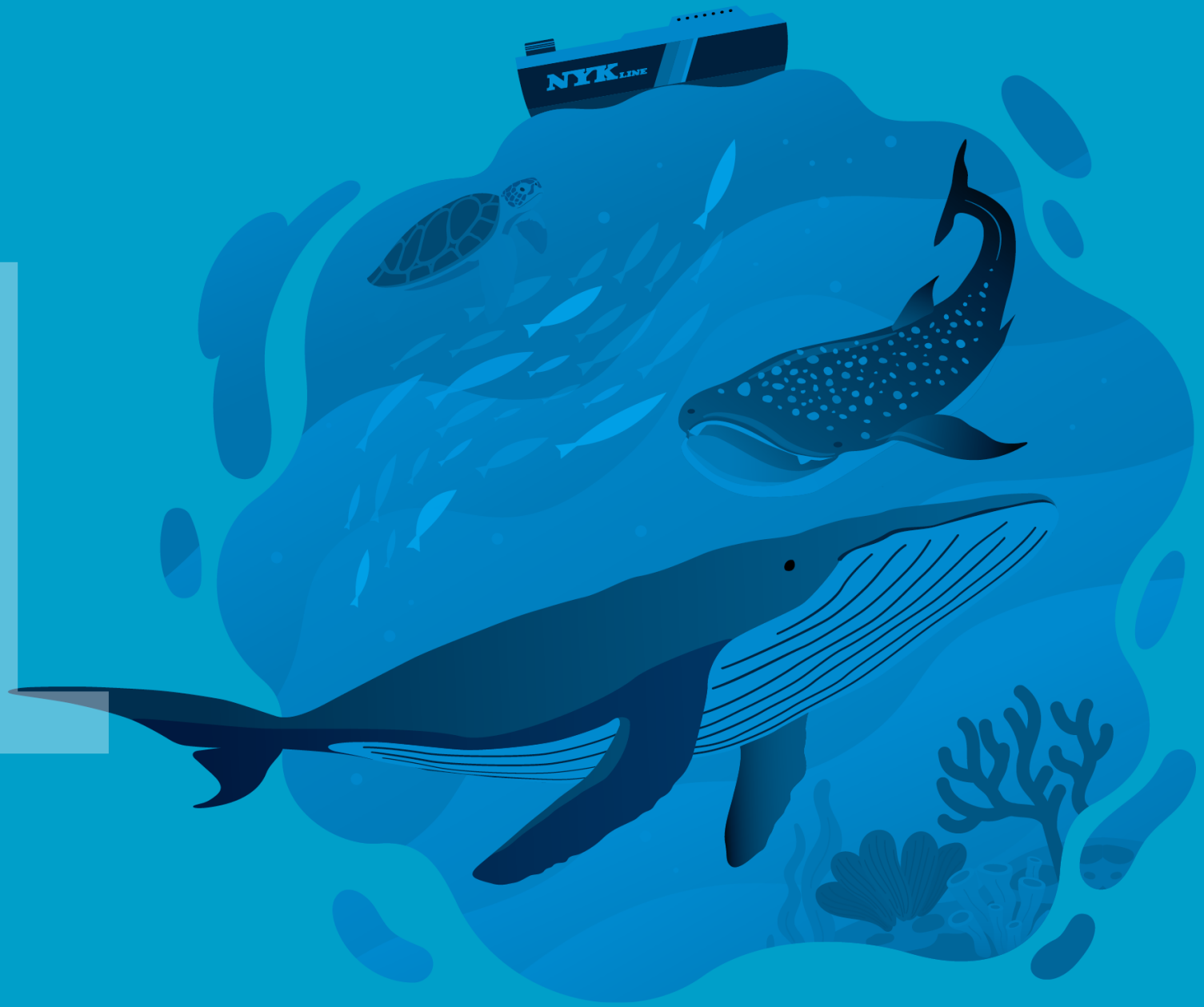


# CEO Message

The NYK Group believes in “Bringing value to life” as its mission statement. In the spirit of that statement, the Group has been expanding its activities as a comprehensive global logistics enterprise since its founding in 1885, taking pride in supporting people’s lives and livelihoods, with a focus on maritime shipping.

Maritime shipping depends on a form of natural capital that covers 70% of the Earth’s surface—the oceans. However, recent years have brought concerns over the rapid decline of the marine environment, which include rising seawater temperatures, accelerating rates of extinction, and the increasingly dire issue of ocean plastics.

In 2022, under the United Nations Convention on Biological Diversity, the Global Biodiversity Framework (GBF), which sets out international biodiversity-related goals, was established, as were a 2050 vision of “a world living in harmony with nature” and a 2030 mission of achieving “nature positive.” The GBF’s action-oriented global targets include targets “to conserve at least 30% of land, waters, and seas by 2030 (30 by 30)” and “to reduce the introduction and establishment of invasive alien species by 50% and minimize their impact.” These targets demonstrate the need for action in our oceans across the planet.

As for the NYK Group, it has set “Safety,” “Environment,” and “Human Resources” as material issues, while also positioning “Preservation of Marine Environment and Biodiversity” as an environmental issue that requires particular attention under the NYK Group Environmental Vision, alongside “Response to Climate Change” and “Prevention of Air Pollution.” In keeping with these steps, the NYK Group became a TNFD Early Adopter* in January 2024.

* TNFD Early Adopter: A company, local government, NPO, or other organization that has declared its commitment to make nature-positive efforts, which is the first step toward getting these efforts underway

Related links > NYK Group Environmental Vision > TNFD Early Adopter News Release

In February 2025, the NYK Group issued *NYK Group TNFD Report 2024 - A Passion for Planetary Wellbeing,* a disclosure report based on the TNFD’s recommendations. In the report, we made clear both the dependencies and impacts of international shipping on the natural environment and ecosystems and laid out the resulting business risks and opportunities.

This second edition includes expanded content based on the TNFD Marine Transportation Sector Guidance published in June 2025. We will also use the findings from this report to further our initiatives and reinforce Companywide strategies and goals.

Since international shipping is a global business that connects countries to one another, it is difficult to establish rules specific to any one country or region. To help remedy this, the International Maritime Organization (IMO) has established a global set of rules. We are not only compliant with these rules but also play an active role in rule-making through engagement with the IMO, leading international discussions on environmental conservation.

Going forward, we will continue to work with a variety of stakeholders to address issues of natural capital in earnest, and the entire Group will work together to improve corporate value and resolve social issues to achieve a sustainable society, or put differently, a green and beautiful earth, and pass on a peaceful society to future generations.

Takaya Soga
President, Representative Director
Nippon Yusen Kabushiki Kaisha

# Summary

This report focuses on international shipping, which is one of the NYK Group's core businesses, and its corresponding value chain. The report provides the results of an analysis of the relationship between the business and nature—specifically dependencies and impacts—as well as the accompanying risks and opportunities, along with related measures and targets presented in line with the disclosure recommendations put forth by the TNFD. At the end of the report is a special feature titled "Giving Back to the Oceans," which introduces the Group's efforts to contribute toward the preservation of the marine environment as well as biodiversity.

In addition to the contents of the previous report and based on the Marine Transportation Sector Guidance published by the TNFD in June 2025, this report expands the disclosures on "Nature-Related Risks and Opportunities" in the "Strategy" section, as well as "Metrics and Results" in the "Metrics and Targets" section. Furthermore, the special feature "Giving Back to the Oceans" newly includes "Addressing Environmental and Social Issues Through Involvement with River Cleanup Efforts in the Philippines."

## The Four Pillars of the TNFD Recommendations

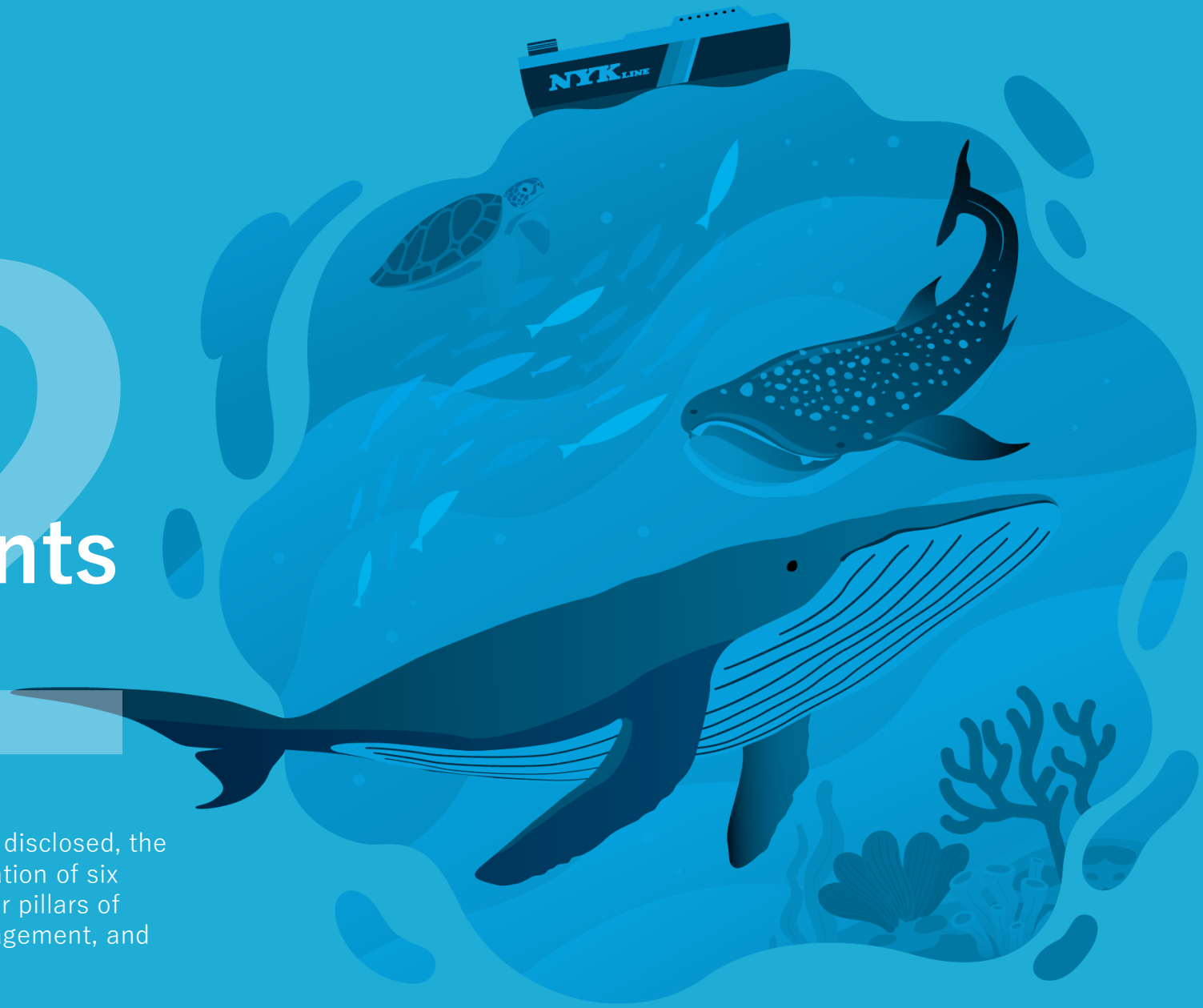
The TNFD recommends that information be disclosed in line with four pillars: governance, strategy, risk and impact management, and metrics and targets.

The key recommended disclosure items and the details disclosed in this report are provided in the table below. We will investigate and disclose scenario analysis results as needed, based on the availability of usable nature-related scenarios and other factors.

■ **Table 1: Overview of Items Disclosed**

| Pillars | Key Recommended Disclosure Items (items in bold addressed in this report) |
|---|---|
| Governance | ✔ **Board oversight of nature-related dependencies, impacts, risks and opportunities (hereafter "nature-related issues")**<br>✔ **Management's role in assessing and managing nature-related issues**<br>✔ **Human rights policies and engagement activities with respect to Indigenous Peoples, local communities, and affected and other stakeholders** |
| Strategy | ✔ **Any nature-related issues that have been identified**<br>✔ **Effect of nature-related issues on the organization's business model, value chain, strategies, and financial planning**<br>✔ Resilience of strategies, taking into consideration different scenarios (scenario analysis)<br>✔ **Priority locations for corporate activities** |
| Risk and Impact Management | ✔ **Processes for identifying, assessing, and prioritizing nature-related issues in direct operations**<br>✔ **Processes for identifying, assessing, and prioritizing nature-related issues in upstream and downstream value chain(s)**<br>✔ **Processes for managing nature-related issues**<br>✔ **Integration of the above processes into the organization's overall risk management processes** |
| Metrics and Targets | ✔ **Metrics used to assess and manage nature-related risks and opportunities**<br>✔ **Metrics used to assess and manage nature-related dependencies and impacts**<br>✔ **Targets and goals used to manage nature-related issues as well as progress made with regard to solving said issues** |

# 02 General Requirements




To ensure consistency in the information disclosed, the TNFD recommendations call for the application of six general requirements when utilizing the four pillars of governance, strategy, risk and impact management, and metrics and targets.

# General Requirements

## 1. Application of Materiality

With consideration given to stakeholder expectations and the strong social impact of its business activities, the NYK Group has identified “Safety,” “Environment,” and “Human Resources” as material issues with governance underlying them. With regard to “Environment” in particular, we have positioned “Preservation of Marine Environment and Biodiversity" as one of the key issues. When identifying nature-related issues, we first gain an understanding of the Group’s nature-related dependencies and impacts and then identify the material issues based on the degree of risks and opportunities for the Group.

**■ Figure 1: NYK Group’s Mission, Vision, Value + Management Strategy + Material Issues**


## 2. Scope of Disclosures

This report presents the results of an assessment of nature-related issues for international shipping, one of the NYK Group's core businesses, its upstream and downstream value chains, and an analysis of priority locations among sailing areas.

We intend to continue efforts to identify risks and opportunities based on our scenario analysis, as well as analyzing businesses outside of international shipping where there are important nature-related issues.

## 3. Location of Nature-Related Issues

This report provides a location-based analysis focused on international shipping. The analysis was conducted covering all ocean areas where vessels of NYK and its Group companies* operate and identified areas with nature-related issues based on vessels’ location information, excluding short-term chartered-in vessels and TC OUT vessels (chartered-out vessels) over the period of July 2023 to June 2024. Details of the data used in the analysis are provided in the “Analysis of Priority Locations” in the “Strategy” section.

* Group companies: NYK Bulk & Projects Carriers Ltd., NYK BULKSHIP (ASIA) PTE. LTD., NYK BULKSHIP (ATLANTIC) N.V., and NYK BULKSHIP (KOREA) CO., LTD.

## 4. Integration with Other Sustainability-Related Disclosures

Going forward, we will investigate methods of comprehensive disclosure for nature-related issues in a manner consistent with other disclosures.

## 5. Time Horizons Considered

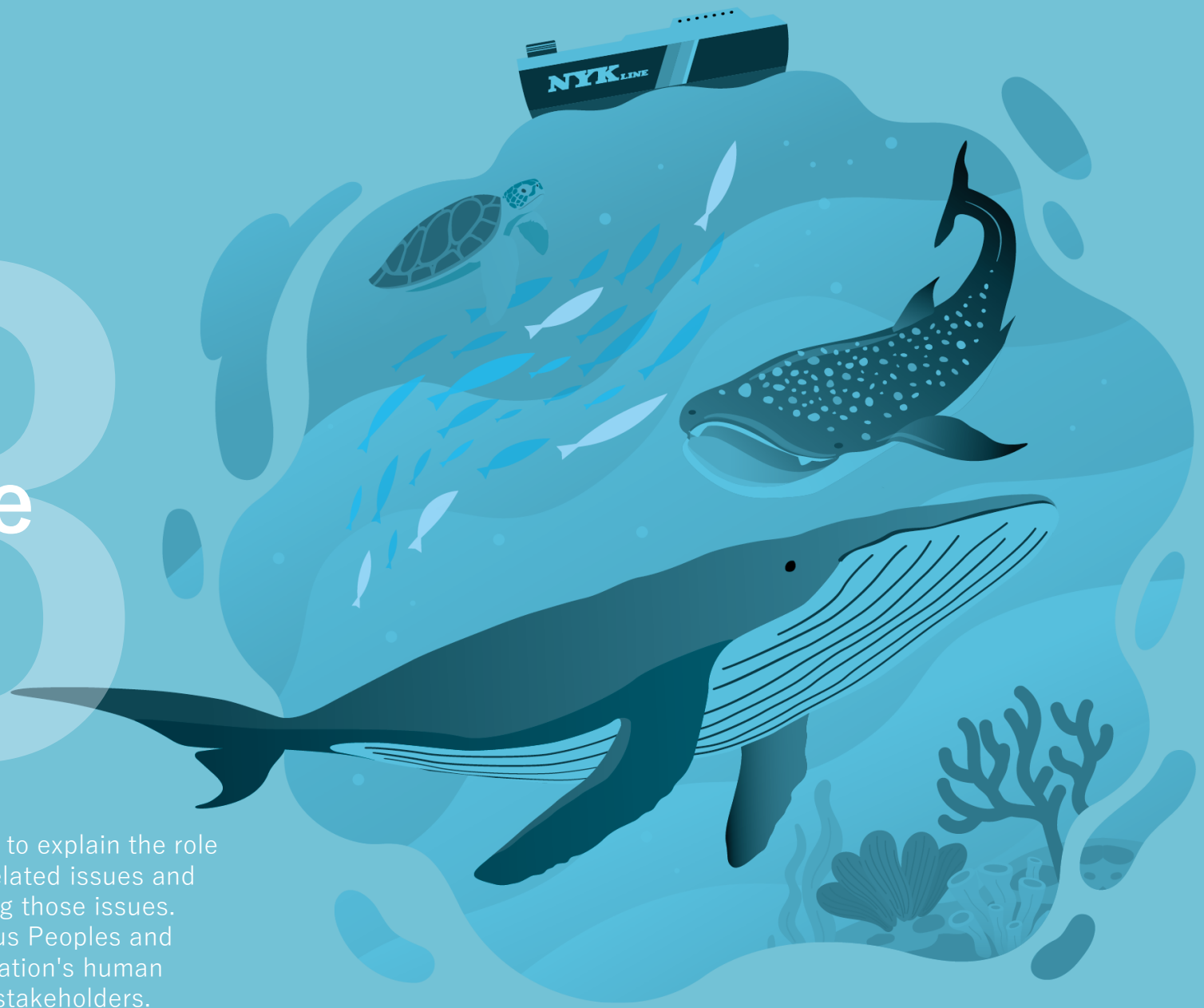
The NYK Group has released its “Nature Positive Declaration” as encouraged by the Japan Conference for 2030 Global Biodiversity Framework (J-GBF) and in acknowledgment of the GBF targets. Taking into consideration the target years put forth by the GBF, we are working to identify, set, and investigate risks and opportunities according to the following time periods.

- Medium term: 2030 mission—achieve “nature positive”
- Long term: 2050 vision—“a world living in harmony with nature”

## 6. Engagement with Indigenous Peoples, Local Communities, and Affected Stakeholders

As explained under the heading “Human Rights Policy and Management Processes” in the “Governance” section below, the NYK Group has developed the NYK Group Human Rights Policy based on international norms and is engaged in human rights due diligence.

# 03 Governance




Disclosure of governance requires organizations to explain the role of their boards of directors in overseeing nature-related issues and the role of management in assessing and managing those issues. Since natural capital is closely related to Indigenous Peoples and local communities, disclosure includes the organization's human rights policy and engagement for these and other stakeholders.

# Governance

## Governance System for Handling Nature-Related Issues

The NYK Group has established the Sustainability & Transformation Headquarters, which serves as the organization responsible for Sustainability Management. To fulfill this role, the Sustainability & Transformation Headquarters calls upon the Sustainability Strategy Committee, which comprises executive officers, general managers representing each department, and external experts. The committee discusses a variety of sustainability issues, including nature-related issues, from a cross-departmental perspective. Important matters resulting from these discussions are reported to the Management Meeting via the Sustainability & Transformation Headquarters.

The Board of Directors receives reports on sustainability issues, including nature-related issues, and makes decisions on matters requiring resolution following deliberation by the Management Meeting. The Group has established a system for actively addressing these issues to increase corporate value over the medium to long term. The Board of Directors oversees this process to ensure that it contributes to sustainable corporate growth.

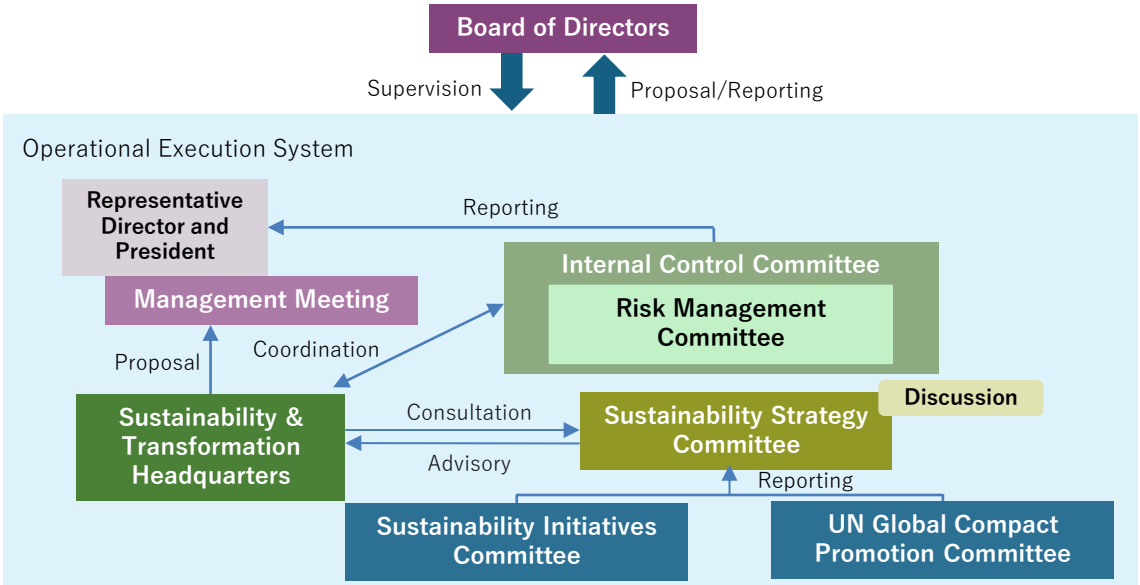
In addition, the Sustainability & Transformation Headquarters works with the Risk Management Committee to manage climate change and other nature-related risks, and the Risk Management Committee integrates these risks into Companywide risks and reports to the Board of Directors twice a year.

Furthermore, the Group's performance-based stock compensation plan, part of its compensation system for executives, incorporates the Group’s in-house sustainability indicators, which have been determined based on the Group’s stance on sustainability, making  management's responsibility clear in this regard.

Additionally, five members of the Board of Directors (71%, excluding directors who are Audit & Supervisory Committee members) are knowledgeable in the area of sustainability.

Related link ＞ NYK’s Performance-Based Stock Compensation Plan

■ **Figure 2: Governance Structure**




### Role of the Sustainability & Transformation Headquarters

- Formulation of Sustainability Management policies, goal-setting, KPI management
- Leading implementation of Sustainability Management

### Role of the Sustainability Strategy Committee

- Cross-departmental discussions on Companywide sustainability issues
- Formulation of policies and specific countermeasures
- Discussion of business-related sustainability issues and sharing of the most up-to-date information

### Sustainability Initiatives Committee

- Discussion of projects proposed by employees that could contribute to solving social issues

### UN Global Compact Promotion Committee

- Groupwide promotion of measures and establishment of systems based on the United Nations Global Compact

# Human Rights Policy and Management Processes

## NYK Group Human Rights Policy

The NYK Group understands that its business activities may have an adverse effect on human rights, either directly or indirectly. Therefore, the Group regards human rights risks as one of its major risk categories. In November 2022, the Group established the NYK Group Human Rights Policy based on the United Nations Guiding Principles on Business and Human Rights to serve as a guideline. With regard to its basic stance on human rights, the Group supports and respects international treaties and declarations such as the UN International Bill of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, the OECD Guidelines for Multinational Enterprises, and the UN Declaration on the Rights of Indigenous Peoples. The Group also supports and respects the Ten Principles of the UN Global Compact.

## Human Right Due Diligence

The Group conducts human rights due diligence according to procedures outlined in the in the UN Guiding Principles on Business and Human Rights in an effort to prevent and mitigate adverse impacts on human rights. We also engage in stakeholder engagement based on regular advice from third-party organizations with specialized knowledge. For specific due diligence processes and examples of our initiatives, please refer to the “Human Rights Due Diligence” and “Stakeholder Engagement” sections of our corporate website.

## Grievance Mechanisms

In addition to its human rights due diligence efforts, the Group has established grievance mechanisms. We currently operate several consultation desks, including a whistleblower system available to all Group employees, and respond swiftly to inquiries involving the possible infringement of human rights. Furthermore, the Group has established a multilingual contact point dedicated to receiving concerns and consultations related to human rights or the environment, which is available to all stakeholders, including employees of business partners and local communities. When accepting inquiries, we protect the privacy of those making inquiries and ensure confidentiality.

# Nature-Related Advocacy and Engagement

## Advocacy and Engagement

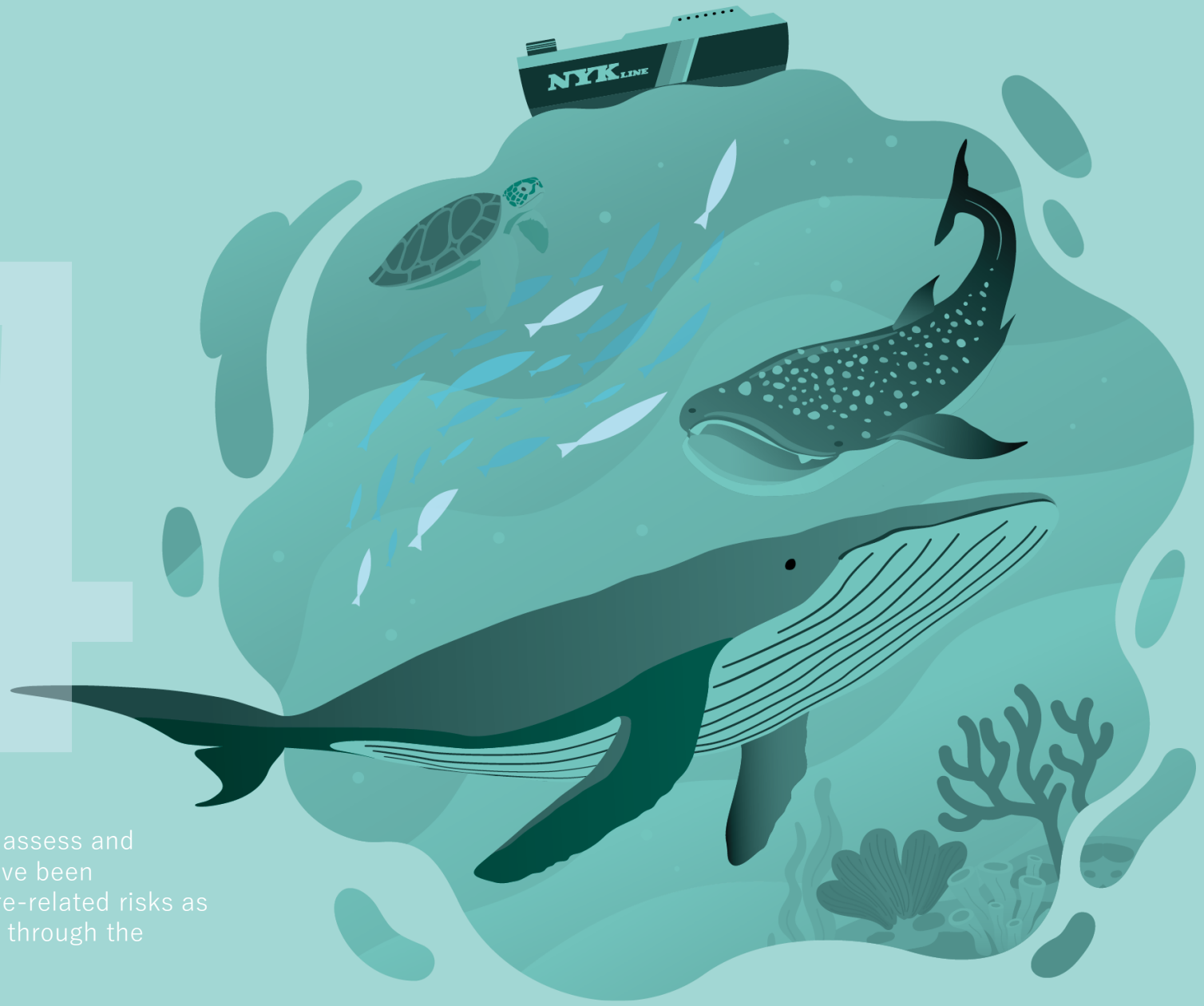
The NYK Group takes part in the creation of international rules for the maritime shipping industry. The IMO, the policymaker for the entire international maritime shipping industry, has been involved in developing environmental rules such as those made under the International Convention for the Prevention of Pollution from Ships (MARPOL Convention) and the International Convention for the Control and Management of Ships' Ballast Water and Sediments. As the representative of the Japanese Shipowners' Association, the NYK Group plays an active role in IMO discussions on the nature and content of environmental regulations for ships from the standpoint of shipowners and operators.

In addition, in April 2023, the NYK Group became the first Japanese shipping company to join the World Business Council for Sustainable Development (WBCSD). The WBCSD has identified three critical challenges that demand urgent action—climate emergency, nature loss, and mounting inequality—and is currently working with the United Nations, governments, and NGOs to address these issues.

Before engaging with policymakers or industry associations, we carefully examine whether their actions are consistent with our relevant nature-related strategies before making a decision on whether or not to proceed.

Related links > NYK Group Human Rights Policy > Human Rights Due Diligence > Stakeholder Engagement

# 04 Strategy




Disclosure of strategy requires organizations to assess and explain any material nature-related issues that have been identified and disclose measures to address nature-related risks as well as priority locations that have been identified through the assessment.

# Strategy

## Nature-Related Dependencies and Impacts

This report focuses on international shipping, examining nature-related dependencies and impacts for each of its upstream and downstream value chains and direct operations and then assessing their importance on a five-point scale. When conducting the assessment for this report, we first identified the relevant sectors and then assessed each sector with reference to ENCORE, a tool developed by the United Nations Environment Programme's World Nature Monitoring Centre (UNEP-WCMC) and others. We then adjusted the level of importance for some of our direct operations and downstream sectors based on the true situation in the field.

### Key Dependencies

- Marine engineering: The effective procurement of iron ore, a raw material used in the production of steel, is dependent upon the mitigation of flooding and storms (to prevent natural disasters), as well as rainfall pattern regulation, global climate regulation, and wastewater purification.
- Ship operations: Ship operations are conditional upon the mitigation of storms and floods via mangroves and coral reefs. They are also dependent on climate change regulation as a means to mitigate changes in ocean current patterns and increased severity of weather and sea conditions.
- Ports: Ports require flood and storm mitigation as well as the regulation of climate change to prevent damage to infrastructure.
- Dismantling: Dismantling is dependent upon climate change regulation as a means to prevent work delays and industrial accidents, as well as on solid waste remediation to handle waste generated during the dismantling process.

### ■ Table 2: Nature-Related Dependencies

Dependency on ecosystem services: VH Very High | H High | M Medium | L Low | VL Very Low

| Name of Business | Value Chain | Related Sectors | | Ecosystem Service Dependencies | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Supply Services | | Regulating and Maintenance Services | | | | | | | | |
| | | | | Freshwater Resources | Other Supply Services | Soil and Sediment Retention | Flood and Storm Mitigation | | | Rainfall Pattern Regulation | Global Climate Regulation | Pollution Cleanup | | | Other Adjustment and Maintenance Services |
| | | | | | | | Water Flow Regulation | Flood Mitigation | Storm Mitigation | | | Solid Waste Remediation | Air Filtration | Water Purification | |
| International Shipping | Upstream | Fuel procurement | Crude oil | M | - | M | M | H | M | - | H | L | M | H | L |
| | | | Natural gas | L | - | L | M | H | L | - | H | L | M | VL | L |
| | | Marine engineering | Procurement of iron ore (steel materials) | H | VL | M | H | H | M | VH | H | L | M | VH | L |
| | | | Ship building | L | - | M | M | M | M | - | VL | - | L | - | - |
| | | | Manufacture of ship-related equipment | M | - | L | M | M | M | VL | VL | L | L | M | VL |
| | | Satellite communications | | VL | - | M | L | M | M | VL | VL | - | - | - | - |
| | | General insurance | | VL | - | VL | VL | VL | VL | - | VL | - | - | - | - |
| | Direct operations | Ship operations | | L | - | L | M | H | H | M | VH | L | VL | M | VL |
| | | Service and maintenance | | M | - | L | M | M | M | VL | M | - | L | - | VL |
| | Downstream | Ports | Port services | L | - | L | M | H | M | VL | M | - | VL | - | VL |
| | | | Cargo handling | VL | - | L | VL | VL | L | VL | M | - | VL | - | VL |
| | | | Port logistics | VL | - | L | VL | VL | L | VL | M | - | VL | - | VL |
| | | Dismantling | | M | - | M | L | L | L | VH | M | H | M | M | VL |

## Key Impacts

● Fuel procurement: The procurement of both crude oil and natural gas may impact the environment through the usage of freshwater and marine areas during extraction, generation of greenhouse gas (GHG) emissions and other air pollutants, soil and water pollution, and through ecosystem disturbances.

● Marine engineering: The procurement of iron ore may impact the environment through the usage of freshwater and marine areas during extraction, resource usage, production of solid waste and soil and water pollution, and through ecosystem disturbances. In addition, ship building and the manufacture of ship-related equipment may impact nature through not only the production of air, soil, and water pollution originating from the paint used but also disturbances to ecosystems from noise and unpleasant odors.

● Ship operations: Ship operations were judged to have a major impact on the environment for reasons that include the usage of marine areas during operation, generation of GHG emissions, disturbances to ecosystems through underwater noise and collisions with marine life, and the introduction of invasive alien species via ballast water and organisms attached to ship hulls.

The assessment also determined that the impact of air pollution caused by emissions of sulfur oxides (SOx) and nitrogen oxides (NOx) as well as of marine pollution caused by the leakage of anti-fouling paint from ship bottoms, fuel, and cargo are significant as well.

● Ports: Ports were deemed to have a significant impact on the environment due to changes in land usage and occupation from the construction of infrastructure, soil and water pollution from the cleaning of ship bottoms and bunkering (supplying fuel), and the introduction of invasive alien species when anchored.

● Dismantling: Dismantling was shown to have a significant impact on the environment for reasons that include pollution from waste generated during operations, soil and water pollution from the leakage of hazardous substances, and ecosystem disturbances from noise and light pollution. We also recognize that if other operations, such as the use of marine areas during beaching,* are not carried out appropriately, there is a high likelihood that there will be widespread nature-related impacts.

* Beaching: The act of grounding a vessel on land and dismantling it on the spot

### ■ Table 3: Nature-Related Impacts

Nature-related impacts: VH Very High | H High | M Medium | L Low | VL Very Low

| Name of Business | Value Chain | Related Sectors | | Cause of Impact: Changes in Land, Freshwater, and Marine Area Usage – Land Area Usage | Freshwater Area Usage | Marine Area Usage | Climate Change – GHG Emissions | Usage and Recovery of Resources – Water Usage | Other Resource Usage | Pollution and Decontamination – Solid Waste | Non-GHG Air Pollution | Soil and Water Pollution | Ecosystem Disturbances | Invasive Alien Species – Biological Changes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| International Shipping | Upstream | Fuel procurement | Crude oil | L | VH | VH | H | L | - | M | H | VH | VH | L |
| | | | Natural gas | L | H | H | H | M | - | M | H | H | H | VL |
| | | Marine engineering | Procurement of iron ore (steel materials) | M | H | H | M | L | H | VH | M | H | H | VL |
| | | | Ship building | - | - | - | L | L | - | L | L | H | H | - |
| | | | Manufacture of ship-related equipment | L | - | - | M | M | - | L | H | M | M | - |
| | | Satellite communications | | VL | L | - | L | VL | - | VL | VL | - | M | - |
| | | General insurance | | L | - | - | L | VL | - | VL | VL | L | L | - |
| | Direct operations | Ship operations | | - | - | VH | VH | L | - | M | H | H | VH | VH |
| | | Service and maintenance | | L | - | L | L | M | - | M | L | M | L | - |
| | Downstream | Ports | Port services | H | VL | M | M | L | - | L | L | H | VL | - |
| | | | Cargo handling | H | VL | VL | M | L | - | L | L | L | VL | H |
| | | | Port logistics | L | - | - | M | L | - | L | L | VL | - | - |
| | | Dismantling | | M | M | M | M | M | - | VH | M | H | VH | M |

# Nature-Related Risks and Opportunities

Nature-related risks and opportunities for international shipping of medium or higher magnitude based on the assessment of dependencies and impacts are shown in tables 4-1 and 4-2.

While we recognize that risks and opportunities are two sides of the same coin, this report focuses on disclosing risks. Therefore, only noteworthy opportunities are listed at the end of the following table. In addition, the expected time frame for risks to materialize in the medium term is 2030 and 2050 from a long-term standpoint.

## ■ Table 4-1 - Key Nature-Related Risks and Opportunities

| Risk Category | | Nature-Related Dependencies and Impacts | Business Impact | Key Financial Impacts, etc. | Degree of Risk | Time Frame | | Key Measures |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Medium Term | Long Term | |
| **Physical Risks** | **Acute** | **Dependencies**<br>Climate regulation, Storm mitigation, Rainfall pattern regulation | Frequent and severe abnormal weather and sea conditions could impact ship operations, cause damage to and loss of cargo, and damage port infrastructure. | **Expenses** Increased hours of operation, higher insurance premiums, etc.<br>**Reputation** Damage to reputation due to cargo that is damaged or lost overboard | **Medium** | ● | ● | ・Formulation of business continuity plan (BCP)<br>・Optimal shipping route selection using the Group's proprietary ship management system<br>・Implementation of training for responding to serious accidents<br>・Real-time updates of ships' operational status |
| | **Chronic** | **Dependencies**<br>Climate regulation | Long-term and chronic changes in ocean conditions stemming from climate change could lead to the deterioration of port environments and restrictions on their use, as well as changes in cargo supply and demand locations. | **Expenses** Increased hours of operation<br>**Earnings** Changes in the movement of cargo due to changes in supply and demand locations | **Medium** | | ● | |
| | | **Dependencies**<br>Water purification<br>**Impacts**<br>Climate change, Water pollution | Rising seawater temperatures and marine eutrophication could lead to the damage of onboard equipment at a greater frequency and an increase in the number of organisms that attach to ship hulls. | **Expenses** Increased ship maintenance costs | **Medium** | | ● | ・Proper management of organisms attached to ship hulls, application of anti-fouling paints on ship bottoms, etc.<br>・Collection of the latest information regarding international and local regulations and ensuring compliance<br>・Participation in river restoration projects in the Philippines |
| | | **Dependencies**<br>Water supply, Water flow regulation, Climate regulation | Water shortages could impact ship operations in canals. | **Expenses** Increased hours of operation | **Medium** | ● | | ・Engage with government agencies that manage canals |
| | | **Dependencies**<br>Climate regulation<br>**Impacts**<br>Climate change, Ecosystem disturbances | Changes in the habitats of large marine organisms could pose an increased risk of collisions. | **Expenses** Increased hours of operation<br>**Reputation** Damage to reputation if not addressed | **Medium** | | ● | ・Collection of information regarding key habitats for large marine organisms<br>・ Participation in a vessel speed reduction program |

## ■ Table 4-2 - Key Nature-Related Risks and Opportunities

| Risk Category | | Nature-Related Dependencies and Impacts | Business Impact | Key Financial Impacts, etc. | Degree of Risk | Time Frame | | Key Measures |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Medium Term | Long Term | |
| **Transition Risks** | **Regulations** | **Impacts**<br>Usage of marine areas, Water pollution, Air pollution, Ecosystem disturbances, Introduction of invasive alien species | The expansion of protected marine areas and areas deemed to be important for biodiversity could lead to stricter navigational rules, such as designating areas as off-limits and imposing speed restrictions. | **Expenses** Increased hours of operations and expenses to address changes | **Major** | ● | | ・Collection of the most up-to-date information on protected areas, etc.<br>・Participation in the IMO's Marine Environment Protection Committee (MEPC)<br>・Identification of sensitive locations and assessment of risks<br>・Implementation of safety management in line with the NYK Group's proprietary standards |
| | | **Impacts**<br>Usage of marine areas, Water pollution, Air pollution, Ecosystem disturbances, Introduction of invasive alien species | Stricter international, national, and regional regulations could be adopted, including:<br>・Regulations for the management of biological fouling on ship hulls<br>・ The International Convention for the Control and Management of Ships' Ballast Water and Sediments<br>・The International Convention on the Control of Harmful Anti-fouling Systems on Ships<br>・Guidelines for the Reduction of Underwater Radiated Noise<br>・The Ship Recycling Convention<br>・Regulations for ship scrubbers<br>・Regulations for invasive alien species,<br>etc. | **Expenses** Increased hours of operations and expenses to address changes<br>**Earnings** Market instability due to changes in ship supply and demand | **Major** | ● | | ・Implementation of measures based on international, national, and regional regulations<br>(e.g., proper management of ballast water, speed reduction in designated waters, management of organisms attached to a ship's hull, recovery and treatment of exhaust emissions in response to the California Air Resources Board's (CARB) expanded exhaust emission regulations for vessels calling at ports in the state, etc.)<br>・Participation in the IMO's regulation formulation process<br>・Management of ship dismantling in advance of the Ship Recycling Convention's coming into force. |
| | | | | **Expenses/Reputation** Fines and sanctions if not addressed | **Medium** | ● | | |
| | **Regulations/ Market/ Reputation** | **Impacts**<br>Climate change, Air pollution | Stricter regulations could lead to a surge in demand for sustainable fuels, rising prices, and heightened competition for resources. | **Expenses** Increased fuel costs and operational expenses<br>**Expenses/Reputation** Fines and damage to reputation if not addressed | **Medium** | ● | | ・Dispersal of fuel procurement areas and reduction of fuel consumption<br>・Research and development into the use of alternative fuels |
| | **Technology** | **Impacts**<br>Climate change, Air pollution, Ecosystem disturbances | Development and ordering of ships with a lower environmental impact could lead to higher costs. | **Expenses** Increased R&D expenses and ship procurement costs | **Medium** | ● | | ・Research and development into the use of alternative fuels<br>・Increase in the number of ships built that utilize alternative fuels<br>・Adoption of the Group's proprietary bilge system and other technologies to prevent marine pollution |

## ■ Table 4-3 - Key Nature-Related Risks and Opportunities

| Risk Category | | Nature-Related Dependencies and Impacts | Business Impact | Key Financial Impacts, etc. | Degree of Risk | Time Frame: Medium Term | Time Frame: Long Term | Key Measures |
|---|---|---|---|---|---|---|---|---|
| **Transition Risks** | **Reputation** | **Impacts**<br>Land and marine area usage, Water pollution, Air pollution | Environmental issues in the supply chain could become apparent, including at the dismantling and fuel procurement stages, leading to stricter regulations. | **Reputation** Damage to reputation due to social criticism | **Medium** | ● | ● | ・Appropriate management during the scrapping stage<br>・Development and publication of NYK Group Supplier Code of Conduct<br>・Consideration of nature- and human rights-related risks in areas where fuel is procured |
| | **Reputation/ Liability for Compensation** | **Impacts**<br>Marine area usage, Water pollution | Oil pollution, cargo spills, and other marine accidents could lead to criticism from society and liability for compensation. | **Reputation** Damage to reputation due to criticism from society and decline in employee morale | **Medium** | ● | ● | ・Implementation of assessments in line with the NYK Group's proprietary safety standards<br>・Adoption of highly safe hull structures<br>・Implementation of safety promotion campaigns |
| | | | | **Expenses** Fines, pollution removal costs, damage compensation for delays or inability to transport cargo, and higher insurance premiums | **Major** | ● | ● | |

| Opportunity Category | Nature-Related Dependencies and Impacts | Business Impact | Key Financial Impacts, etc. | Degree of Opportunity | Time Frame: Medium Term | Time Frame: Long Term | Key Measures |
|---|---|---|---|---|---|---|---|
| **Business Performance** | **Impact**<br>Overall | The Group could increase its market competitiveness due to greater customer demand for sustainable transportation services. | **Earnings** Increased transport share<br>**Reputation** Increase in reputation | **Major** | | ● | ・ Addressing climate change and other natural capital-related issues by procuring LNG-fueled ships, developing ammonia-fueled ships, and other measures<br>・Dissemination of the Group's environment-related information<br>・Building relationships with various stakeholders through engagement with governments and participation in a variety of initiatives |
| | **Impact**<br>Overall | Changes in the way financial institutions make investment and lending decisions could improve the Group's fundraising capabilities. | **Procurement of capital and funds**<br>Increased fundraising capabilities | **Medium** | | ● | |
| | **Impact**<br>Overall | There could be structural changes in industries, product supply and demand, etc., accompanying the transition to a nature-positive economy. | **Earnings** Increased profits due to changes in cargo movement and capturing new business opportunities | **Major** | | ● | ・Enhancement of existing businesses and development of new growth businesses based on forecasts of future changes in cargo movement |

# Efforts to Address Risks and Opportunities

## NAV9000 Standards to Ensure Safe Ship Operations and Environmental Protection

Since 1998, the NYK Group has promoted safety based on NAV9000, its proprietary safety standard. NAV9000 is a unique set of safety standards aimed at ensuring safety for crew members and vessels and helping fulfill the Group's duty to protect the environment. It covers approximately 1,500 items, including international regulations, industry standards and good practices, measures to prevent accidents that the Group has gathered over time, and customer requirements. This set of standards has been applied to all of the approximately 700 vessels in operation, and assessments based thereon are conducted on approximately 200 vessels and at about 20 shipowners and ship-management companies every year. Furthermore, NAV9000 safety promotion activities have been accredited in accordance with ISO 9001 by Nippon Kaiji Kyokai (ClassNK). From April 2026, the Group will further enhance safety quality from an operator's perspective by leveraging its accumulated know-how and accident-prevention expertise and will strengthen initiatives under NAV9000 Plus through dialogue based on "guidance" and "co-creation."

## Response to the Ballast Water Management Convention

Ballast water (seawater) is used in ships to maintain ship strength and stability. The seawater is injected when cargo is unloaded and then discharged when the cargo is loaded. While this process is a crucial element of ship operations, it can lead to the cross-border movement of aquatic organisms, which can have a detrimental effect on the marine environment. To prevent this, the IMO adopted the Ballast Management Convention, which came into force in September 2017. Under this treaty, all ships are required to gradually install ballast water treatment systems to eliminate aquatic organisms that may have entered. Accordingly, the NYK Group has been steadily installing such systems, with installation on all vessels completed in 2024.

## Development of the Bilge System

As a result of ship operations, oily water mixtures (bilge) containing a mixture of water, oil, and other substances accumulate at the bottom of engine rooms, etc. In 1996, we devised a unique system that greatly reduces the amount of bilge generated, and we have since been using it on the Group's owned vessels. As a group that promotes environmental initiatives in the maritime shipping industry, we worked with the Japanese government to expand this concept globally. The Japanese government then proposed it to the IMO, and it was adopted as an international guideline in March 2006.

## Efforts to Address Marine Microplastics

Since 2020, NYK and Chiba Institute of Technology have been working on world-leading marine surveys targeting all ocean areas with an aim to reveal the state of the distribution of marine plastics, primarily microplastics smaller than 5 millimeters. Thus far, the microplastic samples have been collected from more than 120 locations by utilizing the network of vessels held and operated by the NYK Group. Once the samples are analyzed by Kameda Laboratory at the Chiba Institute of Technology, the results are published on a website as the World Marine Plastic Garbage Map.

## River Cleanup Project in the Philippines

NYK decided to donate a total of US$1.5 million over five years, starting in 2021, to support the Pasig River and the Tullahan-Tinajeros River system cleanup efforts being implemented by the San Miguel Corporation, a major conglomerate based in the Philippines. Over 360,000 tons of plastic waste are dumped into rivers in the Philippines each year, which has become a major environmental issue. The Pasig and Tullahan rivers are the most seriously polluted, and the initiative to dredge and clean them is expected to improve the environmental situation and reduce ocean plastic waste in the Philippines. NYK's donation was used to purchase some of the excavators used for dredging and cleaning these rivers, and these excavators were transported from Japan to the Philippines by NYK Group companies.

In the section "Results of Assessment of Sensitive Locations" later in this report, we have assessed the concentration of ocean plastics in the waters of the Philippines to be high. Further details of this project are provided in the special feature "Giving Back to the Oceans," under "Addressing Environmental and Social Issues Through Involvement with River Cleanup Efforts in the Philippines."

## Speed Reduction to Protect Whales along the West Coast of North America

The NYK Group participates in the "Green Flag" Incentive Program implemented by the Port of Long Beach, California, U.S.A. The program encourages ships to operate at slower speeds under 10 knots, within designated waters of the Santa Barbara Channel and the San Francisco Bay Area to cut down on air pollution and protect whales. Over 85% of NYK Group-operated ships operate at reduced speeds in these waters, maintaining this high compliance rate every year.

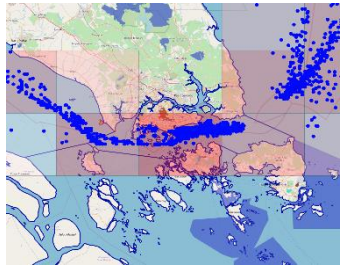
# Analysis of Priority Locations

The TNFD recommendations call for organizations to disclose priority locations among those that involve direct operations or their value chain. Priority locations are “sensitive locations” that meet certain criteria outlined by the TNFD, such as the importance of biodiversity, and “material locations" where organizations have identified important nature-related issues. This report focuses on sensitive locations.

To identify sensitive locations for international shipping and get a better nature-based understanding of each ocean area, for this report we analyzed and assessed navigation areas based on ships’ positional information (excluding short-term chartered ships and TC OUT ships) during the period of July 2023 to June 2024 according to the following steps.

**1. Gather positional information:** Timestamp*1 data showing ships’ positional information was gathered for navigation areas worldwide (see Figure 3).
**2. Calculate traffic density:** The timestamp data was aggregated into a grid with sections measuring approximately 50 km x 50 km. Sections were highlighted in red according to traffic density.
**3. Select indicators:** In keeping with criteria and biome-related guidance put forth by the TNFD, we selected indicators to be used in our assessment, including Particularly Sensitive Sea Areas (PSSAs) and ocean areas subject to the MARPOL Convention (see Table 5).
**4. Conduct analysis:** Protected areas were overlaid with the collected positional information, then shipping routes were analyzed using a range of indicators. When carrying out the analysis, we divided the target ocean areas into coastal and open seas.

■ **Figure 3: Example of Timestamp Data**



**5. Organize and assess results:** The results were compiled by ocean area using classifications from the International Hydrographic Organization (IHO), and scoring was conducted for each indicator to assess the characteristics of each ocean area. Since the NYK Group navigates frequently through Japan's exclusive economic zone (EEZ), we consider it to be particularly important and have therefore assessed the EEZ separately from the IHO's classifications.

*1 Timestamp: The position of a particular vessel at a particular time

**6. Select sensitive locations:** Sensitive locations were selected based on the results of our assessment and traffic density. In addition, we have highlighted additional sensitive locations that cannot be fully represented by IHO classifications, such as locations in proximity to strictly protected areas and locations with a high extinction risk for rare species.

Please refer to the following slide for the ocean areas identified as sensitive locations through this analysis.

■ **Table 5: Indicators Used in Analysis**

| Criteria for Sensitive Locations | Perspectives | Indicators Used in Analysis |
|---|---|---|
| **Importance for Biodiversity** | ✓ Protected areas<br>✓ Areas recognized as important for biodiversity<br>✓ Areas inhabited by rare or endemic species<br>✓ Areas adjacent to habitats of endangered species | In proximity to areas listed on the World Database of Protected Areas (WDPA) |
| | | In proximity to Key Biodiversity Areas (KBAs) |
| | | In proximity to Ecologically or Biologically Significant Marine Area (EBSAs) |
| | | In proximity to Particularly Sensitive Sea Areas (PSSAs) |
| | | In proximity to Special Areas under MARPOL |
| | | In proximity to Important Marine Mammal Areas (IMMAs) |
| | | Distribution of mangroves, corals, seaweed, or seagrass |
| | | $STAR_T$*2 |
| **Ecosystem Integrity** | ✓ Areas of high ecosystem integrity | Status as a Marine Wilderness Area |
| **Importance for Ecosystem Service Provision** | ✓ Locations with areas where the provision of ecosystem services is important | In proximity to Indigenous Peoples and local communities (IPLCs) |
| | | Fish-catch volume (commercial/non-commercial) |
| | | Coral Reef Tourism Value |
| **Physical Water Risks** | ✓ Areas with high physical water risks | Clean water indicators |
| **Other Areas** | ✓ Areas with intersecting ecosystems | In proximity to functional biomes |
| | ✓ Biome guidance reference materials | In proximity to exclusive economic zones (EEZs) |
| | ✓ Plastic pollution | Distribution of plastics in marine ecosystems |

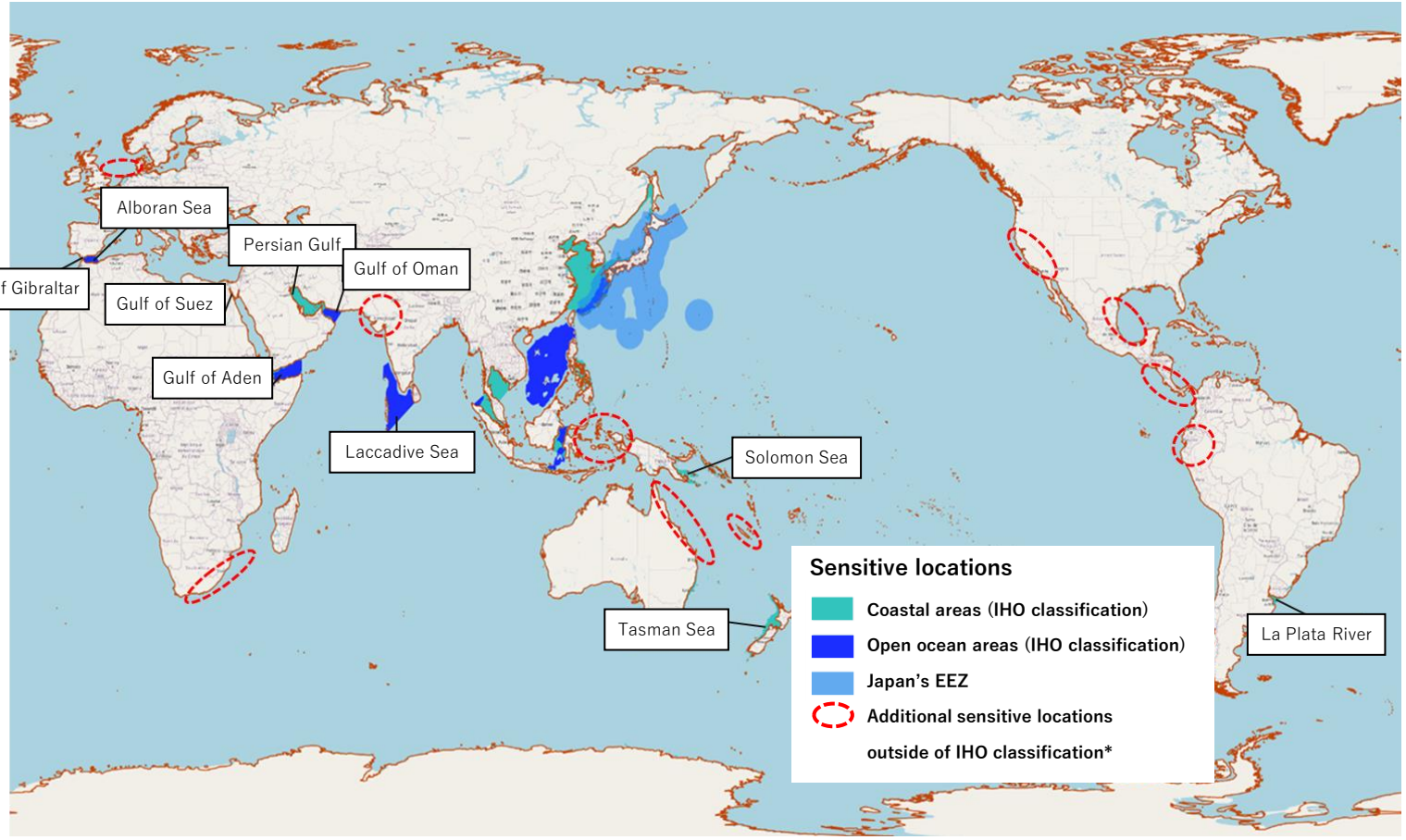
*2 $STAR_T$: The Species Threat Abatement and Restoration (STAR) metric. An indicator that quantifies the potential for specific threat mitigation and habitat restoration activities in a given location to aid in reducing the extinction risk of a species. Source: Turner JA, Starkey M, Dulvy NK et al. Targeting ocean conservation outcomes through threat reduction. npj Ocean Sustainability 3. 4 (2024)

## Results of Assessment of Sensitive Locations 1

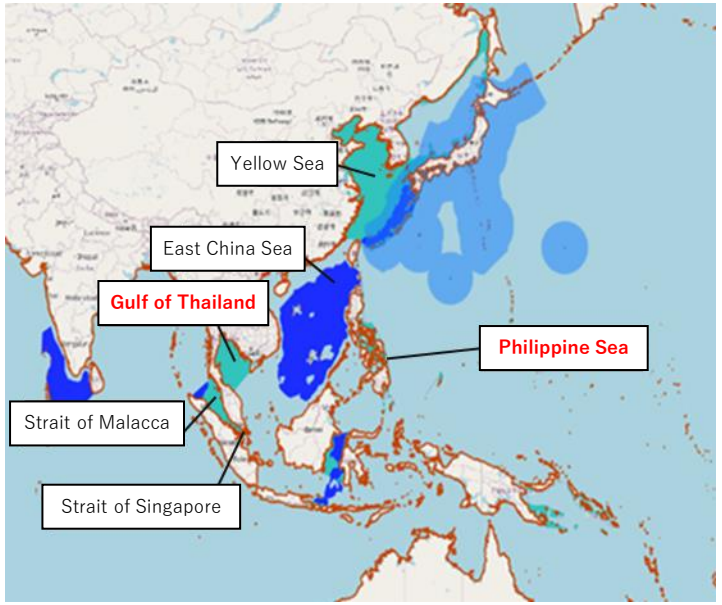
Assessment results of sensitive locations for this report are presented in Figure 4 and Figure 5. Ocean areas designated as sensitive locations were those that were deemed to require special attention from the perspectives of “importance for biodiversity” and “importance for ecosystem service provision.”

Notably, several coastal areas have been designated as protected areas, and our assessment found that these areas contain a wide distribution of important eco-systems. The following slide lists key sensitive locations under the IHO classification system, our results from assessing various indicators, and the criteria used in our analysis.

### ■ Figure 4: Results of Assessment of Sensitive Locations




### ■ Figure 5: Close-up of Asia




* Additional sensitive locations outside of IHO classification:
Additional sensitive locations with a certain level of traffic density that cannot be fully represented by IHO classifications (locations in proximity to strictly protected areas, locations with a high extinction risk for rare species, etc.)

## Results of Assessment of Sensitive Locations 2

Many of the ocean areas identified as sensitive locations in this report have high $STAR_T$ scores, which can be used to indicate the risk of extinction for rare species,* and were found to have thriving fishing industries. The Strait of Singapore, the Strait of Gibraltar, the Gulf of Thailand, and the seas surrounding Japan were identified as sensitive locations from the perspectives of "importance for biodiversity" and "importance for ecosystem service provision." The Laccadive Sea was also determined to require attention from the perspective of marine pollution.

* In this report, "rare species" is defined as species included in the International Union for Conservation of Nature (IUCN) Red List of Threatened Species.

### ■ Table 6: Results of Assessment of Key Sensitive Locations

● denotes a high value, presence, or affirmative status

| | | Importance for Biodiversity | | | Ecosystem Integrity | Importance for Ecosystem Service Provision | | | Physical Water Risks | Distribution of Plastics (Reference) |
|---|---|---|---|---|---|---|---|---|---|---|
| Area | Location name (IHO classification) | In proximity to protected areas | In proximity to KBAs/EBSAs/IMMAs/PSSAs/ MARPOL Special Areas | $STAR_T$ score | Status as a Marine Wilderness Area | In proximity to IPLCs | Fish-catch volume | Coral Reef Tourism Value | Clean water indicators | |
| Coastal Areas | Strait of Singapore | ● | KBAs | ● | | | ● | ● | | ● |
| | Strait of Gibraltar | ● | KBAs/IMMAs/MARPOL Special Areas | ● | | ● | ● | | | ● |
| | Strait of Malacca | | KBAs/IMMAs | ● | | | ● | | | ● |
| | Persian Gulf | | KBAs/MARPOL Special Areas | ● | | | ● | ● | | ● |
| | Gulf of Suez | | KBAs/IMMAs/MARPOL Special Areas | ● | | | ● | | | ● |
| | Gulf of Oman | | IMMAs/MARPOL Special Areas | ● | | | ● | | | ● |
| | Gulf of Thailand | ● | - | ● | | | ● | ● | | ● |
| | Philippine Sea | | KBAs | ● | | | ● | | | ● |
| | Solomon Sea | | KBAs/EBSAs/IMMA | ● | | | | | | ● |
| | La Plata River | ● | IMMAs | ● | | | ● | | | ● |
| | Yellow Sea | | KBAs | | | | ● | | | ● |
| | East China Sea | ● | KBAs | ● | | | ● | | | ● |
| | Tasman Sea | ● | KBAs/IMMAs | ● | | | | | | ● |
| Ocean Areas | Alboran Sea | | KBAs/IMMAs/MARPOL Special Areas | ● | | | ● | | | ● |
| | Laccadive Sea | | IMMAs | | | | ● | | ● | ● |
| Other Areas | Seas surrounding Japan | ● | KBAs/EBSAs | ● | | | ● | ● | | ● |

## Results of Assessment of Sensitive Locations—Key Examples

The area around the Philippines is considered important for biodiversity due to its proximity to IMMAs with a high risk of extinction for rare species and because of confirmed distributions of mangroves, coral reefs, and seagrass. Moreover, NYK ships operate within proximity of the Tubbataha Reefs Natural Park, a protected area and a Natural World Heritage Site (see the area highlighted in yellow in Figure 6). The area also has a thriving fishing industry, making it highly important in terms of providing ecosystem services.

The assessment also confirmed a high concentration of ocean plastics.*1 In Figure 6, concentrations of ocean plastics are denoted with shades of purple. According to Meijer et al (2021),*2 which estimated the amount of plastic leakage into the ocean by country, the Philippines ranked first, presenting a serious problem. Although ships are not a major source of ocean plastics outside of cargo spills and other accidents, we included this indicator in our analysis as a key indicator of the marine environment in an area.

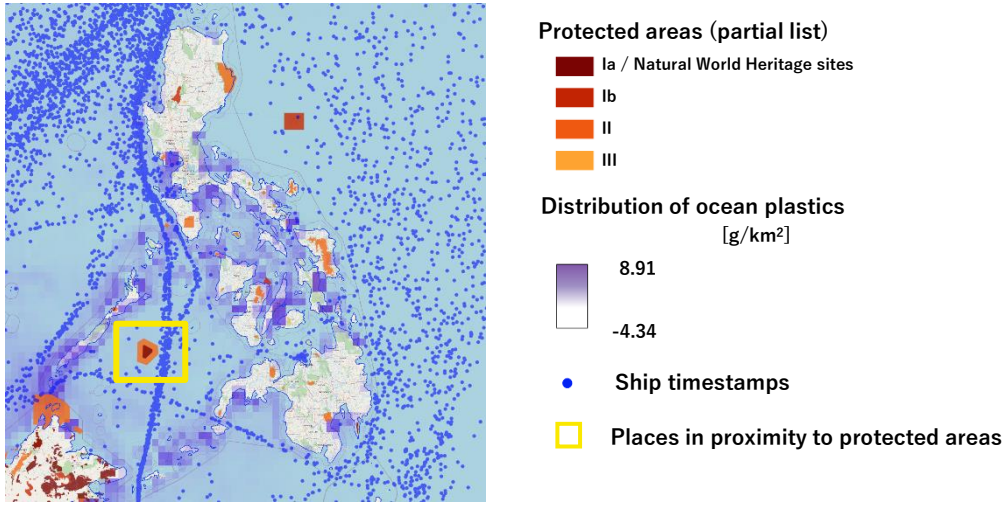
As for the coastal area in the Gulf of Thailand, NYK-operated vessels operate in proximity to the Khao Laem Ya-Mu Ko Samet National Park, which is classified as an IUCN Protected Area Category II*3 (see the area highlighted in yellow in Figure 7). The coastal area also has a high risk or extinction for rare species and confirmed distributions of mangroves and coral reefs. For these reasons, the area is considered important for biodiversity. In terms of providing ecosystem services, this area was found to have a high Coral Reef Tourism Value in addition to fishing.

*1 Source: Eriksen M, Lebreton LCM, Carson HS et al. Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea. PLoS ONE 9 (2014)

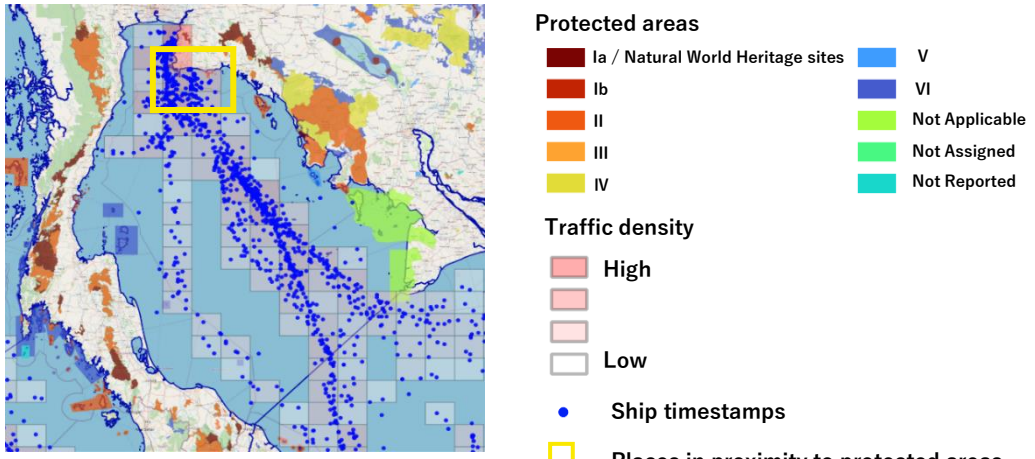
*2 Source: Meijer L, Emmerik T, Ent R et al. More than 1000 rivers account for 80% of global riverine plastic emissions into the ocean. Sci. Adv.7,eaaz5803 (2021)

*3 IUCN Protected Area Category: A categorization system used by the IUCN to classify protected areas. In general, a lower value denotes stricter protection.

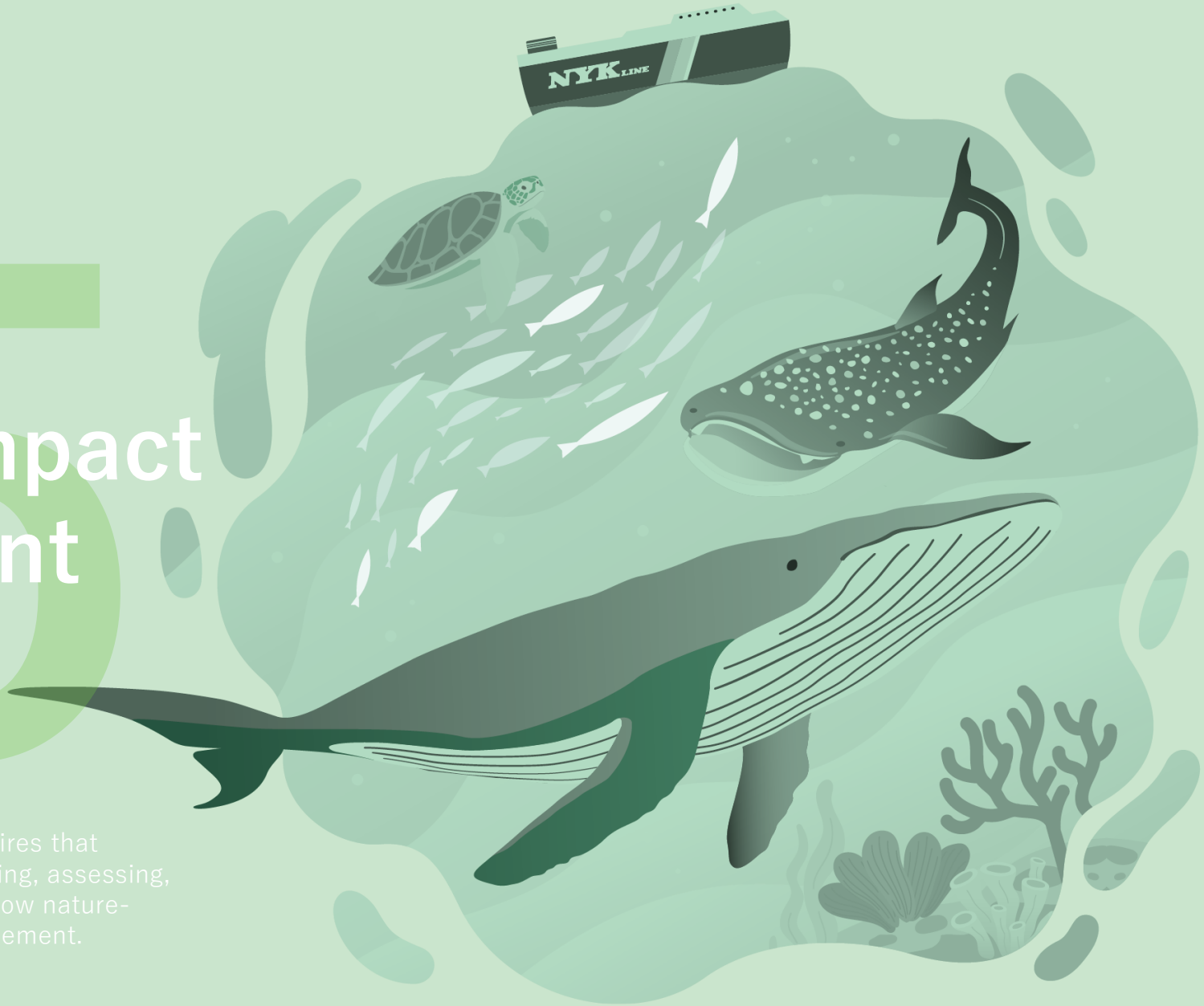
■ **Figure 6: Protected Areas, Plastic Concentration, and Ship Positional Information around the Philippines**




■ **Figure 7: Protected Areas and Distribution of Ship Positional Information around the Gulf of Thailand**



# 05 Risk and Impact Management




Disclosure of risk and impact management requires that organizations describe their processes for identifying, assessing, and managing nature-related issues and explain how nature-related risks are integrated into overall risk management.

# Risk and Impact Management

## Process for Identifying and Assessing Nature-Related Issues

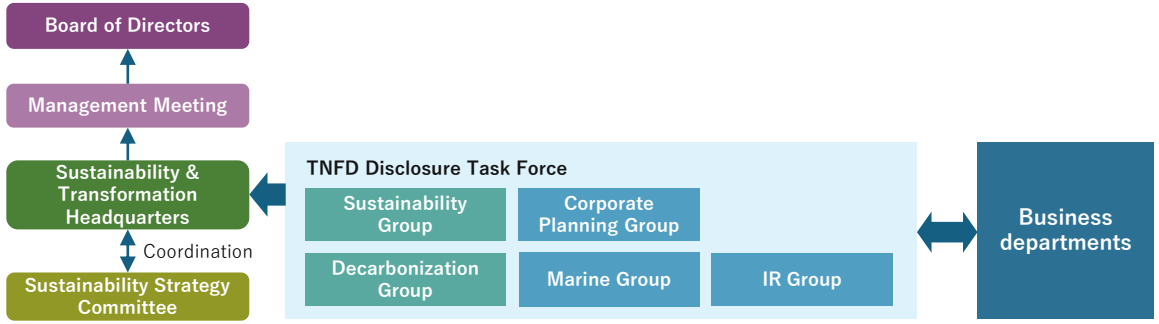
To prepare this report, the Group assembled a cross-departmental TNFD Disclosure Task Force to identify and assess nature-related issues.

This report focuses on the maritime shipping industry. As a first step, we organized the sectors within its value chains qualitatively, from upstream to downstream, and then organized dependencies and impacts within each sector. In addition, we identified nature-related risks and opportunities related to international shipping, including those upstream and downstream in the supply chain, and conducted a qualitative materiality assessment. As part of this process, we took into account international trends, including international and regional regulations. When identifying and assessing risks and opportunities, we also held interviews with relevant business departments.

With regard to material risks and opportunities, we investigated measures and confirmed the compatibility of these risks and opportunities with existing initiatives. We have also identified sensitive locations in the Group's navigational areas based on our ships' positional information.

In the future, we will look into expanding the scope of analysis within our business, making our analysis deeper, and conducting risk monitoring on a regular basis.

### ■ Figure 8: Key Processes for Identifying and Assessing Nature-Related Issues




## Process for Managing Nature-Related Issues

The NYK Group holds regular study sessions related to sustainability for the Sustainability Strategy Committee to provide up-to-date knowledge and information, and in fiscal 2024 we held study sessions on the TNFD and natural capital. Any nature-related issues that have been identified and assessed are discussed by the committee and reported to the Management Meeting and the Board of Directors via the Sustainability & Transformation Headquarters.

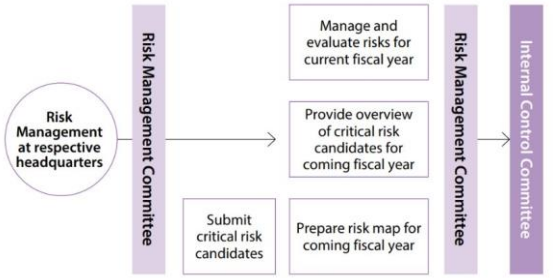
Additionally, environmental risks and opportunities, including nature-related issues, are assessed by each business unit in accordance with the Group's Risk Management Policy and Risk Management Rules. We take these risks and opportunities into consideration when setting annual targets and action plans, while monitoring progress through our ISO 14001-certified environmental management system (EMS). Progress is reported to the chief executive of the Sustainability & Transformation Headquarters, who is also the executive chief of environmental management.

## Integration of Nature-Related Risks into Overall Risk Management

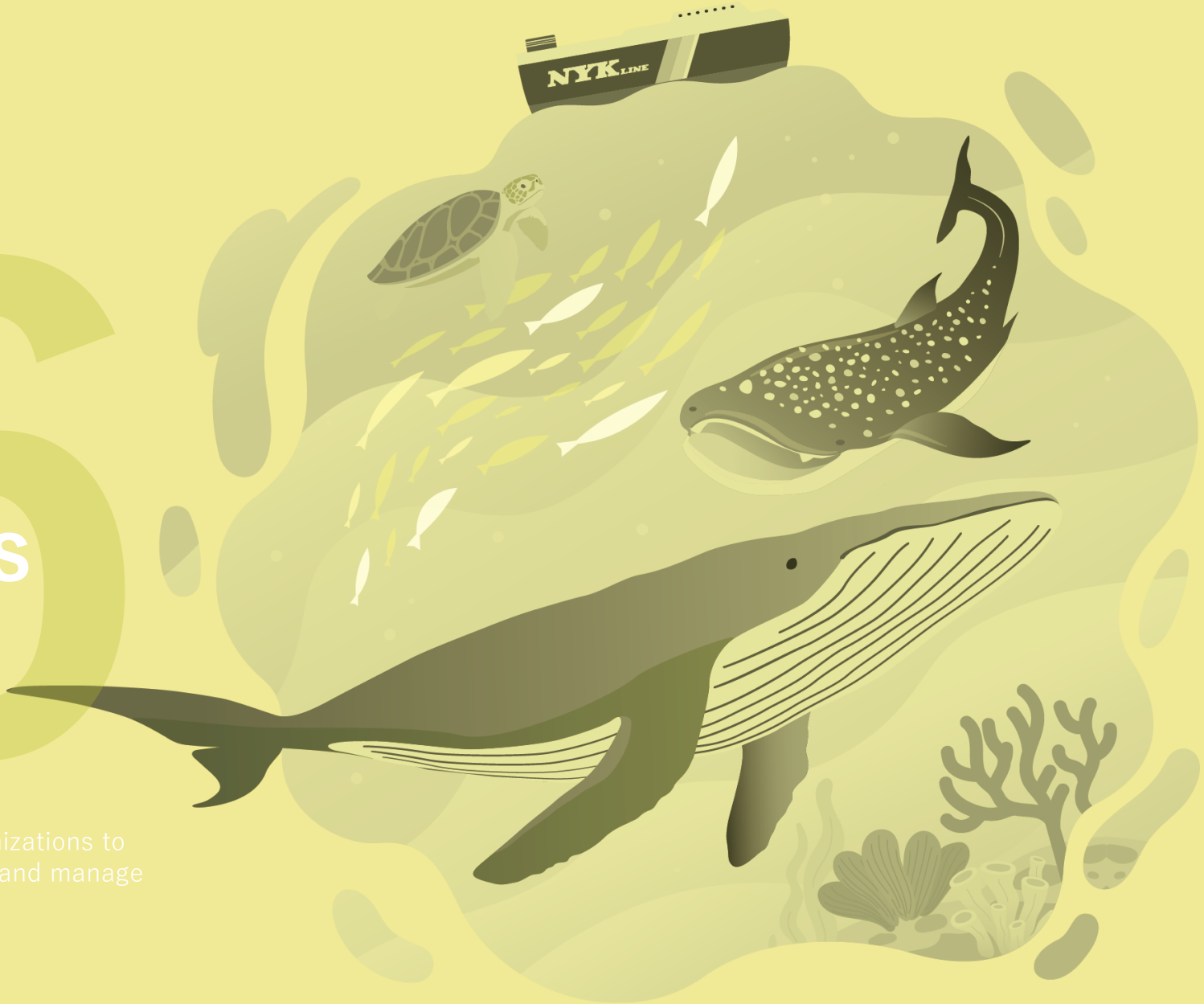
Nature-related risks are treated as important issues and managed thusly. In keeping with its risk management policy and rules, the Group convenes meetings of the Risk Management Committee twice a year.

The committee, which is chaired by the president and comprises chief executives, assesses and receives reports regarding progress in managing critical risks that could have a significant impact on the Group's business management and reports findings to the Board of Directors.

### ■ Figure 9: Companywide Risk Management System



# 06 Metrics and Targets




Disclosure of metrics and targets requires organizations to disclose the metrics and targets used to measure and manage nature-related issues.

# Metrics and Targets

## Metrics and Targets Used to Assess and Manage Nature-Related Issues

To gain a better understanding of the impact of Group activities on the environment, we have been collecting data from major domestic consolidated Group companies since 2007 and major overseas consolidated companies since 2008. As of March 2025, we collected data from 194 sites in Japan and 419 sites overseas to visualize our environmental performance. We disclose the results annually in the NYK Report and on our corporate website.

Table 7 shows selected results for the core and additional indicators and metrics set out in the TNFD Marine Transportation Sector Guidance, together with items aligned with the TNFD core global disclosure indicators and metrics and indicators that the Group uses independently to assess nature-related issues. From this report, new items have been added, including “shipping distance traveled,” which is derived from analyses of vessel operational data. Furthermore, we have set a target of zero major accidents, a 2030 target to reduce GHG emissions for the entire Group by 45% compared with fiscal 2021 (Scope 1 and 2), a 2050 target to achieve net zero emissions (Scope 1/2/3), and a target to introduce a total of 51 vessels powered by alternative fuel by fiscal 2030. Other targets will be considered and disclosed in due course.

Moreover, the Group released its Nature Positive Declaration in October 2024 in support of the concept and joined the 30by30 Alliance for Biodiversity in November of the same year. In the future, we will also investigate potential indicators and targets for nature-positive initiatives and disclose them accordingly.

ネイチャーポジティブ宣言
supported by J-GBF

Nature Positive Declaration Logo

30by30

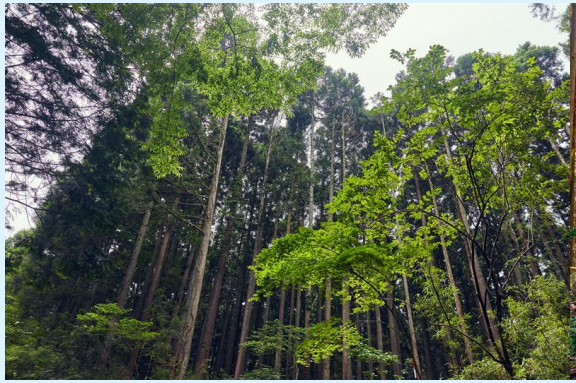
30by30 Logo

### *Yu no Mori* Reforestation Project

The NYK Group has launched the *Yu no Mori* reforestation project, aimed at preserving the rich natural environment. In April 2022, we concluded a partnership agreement with the city of Gotemba, Shizuoka Prefecture on regional revitalization through forest development.

*Yu no Mori* embodies our goal of “giving back to the oceans” by using reforestation as a means to strengthen watershed protection functions and thereby purify the mountains, rivers, and, ultimately, the oceans. Forests cover approximately 70% of Japan’s land area, and of these forests, 40% are manmade. A number of these manmade forests have been left untended for several years, which has led to the disruption of ecosystems, landslides, and other issues. To resolve these issues, the Yu no Mori project aims to employ forest thinning and replanting to build a forest that will foster a diverse ecosystem with a mix of different tree species.

The NYK Group will continue to work arm in arm with local communities to keep this project moving forward.



“Yu no Mori” trees

Forest maintenance

# Metrics and Targets

## ■ Table 7: Metrics and Results (Consolidated)

| Metric | | Unit | Fiscal 2022 | Fiscal 2023 | Fiscal 2024 |
|---|---|---|---|---|---|
| **Indicators the Group Uses to Independently Assess Nature-Related Issues** | | | | | |
| Number of major accidents | | Accidents | 2 | 3 | 0 |
| GHG emissions | | See "Target and Actual Figures" of *Sustainability Report 2025* | | | |
| **TNFD Core Global Disclosure Indicators and Metrics** | | | | | |
| Total spatial footprint | Shipping distance traveled | Thousand miles | - | - | 32,871 |
| Wastewater discharged | Volume of wastewater discharged (office-derived) | Thousand $m^3$ | 863 | 339 | 187 |
| Waste generation and disposal | Recycled waste (land-derived) / Other waste (land-derived) | t | 4,503 / 6,831 | 9,788 / 10,142 | 12,591 / 11,069 |
| Non-GHG air pollutants | NOx (ship-derived) | t | 229,722 | 238,583 | 232,739 |
| | SOx (ship-derived) | t | 25,216 | 25,031 | 24,078 |
| Resource Use | Fuel sourced split by fuel type | See "Group's Energy Consumption & Activity" of *Sustainability Report 2025* | | | |
| | Fuel sourced under a sustainable management plan or certification programme split by fuel type | ・Require all suppliers to support and adhere to the NYK Group Supplier Code of Conduct, which sets out standards that we aim to enforce alongside our suppliers toward a sustainable society<br>・Ensure all biofuels purchased by NYK are ISCC* EU certified | | | |
| | Steel sourced under a sustainable management plan or certification programme | ・Require all suppliers to support and adhere to the NYK Group Supplier Code of Conduct, which sets out standards that we aim to enforce alongside our suppliers toward a sustainable society<br>・Promote business with suppliers that have obtained ISO 14001 certification | | | |
| Invasive alien species, etc. | Ballast water management system installation rate | % | 100% in 2024 (target: ships controlled by the NYK Group) | | |
| | Biofouling accumulation on vessels | Monitor hull propulsion performance, and if there is a significant decrease in performance (i.e., accumulation of biological fouling on the vessel), carry out underwater cleaning** | | | |
| **TNFD Core Sector Indicators and Metrics** | | | | | |
| Percentage of ship-recycling yards with documented evidence that hazardous materials listed in IHM*** parts 1–3 are not discharged into the soil, air, or water during the ship-recycling process | | % | 100 | 100 | 100 |
| Weight of hazardous-substance-containing cargo lost at sea | | t | 0 | 0 | 0 |
| **TNFD Additional Sector Indicators and Metrics** | | | | | |
| Number of oil spill incidents on ocean-going vessels | | Incidents | 0 | 0 | 0 |
| Pollutants to land, air and water and waste generated as part of downstream vessel recycling, including the discharged hazardous materials listed in IHM parts 1–3 | | $m^3$ | 0 | 0 | 0 |
| Introduction of vessels powered by alternative fuel (total number of vessels introduced) | | Vessels | 10 | 18 | 26 |

* ISSC: International Sustainability & Carbon Certification. A certification system that manages and guarantees the supply chain of raw materials produced and sold worldwide, primarily dealing with biomass and materials derived from renewable sources.
** Underwater Cleaning: By cleaning and removing aquatic organisms that have attached to the underwater parts of the hull while the ship is docked at the port, the transfer of invasive aquatic species can be minimized.
*** IHM: Inventory of Hazardous Materials. A list detailing the location and approximate quantities of hazardous materials, waste and stockpiles on board.

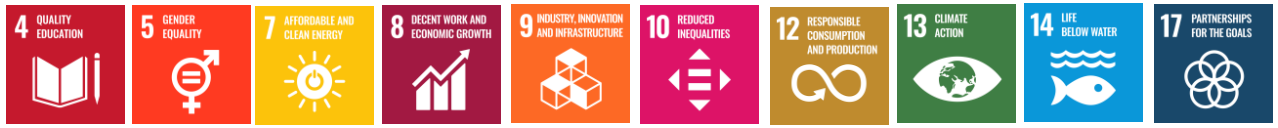
# Feature: Giving Back to the Oceans

Driven by its Mission of “Bringing value to life,” the NYK Group has contributed to the development of the global economy while providing value to stakeholders.

At the same time, maintaining the health of the oceans is crucial to keeping our operations running, since the ocean is where our maritime shipping business takes place. Therefore, we believe in the importance of “Giving Back to the Oceans.”

In recent years, the SDGs and sustainability have become major social trends, but the Group had already set forth “Safety,” “Environment,” and “Human Resources” as material issues fundamental to the practice of Sustainability Management. The result is that employees have a deeply rooted sense of environmental conservation and giving back to the oceans. We have also identified 10 SDGs that align closely with the Group’s business and its material issues.

We are determined to lead the way in establishing international maritime rules and driving the maritime shipping industry. Working in this spirit, we will create corporate value by staying true to the technical expertise and creativity that resides in each and every employee and by giving back to the oceans.




# Addressing Environmental and Social Issues Through Involvement with River Cleanup Efforts in the Philippines

The Philippines is the world's largest source of seafarers and a country closely connected to the NYK Group's business. However, the Philippines suffers from river and marine pollution caused by the disposal of plastics and other waste, and is one of the highest ranking countries in terms of releasing plastic into the ocean. Furthermore, the large amounts of discarded waste impedes river flow and causes sediment buildup, leading to widespread flooding during rainfall and other social issues.

For these reasons, the Group supported the River Cleanup Project ("the Project") implemented by San Miguel Corporation ("San Miguel"), a major Philippine conglomerate, by donating a total of US$1.5 million to the Project, which aims to reduce marine pollution and mitigate flood damage.

In 2021, San Miguel went forward with waste disposal and sediment removal in 13 major rivers around Manila Bay, including the Pasig River. Over four years, approximately 8.5 million tons of waste and sediment were removed from about 160 kilometers of rivers. Donations from the Group were used to purchase and operate some of the excavators essential for these dredging operations. The excavators were transported from Japan to the Philippines on Group-operated ships, then transported within the Philippines on tractors managed by Yusen Logistics Co., Ltd., meaning that the entire transport process was handled by the Group.

River before (left) and after (right) cleanup through the Project

In the words of San Miguel chairman and CEO Ramon Ang, "This has helped lessen the risk of severe flooding in surrounding communities, by enabling floodwaters to be drained to Manila Bay more effectively. Without this intervention, many of these waterways, made shallow by years of silt and debris buildup, would frequently overflow and inundate communities. The effort has also reduced foul odors coming from rivers and, in some cases, encouraged the return of fish, owing to the removal of decomposing waste and garbage from the river beds."

The Group sees this initiative as a way of "giving back to the oceans" and "giving back to the Philippines," with which it has built a deep relationship over many years through the recruitment and training of seafarers. We will continue working diligently to resolve environmental and social issues, aiming to achieve coexistence and mutual prosperity with the international community.

## Feedback from a Filipino NYK Group Crew Member

I am very proud of the fact that the NYK Group is taking part in preventing river and ocean pollution and mitigating flood damage in the Philippines. I myself had a terrible experience when I visited the Manila office and was affected by flood damage. As leaders in our industry, we at the NYK Group hope that by joining in the Project, we can prove that even small actions, if performed consistently, can lead to major improvements to the environment.

Marine Group
Ferdinand Nicolas Gapuz


2022 ceremony for the handover of excavators
Third from left: Hitoshi Nagasawa, current chairman and director of NYK
Fourth from left: Ramon Ang, chairman and CEO of San Miguel

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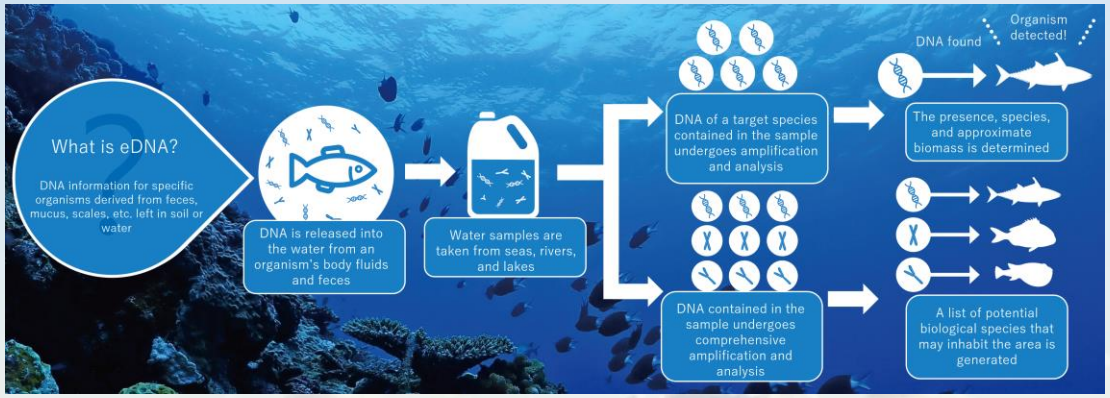
# Support for Environmental DNA Surveys for Achieving “Nature Positive"

Although biodiversity has suffered in recent years, there has been a growing global trend toward nature-positive practices that aim to put the natural environment back on the path to recovery. However, establishing an efficient method for surveying wide areas has been a long-standing challenge, since biological surveys aimed at learning the current state of an ecosystem have traditionally required enormous amounts of expense and labor.

Environmental DNA (eDNA) is an innovative method for conducting biological surveys capable of revealing the types of organisms present in a body of water and their distribution from sampling a bucket of water. Since 2019, researchers, citizen volunteers, and others have conducted more than 5,000 surveys in over 1,000 locations.




In 2021, the NYK Group joined the ANEMONE* Consortium, which promotes these activities. As part of this consortium, the Group is collecting eDNA samples in the open seas using NYK-operated ships and then providing them to Hokkaido University and Tohoku University.

The opportunity arose when the NYK Digital Academy, an in-house educational institution aimed at nurturing human resources capable of innovation, began investigating new business ventures. While searching for leads, those at the academy realized that the ocean is a treasure trove of valuable data waiting to be explored, and following meetings with various people, they came up with the idea of supporting eDNA surveys. When it came time to actually move forward, we made sure to take the time needed to describe the project to those on our ships as an initiative tackling an important social issue that was being carried out jointly by industry, government, academia, and the public. From there, we spent more than six months setting up the systems and environments that would enable the project to run without disrupting ship operations.

The samples provided were analyzed at Hokkaido University and Tohoku University, and the results were published in the ANEMONE Database (ANEMONE DB). ANEMONE DB marks the first time that a dedicated database storing eDNA survey data has been created and opened to the public as open data.

Understanding marine ecosystems and tracking changes from data collected at multiple locations and at a high frequency will lead to surveys investigating the relationship between climate change and ecosystems while being useful for maintaining and conserving marine resources for the future.

As a member of the ANEMONE Consortium, the NYK Group will continue its contributions toward the conservation and restoration of biodiversity.

Mashiu, a ship taking part in seawater sampling

* ANEMONE: All Nippon eDNA Monitoring Network for observing biodiversity using eDNA

Related link > ANEMONE DB

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## Safe and Environmentally Friendly Ship Recycling

Ship dismantling is traditionally thought to involve risks such as industrial accidents due to hazardous substances, environmental pollution, and the loss of resources.

Ships are essential to international shipping, one of the NYK Group's core businesses, and we believe that we are responsible for their entire life cycle, from construction to scrapping.

To minimize the risks mentioned above, in 2009 the IMO adopted the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (Ship Recycling Convention), and it entered into force in June 2025.

The convention requires the identification of hazardous substances present on ships, as well as the creation and maintenance of a list of where and how much of each substance is used, and necessitates that ships be dismantled in ship-recycling yards approved by competent authorities.

NYK Group-certified ship-recycling yard in Bangladesh


Ahead of the adoption of the convention, the NYK Group established its own Ship Recycling Policy in 2008 that incorporated the final draft of the convention, with the aim of establishing the convention as the standard for all stakeholders involved in ship recycling. When certifying ship-recycling yards that meet our policy standards, we visit the actual site and make assessments and judgments from the perspectives of both safety and the environment. After a ship is handed over to a certified yard, we conduct constant monitoring and provide necessary advice during the dismantling process. Iron recovered from dismantled ships is recycled or reused.

In addition, to raise awareness of our policy and help bring the Ship Recycling Convention into force, in 2016, the Japan International Cooperation Agency conducted the Preparatory Survey on the Ship Recycling Yard Improvement Project in India. To help Indian yards become compliant with the convention promptly, we provided assistance in the form of civil engineering work for renovation, selection of various equipment, and consulting services. In 2023, we also became the first Japanese maritime shipping company to carry out ship recycling at a yard in Bangladesh.

The NYK Group will continue to work with yards going forward to lead efforts to achieve safe, environmentally friendly ship recycling and contribute to the widespread adoption of the convention, so that all ships around the world can be properly disposed of in accordance with convention standards.


Safe and environmentally friendly dismantling

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