

Sumitomo Metal Mining Group's Nature-Related Disclosures

1. Introduction

Sumitomo Metal Mining Co., Ltd. (“the Company”) has a history that stretches back more than 430 years and has contributed to Japan’s modernization and subsequent development through the supply of non-ferrous metals. The Company’s history has also been one of addressing environmental issues, including afforestation at the Besshi Copper Mines and measures to address smoke pollution.

Our Group¹ recognizes that coexistence with nature is essential to the continuation of our business. We have identified “Conservation and Restoration of Nature” as one of our material issues in realizing our long-term vision of becoming the world leader in the non-ferrous metals industry, with “a company that contributes to a nature-positive future” as a Vision for 2030.

To achieve this, we analyzed the impacts of our Group’s business activities on the natural environment and identified the associated risks and opportunities. Going forward, we plan to conduct more detailed analyses that take into account the characteristics of our businesses and to establish new metrics and targets, further strengthening our efforts to address our material issues.

Furthermore, with regard to our material issues, including “Conservation and Restoration of Nature,” our Group views the Vision for 2030 as a medium-term goal and formulates a business plan every three years to address the issues. Individual measures are carried out as short-term initiatives planned for each fiscal year.



Besshi Copper Mines in the Meiji era

Source: Sumitomo Archives



Site of Besshi Copper Mines today, with its rich natural environment restored

Image courtesy of Sumitomo Forestry Co., Ltd.

¹ The Company and its consolidated subsidiaries

2. The Sumitomo Metal Mining Group's Understanding of and Approach to Nature

Our Group has identified six material issues in pursuit of our long-term vision of becoming the world leader in the non-ferrous metals industry. We have designated “Conservation and Restoration of Nature” as one of the material issues and have established the following KPI and target to guide us toward becoming a company that contributes to a nature-positive future, which we adopted as a Vision for 2030.

Table 1. KPI/Target/Result for Conservation and Restoration of Nature

KPI	Reporting boundary	Target (FY2030)	FY2025 results
Identification, management, and disclosure of nature-related risks and opportunities	The Sumitomo Metal Mining Group	By the end of FY2026: Addressing priority locations for our Group businesses By the end of FY2030: Addressing the material value chains	Organization of nature-related dependencies, impacts, risks, and opportunities relating to our Group's businesses

In FY2026, guided by the disclosure framework developed by the Taskforce on Nature-related Financial Disclosures (TNFD) and the LEAP approach², we assessed our Group's directly operated sites in terms of nature-related risks and opportunities and, in particular, identified the locations and business areas requiring priority action toward the goal of achieving effectively zero loss of nature (no net loss). The identification process was as follows.

First, we used ENCORE³ to conduct a screening of the nature-related dependencies and impacts of each business at 36 sites in Japan and overseas where our Group conducts direct operations.

We then analyzed and assessed sensitive locations using tools such as the Integrated Biodiversity Assessment Tool (IBAT)⁴, Global Nature Watch (formerly Global Forest Watch)⁵, WRI Aqueduct – Water Risk Atlas⁶, and identified our priority locations, taking into account the nature-related dependencies, impacts, risks, opportunities, business scale, and other factors for each business site. We plan to address material value chains going forward.

Our Group already discloses climate-related information based on the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD), and in conducting our analyses, we have taken into account nature-related impacts, including those related to climate change and biodiversity. Please also refer to our Group's climate-related disclosures in addition to this report.

² Consisting of Locate, Evaluate, Assess, and Prepare, LEAP is an integrated assessment approach outlining the identification, assessment, management, and disclosure of nature-related issues. (Source: https://tnfd.global/wp-content/uploads/2023/08/TNFD-Guidance-on-LEAP.JA_.pdf?v=1780492271)

³ A tool that helps organizations assess their exposure to nature-related risks and understand their nature-related dependencies and impacts
(Source: <https://encorenature.org/en/about/about-encore>)

⁴ A tool providing global databases such as the World Database on Protected and Conserved Areas (WDPCA), the World Database of Key Biodiversity Areas (WDKBA), and the International Union for Conservation of Nature (IUCN) Red List (Source: <https://www.ibat-alliance.org/>)

⁵ A tool that provides the latest data, technologies, and other resources to help better protect forests and ecosystems
(Source: <https://globalnaturewatch.org/>)

⁶ A tool for identifying and assessing water risks around the world (Source: <https://www.wri.org/aqueduct>)

(Reference) Climate Change-Related Financial Disclosure Information (Disclosures Pursuant to the TCFD)
https://www.smm.co.jp/sustainability/management/climate/climate_2.html

Furthermore, regarding the TNFD general requirement for engagement with Indigenous Peoples, Local Communities and affected stakeholders in the identification and assessment of the organization's nature-related issues, our Group has established and implements the Sumitomo Metal Mining Group Policy on Human Rights, the Sumitomo Metal Mining Group's Sustainability Procurement Policy, the SMM Group Responsible Mineral Sourcing Policy, and the Sumitomo Metal Mining Group Guidelines for Respecting the Human Rights of Indigenous Peoples.

In addition, we address the impacts on Indigenous Peoples, Local Communities and other stakeholders, as well as their concerns and priorities in relation to nature-related dependencies, impacts, risks, and opportunities through dialogue and collaboration.

3. The Sumitomo Metal Mining Group's Nature-related Initiatives

3-1 Governance

Our Group has established the Sumitomo Metal Mining Group's Nature Policy, which clarifies our governance and promotional framework. Under the supervision of the Board of Directors, we promote sustainability activities primarily through the Sustainability Committee, chaired by the president and representative director. Nature-related initiatives are promoted by the Nature Conservation and Restoration Subcommittee, one of the four sustainability subcommittees established under the Sustainability Committee (Figure 1).

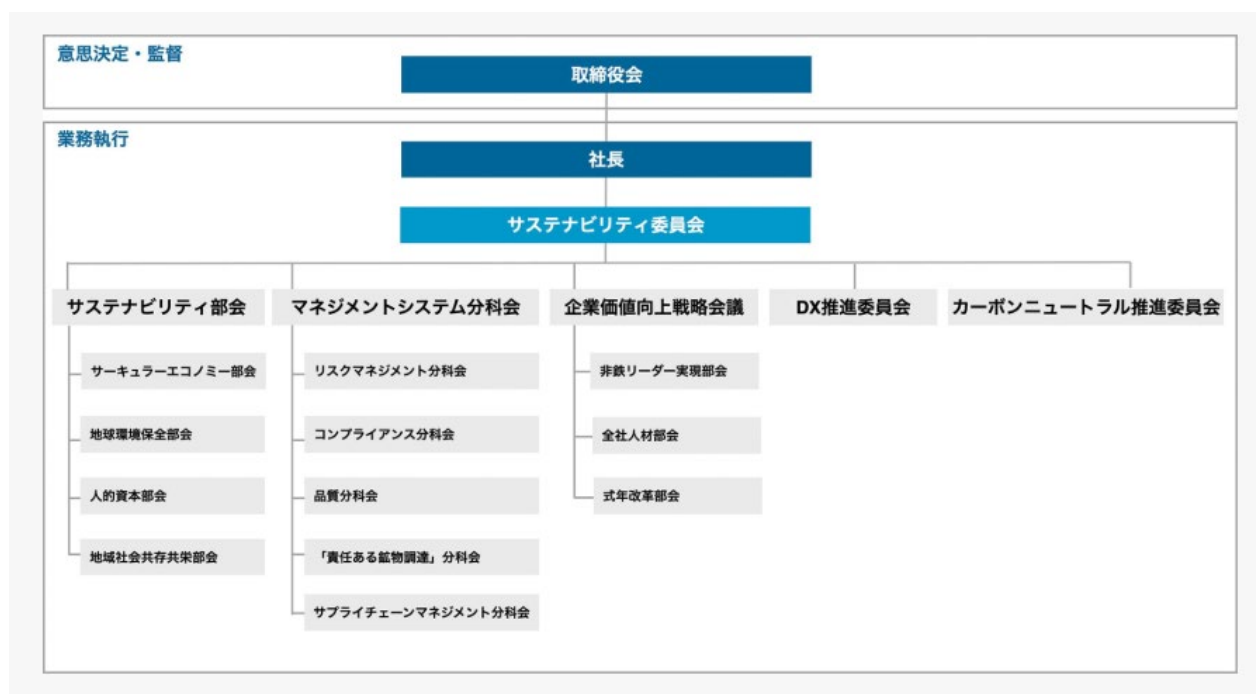


Figure 1. Sustainability Management Framework⁷

⁷ Source: The Company's website: <https://www.smm.co.jp/en/sustainability/approach/>

3-2 Strategy

3-2-1 Identification of Priority Locations

Using the various tools described in the preceding section “2. The Sumitomo Metal Mining Group’s Understanding of and Approach to Nature,” we analyzed and assessed our Group’s nature-related impacts and evaluated the degree of nature-related dependencies and impacts of each business and site (including the areas where directly operated sites are located), as well as the degree of attention required for each location. The results of the analysis and assessment of the degree of nature-related dependencies and impacts of each business and the degree of attention required for each location are shown in Figure 2.

The horizontal axis (X-axis) indicates the degree to which each of our Group’s businesses depends on nature; the further to the right, the greater the degree of dependency. The vertical axis (Y-axis) indicates the degree of impact that each of the businesses has on nature; the higher the position, the greater the degree of impact. The size of each bubble indicates the degree of attention required, taking into account material locations in light of business scale and the results of tool-based analyses and assessments of sensitive locations.

As shown in Figure 2, the degrees of dependency and impact are approximately the same for the smelting & refining business and the materials business (advanced). However, the smelting & refining business, which is larger in scale, operates in locations that require a higher degree of attention.

Based on the results of these analyses and assessments, we determined that the smelting & refining business should be given particularly high priority among our Group’s businesses in taking action toward the goal of achieving effectively zero loss of nature (no net loss). Furthermore, taking into account the results of analyzing sensitive locations, we identified two nickel production sites in the Philippines, Coral Bay Nickel (“CBNC”) and Taganito HPAL (“THPAL”), as priority locations.

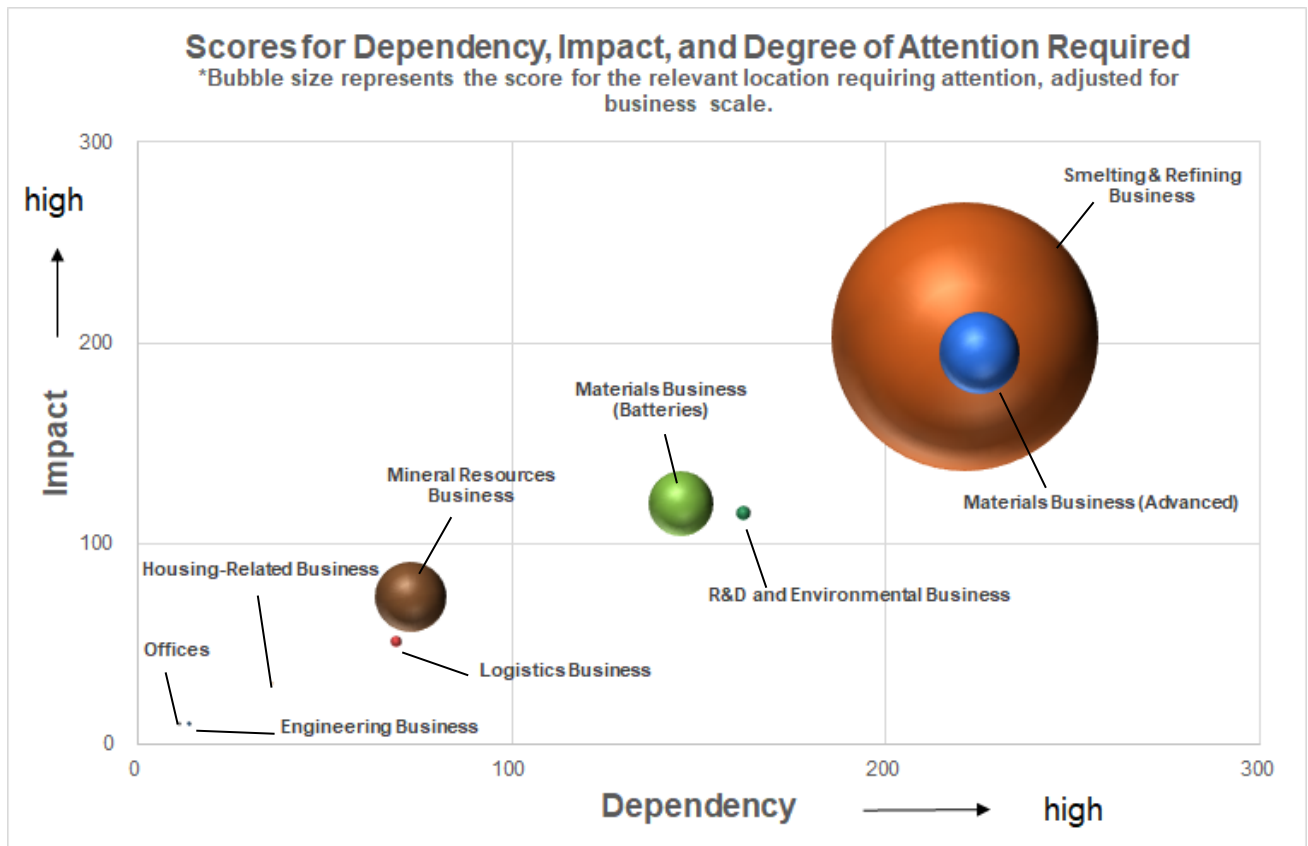


Figure 2. Results of Assessments of the Degree of Dependencies, Impacts, and Attention Required for Each of Our Group's Businesses

3-2-2 Nature-Related Risks and Opportunities in Priority Locations

We identified potential risks and opportunities by referring to the *Global Assessment Report on Biodiversity and Ecosystem Services* released by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the TNFD's *Additional sector guidance – Metals and mining*. We assessed the financial impacts of the identified risks and evaluated opportunities in terms of their potential for value creation toward a nature-positive future. The results of the assessments are shown in Tables 2 and 3.

Table 2. Nature-Related Risks in Priority Locations

Category	Nature of Risk	Timing
Physical Risks	Increased risk of damage from floods, storms, and landslides caused by the degradation of terrestrial ecosystems that provide natural hazard mitigation.	Long term
	Increased ecosystem restoration costs due to significant degradation of soil quality.	
	Decreased water supply and quality due to the organization's activities, the activities of other companies within the watershed, and climate change.	
	Risk of operational disruptions due to rising costs as well as shortages of raw materials and freshwater.	Medium to long term
Reputational/ Stakeholder Risks	Business disruptions and reduced business continuity due to community conflicts over resources.	Medium to long term
Transition Risks	Increased difficulty in sourcing raw materials due to stricter biodiversity conservation regulations.	Medium to long term
	Restricted operations due to the discovery of previously unidentified critical habitats and associated regulations.	
	Reduced revenue due to lower demand resulting from changes in society's concern for nature-related issues.	

*Medium term: through to around 2030; Long term: through to around 2050

Table 3. Nature-Related Opportunities in Priority Locations

Category	Nature of Opportunity	Timing
Effective Use of Resources	Development and commercialization of technology for recovering nickel from low-grade nickel oxide ore previously not effectively utilized. Establishment of technologies for separating and recovering chromium as chromite from nickel ore used as a raw material and for recovering scandium from the production process for mixed nickel-cobalt sulfides.	Short term
	Reduced impacts of tailings dams on nature through tailings reduction technologies such as dry stacking.	Medium to long term
	Improved flood resilience through vegetation restoration, natural catchment management, and other measures.	
Opportunities to Contribute through Products and Services	Enhanced credibility of businesses and products through membership in international industry organizations such as the ICMM and acquisition of international certifications such as RMI and The Copper Mark.	Short term
	Provision of services such as natural flood risk management using natural assets owned or managed by our Group.	Long term
Reputational Assets	Support for new projects and other initiatives based on social trust earned through a proven track record.	Medium to long term
	Enhanced brand loyalty and a stronger social license to operate business through a highly transparent performance record and assessments.	

*Short term: through to 2027; Medium term: through to around 2030; Long term: through to around 2050

3-2-3 Initiatives to Address Nature-Related Risks and Opportunities in Priority Locations

The following are the main initiatives being undertaken in the priority locations identified through the analyses.

(1) Tailings Dam Management (Addressing Physical Risks)

CBNC and THPAL manage their tailings dams in accordance with the Global Industry Standard on Tailings Management (GISTM). Tailings dams that have reached the end of their service life are also rehabilitated through measures such as planting vegetation in an effort to restore ecosystems. These initiatives have been highly praised by the Philippine government and have received awards including the Philippine Presidential Mineral Industry

Environmental Award.

(Reference) Rehabilitation of Tailings Dams https://www.smm.co.jp/en/sustainability/activity_highlights/article_01/

(2) Ecosystem Monitoring (Addressing Physical Risks)

Through baseline surveys conducted prior to commencement and ecosystem surveys conducted once operations were underway, we confirmed that operations have had no significant impacts on ecosystems. Monitoring surveys have also confirmed the presence of additional rare species.

(3) Coral Cultivation (Addressing Physical Risks)

As a diverse range of flora and fauna has been confirmed to inhabit the area near CBNC's wastewater discharge outlet, CBNC has also begun cultivating coral and is working to conserve the natural environment that supports the diverse ecosystem.

(4) Support for Indigenous Peoples (Addressing Reputation/Stakeholder Risks)

The Mamanwa people, believed to be the oldest indigenous people in the Philippines, live in the vicinity of THPAL and possess extensive knowledge about living in harmony with nature. THPAL aided in establishing a school where Mamanwa children are able to learn about their traditions and culture in the Mamanwa language.

THPAL also provides indigenous peoples with various forms of other aid. It supported the construction of the Claver Community Hospital, which is open not only to the Mamanwa people but also to members of the local community, and handed the hospital over to the local government.

(Reference) THPAL Supporting Indigenous People (the Philippines)

https://www.smm.co.jp/en/sustainability/activity_highlights/article_24/

(5) Conservation of Endangered Species (Addressing Physical Risks)

CBNC and THPAL support mangrove planting in habitats of the Indo-Pacific crocodile and the Philippine crocodile, both of which are on the International Union for Conservation of Nature (IUCN) Red List. They also support the planting of narra (*Pterocarpus indicus*), the national tree of the Philippines, which is also on the IUCN Red List.

(6) Technological Innovation in the Recovery of Valuable Metals (Effective Use of Resources as an Opportunity)

THPAL has developed technologies for the separation and recovery of chromite from raw ore and the recovery of scandium from the process of producing mixed nickel-cobalt sulfides, and is conducting recovery operations using these technologies. Through these efforts, we are promoting the effective use of resources. We are also considering developing technology to increase the grade of the iron contained in leach residue remaining after the recovery of nickel for effective utilization as an iron resource (hematite).

(Reference) Separation and recovery of chromite: <https://www.smm.co.jp/news/release/2013/05/000759.html>

Recovery of scandium: <https://www.smm.co.jp/news/release/2013/03/000751.html>

Development of technology for effective utilization as hematite: <https://www.smm.co.jp/news/release/2013/06/000762.html>

4. Management of Risks and Impacts

As mentioned, our Group evaluates locations in terms of the material nature-related dependencies, impacts, risks, and opportunities identified, as well as in terms of the degree of attention required, and determines priority locations

within our direct operations. We also assess the degrees of dependency and impact on nature using tools such as ENCORE. Risks and opportunities are identified following discussion and consideration by the Nature Conservation and Restoration Subcommittee, comprised of relevant parties including from our Group's business divisions, and deliberation by the Sustainability Committee.

However, these assessments will need to be reviewed and updated as appropriate in response to future changes in our Group's business and new insights gained through further analysis. We will continue to address nature-related dependencies, impacts, risks and opportunities associated with our business based on the latest information.

Our Group has established a proprietary risk management system, which we operate in conjunction with the management of risks and opportunities under our environmental management system. We manage nature-related risks in the same manner, and we have set up a Risk Management Working Group to implement our risk management policy and priority measures. The Risk Management Working Group holds discussions and conducts reviews annually, after which material risks are identified through deliberation by the Sustainability Committee.

The Board of Directors receives reports on these efforts as necessary and engages in discussions on them.

5. Metrics and Targets

Our Group has adopted “a company that contributes to a nature-positive future” as our Vision for 2030 for the material issue of “Conservation and Restoration of Nature.” Each year, we disclose environmental data on raw material and energy inputs, water resource inputs, water consumption, chemical releases and transfers, and industrial waste generation by type, and other metrics in our business activities, and through monitoring this data, we advance initiatives to reduce the impacts of our business activities on nature.

(Reference) ESG Data Book <https://www.smm.co.jp/en/sustainability/library/>

Our Group is currently considering the TNFD core global disclosure indicators and metrics, as well as targets and goals, for nature-related dependencies and impacts in the priority locations described above.

As an example of the current status of these considerations, Table 4 shows the actual water recycling rates at CBNC and THPAL related to metric C1.1 (extent of land/freshwater/ocean-use change). The Group plans to establish targets and goals with reference to the actual measurement data.

Table 4. Core Global Disclosure Indicators, Metrics, Targets, and Goals

Driver of Nature Change	Metric No.	Indicator	Metric	Actual Values (2025)	Targets and Goals
Land/freshwater/ocean-use change	C1.1	Extent of land/freshwater/ocean-use change	- Extent of land/freshwater/ocean ecosystem use change (km²) - Extent of land/freshwater/ocean ecosystem conserved or restored (km²) - Extent of land/freshwater/ocean ecosystem that is sustainably managed (km²)	(Reference: Water recycling rate) - CBNC: Achieved 10% or higher - THPAL: Achieved 20% or higher	Under consideration

Our Group will continue to select appropriate metrics and establish targets and goals for other disclosure indicators currently under consideration, with the aim of achieving continuous improvement through assessments of performance.