Medium- to Long-Term Strategy for Value Creation

Review of Past 3-Year Business Plans

Passing through the business reforms conducted after the JCO criticality accident in 1999, SMM's business plans have continued up to the current growth strategies of the 2021 3-Year Business Plan (FY2022 to FY2024).

From the time of the Corporate Reform Plan (FY2000 to FY2001) that we formulated in 2000 following the accident, and through our 2001 2-Year Business Plan (FY2002 to FY2003), we implemented the selection and concentration of core businesses as a measure to reinforce corporate organization. From the 2003 3-Year Business Plan (FY2004 to FY2006) onward, we steered our course toward a growth strategy and realized long-term growth by expanding and strengthening core businesses, particularly large-scale projects. Following a degree of success in the 2015 3-Year Business Plan (FY2016 to FY2018), we tackled further growth upon a new stage under our 2018 3-Year Business Plan (FY2019 to FY2021).

2015 3-Year Business Plan FY2016-FY2018 2018 3-Year Business Plan FY2019-FY2021 Become the world leader in the non-ferrous metals Become the world leader industry and an excellent company of Japan in the non-ferrous metals industry 1 Strengthen the growth foundation of core businesses Mineral Resources • Full-scale production at the Sierra Gorda Copper Mine Acquire new gold mine interests competitiveness: Aggressive investment Smelting & Refining Minimization of lost profits and opportunity loss and consoli- Expand Taganito HPAL dation of business base: Defensive investment Advance growth strategies using HPAL peripheral technologies 2 Strengthen 3-business collaboration centered on Enhance competitiveness of copper smelting business cathode materials for batteries Materials Maximally leverage the integrated production structure and Profit contribution from expanded battery material and LT/ LN production 3 Strengthen corporate functions · Continuously create and adapt next-generation products Stimulate communication with stakeholders both inside and Corporate governance strengthening outside the company Globalization measures · Rebuild an open and vibrant organizational climate Strengthen the growth foundation of core businesses Results Mineral Resources (Mineral Resources, Smelting & Refining, Materials) Incurred a large impairment loss at the Sierra Gorda Copper Mine due to a production slump and increase in costs Mineral Resources Entered into the Cote Gold Project · Decided to sell all interests in the Sierra Gorda Copper Mine, Acquired interest in the Quebrada Blanca 2 Transferred the Pogo Gold Mine interest Smelting & Refining • Had steady progress in FY2021 despite factors such as a tempo- Completed 36-kt production structure at Taganito HPAL Commercialized scandium and chromite recovery Cote Gold Project Achieved 450-kt electrolytic copper production volume Completed 49-kt nickel sulfate production structure Smelting & Refining Began Pomalaa Project Definitive Feasibility Study (DFS) · Decided to discontinue feasibility study on the Indonesian Pomalaa Project in April 2022 Completed 4,550-t/month battery material production structure Completed increase of LT/LN production structure Developed nickel oxide powder for fuel cell electrodes materials business on May 1, 2022 Entered into silicon carbide (SiC) business Strengthen 3-business collaboration centered on cathode Withdrew from lead frame business materials for batteries Decided to construct a new battery plant in 2021 (construction Increased number of outside directors, appointed female to be completed during the 2021 3-Year Business Plan) directors · Established a new recycling process with the ability to recycle Implemented International Financial Reporting Standards copper, nickel, cobalt, and lithium (IFRS), commenced integrated report publication Strengthen corporate functions · Enhanced responsiveness to changes in the business environment through organizational restructuring Rebuilt the organizational culture by renewing the Head Office investors ssues Missed the 2018 3-Year Business Plan safety-related initia-• Enhancing and improving site management capability (production capabilities) and management capability (FY2021 recorded 20 accidents) Creating new products and businesses Accelerating the search for new nickel deposits and con-• Securing and developing the human resources to support growth

Strengthening the value chain of the 3-business collabora-



(FY) Corporate 2001 2-Yr 2003 3-Yr Reform Plan Business Plan Business Plan

(Mineral Resources, Smelting & Refining, Materials) • Steady promotion of growth strategy and swift realization of

win through overall capabilities, including battery recycling

which has established stable, full-scale production, as part of the Group-wide asset portfolio optimization and strategic asset replacement (transfer of all interests completed in February 2022)

rary halt of construction of the Quebrada Blanca 2 Project due to COVID-19 and an increase in the initial start-up costs of the

· Concluded a transfer contract with Sumitomo Osaka Cement Co., Ltd. to acquire their lithium iron phosphate (LFP) battery

Enhanced SR (Shareholder Relations) activities for institutional

- tive target of less than 5 occupational accidents in Japan
- sideration of new projects in response to the discontinuation of feasibility study on the Indonesian Pomalaa Project
- tion (for Ni-batteries), including recycling

2007 2008 2009	2010 2011 2012	2013 2014 2015	2016 2017 2018	2019 2020 2021	2022
2006 3-Yr	2009 3-Yr	2012 3-Yr	2015 3-Yr	2018 3-Yr	2021 3-Yr
Business Plan	Business Plar				

FY2022 Results

In FY2022, consolidated net sales increased compared to the previous fiscal year due to the significant depreciation of the yen, higher nickel prices, and strong sales of materials for automotive batteries. Consolidated profit before tax decreased compared to the previous fiscal year, mainly due to the lack of the gain on sale from the transfer of the entirety of the Company's interest related to the Sierra Gorda Copper Mine, and the lack of profit from investments accounted for using the equity method related to this mine, that were recorded in the previous fiscal year.

Mineral Resources Segment

Segment income decreased year on year, despite the significant depreciation of the yen, due mainly to the decrease in copper prices, the decline in the volume of gold shipped from the Hishikari Mine in conjunction with its transition to a sustainable production, and the lack of a gain from the transfer of the entirety of our interest in the Sierra Gorda Copper Mine and share of profit of investments accounted for using equity method related to the mine, which were recorded in the previous fiscal year.

Mining operations at the Hishikari Mine remained steady, and the sales volume of gold was 4.4 tons as planned.

Production levels at the Morenci Copper Mine (United States) (in which the Company holds a 25.0% interest, excluding non-controlling interest) rose from the previous fiscal year to 400,000 tons, due mainly to the cessation of measures to decrease the operating rates of some mills as a COVID-19 countermeasure

Production levels at the Cerro Verde Copper Mine (Peru) (in which the Company holds a 16.8% interest, excluding

Metal Prices and the Exchange Rate

	FY2022 result	FY2021 result	Change
Copper (\$/t)	8,551	9,691	(1,140)
Nickel (\$/lb)	11.63	9.35	+2.28
Gold (\$/toz)	1,805	1,818	(13)
Exchange (¥/\$)	135.48	112.39	+23.09

FY2022 Result (¥ billions)

	FY2022 result	FY2021 result	Change
Net sales	1,423.0	1,259.1	+163.9
Profit / loss before tax	229.9	357.4	(127.5)
Equity method profit/loss	36.5	57.5	(21.0)
Net income attributable to owners of parent	160.6	281.0	(120.4)

non-controlling interest) rose from the previous fiscal year to 442,000 tons, due mainly to an increase in ore grade and a rise in mill plant operation rates.

Smelting & Refining Segment

Segment income increased year over year, due mainly to the significant depreciation of the yen and the rising price of nickel, despite the decline in copper prices.

The production level and sales volume of electrolytic copper increased from the previous fiscal year. Although the production level and sales volume of electrolytic nickel were affected by raw material shortages and other factors, they were on par with the previous fiscal year due to efforts to increase production toward the end of the fiscal year. The amount of ferronickel produced and sold declined from the previous fiscal year due to the market being sluggish and trouble with facilities.

The production level at Coral Bay Nickel Corporation (Philippines) was unchanged from the previous fiscal year. The production level at Taganito HPAL Nickel Corporation (Philippines) rose from the previous fiscal year when there were reductions in production caused by equipment problems.

Materials Segment

Segment income decreased year on year, due mainly to decreased sales of components for electronic parts as a result of declining demand for smartphones and other products in China and throughout the world, despite strong sales of automobile battery components, for which demand is solid on the back of the shift toward decarbonization.

Profit before Tax Comparison (FY2022 result vs. FY2021 result)



1. Other: operating segments and other income-seeking business activities that are under the control of the Head Office divisions/departments and are engaged in by business segments other than those included in the reportable segments

2. Adjustments: elimination of inter-segmental transactions, general and administrative expenses, finance income and costs, etc. not attributable to reportable segments.

Profit before Tax analysis (FY2022 result vs. FY2021 result)

While some market factors served as a tailwind, profits declined by ¥127.5 billion due to the worsening cost difference, the stagnation of the market environment for the



WEB For volumes related to production and sales of the Mineral Resources and Smelting & Refining businesses, please refer to the following Supplementary Explanation Material of Financial Summary. https://www.smm.co.jp/en/ir/event/teleconference/

Profit/Loss Excludes Temporary Factors Based on the Current Business Environment (FY2022)

In response to investors' comments that it is difficult to understand our capability due to the large impact of fluctuations in metal prices and exchange rates, we have newly disclosed our profit/loss excluding temporary factors from this fiscal year.

The profit/loss excluding temporary factors for FY2022 (profit before tax), is the profit/loss excluding fluctuations in metal prices and foreign exchange rates and the impact of special factors during the period concerned.



materials business, and the peeling-off of the gain (¥89.0 billion in total) related to the transfer of rights to Sierra Gorda copper mine in the previous fiscal year.

it Cost Differentials (Mineral Resources Busin siness)	ess and Smelting & Refining (¥ billions)	
npact of rising energy prices:	approx. (30.0)	
npact of rising operating material prices, etc.,	approx. (16.5)	
rgy prices peaked out in FY2022 but remained high. ddition, prices of some operating materials remained high. will continue to work on improving efficiency and reducing costs, which are the is of a manufacturing company.		

Temporary factors excluded from FY2022 results

- Impact of inventory evaluation
- Other gain/loss on foreign exchange (financial revenue/expenses, and other revenue/expenses
- Impact of price adjustment in overseas copper mine

Image of the impact of inventory evaluation (reference)

Impact of inventory evaluation is the difference between the purchase price of raw materials and the selling price of products. It occurs temporarily due to fluctuations in metal prices and foreign exchange rates, but is equalized over the long term



FY2023 Plan

Uncertainties in the global economy have increased due to the credit crunch caused by inflation and financial instability, which are negative factors for economic growth, as well as the expected time required for a full-fledged economic recovery in China and concerns about excessive debt problems in developing countries.

As for non-ferrous metal prices, although demand is expected to increase in the medium to long term, mainly for electric vehicles and renewable energy, there is the risk of a decline due to the current situation where the Chinese economy has not recovered as much as expected and supply capacity has increased. The balance of supply and demand for non-ferrous metals is expected to be almost balanced or slightly oversupplied for both copper and nickel.

In the industries related to the materials business, although

Metal Prices and the Exchange Rate (May forecast)

	FY2023 forecast	FY2022 result	Change
Copper (\$/t)	8,500	8,551	(51)
Nickel(\$/lb)	10.00	11.63	(1.63)
Gold (\$/toz)	1,800	1,805	(5)
Exchange (¥/\$)	130.00	135.48	(5.48)

FY2023 May Forecast of Consolidated Operating Results (¥ billions)

	FY2023 forecast	FY2022 result	Change
Net sales	1,366.0	1,423.0	(57.0)
Profit / loss before tax	77.0	229.9	(152.9)
Equity method profit/loss	14.5	36.5	(22.0)
Net income attributable to owners of parent	42.0	160.6	(118.6)

demand is expected to continue to grow in response to decarbonization and digital transformation (DX), there is the risk of a delay in the full recovery of related markets due to the uncertain outlook for the global economy and other factors, and the situation remains unpredictable.

For the FY2023 forecast of consolidated operating results (prepared in May), prices of major non-ferrous metals were set based on the projected future balance of supply and demand, taking into account the levels at the time the plan was prepared, and production and sales volumes of major products were planned based on the actual results at the time the plan was prepared and other factors. As a result, consolidated net sales are expected to be ¥1,366.0 billion, consolidated profit before tax ¥77.0 billion, and profit attributable to owners of parent ¥42.0 billion.

Profit before Tax Comparison (FY2023 May forecast vs. FY2022 result)



1. Other: operating segments and other income-seeking business activities that are under the control of the Head Office divisions/departments and are engaged in by business segments other than those included in the reportable segments.

2. Adjustments: elimination of inter-segmental transactions, general and administrative expenses, finance income and costs, etc. not attributable to reportable segments

Profit before Tax analysis (FY2023 May forecast vs. FY2022 result)

In our forecast of consolidated operating results for FY2023 (prepared in May), we expected metal price declines and appreciation of the yen to put pressure on profits. We anticipated the market environment for the materials business to



following Supplementary Explanation Material of Financial Summary. https://www.smm.co.jp/en/ir/event/teleconference/

Profit/loss excluding temporary factors for the FY2023 May forecast (profit before tax), is the profit/loss excluding fluctuations in metal prices and foreign exchange rates (impact of inventory evaluation and impact of price adjustment in overseas copper mines) and the impact of special factors during the period concerned. The difference from the profit/loss excluding temporary factors for FY2022 is mainly due to differences in price and exchange rate assumptions.

remain sluggish, as it was in FY2022. We also expected a temporary deterioration in equity profit from investments accounted for using the equity method, which would result in an overall decline of ¥152.9 billion.

WEB For volumes related to production and sales of the Mineral Resources and Smelting & Refining businesses, please refer to the



The 4 Challenges in the 2021 3-Year Business Plan

Our 2021 3-Year Business Plan has the overall theme of renewed challenge for change. It outlines our ongoing efforts to realize our long-term vision, targets, and milestone for Vision 2030. It also puts together our responses to the accelerating trend toward carbon neutrality, digital transformation (DX), and other changes in the social environment into 4 Challenges. As expectations and demand for non-ferrous metals grow throughout the world, we will transform SMM into the world leader in the non-ferrous metals industry by promoting these 4 Challenges.

Increasing corporate value - Promotion of large-scale projects

Expanding production capacity for battery cathode materials

Demand for automobile secondary batteries is expected to continue to increase due to the electrification of automobiles, and SMM is increasing its secondary battery cathode material production capacity. We will precisely meet market demand and maintain one of the largest shares of the nickel-based cathode market by building a production structure that can produce more and more as time goes on—7,000 tons/month in FY2025, 10,000 tons/month in FY2027, and 15,000 tons/month in FY2030.

In addition, to further increase cost competitiveness, we will introduce into each business site the Toyota Production System, which has already been introduced at some manufacturing sites. As for the new plant where equipment installation will be completed and will launch operation in FY2024, we will position it as a model plant for promoting DX and work to increase productivity and quality through DX. During the 2021 3-Year Business Plan, we will take the lead in recruiting and developing staff for the new plant and ensure the launch of operations at the plant.

Quebrada Blanca 2 Project

Copper is attracting attention for its indispensable role in the proliferation of EVs and renewable energy, and demand for the metal is increasing rapidly. At the Quebrada Blanca 2 Project in Chile (QB2; SMM interest: 25%) we began loading ores into main equipment and producing bulk copper concentrates in March 2023. We are gradually raising the capacity utilization rate of the equipment to achieve full production during 2023. Following the start of full operation at QB2, we expect copper production from our interests to be 280,000 tons/year. As we make progress in confirming mineral resource volumes though test boring as well as the cost competitiveness of the project, the potential for future expansion plans is increasing.

Cote Gold Project

The Cote Gold Project (Canada) (SMM interest: 36.72%) is underway, with the start of production planned between January and March 2024. Our interest production volume for the final year of the 2021 3-Year Business Plan (FY2024) is expected to be 4 tons. Also, we have confirmed new mineral resources through exploration in areas around the mine, and expect the project's value to increase through future new development.

Cathode material production volume



See "Business Strategy and Progress of the 2021 3-Year Business Plan," Battery Materials Business, p. 70

Main Initiatives in Fiscal 2022

See "Advancement of the Quebrada Blanca 2 Project," Progress and Strategy of the 2021 3-Year Business Plan, Mineral Resources Business, p.57

Main Initiatives in Fiscal 2022

See "Advancement of the Cote Gold Project," Progress and Strategy of the 2021 3-Year Business Plan, Mineral Resources Business, p.58

Improving core business sustainability

3-business collaboration to strengthen the value chain

One of the SMM Group's major strengths is that it possesses an in-house nickel value chain of 3-businesses collaborating—the Mineral Resources Business, the Smelting & Refining Business, and the Materials Business. To increase in-house raw material supply along with battery cathode material production capacity increases, we are not only moving forward with measures to secure supplies of ore to the existing Coral Bay Nickel Corporation (CBNC) and Taganito HPAL Nickel Corporation (THPAL) located in the Philippines but are also searching for new deposits.

We have created a battery-to-battery recycling process that takes pre-processed used EV batteries, recovers the included nickel, cobalt, copper, and lithium, and then re-supplies those metals as battery materials. During the 2021 3-Year Business Plan, we are moving forward with demonstrations at a pilot plant, with the aim of constructing a plant with processing capacity of 10,000 tons per year by the end of 2024 3-Year Plan and establishing a processing structure.

Shifting Hishikari Mine to a sustainability-oriented operation

The Hishikari Mine is Japan's largest gold mine, yielding ore of extremely high grade even by international standards. The mine produced 6 tons of gold per year during the 2018 3-Year Business Plan, but has switched to sustainability-focused operations based on the mining of recoverable average-grade ore from the 2021 3-Year Business Plan onward. Looking ahead, the mine aims to acquire new supplies of ore through tunneling to explore deep underground ore bodies, carry out restructuring of its operational framework to incorporate DX and other latest technologies, and reduce costs.

Enhancing competitive edge in copper-smelting and refining business

In our copper smelting and refining business, we are working to establish a production structure that increases annual electrolytic copper production capacity by 10,000 tons annually to 460,000 tons by improving facilities at the Toyo Smelter & Refinery, which launched operation in 1971, and are working to increase the efficiency of internal logistics by investing in improvements in infrastructure. In parallel with the expansion of production capacity, we are also advancing a series of GHG reduction measures, such as switching the fuel we use, as we work to improve competitiveness by accelerating initiatives to decarbonize.

Strategy for Advanced Materials Business expansion

The electronic components industry, which requires various types of products handled by the Advanced Materials Business, is forecast to experience faster growth on account of the progress in the electrification of vehicles and other developments, such as 5G and DX. We aim to generate growth that exceeds market growth by always updating and maintaining an optimal product portfolio through measures such as introducing new products and technologies, developing new uses, creating and utilizing innovative production processes, and new sales strategies.

Main Initiatives in Fiscal 2022

See "3-Business Collaboration to Strengthen the Value Chain," Progress and Strategy of the 2021 3-Year Business Plan, Smelting & Refining Business, p.63

Main Initiatives in Fiscal 2022

See "Hishikari Mine: Establishment of a foundation for long-term stable operation," and "Sustainability Topics," Progress and Strategy of the 2021 3-Year Business Plan, Mineral Resources Business, p.59

Main Initiatives in Fiscal 2022

See "Meeting the Challenge of Improving Core Business Sustainability," Progress and Strategy of the 2021 3-Year Business Plan, Smelting & Refining Business, p.64

Main Initiatives in Fiscal 2022

See "Progress and Strategy of the 2021 3-Year Business Plan," Advanced Materials Business, p.72

Adapting to changes in the social environment

Carbon neutrality

The 2021 3-Year Business Plan includes plans to establish an in-house committee to promote carbon neutrality to keep our GHG emissions below the FY2013 level, develop a plan for reaching net zero GHG emissions no later than 2050, and implement various necessary measures. We are also moving forward with individual countermeasures, future plans, and discussions related to issues such as creating a path to becoming net zero by 2050 and setting Scope 3 targets in line with the commitment of ICMM and other international industry groups. In addition to ¥12.0 billion for capital expenditures and testing and research, we will tackle issues such as developing both advanced materials that contribute to carbon neutrality and new technologies and processes to reduce GHG emitted in existing processes, and contribute to lessening our carbon footprint though new businesses, such as battery recycling and the development of cathode materials for solid-state batteries.

Investments to reduce GHG emissions

During the 2021 3-Year **Business Plan** Total ¥12.0 billion

• ¥5.0 billion in capital expenditures, including adoption of an internal carbon pricing (ICP) system (boiler fuel conversion, solar power, etc.) • ¥7.0 billion in testing and research related to reduction of GHG emissions, including up to Scope 3

Digital transformation (DX)

We created a Digital Transformation Committee in April 2021 and launched a Digital Transformation Department in July 2022 as a body dedicated to executing DX-related measures. With these, we are accelerating our Group-wide DX. During the 2021 3-Year Business Plan, DX-related initiatives undertaken at the various business department will be integrated Group-wide, and we will strengthen competitiveness by building a Group-wide DX foundation to achieve our vision of leveraging DX to enhance our competitiveness and create new businesses. With investment plans that include ¥15.0 billion in DX-related investments, we are aiming to transform business, improve management efficiency and the data literacy of employees, and develop human resources for DX.

Securing, fostering, and utilizing human capital

As birthrates dwindle, the population ages, and the labor market grows more fluid, securing outstanding human capital has grown more difficult, making it an important issue for the survival of companies. We have divided our human capital management activities into the three categories of the securing, fostering, and utilizing of human capital, and will undertake action with human capital management set as a top-priority issue in the achievement of our management strategy. In terms of "securing" human capital, we are increasing points of contact with candidates through steps including expanding long-term internships and improving branding to increase SMM name recognition. In terms of "fostering" and "utilizing" human capital we are moving forward with several initiatives, such as enriching OJT and training and revising remuneration and performance evaluation systems and allowances. We are also more actively investing in human capital, expanding training programs to foster the next generation of management and offering reskilling and recurrent education to instill new skills adapted to change.

See "Special Feature1: Digital Transformation (DX) at the SMM Group, p.78-81

Main Initiatives in Fiscal 2022

Main Initiatives in Fiscal 2022

p.89-91

See "Climate Change," Vision for 2030,

Main Initiatives in Fiscal 2022 See "Special Feature3: Human Resources Strategy," p.128-131

Strengthening the foundation of business management

Strengthening safety initiatives

We continue to not achieve our target for number of accidents even though we are implementing equipment safety measures. This is due to our failure to find dangerous locations and operations so there are numerous accidents similar to ones that have occurred in the past (reoccurring accidents). During the 2021 3-Year Business Plan, we will stress preventing serious accidents and focus on preventing reoccurring accidents. With the passing of the baton to the next generation and change in personnel in mind, we will increase hazard awareness by introducing and expanding more effective training and development through simulation training that employs VR and other technologies, and rebuild leadership of managers and supervisors to deeply instill and maintain safety awareness. We are also striving to improve the observation skills of managers and supervisors by adopting suggestions from outside consultants.

Reorganizing and enhancing sustainability promotion framework

To advance the achievement of our Vision for 2030, in April 2022 we reviewed our sustainability promotion framework and established the Sustainability Committee. The SMM Group will accelerate the promotion of our sustainability policy, in which we state, "The Sumitomo Metal Mining Group is engaging in the resolution of business issues that will contribute to the development of a sustainable society, and is working to improve both our sustainable growth as a business and our corporate value."

Corporate governance

SMM's corporate governance is a disciplinary framework both for maximizing corporate value and for ensuring sound management practices, so it is one of the most important management issues. To maximize corporate value, we have also set a basic business portfolio policy. We will manage our business portfolio using return on capital employed (ROCE) on a consolidated basis as an indicator for each business (2021 3-Year Business Plan ROCE target: 5.5%).

Through striving to enhance our corporate governance, we will conduct efficient and sound business activities, make positive contributions to society, and fulfill our responsibilities to our shareholders and all other stakeholders in order to realize our corporate philosophy.

Main Initiatives in Fiscal 2022

See "Employees' Occupational Health and Safety," Vision for 2030, p.93

Main Initiatives in Fiscal 2022

See "Vision for 2030, Material Issues, KPIs (Indicators and Goals)," p.86-87

Main Initiatives in Fiscal 2022 See "Corporate Governance," p.100-111

Financial Strategy (basic approach)

Because the SMM Group deals in resources that become depleted, we must always be prepared for participation in large-scale projects or M&A in order to acquire new resource interests. Mineral Resources Business and Smelting & Refining Business development projects, including the construction of new smelters and refineries, involve relatively long periods of time between execution and recovery of investment. Accordingly, it is important to maintain a sound financial position that can withstand large temporary cash outflows. Based on this thinking, we set a consolidated equity ratio (ratio of equity attributable to owners of parent to total assets) of 50% or more as a foundation for our financial strategy.

As of the end of FY2022, our consolidated equity ratio (ratio of equity attributable to owners of parent to total assets) was 60.3%.



Total Assets, Equity Attributable to Owners of Parent, and Ratio

of Equity Attributable to Owners of Parent to Total Assets



Funding

We believe it is necessary to maintain a certain amount of liquid funds on hand based on overall demand for funds such as for large-scale overseas projects in the Mineral Resources and Smelting & Refining businesses, or strategic expansions within the Materials Business. This is essential from the standpoint of management stabilization. Under that premise, we conduct funding in line with the use of the funds, while comprehensively considering the outlook for non-ferrous metal prices and currency exchange, conditions in interest rate markets, and other factors.

Net cash provided by (used in) investing activities turned positive in the previous fiscal year, mainly due to gains from the divestiture of our entire interest in the Sierra Gorda Copper Mine. In FY2022, increased investments in the Quebrada Blanca 2 Project and the Cote Gold Project resulted in major outflows of cash. In line with the progress of such large-scale projects, we carried out fund-raising through means including foreign currency-denominated long-term equipment funds, yen-denominated syndicated loans, and issuance of green bonds. As a result, our interest-bearing liabilities in FY2022 increased by ¥155.9 billion to ¥457.3 billion, resulting in a D/E ratio of 0.28.¹

1. Interest-bearing liabilities and D/E ratio do not include lease liabilities.

Cash Flow, D/E Ratio



- Free Cash Flows (left axis) - D/E Ratio (right axis)

Investment

Raw material ores for non-ferrous metals are subject to sharp price fluctuations related to supply and demand, natural disasters, and other factors, and it is not always possible to secure necessary quantities of ores due to price levels. For this reason, we must secure stable sources of raw materials through the development of overseas mines and acquisition of interests. In mine development and acquisition of interests, and in large-scale overseas projects in the Smelting & Refining Business, we carry out investments by leveraging our extensive exploration experience, knowledge of mine valuation, and smelting and refining technologies, with country risk and local issues fully taken into account, to avoid additional investments or increases in costs arising from uncertainty. We also carefully select and execute capital investments other than large-scale projects, with full consideration of investment effect and efficiency (profitability).

Capital investment in FY2022 was ¥140.8 billion, under large-scale capital investments including the Cote Gold



Return to Shareholders

In our dividend policy, we decide on a balance of dividends and internal reserves through comprehensive consideration of our business performance, our dividend payout ratio, the business outlook, the soundness of our financial position, and other factors. As our financial strategy in the 2021 3-Year Business Plan, we will continue working to uphold the soundness of our financial position and will maintain a consolidated equity ratio of 50% or higher, with a consolidated dividend payout ratio of 35% or higher.

Under the above shareholder return policy, the annual dividend per share for FY2022 was ¥205, for a payout ratio of 35.1%.

2. The gain on sale associated with the transfer of all equity interest in the Sierra Gorda copper mine recorded in FY2021 includes an amount equal to a reversal of the allowance for bad debt for loans and other receivables for Sierra Gorda S.C.M., which was adjusted in the opening balance of retained earnings in FY2019 as a cumulative effect (Revised IAS 28"Investments in Associates and Joint Ventures"). For this reason, effects on FY2021 results caused by the application of these accounting procedures and manifesting in accordance with the transfer of equity are omitted from the dividend calculation. Basic earnings per share, excluding the effects of this application of accounting procedures, were ¥857.47.

Project and increased production of cathode materials for automobile batteries.

Our capital investment plan for FY2023 is as follows (as of May).

Capital Expenditure



Key Projects in FY2023 May Plan

- Cote Gold Project (initial interest): ¥32.8 billion (total: USD 846 million)
- Cote Gold Project (additional interest): ¥20.5 billion (total: USD 274 million
- Total: ¥53.3billion (total: USD 1,120 million)
- Increased production of cathode materials for automobile batteries (Besshi District + Harima Refinery): ¥25.7 billion (total: ¥47.0 billion)
- Development of the lower ore body in Hishikari Mine (installation of new dewatering facilities): ¥0.2 billion (total: ¥3.7 billion)
- Fuel switch to LNG in Besshi District*: ¥0.6 billion (total: ¥1.9 billion)
- * Internal carbon pricing project



Dividend per Share, Payout Ratio

Shareholder Value

Through means including the 4 Challenges in our current 2021 3-Year Business Plan, we have promoted growth strategies and strengthened our business base to maximize our corporate value. These actions also contribute to the enhancement of shareholder value. Our TSR, a common index for evaluating shareholder value, exceeds the past performance of the TOPIX index (3 years/5 years/10 years). At the same time, our PBR has recently remained under 1.0, although we believe that this is largely due to characteristics of our business. In addition to the disclosure of our profit/loss excluding temporary factors,* we clearly indicate how our company will growth by solidly executing on our strategy and the competitive advantages that we possess. Doing so, we will strengthen our capabilities for communicating information through IR activities so that investors can better understand the value of our Company.

We believe that maintaining a firm financial base while steadily carrying out growth strategy aimed at achieving our long-term vision, based on the characteristics of our business, will lead to positive valuation by the stock market in the medium to long term. Accordingly, we have set a shareholder return policy linked to performance, with a dividend payout ratio of 35% or higher in principle during the 2021 3-Year Business Plan. Recognizing that many shareholders are calling for stable returns, we will undertake consideration of returns in preparing the next 3-Year Business Plan.

We will continue working to enrich our financial and non-financial information disclosure aimed at eliminating asymmetry of information, and to enhance capital efficiency through reduction of shareholders' cost of capital under strengthened sustainability initiatives, compression of inventories, and cost reductions. Together with this, we will make efforts to incorporate valuable feedback received from investors into our management and further enhance shareholder value.

* Profit/loss after the exclusion of "impact of temporary gains/losses in a situation where metal prices or foreign exchange fluctuate" and "impact of special factors for the period concerned" from profit before tax

Business Characteristics of Our Company (non-ferrous metals)

- Demand for the non-ferrous metals (copper, nickel, etc.) that we handle in our business is expected to continue growing steadily. However, as non-ferrous metal assets become depleted through mining and must be constantly replaced, a battle for first-class assets is taking place, centered on major non-ferrous players.
- In addition to the growing difficulty of developing new mineral resources at increasingly higher elevations and greater depths, the costs of materials, labor, and other inputs have also increased in recent years.
- We spend time to carefully consider participation in mineral resource development projects from various angles, but once the decision to participate is made, investments on the scale of hundreds of billions of yen are quickly required.
- Harvesting the fruits of investments requires years. Without a financial base able to withstand such time scales, we would be unable to continue our business and would not be called upon as a candidate partner for mineral resource development.
- As non-ferrous metal prices are determined in trading markets typified by the London Metal Exchange (LME), profit and loss in the non-ferrous metals business is greatly affected by the market environment. Accordingly, the volatility of our stock price is high, which leads to a higher cost of capital.

Share Price (Share prices calculated with share price at the end of March 31, 2013 set to 100)



Share Price Performance (TSR)

Investment period	1 year	3 уе	ears	5 ye	ears	10 y	ears
	Cumulative and Annualized	Cumulative	Annualized	Cumulative	Annualized	Cumulative	Annualized
SMM	-14.7%	155.9%	36.8%	30.1%	5.4%	130.1%	8.7%
TOPIX	5.4%	51.9%	15.0%	28.6%	5.2%	126.6%	8.5%
TOPIX Nonferrous Metals	1.5%	81.0%	21.9%	8.3%	1.6%	82.5%	6.2%

Source: Bloomberg

* TSR (Total Shareholder Return): Calculated using ([share price at the end of the fiscal year ended March 31, 2023] – [share price at the end of the fiscal year X years previous to the fiscal year ended March 31, 2023] + [total cash dividend per share for the relevant period]) + [share price at the end of the fiscal year X years previous to the fiscal year ended March 31, 2023].

* Annual cash dividend per share for TOPIX and TOPIX Nonferrous Metals: Calculated using the weighted average of the cash dividend per share value for each stock over the 12 months previous to the base date and the formula used by TOPIX itself (Calculated using Bloomberg values).

The Value Creation Logic Tree

We believe that our corporate value is created from three values: shareholder value, social value, and environmental value. This logic tree shows the relationship between these three values and the sources of value creation, concretely incorporating strategy and management targets into main measures and diagramming the connections among them.

Shareholder value is created through increases in dividends and stock prices. While striving to maintain a stable financial base, our Company will execute growth strategies that include business expansion and enhancement of profitability in order to grow shareholder value.

Logic Tree



Acting under our corporate philosophy, which calls for co-existence with the global environment and society, social contribution and fulfillment of responsibilities to our stakeholders through sound corporate activities, and respect for all individuals, we will further strengthen our long-running sustainability initiatives. We will connect this to reduced management risks and thus lower cost of capital, as well as to enhanced adaptability to social and environmental changes and to the creation and enhancement of social value and environmental value.

Mineral Resources Business

Aiming for mine development and operation adapted to changes in our society

Eiichi Fukuda Executive Officer

ral Manager of ral Resources D

Segment Net Sales



Net sales figures do not include results from affiliate companies accounted for using the equity method.



Despite the significant depreciation of the yen, segment income was lower than in the prior year for reasons including a decline in copper prices, constraints on the shipment volume of gold associated with the transition to a sustainable production system at the Hishikari Mine, the lack of gain on the sale of the Company's entire interest in the Sierra Gorda Copper Mine, and the lack of profit from the Sierra Gorda Copper Mine accounted for using the equity method, the lat ter two having both been recorded in the previous fiscal year.





The SMM Group continued to make capital investments (¥1.9 billion) at the Hishikari Mine, primarily focusing on the exploration of deep areas and digital transformation. We also invested capital to support mining and production at overseas mines, including at the Cote Gold Project (¥75.3 billion) and at the Morenci Copper Mine (¥13.2 billion

Recoverable Gold Reserves at the Hishikari Mine

Depreciation and Amortization Expense



Exploration Costs

(¥ billions)

Segment Income



Recoverable reserves of gold at the Hishikari Mine, calculated as of December 31, 2022, are 155 tons (down 2 tons from previous fiscal year).

New deposit exploration Exploration around existing mines Exploration expenditure is expected to increase to focus on new exploration in Canada, including exploration projects newly acquired at the end of 2022, and on peripheral exploration in existing deposits with the aim of acquiring additional mineral resources.

(FY) 2018 2019 2020 2021 2022 2023

Review of FY2022

Although the COVID-19 pandemic subsided in FY2022 and its influence waned compared to FY2021, it continued to exert residual impacts on projects, including through increased start-up costs and delays in construction plans. Despite some of the challenges caused by COVID-19, FY2022 marked the first year of the Hishikari Mine's conversion to sustainability-oriented operations. We undertook cost reduction measures, a review of our operational structure, and promotion of digital transformation, including the test introduction of self-driving heavy equipment. Production volume at our overseas operating mines slightly exceeded that of FY2021 due to year-on-year increases in mineral processing operating rates at the Morenci Copper Mine (United States) and the Cerro Verde Copper Mine (Peru). At the Quebrada Blanca 2 Project (Chile), one of the major projects in our 2021 3-Year

Addressing Changes in the Business Environment and Issues

While the impacts of the COVID-19 pandemic gradually subsided worldwide in FY2022, a number of challenges in the business environment remained. The capital investment required to develop the Cote Gold project to production swelled to about twice the estimate at the time of construction. The emergence of financial risk to our partner, IAMGOLD Corporation, led our Company to provide additional funding as noted above. Russia's invasion of Ukraine in FY2021 continues without an end in sight, and prices of energy and



Leveraging over 300 years of mine development and operational experience and technologies, we operate the Hishikari Mine, Japan's largest gold mine, with a focus on sustainability. We participate in the operation of overseas mines in which we hold interests to produce copper, gold, and other resources to provide materials and in order to secure mineral resources. We are also working to acquire and develop new superior mines.

> Business Plan, we began loading ore into the main processing facilities and producing bulk copper concentrates in March 2023. However, the continued costs of necessary infection control measures in response to COVID-19, along with the prolongation of the construction period due to the quarantining of construction workers and reduction of construction efficiency, have led us to initiate a review of construction costs. At the Cote Gold Project (Canada), we moved ahead with building construction, equipment installation, and other construction work at the mineral processing area. At the same time, the financial situation of our project partner, IAMGOLD Corporation, deteriorated due to the increased start-up costs. In response, we entered into an agreement with IMG to provide additional funding to avoid concerns over the progress of the project.

materials continue to soar. These factors have had a strong impact on our projects under construction and on the domestic and foreign mines in which we hold interests, resulting in increased costs. Accordingly, abatement of the situation remains unclear, and numerous challenges including increases in capital expenditure, the cost of financing, and labor costs due to inflation will likely continue to affect the costs of mine development and operation. To address these circumstances, in addition to improving operating rates and

Medium- to Long-Term Strategy for Value Creation Mineral Resources Business

other efforts to reduce finishing costs, we are converting mines to the use of clean energy that is less susceptible to high crude oil prices and rises in coal prices. The transition to clean energy not only brings about structural changes in terms of energy procurement, but is also important under recent global demands for carbon neutrality.

In December 2022 in Peru, demonstrations broke out to oppose the dismissal and arrest of the former president and the inauguration of a new administration, and to demand dissolution of the Congress. The nationwide impacts of this extended to the mining industry, with some copper mines having to suspend operations. Our Company closely shared information with our Peru office and with Freeport-McMoRan Inc., our partner at the Cerro Verde Copper Mine, to assess the situation and examine emergency measures. Fortunately, there were no significant impacts on our related businesses and we were able to maintain operations as usual. While the disturbance has quieted, a similar situation could occur in the

future. We are closely monitoring the conditions as we gather information from relevant parties.

In the area of resource nationalism, the mining royalties that have been discussed for years in Chile are expected to be approved by the Senate and the Chamber of Deputies, with legislation going into effect during FY2023. The bill involves a hybrid method that combines sales ad-valorem criteria and operating profit criteria, imposing additional taxes based on the annual copper production at mines. A movement also exists to nationalize Chile's lithium industry, which could expand to other minerals as well.

Other mining industry-related risks seen worldwide include acquisitions of mines by major resource players, the strengthening of environmental regulations, and delays in project approvals due to conflicts with local communities. We are gathering information in cooperation with various stakeholders and are engaging in risk management so that we can respond flexibly to such situations as they arise.

Despite some upward pressures on copper prices, including the easing of the lockdowns in China, expectations of a recovery in demand, and concerns over tight supplies, copper prices were weighed down by the ongoing interest rate hikes by European and US central banks and concerns over economic slowdown under China's stance of maintaining its zero-COVID policy. The average copper price in FY2022 was US\$8,551/ton. With recovery of demand in China delayed beyond original expectations and markets in Europe and the United States currently softening, there is a possibility of demand for copper decreasing. At the same time, long-term uncertainty exists in terms of both supply and demand, for reasons including unclear demand after the transition to clean energy and expected delays in supply amid delayed

Progress and Strategy of the 2021 3-Year Business Plan

Advancement of the Quebrada Blanca 2 Project

Under the strong leadership of our partner Teck Resources Limited ("Teck"), full-scale construction on the Quebrada Blanca 2 Project began in January 2019 and made steady progress during the COVID-19 pandemic. In March 2023, we began loading ore into the main processing facilities and producing bulk copper concentrates. We plan to move ahead with the ramp-up of facilities for full production and continue long-term stable production that will extend beyond 20 years. From FY2023, we will dispatch additional engineers from our Company and, working ever more closely with Teck, will move the project forward to achieve our production goal of 300,000 tons of copper per year, one of the targets of our long-term vision. In 2022, we also launched a feasibility study for a mineral processing plant expansion plan to increase ore processing volume by about 50%. This project is scheduled for completion in 2023.

Overview of the Quebrada Blanca 2 Project



(As of July 31, 2023)

Progress and Plans for Our Top Priorities

	FY2021	FY2022	FY2023	FY2024	FY2025 and later
Cu Morenci Copper Mine	Resumption	on of operations at 50%	of mills		• Expand concentrate leaching
Cu Cerro Verde Copper Mine		Operation	al structure that can p	rocess 400 kt/day	 Operational structure that can process 420 kt/day
Cu Candelaria Copper Mine					
Cu Quebrada Blanca 2 Project		March: sta	rt of production of bu	k copper concentrates	
Au Hishikari Mine	Continuin	g lower orebody devel Realization	opment of sustainability-orie	nted operation (continu	uing from FY2023)
Au Cote Gold Project			January-N	Narch: Start of production	on

Strategies for the Mineral Resources Business in the 2021 3-Year Business Plan

1. Promotion of the Quebrada Blanca 2 Project

3. Hishikari Mine: Establishment of a foundation for long-term stable operation

2. Promotion of the Cote Gold Project

launches of new copper mining projects. However, the copper price is expected to remain firm.

Gold prices declined temporarily in the middle of the fiscal year for reasons including concerns over recession and over interest rate hikes by the US Federal Reserve Board. A slowing in the pace of interest rate hikes has been observed since around November 2022, and the dollar rapidly weakened. This was the beginning of increased purchases of gold, which accelerated at the end of FY2022 due to financial instability spurred by reports of bankruptcy at US banks and financial crises at a major Swiss bank. The average gold price in FY2022 was US\$1,805/toz, remaining on par with the relatively high price level of the previous year.



Copper Production from Interests



Medium- to Long-Term Strategy for Value Creation Mineral Resources Business

Advancement of the Cote Gold Project

This is a gold mine development project being advanced together with Canadian gold producer IAMGOLD Corporation ("IMG"), and its construction began in July 2020. In 2022, we carried out building construction and equipment installation work at the mineral processing plant, tailing dam embankment construction, open pit mining, and other work. Our operation of self-driving trucks has made a steady start since January 2023, with the project reaching a 79.8% progress rate as of the end of March 2023. Aiming for the start of production between January and March 2024, we plan to dispatch additional engineers to important positions from FY2023 to advance the project while maintaining a high level of engagement. We further plan to leverage the project as an opportunity for young engineers to gain experience. Exploration activities in the Gosselin zone, located about 1.5 km to the northeast of the pit site, have confirmed extending gold mineralization. We will continue drilling activities for raising the future value of the project and will analyze information such as the continuity and grade of the orebody.



ng plant construction at the Cote Gold Project (as of April 2023

Overseas Mines and Staff Dispatched to Mines (As of May 22, 2023)



Hishikari Mine: Establishment of a foundation for long-term stable operation

Since it started operations in 1985, the Hishikari Mine (Kagoshima Prefecture) has produced approximately 264 tons of gold as of the end of March 2023. Worldwide, the amount of gold contained in gold ore (grade) is said to be 3-5 grams per ton. However, the Hishikari Mine is characterized by its high grade with 20 grams of gold per ton, or about 5 times the global average. The sales volume of gold in FY2022 was 4.4 tons. The sales volume planned for FY2023 is 4.0 tons. As of the end of December 2022, the mine has recoverable reserves of 155 tons. The Hishikari Mine has until now sold upward of 6 tons of gold per year, but that amount is decreasing under our 2021 3-Year Business Plan. This is due to the shift in the plan to sustainability-oriented operations based on mining of average-grade recoverable gold. We are additionally taking measures that include the review of our operational structure and the introduction of digital transformation, including self-driving heavy machinery. Construction work on the -80ML* new hot spring water extraction room to draw hot spring water from inside the mine and lower the water level, underway since 2012, has been partially completed, and mining of lower orebodies began in November

Achievement of Effectively Zero CO₂ Emissions from Electric Power at the Hishikari Mine

From March 2023, we have switched to effectively all-renewable energy-derived electric power for purchased electricity used at the Hishikari Mine. As a result, 98.7% of the electric power used will be certified non-fossil fuel-derived electricity provided by Kyushu Electric Power Company, Incorporated. In conjunction with the 1.3% of electric power provided by the solar power generation and binary power generation that we had introduced by FY2022, we have achieved effectively zero CO₂ emissions from electric power.

To achieve effectively zero CO₂ emissions from the remaining non-electric power sources, we will continue our initiatives to conserve energy through operational improvements. We will also take action to achieve effectively zero CO2 emissions from the Hishikari Mine by leveraging technologies and ideas such as investigating decarbonization of diesel equipment and introducing negative emissions through means such as tree planting.

2022. This is expected to enable the mining of additional gold. While we continue long-term operations to make the Hishikari Mine a world-class mine that we can proudly show to the world, we also aim to maintain the mine as a place for human resource development (our Mining School) where resource engineers learn the technologies required for mining operation.

* 80 meters below sea level



Hishikari Mine's Gold Sales Volume

Sustainability Topics

Quebrada Blanca 2 Project Receipt of the FY2022 Chilean National Mining Society Award

The Quebrada Blanca 2 Project was awarded the 2022 Mining Association Award by the Chilean mining industry association Sociedad Nacional de Minería (SONAMI). An organization with over 70 mining companies in Chile as its members. SONAMI selects and commends one company from a largescale mine every August.

The award for the Quebrada Blanca 2 Project recognizes the project's progress in construction amid the trials of the COVID-19 pandemic and its contribution to the development

of sustainable and responsible mining. Representatives of Chile, including President Gabriel Boric of the Republic of Chile, also participated in the award ceremony.



Scene from the award ceremony

Smelting & Refining Business

Using our advanced technologica capabilities to provide a stable supply of metal materials that support society

Segment Net Sales



Segment Income



Capital Expenditure



Depreciation and Amortization Expense



Production Volume of Nickel Sulfate TC/RC (benchmark)



For over 430 years since the start of our copper smelting and refining business in 1590, we have stably supplied a variety of metal materials to a wide range of industries. We engage in business on the strength of our advanced smelting and refining technology, which was the first in the world to achieve the successful recovery of nickel from low-grade nickel oxide ore using the High Pressure Acid Leach (HPAL) process on a commercial basis.

Review of FY2022

In FY2022, we continued operations at business sites in Japan and overseas while taking measures to address COVID-19. In addition to adjusted operational rates at some sites in response to COVID-19, lower production due to troubles at facilities and a decline in the grade of raw material, as well as production adjustments to match changes in the business environment, resulted in production volumes of major products falling below plans.

On the sales front, demand slumped as economic activity was sluggish due to the COVID-19 pandemic in China. Although there were signs of recovery in economic activity from the second half of the fiscal year, we took measures such as increasing export volume due to the delayed recovery of demand in Japan.

In terms of securing nickel resources, we decided to discontinue the feasibility study for our Pomalaa Project in April 2022. However, we will continue to work toward the 3-business collaboration to strengthen the value chain and the

Addressing Changes in the Business Environment and Issues

The supply-demand balance for non-ferrous metals is projected to ease temporarily for copper in the short term due to the development of new and expanded copper mine projects. As for nickel, demand for nickel-based lithium-ion batteries for EVs is expected to grow. The supply-demand balance for both copper and nickel is forecasted to start



stable supply of products set out in the 2021 3-Year Business Plan. In exploring new nickel projects, we accelerated the exploration of projects at various stages, mainly in the Pacific Rim region, and have narrowed them down to a few targets and begun investigation. In addition, we have been developing a business utilizing existing intermediate materials in circulation, continuing to explore measures to secure ores for Coral Bay Nickel Corporation (CBNC) and Taganito HPAL Nickel Corporation (THPAL), and working to commercialize the battery recycling business.

In terms of enhancing the competitiveness of the copper-smelting business, in FY2022, we expanded concentrate drying capacity at the Toyo Smelter & Refinery, in addition to developing various measures, including increasing productivity, cutting costs, and improving the recovery rate. We have also been working on stable sales of the by-products produced by the Toyo Smelter & Refinery and enhancing our capabilities for dealing with impurities.

easing due to more supply as increased production of nickel pig iron continues in Indonesia. However, conflict between China and the United States, the prolonged Russian invasion of Ukraine, inflation remaining high, continued monetary tightening, and other factors mean that the outlook for the global economy remains uncertain, and we will continue to

Medium- to Long-Term Strategy for Value Creation Smelting & Refining Business

closely watch future movements. Trends including decarbonization, clean energy, and the shift to electric vehicles are expected to accelerate globally over the long term and provide a tailwind for non-ferrous metal demand. Against this backdrop, we expect non-ferrous metal prices in general to remain firm over the long term.

At the same time, soaring energy and material prices may lead to a downturn in revenue. Although energy prices peaked during FY2022, they are still in the high range, and the prices of some operation materials also remain high. To achieve our planned production and sales volumes and maximize revenue despite these impacts, we will strengthen our competitiveness through continued efforts to improve production efficiency and reduce costs, which are the basics for a manufacturing company.

In line with the growth of nickel demand for use in battery materials, projects for the development of technology to process nickel pig iron into nickel sulfate and other products of use in battery materials, and new projects to turn the

nickel-cobalt mixed hydroxide precipitate (MHP) used mainly in battery materials into final products, are underway in Indonesia and elsewhere. Supply-demand remains tight for nickel sulfate and briguettes, which can be used in battery materials. However, the nickel business environment is becoming increasingly volatile and uncertain as increased production of nickel pig iron exceeds demand for use in stainless steel, resulting in oversupply among other factors. We will continue to closely watch future movements.

We also continued working to improve and streamline operations through the promotion of digital transformation (DX). More specifically, in FY2022, we made infrastructure environment improvements at business sites in Japan, such as the introduction of Wi-Fi and the installation of local 5G. We also decided to work on the themes of improving the operating rate through predictive maintenance and supporting operations with future forecasts, and began consideration of using DX to respond to changes in the social environment and increase our competitiveness.

Progress and Strategies of the 2021 3-Year Business Plan

Nickel Business 3-Business Collaboration to Strengthen the Value Chain

The 2021 3-Year Business Plan set strengthening the value chain in the Group's nickel business as an important theme. The Group's nickel business develops low-grade nickel oxide ore from mines, and we manufacture mixed sulfide (MS), an intermediate material, using HPAL technology at CBNC and THPAL in the Philippines. The mixed sulfide is supplied to the Niihama Nickel Refinery and the Harima Refinery, our business sites in Japan which manufacture nickel sulfate. This raw material is processed into cathode materials for batteries, primarily automotive batteries, and supplied to battery manufacturers. In FY2022, CBNC and THPAL produced a total of 47,000 tons of MS, which was supplied to the two business sites in Japan. The two business sites in Japan produced a total of 77,000 tons of nickel sulfate, providing a stable supply for use in battery materials.

With regard to strengthening the value chain on the raw material side, we have implemented studies into the optimal operating conditions to prepare for future changes in ore composition at CBNC and THPAL as part of our ongoing

SMM Group Refineries and Their Main Products



MS (Mixed Nickel Cobalt Sulfides)

Progress and Plans for Our Top Priorities

	FY2019	FY2020	FY2021	FY2022	FY2023 and later
Ni Securing nickel resources			 Implementation or Pomalaa Project DFS until FY2021 	 Discontinuation of Strengthening of 	of Pomalaa Project search for next project
Ni Taganito HPAL Nickel Corporation	 Achievement 30-kt product Start of comm 	of at least • Start of ion volume ercial production of sc	commercial productio andium oxide	n of chromite	
		Continui	ng measures to secure	nickel ore supplies	
Nickel sulfate Nii Niihama Nickel Refinery and Harima Refinery	Achievement	Achievement of n of record high producti Maximum producti	ew record high produc on level (75.1 kt) tion and output to mee	tion level (79.1 kt) et cathode material der	mand

Strategies for the Smelting & Refining Business in the 2021 3-Year Business Plan

1. 3-business collaboration to strengthen the value chain for Ni-batteries

- Searching for new nickel deposits
- Securing the supply of ore for CBNC and THPAL
- Strengthening of the internal supply of raw materials in line with increased production capacity for battery cathode materials
- Study of new cobalt product development
- Promotion of battery recycling business

2. Enhancement of competitive edge in the copper smelting and refining business

- Stable operation of 450 kt of electrolytic copper production and establishment of a 460 kt structure
- Strengthening of logistics infrastructure



consideration of measures to secure nickel ore supplies for both sites. We have also positioned the search for the next nickel project as an important and urgent task, and we will continue to investigate and scrutinize projects. We will select projects that make the most of our strengths, including the development of projects utilizing the hydrometallurgical refining and pyrometallurgical smelting technologies we have cultivated to date, in addition to HPAL technology.

At Hyuga Smelting Co., Ltd., we will make production adjustments, including shutdown, in light of the current deterioration in the business environment for ferronickel. During the shutdown period, we plan to reduce costs, update equip-

ment, and take action on reducing GHG emissions, putting in place the systems to enable a rapid response once the business environment improves.



THPAL Plant



Medium- to Long-Term Strategy for Value Creation Smelting & Refining Business

Copper Business Meeting the Challenge of Improving **Core Business Sustainability**

Another important theme under the 2021 3-Year Business Plan is enhancing our competitive edge in copper smelting and refining, which is the mainstay of our smelting and refining business. The Toyo Smelter & Refinery's annual electrolytic copper production volume is 450,000 tons. We are increasing this by another 10,000 tons to establish a structure capable of producing 460,000 tons by eliminating bottlenecks through facility modifications. In FY2022, we expanded concentrate drying capacity, increasing concentrate processing volume. At the same time, as a measure to improve profitability, we reduced loss of valuable metals from the slag produced by the Toyo Smelter & Refinery and also implemented initiatives to increase the recovery rate.

On the sales front, from the perspective of producing quality products that meet market needs, we worked on providing products that meet the demand for even higher quality electrolytic copper and on stable sales of by-products. We

Supply Chains for Realizing a Stable Supply of Nickel

also undertook optimization of logistics and developed initiatives that will lead to enhancing competitiveness in terms of the environment and costs through the promotion of modal shift and other measures.

In FY2023, a long large-scale shutdown is scheduled due to the first major repair of a smelting furnace in 12 years. We plan to use this long shutdown to strengthen systems for stable production, improve production facilities, and increase the operating rate. We will also use this period to invest in reducing GHG emissions by converting the fuel used in a number of facilities at the Toyo Smelter & Refinery to LNG.

Battery Recycling Business Recycling Batteries

We are also working to commercialize the battery recycling business. The recycling process involves the collection of used batteries from the EVs and other vehicles that are on the market, and the material (black mass) processed by

pre-processing manufacturers in Japan is accepted by the Company. We combine pyrometallurgical smelting and hydrometallurgical refining processes to recover copper, nickel, and cobalt, which are then supplied to be used again as raw materials for batteries. Moreover, in FY2022, through joint development with Kanto Denka Kogyo Co., Ltd., we established technology that recycles lithium from lithium-ion secondary batteries (LIBs) as high-purity compounds and succeeded in developing a new process capable of horizontal recycling of copper, nickel, cobalt, and lithium. During the term of the 2024 3-Year Business Plan, we plan to establish a system capable of processing 10,000 tons a year.

Sustainability Topics

CBNC and THPAL Win Four Awards from the Philippine Department of Environment and Natural Resources

CBNC received a total of three awards: the 2022 Presidential Mineral Industry Environmental Award (PMIEA), first place in the Safest Mineral Processing – Extraction Plant, and first place in the Best Mining Forest Contest, Mineral Processing Plant Category, while THPAL placed second behind CBNC in the Best Mining Forest Contest, Mineral Processing Plant Category, making a total of four awards for the two companies.

PMIEA received by CBNC is the highest honor that can be awarded in the Philippine mining industry, and this is the eighth time CBNC has received the award. These awards have been given to CBNC and THPAL in recognition of their continuing operations that give consideration to safety and the environment

Moving forward, CBNC and THPAL will continue to strive to operate in a responsible manner by contributing to the surrounding area through building infrastructure for local communities, increasing employment, and sourcing materials locally, as well as operating with the minimum environmental impact, preventing environmental accidents, restoring the ecosystem through the greening of tailings dams carried out by CBNC, and preserving biodiversity.





1. Coral Bay Nickel Corporation (CBNC): Shareholders: Sumitomo Metal Mining Co., Ltd. (84.375%); Nickel Asia Corporation (15.625%). Head Office: Rio Tuba, Bataraza, Palawan Province, Philippines

2. Taganito HPAL Nickel Corporation (THPAL): Shareholders: Sumitomo Metal Mining Co., Ltd. (75%); Mitsui & Co., Ltd. (15%); Nickel Asia Corporation (10%). Head Office: Taganito, rigao del Norte Province, Philippines

3. PT Vale Indonesia Tbk: Shareholders: Vale Canada Limited (44.3%); Sumitomo Metal Mining Co., Ltd. (15%); others (40.7%).



GHG Reduction Initiatives

We are continuing our initiatives to reduce GHG emissions at the business sites of the Non-Ferrous Metals Division. At business sites in Japan, we have converted the fuel for boilers at the Niihama Nickel Refinery to LNG, converted the fuel for various facilities at the Toyo Smelter & Refinery to LNG, and switched to renewable energy for purchased electricity at the Harima Refinery. For our overseas business sites, we are conducting biomass co-firing tests in boilers at CBNC. We will continue working on an even wider range of measures to reduce GHG emissions.

In addition, as part of the SMM Green Metal concept, an initiative to offer low-carbon products, we have begun considering the possibility of offering green metal for our electrolytic copper using the mass-balance method to respond to the growing need for low-carbon products in the future. We aim to complete certification work by a third-party organization by the end of FY2023 for electrolytic copper. Following that, we also plan to roll out the initiative to electrolytic nickel.

Technological Changes at the Toyo Smelter & Refinery

The Toyo Smelter & Refinery began operations in 1971, carrying on the copper business that formed the foundation of Sumitomo's business development. The Toyo Smelter & Refinery has the world's largest production capacity of electrolytic copper for a smelter and refinery with a single flash furnace. Producing 447,000 tons a year in FY2022, it has been a top runner in the industry for over 50 years, especially on the environmental front.

Since beginning operations, the Toyo Smelter & Refinery has made numerous innovations. In particular, in the processing of copper concentrate, the main raw material which forms the indicator for operations, the Toyo Smelter & Refinery has increased the treated copper concentrate rate, which was 757 tons a day when operations first began, to approximately 3,700 tons a day (annual average) at present, a five-fold increase, through innovations that include oxygen enrichment into the reaction air, the development of the Sumitomo-type single concentrate burner, additional converter installation, and using two lines for the sulfuric acid process. This is the world's highest volume of concentrate melted for a single flash furnace, and energy efficiency per unit of production is also the highest in the world. In addition, the Toyo Smelter & Refinery has actively pursued the recovery of valuable metals from recycled raw materials including copper scrap, copper sludge (secondary materials containing copper), and e-scrap (scrap circuit boards from electronic equipment), and approximately one quarter of electrolytic copper production derives from these raw materials

The Toyo Smelter & Refinery has worked with other businesses in the Group to maximize the Company's value. Since 1985, it has been processing gold ore from the Hishikari Mine, Japan's only commercial gold mine, to produce gold. At the same time, it uses the silicon dioxide contained in the gold ore to reduce the amount of silica flux required for copper smelting, thus successfully smelting gold and reducing operation materials simultaneously. These precious metals, including gold and other platinum group metals, are commercialized at the world's first completely hydrometallurgical precious metals refining plant, which began operating in 2004.



Starting in 2017, we were first in Japan to achieve the recovery of copper and nickel from used lithium-ion batteries for reuse as resources. The resource recycling process combines the Toyo Smelter & Refinery's pyrometallurgical smelting process and the Niihama Nickel Refinery's hydrometallurgical refining process to recover copper as electrolytic copper and nickel as nickel sulfate from collected used batteries. The nickel sulfate is processed into cathode materials for secondary batteries at the Isoura Plant in a groundbreaking initiative that realizes fully circular "battery to battery" recycling. In 2022, we completed development of technology to recover cobalt and lithium in addition to copper and nickel. We aim to establish part of this battery recycling process at the Toyo Smelter & Refinery in the near future.

FY	Histor
1971	Began operations
1985	Began processing Hishikari gold ore (flotation plant)
1991	Completed 30,000 ton berth
2002	Obtained ISO 14001 certification
2003	Installed rotary steam dryer for conce Completed new sulfuric acid plant (to
2004	Began No.2 tank house operation (Ble Began operation of new precious me Obtained ISO 9001 certification
2006	Established new flotation plant
2008	Obtained new JIS certification for slag
2016	Achieved electrolytic copper product year (451,472 tons)
2017	Began processing used lithium-ion b
2022	Obtained ISO 45001 certification
·	

Initial firing ceremony at Toyo Smelter & Refinery (1971) with then President Kawakami

(pulverization at old Hoshigoe

entrate wo lines) ocks A to D, 300 tanks) etals refining plant

g aggregate for concrete tion volume of 450,000 tons/

attery scrap



Materials Business

Battery Materials Business

Contributing to society through the development and supply of highly advanced materials by making effective use of non-ferrous metal resources

Katsuya Tanaka Managing Executive Officer General Manager of Battery Materials

Through the manufacturing of cathode materials and resource recycling for automobile batteries, we will reduce greenhouse gas (GHG) emissions and contribute to the achievement of a sustainable society, while maintaining a worldwide leading share in nickel-based cathode materials.

Review of FY2022

Worldwide passenger car sales in 2022 were 82 million units. While this represented a decline from the previous year in most countries and regions with the exception of China and India, worldwide sales of new passenger electric vehicles (EVs), with battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs) combined, exceeded 10 million units per year for the first time in 2022 to reach 10.2 million units, an increase of 55% from the previous year. Sales by region were 5.9 million units in China, an increase of 80% year on year; 2.6 million units in Europe, an increase of 15%; and 990,000 units in the U.S., an increase of 55%. China accounted for nearly 60% of global EV sales. The percentage of EVs among new car sales in 2022 was 29% in China, 21% in

Changes of Business Environment and Response to Issues

According to estimates by the International Energy Agency (IEA), global sales of electrified vehicles (xEVs) will hit a record again in 2023, increasing 35% from 2022 to reach 14 million units, nearly a fifth of the automobile market overall. The IEA predicts that worldwide sales will reach 20.5 million units by 2025 (accounting for over 20% of all new car sales, including internal combustion engine vehicles) and will exceed 36.9 million units (35% of all new car sales) in 2030. In line with this expansion of the xEV market, the U.S. and Europe, both of which have large automobile markets, are constructing sustainable storage battery supply chains domestically and regionally through the introduction of regulations and tax

Segment Net Sales



Segment Income



(¥ millions) 12,000 -----

Depreciation and Amortization Expense



Capital Expenditure



Growth of Cathode Materials Production Capacity and Future Plans

(FY) 2013 2014 2015 2018 2019 2020 2021 2022 2025 2027 2030

(forecast)

(t/month)

10.000

15.000 - - -

Market Scale of SiC power devices Yole Forecast





Europe, and 8% in the U.S., with China surpassing Europe. Under these circumstances, we made efforts to achieve stable production and sales of cathode materials. However, the tight supply of semiconductors and other materials, increases in the costs of energy and logistics, and growing anxiety over the world economy due to the Russian invasion of Ukraine resulted in reduced production and stagnation at some automobile manufacturers. Sales volume of our cathode materials also struggled. While pushing ahead with the 2,000 tons/ month expansion of production capacity that was decided in FY2021, we received a transfer of the lithium iron phosphate (LFP) battery material business of Sumitomo Osaka Cement Co., Ltd. in May 2022.

incentives. In the U.S., the Inflation Reduction Act (IRA) that came into effect in August 2022 introduced incentives for the production of EVs and components in North America, along with tax credits for EV buyers. With the release of some details of the Act in March 2023, Japan and the U.S. signed the Japan-U.S. Critical Minerals Agreement (CMA). The release of further details on the application of the Act is ongoing. In addition to such trends in countries' policies, the market outlook remains unclear due to factors including shortages of nickel, lithium, and other minerals for EVs, soaring prices associated with shortages, and the advance of battery technology. At the same time, the xEV market continues to expand as

Medium- to Long-Term Strategy for Value Creation Materials Business

CO₂ emission regulations are tightened worldwide, and demand for automobile secondary batteries and components for EVs is expected to steadily increase. Seeking to expand our battery materials business, we will continue

studying the situation so that we can make appropriately-timed investment decisions concerning the establishment of next-phase plants for further production expansion.

Progress and Strategies of the 2021 3-Year Business Plan

Our plan for the expansion of production capacity by 2,000 tons per month, which will incorporate the construction of the new plant at Niihama decided in 2022, calls for completion of buildings in 2023 followed by installation of machinery. We are making steady progress toward completion of the plan in 2025, with staffing progressing steadily as well. The ¥47 billion total cost of the expansion is eligible for grants from the Ministry of Economy, Trade and Industry. The beginning of operations under the expansion will increase our cathode material production capacity from the current level of approximately 5,000 tons per month to 7,000 tons per month. To

achieve the 2021 3-Year Business Plan announced earlier, we will also work to achieve a cathode material production volume of 10,000 tons per month by FY2027 and build production capacity of 15,000 tons per month by the end of the 2027 3-Year Business Plan period (FY2028 to 2030). To maintain a leading position in market share of nickel-based cathode materials, we will examine product expansions and plant sites aimed at meeting the demands of the market. We will also work to develop the LFP business that was transferred to us from Sumitomo Osaka Cement Co., Ltd. in May 2022.

Sustainability Topics

Speeding up Development of Lithium Iron Phosphate (LFP) Battery Materials

The adoption of LFP battery materials in electric vehicles and stationary storage batteries is expected to lead to expansion of demand and the creation of new markets. We are currently working on stable production and sales to address the customers earlier supplied by Sumitomo Osaka Cement Co., Ltd.,

and have begun studying the conversion of existing processes to reduce costs. Looking ahead, we will work to maintain our mass production technology for high-quality LFP while advancing research and development and examining and responding to new customers' needs.





Advanced Materials Business

Aiming to be the lead runner in the market by adapting quickly to technological innovation and changing needs

Shuichi Ogasawara Managing Executive Officer General Manager of Advanced

We develop and produce highly advanced materials used in wide-ranging fields including automobiles, energy, environment, communications and information, and home appliances, along with products that contribute to carbon neutrality.

Review of FY2022

In FY2022, the production of smartphones and personal computers declined significantly due to soaring prices of raw materials associated with inflation originating in lockdowns in China, along with a global economic slowdown and adjustments of inventory accumulated in response to the COVID-19 pandemic. Demand for electronic components stagnated considerably. From the fall of 2022 onward, slowdown became clear in data center-related areas and semiconductor manufacturing equipment, which had driven demand for components. The electronic components market overall entered negative growth.

Under this harsh market environment, we reviewed our production plans in the Advanced Materials Business in light of greatly-changed demand trends, and adapted wherever possible to avoid situations such as accumulation of inven-

Changes of Business Environment and Response to Issues

In 2020, remote work became widespread under the global expansion of the COVID-19 pandemic, creating demand for PCs, TVs, game consoles, and other at-home products. Under the acceleration of the digitalization of society, including fullscale sales of 5G smartphones and the ongoing electrification of vehicles, sales growth of advanced materials products exceeded the growth of the electronic components market in FY2020 and 2021. However, the world economy slowed in 2022 due to inflation, the Ukraine crisis, and lockdowns in China. The business environment for advanced materials



tory that would lead to deterioration of profitability. With some exceptions, our efforts under measures to achieve our vision for the Advanced Materials Business in the first year of the 2021 3-Year Business Plan did not progress far. However, we made definite advances in the development of new products and new applications. X-MINING®, our information site aimed at the development of new applications and creation of value for existing powder material products, has focused on activities to capture projects that will lead to future sales, including strengthening and streamlining our web marketing system, and increasing the number of leads (prospective customers). We are also exhibiting at international exhibitions in Japan and overseas to uncover the needs of customers and markets.

products deteriorated significantly, with rapid inventory adjustment phases taking place especially in the Chinese and Taiwanese markets.

Trade friction between the United States and China also worsened. The U.S. strengthened export regulations in advanced fields, China promoted domestic production, and competition in the Chinese market between Chinese local manufacturers and Japanese manufacturers intensified. However, although China has implemented some raw material export restrictions, we make the assumption that this will

Medium- to Long-Term Strategy for Value Creation Materials Business

not lead to comprehensive import restrictions or to the exclusion of foreign capital in global supply chains.

In response to these Chinese risks, our Company will advance measures that include expanding sales to customers outside China, collaboration with Chinese materials manufacturers, and investment in differentiated products as we strive to secure

maximum profits. In response to China's export restrictions on raw materials, we will create a list of raw materials that are highly dependent on China, and will undertake measures including procurement from outside China, buildup of inventory, and search for alternate raw materials, while avoiding the occurrence of opportunity loss caused by a reduced production volume.

Progress and Strategies of the 2021 3-Year Business Plan

Our vision for the Advanced Materials Business

Be the lead runner in the markets for our products, continue to refine our material technology capabilities to meet the needs of every era, and secure high profitability and top-class market share

In order to bring about the vision set out for our Advanced Materials Business in the 2021 3-Year Business Plan, in FY2022 we made efforts toward the development of products and new technologies that will contribute to carbon neutrality and toward an expansion strategy for the Advanced Materials Business, in line with our roadmap. With respect to nickel powder, we have been able to enter the advanced domain of multilayer ceramic capacitors (MLCCs) by advancing hydrometallurgical processing technology to obtain smaller and more uniform particle sizes. As a result, our products have been adopted by several companies. To meet the speed and

precise verification of product quality demanded by customers, we established a new product development department in FY2023 and are working to reinforce our customer response capabilities. For our near-infrared absorbing material CWO®, we strengthened relationships with the development teams of major customers. The product has been adopted for use in glass roofs, which have proliferated mainly in EVs, and sales have increased alongside window films. In silicon carbide (SiC), we established a new 8-inch bonded SiC substrate development line to meet customers' needs for larger diameters. We aim to produce 10,000 (6-inch equivalent) pieces per month in 2025.

Our roadmap concept



Commercialization of Silicon Carbide (SiC) Substrates

SiC is a power semiconductor material used mainly in electric power control applications. Its use is expanding as a material capable of reducing energy loss in high-capacity fields (high current and high withstand voltage) demanded for drive control devices, particularly in hybrid vehicles and electric vehicles.

Our unique bonding technology achieves low resistance and high strength while maintaining the characteristics of a monocrystalline SiC. In addition to our current 6-inch

build a new 8-inch development line that will allow us to meet customers' requests for

line, we are working to



large-diameter substrates at an early stage.

Progress and Plans on Our Top Priorities in the Materials Business

	FY2021	FY2022	
Battery materials	 Completion of 4,55 month production structure 	0 t/ ● NCA ¹ : Increase 4,850 t/month f	in prod from m
Crystal materials	SiC launch for co	nsumer markets	
		1. NCA: An ac (cobalt), ar	cronym nd A (alu

2. NMC: An acronym for a type of secondary battery cathode material composed primarily of N (nickel), M (manganese), and C (cobalt)

Strategies for the Materials Business in the 2021 3-Year Business Plan

Battery Materials Business

Increase in battery material (cathode) production capacity

2,000 t/month expansion

- Building completion planned for 2023, to be followed by equipment installation. Steady progress toward finalization in 2025.
- · Aggressive introduction of DX at the new plant in Niihama, realization of production optimization and labor savings
- Studying next capacity expansion: Looking into product expansions and plant sites in line with customers' requests
- Steady progress in the securing of human resources for business expansion
- Reducing GHG throughout the battery life cycle: Participation in the first phase of GX League (FY2023-FY2025). The pilot facility for new processes in the production of next-generation cathode materials is eligible for subsidies from the Ministry of Economy, Trade and Industry's Green Innovation Fund

Sustainability Topics

Thermal Management Using CWO® Near-Infrared Absorbing Material

Our near-infrared absorbing material is an inorganic material that features outstanding weather resistance, selectively absorbing near-infrared energy while allowing the sun's visible light to pass through. Taking advantage of unique material properties that convert absorbed near-infrared rays into heat, we are developing new and diverse applications. These include window materials that provide both transparency and heat shielding, clothing made from textile woven with the material to yield heat-generating and non-transparency effects, and agricultural greenhouse heat shielding curtains that suppress excessive temperature rise.

Our near-infrared absorbing material aids in the reduction of GHG emis sions as a product that contributes to a low-carbon society



Comparative depiction of heat distribution in reg ular clothing (left) and clothing made with CWO® (right), after exposure to sunlight for 10 minutes



for a type of secondary battery cathode material composed primarily of N (nickel), C

Advanced Materials Business

1. Introduction of roadmap-based management

- Capture changes and needs from a top-down view of medium- to long-term market trends
- Predict the future
- Think about how we can respond to change and shape our business
- Seek a shared understanding of strategies and measures that the Advanced Materials Division should pursue in the medium to lona term

2. Expansion strategy for the advanced materials business

- Establishment of a 10,000 wafers/month (converted to 6 inches) mass production structure for silicon carbide (SiC) in FY2025
- Expansion of sales of Ni powders (for use in paste for MLCCs) in high-end markets
- Expansion of sales of CWO[®] (near-infrared absorbing materials) for window film applications and exploration of new markets
- Establishment of a manufacturing and sales structure that captures market growth in communication devices

SiCkrest® bonded silicon carbide (SiC) substrate

Research & Development

Strengthening development of new products for the sustainable growth of the Group

Hideyuki Okamoto Executive Officer

The SMM Group has four research and development sites and we are engaged in raising our competitiveness by evolving existing technologies while also advancing research and development into next-generation metal smelting and refining technologies and pioneering new materials for carbon neutrality.

Review of FY2022 and Progress of the 2021 3-Year Business Plan

To achieve the Vision for 2030, the 2021 3-Year Business Plan set out (1) promotion of development of new technologies and processes to achieve carbon neutrality; (2) business innovation in manufacturing and R&D divisions through DX (Digital Transformation); and (3) activation of individuals and utilization of human resources, and we are pursuing research and development in these areas.

The Group's business consists of processes that produce significant direct and indirect emissions of greenhouse gases (GHGs), such as CO₂. As such, in FY2O22, we worked to reduce use of neutralizers in existing smelting and refining processes, fix CO₂, and develop next-generation processes for smelting and refining without using fossil fuels with the aim of reducing direct CO₂ emissions, and we obtained the results for proceeding to scale-up testing.

In the area of creating new businesses to support the value chain of the 3-business collaboration in Mineral Resources, Smelting and Refining, and Materials, our work on the development and demonstration of the storage battery recycling process and the development and demonstration of high-performance cathode materials for next-generation storage batteries has been adopted as a part of the Nextgeneration Storage Battery and Motor Development project under the Green Innovation Fund of the New Energy and Industrial Technology Development Organization (NEDO), and we accelerated development toward commercialization.











Progress of the 2021 3-Year Business Plan and Research and Development Strategy

Future Research and Development Strategy

In the materials field, we will continue to develop high functionality and new products for battery materials, powder materials, and crystal materials. In the field of battery cathode materials, regarded as a growth market, alongside development to improve performance, we will develop next-generation battery materials, including solid-state batteries, and new processes that will help to improve productivity.

Under the Vision Co-Creation Partnership with Tohoku University aimed at creating innovative materials in the lead-up to 2050, we established the Tohoku University GX Materials Science Co-Creation Research Center on October 1, 2022 in partnership with the Tohoku University Advanced Institute for Materials Research to accelerate exploration of R&D themes. Through the exploration of R&D themes at the research center, we will develop young engineers. We will also focus on the development of photocatalyst materials for use in artificial photosynthesis for CO₂ recycling and

Research and Development by the SMM Group



hydrogen production and materials related to energy-saving and energy harvesting with the aim of realizing carbon neutrality.

In formulating the Vision for 2030, we discussed how we will create materials without damaging the global environment in the world of 2050 or 2100 and what the non-ferrous metals industry should be like in order to achieve this goal. In terms of the medium-term outlook, we will be closely watching how the world changes and transforms by 2030, and we will work to respond rapidly in step with this change and transformation and make effective use of non-ferrous metal resources. In terms of concrete initiatives in the smelting and refining field, we are pursuing research and development related to next-generation nickel smelting and refining processes and lithium refining processes to significantly reduce GHG emissions. We are also exploring R&D themes that solve the social needs presented in the Vision for 2030 while continuing to develop improvements in resource exploration, mining, and mineral processing technologies.



Our Challenges under the 2021 3-Year Business Plan

Extraction of Lithium

Lithium compounds are essential raw materials for the production of lithium-ion secondary batteries, which contribute to carbon neutrality. The extraction process of lithium from lithium-containing salt lakes and ores normally results in large volumes of GHG emitted in the process of separating impurities. We developed an adsorbent that is able to selectively extract only lithium with almost no GHGs emissions in the impurity separation process. We will confirm the reliability of the process and collect the information required for its indus-

trialization in order to make this process a reality.



(Photographed by an SMM employee)

Development of Cathode Materials for Solid-State Batteries

We are working on the development and demonstration of high-performance cathode materials for next-generation storage batteries, which has been adopted as a part of the Next-generation Storage Battery and Motor Development project under the Green Innovation (GI) Fund of the New Energy and Industrial Technology Development Organization (NEDO). Through the further deployment of our cathode material products for storage batteries under this project, we will perform the development and demonstration of GHG emission reduction processes and high-performance cathode materials that will enable the practical use of solid state and other high-performance lithium-ion secondary batteries.

In addition, to strengthen R&D infrastructure, we have made the decision to introduce pilot equipment and build a structure to house this equipment (Battery Research Laboratories No. 2 Development Building). Construction work is expected to be completed in December 2025. The pilot equipment for new processes is eligible for GI Fund project subsidies, and we will steadily implement the project plan with the installation of the equipment.

Sustainability Topics

Developing Fe-Ga Magnetostrictive Alloy Single Crystal

In the area of energy harvesting materials that harvest and convert a variety of minute amounts of energy around us into electricity, we are developing Fe-Ga magnetostrictive alloy single crystal. It converts mechanical vibration energy into electrical energy and functions as a power source that does not need recharging or an independent sensor that does not need batteries. In October 2022, we exhibited the Fe-Ga magnetostrictive alloy single crystal under development at K2022, an international trade fair held in Dusseldorf, Germany, presenting it as an advanced material that will contribute to realizing a decarbonized society. We will develop applications in parallel with the development of the material.

Industry-Academia Collaboration with Tohoku University in the Non-Ferrous Metal Smelting and Refining Field

In April 2023, the Company and the Institute of Multidisciplinary Research for Advanced Materials, Tohoku University established the Joint Research Department in the Non-ferrous Metal Smelting and Refining Environmental Science Research Department for a second term. Following on from its first term, the Joint Research Department will continue to deepen its collaboration with non-ferrous metal smelting and refining companies in Japan and provide support for the continuation and expansion of university courses in non-ferrous metal smelting and refining while aiming to contribute to the development and recruitment of engineers.



Fe-Ga magnetostrictive alloy single crystal and wafers



From left: Masami Terauchi, Director of the Institute of Multidisciplinary Research fo Advanced Materials, Tohoku University; Shuichi Ogasawara, General Manager of Technology Division at Sumitomo Metal Mining Co., Ltd.; and Takuro Ueda, Executive Vice President of Tohoku University (Positions are as of when the photograph was taken.)

As automobiles undergo what is expected to be a rapid and long-term shift to electric drive and battery capacity becomes increasingly higher, demand is growing for the copper, nickel, cobalt, and lithium used in lithium-ion secondary batteries (LIBs) for electric vehicles, leading to calls for effective resource recycling.

Since 2017, we have been working to recover and reuse the copper and nickel contained in LIBs through a process that combines the Toyo Smelter & Refinery's copper smelting and refining processes and the Niihama Nickel Refinery's nickel smelting and refining processes. The recovered nickel, in particular, is processed into a secondary battery cathode material at the Isoura Plant, realizing Japan's first "battery to battery" horizontal recycling using materials recovered from used LIBs.

In addition to this, we have been promoting LIB recycling research and development and demonstrated in 2021 that cobalt, for which resource depletion is a concern, can also be recovered, purified to a high level, and reused as a raw material for LIB cathode materials. Moreover, through joint development with Kanto Denka Kogyo Co., Ltd., we established technology that recycles lithium from slag containing lithium into high-purity compounds in 2022, successfully developing a new process for horizontal recycling of copper, nickel, cobalt, and lithium.

In evaluations of battery performance by battery user Primearth EV Energy Co., Ltd., it was demonstrated on the product level that the performance of batteries using LIB cathode materials manufactured through this process is equal to that of batteries manufactured from conventional raw materials, primarily derived from natural resources. We are currently studying the commercialization of battery recycling with the aim of establishing a system for processing 10,000 tons per year during the term of the 2024 3-Year Business Plan (FY2025-2027). In parallel with this, we are also working to develop technology for reducing CO₂ emissions from the perspective of carbon neutrality. If this new process makes it possible to reuse valuable metals as resources on a commercial basis, it can be expected to make a further contribution to resource recycling to combat global resource depletion.

Looking ahead, we will continue to actively work on "battery to battery" horizontal recycling and will contribute to the formation of a sustainable circular society and the strengthening of resource recycling to combat global resource depletion.



Battery Recycling

Digital Transformation (DX) at the SMM Group Special Feature 1

In FY2022, the SMM Group established a policy on management issues to be solved through DX, a long-term DX roadmap, and the priority areas. The planning and implementation of DX measures in each area is led by each division for business areas and the Digital Transformation Department for Group-wide work areas.

Specific Issues and Responses



- cally streamlining indirect operations. · Become a company that is attractive to workers through
- the creation of safe workplaces and achieve diverse work styles that consider work-life balance.

Improvement of management efficiency

- Use data to make speedy management decisions. Carry out operational streamlining and enhancement of labor productivity to improve competitiveness in all
- · Build a foundation for high-speed networks, cloud utilization, IoT, and other elements which are indispensable for a DX foundation
- Respond to ever-changing and growing information security threats.

Roadmap and Progress



Improvement of management efficiency • Business reform and creation of new businesses

 Human resource response in an age with a declining birthrate

· Considered issues related to visualization of logistics and formulated response policy using DX

about participating in the initiative

concept

· Continued mid-career recruitment of human resources for DX Commenced digital literacy improvement activities for all employees

Considered plants to be models for Smart

Factory and approached candidate plants

selected to be models · Formulation of SMM's ideal human resources for DX and training plan

testing

· Company-wide expansion of digital literacv activities

and performance of implementation

· Creation of roadmap for development of

models for Smart Factory and commence-

ment of proof of concept (PoC) at plants

Priority Areas and Main Initiatives

In the area related to the digitalization of each business among the priority areas for DX, the Mineral Resources Business and the Non-Ferrous Metals Business began development of the communications infrastructure environment to serve as a base and promoted the introduction of digitalization that will translate into increases in production efficiency. Moreover, in terms of initiatives for enhancement of employees' data literacy and training of human resources for DX, which are part of the roadmap, we began enhancing the digital literacy of all employees, which forms the basis for promoting DX as a whole.

Four business areas (including R&D)



Main Initiatives in FY2022

Mineral Resources DX Examples of Initiatives in the SMM Group CASE-1 and 2 At the Hishikari Mine (Kagoshima Prefecture), with the aim of extending the life of the mine, we began initiatives to reduce costs by introducing automated load-haul-dump (LHD) and reviewing the operating system by adopting digital technology in mining work. Moreover, at closed mines, we established communications networks at each site and introduced remote monitoring and control.

Non-Ferrous Metals DX

We developed on-site communications infrastructure at our main plants, and completed the installation of on-site Wi-Fi at some plants. We are using mobile terminals that utilize this infrastructure to improve the efficiency of maintenance and inspection work. In addition, we implemented verification of automated particle sizing for refined products using AI, as well as planning and preparing for the installation of plant operation support and equipment fault prediction systems.

Three Group-wide work areas



Main Initiatives in FY2022

Reform of Indirect Operations and Work Styles Examples of Initiatives in the SMM Group CASE-3 and 4 With the objective of addressing the issue of human resources in an age with a declining birthrate, we began company-wide digital literacy enhancement activities to train human resources who will improve their own work using digital technology. We have defined literacy levels and formulated training goals with a training curriculum for each level. We began training with the first intake of 30 trainees selected through open applications at Head Office.

Examples of Initiatives in the SMM Group



Strengthening the Business Foundation and DX Mineral Resources DX (Hishikari Mine)

At the Hishikari Mine (Kagoshima Prefecture), we are promoting DX as one of our primary initiatives to achieve sustainability-oriented operations.

Two of the advantages that can be obtained through DX are an improvement of safety and improvement in the working environment through automation and remote operation. At the Hishikari Mine, we began testing the introduction of automated load-haul-dump (LHD) in FY2022 with the goal of having one worker outside the mine to operate multiple LHDs in the future. Eliminating the need to have operators for the heavy equipment inside the mine will significantly improve the working environment by eliminating the human burden of the work involved in transporting ore, including the harsh environment unique to working in mines, which are dusty and hot, and the vibration of heavy equipment associated with ore haulage operations.

In addition, with regards to increasing productivity and reducing costs, which were the original objectives for the introduction of DX, we have been moving forward with the digitalization of mining work. For example, the results of blasting to extract ore from bedrock can vary depending on

Mineral

Resources DX

CASE-7

the experience and skill of workers. By digitalizing the drilling design to standardize the optimum blast, we aim to extract only the ore without gangue* being mixed in with it. This will lead to increased productivity and reduced costs. Besides this initiative, we are using DX to connect our heavy equipment and underground environment management facilities to a network to optimize operations by collecting, analyzing, and utilizing data.

We will continue to move forward with DX, working toward long-term stable operations, and extending the mine life at the Hishikari Mine.

* Gangue: Rocks, minerals, and soil with no economic value that is transported out of



Control system

Managing Closed Mines and DX (Yaso Office, Akakura Neutralization Plant)

At closed mines, we improve the quality of wastewater containing harmful substances to a level that meets wastewater standards before releasing it. Mine wastewater treatment operations must be managed 24 hours a day, 365 days a year. Many closed mines are located in remote and depopulated areas, and we must respond quickly if there are any abnormalities. When access to a site is difficult due to heavy rain or snow, not only does it take time to get to the site, but the workers themselves are also exposed to danger while traveling and working. In addition, the quality of the mine wastewater varies significantly depending on the season and the weather, and management often depends on the intuition of workers based on their experience.

In order to resolve these problems, we are proactively promoting the introduction of IoT at the neutralizing processing plants of closed mines. As the majority of closed mines are located in depopulated areas without mobile phone signals, we first completed the installation of optical cables and other communications networks at all the locations, and we are now introducing remote monitoring and control using mobile terminals. Enabling the remote monitoring and operation of water treatment facilities using a smartphone makes it possible to access detailed information at the office or even at home. In addition, it also helps to

improve the efficiency and quality of work, including immediate identification of the situation in the event of an abnormality and the provision of a system to prevent human error. This system was introduced at the Yaso Office of the Akakura Neutralization Plant in 2021. Workers have said that there has been a decrease in the number of on-site responses in response to abnormalities outside of business hours and that they are able to work with peace of mind due to knowing what the status is in advance. We also plan to use remote operation as an emergency measure when a site cannot be physically accessed due to a natural disaster. We will continue to implement IoT at each site based on the results from the introduction of the system at the Akakura Neutralization Plant.



Remote monitoring at a mine wastewater processing facility



Reform of Indirect **Operations and Work Styles**

In company-wide training for human resources who will improve their own work using digital tools, we have defined three types of digital human resources. These three types are the digital leader who drives DX across divisions within the Company, the digital core, who improves work using digital tools with a focus on his or her own division and own work, and the digital user, who can use new digital tools without resistance.

We define the digital literacy required by the digital core, which is the main type of the three, as knowledge, mindset, and skills. We have designed a curriculum that combines Off-JT and OJT consisting of SMM's unique e-learning content for knowledge, group training using group work for mindset, and hands-on training that involves actually using digital tools for skills, with trainees finally using digital tools to improve operations in actual work.

In FY2022, there were open applications for digital core human resources at Head Office, and approximately 30 trainees took part and worked on improving operations using digital tools.

Reform of Indirect Operations and Work Styles

We have established a digital technology utilization community for publication of work improvements using digital technology, ideas, and know-how, to enable employees to use the information as a reference in improving their own work as well as providing colleagues with support and assistance with digital technology.

The community has initiated measures that include (1) disseminating information on internal and external study groups and workshops to provide opportunities for learning new skills; (2) organizing events such as internal talk sessions to connect digital core human resources and disseminate information internally; and (3) establishing a chat channel to deepen interaction among digital core human resources.

In FY2023, we will introduce a communication system that all community members will be able to use and build a community in which employees transmit information themselves, use it as a reference, and provide cross-organizational support for each other. We will also consider measures to increase motivation in order to firmly establish activities to improve work through the utilization of digital technology.

Digital Literacy Education for Employees

We will roll out digital literacy education company-wide with the goal of training 150 digital core human resources in FY2023. In addition, we plan to select candidates to be digital leaders from among the trained digital core human resources and provide them with support that enables them to plan new digitalization themes in FY2024.



Group work during education on mindset

Digital Technology Utilization Community



Medium- to Long-Term Strategy for Value Creation

Sustainability Management at the Sumitomo Metal Mining Group

Sumitomo Metal Mining Group Sustainability Policy

The SMM Group will tackle management issues that contribute to society's sustainable development, and will strive to achieve continuous growth in our business and improve our corporate value.

Sustainability Promotion Structure

Our Group advances sustainability activities primarily through our Sustainability Committee. Since setting out our Vision for 2020 in 2008, we have consistently undertaken solutions to social issues through our business. In April 2022, we reorganized our sustainability promotion structure with the aim of engaging in management and sustainability with greater consistency.

Sustainability Committee

Chair	President
Deputy Chair	Executive Officer in charge of sustainability (executive officer in charge of the Corporate Planning Department)
Members*	General Managers of Divisions, General Managers of Administration Departments, General Manager of the Technology Division, General Manager of the Planning & Administration Department of the Technology Division, General Manager of the Engineering Division, General Manager of the Facilities Technology Department of the Engineering Division, heads of operational divisions in the Head Office * The Chairman of the Board, outside directors, and Audit & Supervisory Board members attend as observers
Secretariat	Sustainability Department and Corporate Planning Department
Number of times convened	Two or more times per year (five times in FY2022)
Content of deliberations	 Deliberation on revision or abolition of material issues, Vision for 2030, and the Sustainability Policy Deliberation and decision-making concerning important items related to annual plans and other sustainability promotion activities, and indicators for evaluating our level of achievement toward Vision for 2030 Regular evaluation of sustainability promotion activities reflecting issues and opinions obtained through engagement with stakeholders, and invoking of corrective measures Provision of information on sustainability promotion activities, exchanges of information, explanation of key measures, sharing of awareness, and setting of important themes related to sustainability activities In FY2022, the committee deliberated on progress toward Vision for 2030, standards for achievement and action plans for 2030, revision of the Sumitomo Metal Mining Group Policy on Human Rights, and establishment of the SMM Group Digital Transformation (DX) Vision. The committee shared information on opinions and issues identified through engagement with stakeholders, grievance mechanisms, internal audits, and other means, and reflected this information in our sustainability activities. In particular, the committee made revisions to the Sumitomo Metal Mining Group Policy on Human Rights to reflect the opinions and requests of diverse stakeholders.
Board of Directors	 Internal control and supervisory functions related to sustainability activities Deliberation, decision-making, and approval concerning sustainability activities, progress reports, evaluation of performance, review of activity plans for the following fiscal year, etc. In FY2022, the Board of Directors deliberated and resolved matters including establishment of the SMM Group DX Vision and revision of the Sumitomo Metal Mining Group Policy on Human Rights.

Sustainability promotion framework

Decision-Making and Supervision		Board of Di
Business Execution		Preside
		Sustainability
7 Sustainability Subcommittees Efficient Resource Utilization Subcommittee Environmental Preservation Subcommittee Corporate Citizenship Subcommittee Diversity Subcommittee	4 Management Systems Working Groups Risk Management Working Group Compliance Working Group Quality Assurance Working Group "Responsible Mineral	Corporate Value E Strategic Cor Group for Becomin in the Non-Ferrous Company-wid Human Resou
Human Rights Subcommittee Occupational Health & Safety Subcommittee Communications Subcommittee	Sourcing" Working Group	

7 Sustainability Subcommittees

Our 7 Sustainability Subcommittees manage progress toward Vision for 2030 and engage in sustainability activities integrated with our businesses.

Subcommittee	Chair	Deputy Chair	Secretariat
Efficient Resource Utilization Subcommittee	Executive officer in charge of the Technology Division	Senior Deputy General Manager of the Technology Division	Technology Division
Environmental Preservation Subcommittee	Executive officer in charge of the Safety & Environment Control Department	Executive officer in charge of the Technology Division	Safety & Environment Control Department
Corporate Citizenship Subcommittee	General Manager of the General Affairs Department	—	General Affairs Department
Diversity Subcommittee	General Manager of the Human Resources Department	—	Human Resources Department
Human Rights Subcommittee	General Manager of the Sustainability Department	—	Sustainability Department
Occupational Health & Safety Subcommittee	Executive officer in charge of the Safety & Environment Control Department	General Manager of the Human Resources Department	Safety & Environment Control Department
Communications Subcommittee	General Manager of the Public Relations & Investor Relations Department	—	Public Relations & Investor Relations Department

4 Management Systems Working Groups

The Risk Management Working Group, Compliance Working Group, Quality Assurance Working Group, and "Responsible Mineral Sourcing" Working Group play roles in operating our Group's key management systems across organizations and

Working Group	Chair	Deputy Chair	Secretariat	Members
Risk Management Working Group	Executive officer in charge of the Corporate Planning Department	Executive officer in charge of the Safety & Environmental Control Department	Corporate Planning Department, Safety & Environmental Control Department	General managers of divisions, General Manager of the Technology Division, General Manager of the Engineering Division, heads of operational divisions in the Head Office
Compliance Working Group	Executive officer in charge of the Legal Department	General Manager of the Legal Department	Legal Department	General managers of divisions, General Manager of the Technology Division, General Manager of the Engineering Division, heads of operational divisions in the Head Office
Quality Assurance Working Group	General Manager of the Quality Assurance Department	—	Quality Assurance Department	General managers of divisions, General Manager of the Technology Division, General Manager of the Engineering Division, heads of operational divisions in the Head Office
"Responsible Mineral Sourcing" Working Group	General Manager of the Non- Ferrous Metals Division	General Manager of the Sustainability Department	Administration Department, Non-Ferrous Metals Division	Mineral Resources Division: General Manager of the Division, General Manager of the Administration Department Non-Ferrous Metals Division: General Manager of the Administration Department, General Manager of the Nickel Sales & Raw Materials Department, General Manager of the Copper & Precious Metals Raw Materials Department, General Manager of the Copper & Precious Metals Name Materials Department, General Manager of the Copper & Precious Metals Name Materials Department, General Manager of the Copper & Precious Metals Sales Department



in strengthening our management foundations. Each working group formulates policies in line with its theme and conducts checks of progress toward achieving its activity plans.

Medium- to Long-Term Strategy for Value Creation Sustainability Management at the Sumitomo Metal Mining Group

Corporate Value Enhancement Strategic Committee

We have established the Corporate Value Enhancement Strategic Committee to grow the SMM Group's business sustainably and enhance our corporate value. To further ensure the achievement of this objective, we have established the

Group for Realizing the World Leader in the Non-Ferrous Metal Industry, the Company-wide Group on Human Resources, and the "Shikinen Kaikaku" Group as subordinate organizations.

Chair	Executive officer in charge of the Corporate Planning Department
Deputy Chair	General Manager of the Corporate Planning Department
Members	General managers, senior deputy general managers of divisions, General Manager of the Technology Division, General Manager of the Engineering Division, General Manager of the Legal Department, General Manager of the Human Resources Department, General Manager of the Finance & Accounting Department
Secretariat	Corporate Planning Department
Number of times convened	Two or more times per year (two times in FY2022)
Content of deliberations	 Deliberation on candidates for new large-scale projects Selection of "seeding" projects as candidates for new large-scale projects Reporting on the progress of large-scale projects, from the "planting" stage to the "harvesting" stage Instruction to the Group for Realizing the World Leader in the Non-Ferrous Metal Industry, the Company-wide Group on Human Resources, and the "Shikinen Kaikaku" Group regarding examination of matters specified as issues

Digital Transformation Committee

The committee was established in April 2021 to clarify the future vision of Digital Transformation (DX) that our Group should aim for and to maximize the contribution to management through Group-wide promotion of DX.

Chair	Executive officer in charge of Digital Transformation (Executive officer in charge of the Technology Division)
Deputy Chair	General Manager of the Digital Transformation Department
Members	General managers of divisions, executive officers in charge of corporate divisions, Executive officer in charge of the Safety & Environment Control Department, Executive officer in charge of the Quality Assurance Department, General Manager of the Technology Division, General Manager of the Engineering Division, General Manager of the Corporate Planning Department, General Manager of the Human Resources Department, General Manager of the Information Systems Department
Secretariat	Digital Transformation Department
Number of times convened	Two or more times per year (three times in FY2022)
Content of deliberations	 Drafting of DX promotion policy and deliberation on material issues Deliberation and decision-making on fiscal year plans for DX promotion activities and other key matters Regular evaluation of DX promotion activities and invoking of corrective measures Provision of information on DX promotion, exchanges of information, explanation of key measures, and sharing of awareness Other key issues related to DX promotion activities

Carbon Neutrality Committee

This committee was established in April 2022 to set a clear policy and path toward achievement of the carbon neutrality that our Group should pursue, and to quickly and powerfully move forward in this pursuit.

Chair	Executive officer in charge of Carbon Neutrality P
Deputy Chair	Executive officer in charge of Safety & Environme
Members	General managers of divisions, General Manager of General Manager of the Safety & Environment Cor Department, General Manager of the Sustainabilit
Secretariat	Planning & Administration Department of the Tee
Number of times convened	Two or more times per year (six times in FY2022)
Content of deliberations	 Drafting of company-wide policy, goals, and roamaterial issues Deliberation and decision-making on fiscal year per Regular evaluation of carbon neutrality promote Provision of information on carbon neutrality per sharing of awareness Deliberation and decision-making on other key

Putting Sustainability Promotion Activities into Practice

The 7 Sustainability Subcommittees manage and advance the progress of our sustainability promotion activities, with the Sustainability Committee at the center. However, responsibility for putting activities into practice is assigned across different levels through job classification-based management. In conjunction with our 2021 3-Year Business Plan, the subcommittees also formulated plans for organizations in areas related to Vision for 2030 during the period of the 3-Year

Diffusion of Sustainability Promotion Activities

For Vision for 2030 and other sustainability promotion activities, we distribute simple, illustrated booklets with specific examples of activities to all Group employees, and post interviews and columns on specific activities in our in-house bulletins and on our portal site. We also conduct education on sustainability in annual training (new employee training, mid-career hire training, grade-specific training, selective training, etc.). In addition to regular training, in FY2022 we held "Reorganization of Sustainability Promotion Structure" briefings for managers and young employees in every district.

In conjunction with the adoption of the Sustainable Development Goals (SDGs) by the United Nations General

The basic principle is that each business division, and each organization related to carbon neutrality, should work together with the aim of having all parties involved actively engage in activities.

Promotion (Executive officer in charge of the Technology Division)

nt Control Department

of the Technology Division, General Manager of the Engineering Division, ntrol Department, General Manager of the Corporate Planning y Department, General Manager of the Finance & Accounting Department chnology Division

admap for the achievement of carbon neutrality, and deliberation on

plans and other key matters related to carbon neutrality promotion activities tion activities, review of goals, and invocation of corrective measures promotion, exchanges of information, explanation of key measures, and

issues related to carbon neutrality promotion activities

Business Plan, and are managing the progress of these plans. The 7 subcommittees assess details of organizations' activities through the subcommittees' members or secretariats, and check progress through the Sustainability Committee.

Through dialogue with shareholders and investors and through briefing videos for business partners, we explain our Group's sustainability promotion activities to outside stakeholders and call for their cooperation.

Assembly in September 2015, we have also set every September as a month for thinking about the Sumitomo Metal Mining Group's Vision for 2030. As a part of this, we hold the Sumitomo Metal Mining Group Vision for 2030 Awards every year as a rule. These awards recognize individuals and groups for their contributions to achieving Vision for 2030. In FY2022, a total of seven awards were given, with one individual award and six group awards (115 people in total). We also engage in awareness activities such as communicating messages from top management and conveying our progress toward Vision for 2030 to employees in a concise manner.

Vision for 2030, Material Issues, KPIs (Indicators and Goals)

Effective Use of Non-Ferrous Metal Resources

Vision for 2030 A 1. 2. 3. 4.	company that generate A company that stably provi A company that contributes try, academia, and governm A company that contributes A company that develops an	s resources through high technological capabilities ides non-ferrous metals to society s to society by effectively using impurities through collaborative, open technological development among indus- ient s to the construction and maintenance of recycling systems for non-ferrous metals nd supplies highly advanced materials that contribute to the resolution of social issues
KPI Indicators		Goals
1. 1) Advance copper mine	e projects	 Strengthen production structure at JV mines to achieve and maintain copper production levels of 300 kt/year from interests Achieve steady copper production level by reinforcing exploration of surrounding and deep areas in JV mines, expanding mineral processing technology, and improving operations leveraging IoT and AI Advance Phase 2 and later projects at the Quebrada Blanca Copper Mine
2) Acquire new superior	copper and gold resources	Develop new mines for which we have operatorship
3) Improve productivity technology	by introducing new	Promote remote operation and unmanned operation of heavy machinery and information infrastructure equipment inside and outside of the Hishikari Mine
4) Advance nickel ore pr productivity	ojects and improve	 Nickel production: 150 kt/year Recovery rate compared to FY2018: +2% Recovery of scandia by-product Recovery of chromite by-product
2. 1) Develop technology t bleed off impurities, a rities generated by sn	to separate, stabilize and and create value from impu- nelting processes and mines	Develop technology to stabilize and bleed off impurities: Develop and demonstrate the process
2) Develop technology t non-ferrous metal res	co create value from unused cources	Contribute to existing (e.g. marine resource development) and new development projects
3) Recover non-ferrous r resources	metals from hard-to-process	Participate in business and technology for recovery of lithium from salt-lake water in the presence of high levels of impurities
3. Demonstrate and commondary battery recycling	nercialize automobile sec- g technology	Demonstrate, commercialize, and expand scale of recycling technology that recovers cobalt from automotive lithium-ion batteries Commence commissioning and commercial operation of pre-commercial plant: FY2026*
4. 1) Leverage our strength and new businesses t	ns to create new products hat contribute to society	Research, develop, and commercialize new advanced materials in the fields of energy, automobiles, and information communications
2) Hold raw materials in stable procurement	-house for favorable and	Commercialize NiO for fuel cells following demonstration project
 Expand sales of low-c als through favorable own nickel raw mater 	ost battery cathode materi- , stable procurement of our ials	Maintain top class global share in the expanding cathode materials market

2 Climate Change

Vision for 2030	A company that actively undertakes climate change countermeasures, by reducing emissions and stably supplying products contributing to a low-carbon society, a future with zero greenhouse gases (GHGs)		
KPI Indicators		Goals	
Reduce GHG emissions		 Continuing to grow our business while maintaining GHG emissions below the level of FY2013. Accelerating actions to achieve net zero GHG emissions by 2050 or sooner. Cut GHG emissions intensity by at least 26% compared to FY2013 Expand contribution of GHG reduction by products contributing to a low-carbon society: 600 kt-CO₂ or more 	

3 Significant Environmental Accidents **4** Biodiversity

Vision for 2030	A company that values water resources and biodiversity, and protects the richness of the sea and land		
KPI Indicators		Goals	
1. Zero significant envi	ronmental accidents	1) Promote improvements through the use of risk management and environmental management systems 2) Reinforce and improve equipment and infrastructure to address increases in sources of natural hazard	
2. Reduce emissions of (year-on-year)	f hazardous substances	1) Optimize water use; reduce emissions of hazardous substances to the atmosphere and water 2) Promote various environmental preservation and biodiversity preservation activities, such as regular reforestation	

6 Employees' Occupational Health and Safety

Vision for 2030 A company where all well as safe facilities a	030 A company where all employees work together with safety first the priority in a comfortable working environment as well as safe facilities and operations		
KPI Indicators	Goals		
1. Prevent occupational accidents	Serious accidents: zero (in Japan and overseas, including contractors) All accidents: reduce year-on-year, with aim of eventually reaching zero		
2. Prevent occurrence of occupational diseases	Number of workplaces that present higher health risks: reduce year-on-year Occurrence of occupational diseases: zero		

* See the Sustainability Report 2023 for details on the results and forecast for indicators and goals, SP.33-126 https://www.smm.co.jp/en/sustainability/library/sustainability_report/

6 Diverse H	uman Resources 🛛 🧕	Development and
Vision for 2030	A company where all emp 1. A company that respects the 2. A company that provides ea	bloyees can take a vibrant a e humanity of each and every er ch and every employee with op
KPI Indicators		Goals
1. Promote working st that make use of dig diverse human reso roles	yle reform and create workplaces gital technology, enabling urces to play vibrant and active	 Improve scores for "Manageme awareness survey I) Number of female manager Ratio of female employees: 3 Expand number of managerial Percentage of employees with 5 Assign jobs and provide suppor
2. Support employees	'mental and physical health	 Reduce the number of employe Percentage of employees with
 Diversify opportunit employees accordin needs 	ties to enhance the abilities of ig to employee needs and work	 Utilize one-on-one meetings th subordinates through regular d Reconstruct the human resourc opportunities to employees to 3) Provide opportunities for self-d online training, etc.)

8 Engagement with Stakeholders

ite of one lower	
uits or employee a	a
ortunities for dialo itive evaluations c	0
nt in findings of su	u
٦t	in findings of s

9 Co-Existence and Mutual Prosperity with Local Communities

A company that contribut	les lo regional developme
KPI Indicators	Goals
Participate in local communities through dialogue and collaboration	Accurately identify local issues t
1. Support the local community via employee participation	Implement employee participa
2. Hire and procure locally	 Continually implement and ass
3. Support for nurturing of the next generation	 Implement programs to nurti more times/year) Establish and award scholarsh
4. Support for people with disabilities and the elderly	 Implement programs to support NPOs, etc. (one or more times/
5. Support during and after disasters	 Support regions affected by lar

10 Rights of Indigenous Peoples

	Vision for 2030	A company that understands and respects the trad		
KPI Indicators			Goals	
1. Understand indigenous peoples and their traditions and culture			Percentage of SMM Group site	
2. Support initiatives that lead to respect for the tradi- tions and cultures of indigenous peoples			 Provide scholarships for indig Support indigenous people-r 	

1 Human Rights in the Supply Chain

KPI	Indicators	Goals
Prom sible	ote sustainable procurement, particularly respon- mineral sourcing	1. Responsible mineral sourcing 1) Establish a responsible mine FY2021 2) Maintain a record of zero m
		rights in the supply chain
		2. Sustainable procurement
		 Business partners that have
		Policy: 100% by the end of
		Establish a sustainable proc
		 3) Continue implementing du

* The underlined KPIs for this year have been partially revised.

No change has been made to the material issues.

Participation of Human Resources

and active part

mployee, and where employees feel pride, motivation, and joy in work portunities to improve his/her capabilities, and grows together with employees

ent by managers and superiors," "Appeal of job," and "Work environment" in employee

rs: 50 (SMM non-consolidated)

20% or higher (SMM non-consolidated)

l track employees of foreign nationality n disabilities: 3% or higher (SMM non-consolidated)

rt matched to employees' life stages

ees taking long-term leave

abnormal findings indicated in health checkups: 50% or lower

nat bring out the motivation and potential of every employee and boost the growth of lialogues between superiors and subordinates

ces development program (in-house education, external education, etc.) to provide enhance their abilities in line with their roles

levelopment matched to each employee's life plans and needs (correspondence courses,

be the world leader in non-ferrous metals

wareness survey (increase ratio of employees who feel pride in working at the Company)

oques with media and investors f our Integrated Report from outside the Company

rveys by external bodies (degree of recognition and understanding, etc.)

A company that contributes to regional development and earns trust as a member of the local community

hrough dialogues with local communities, and execute the following measures

ation programs (from 2023)

sess of performance

ture the next generation in collaboration with government, local bodies, NPOs, etc. (one or

hips in Japan and maintain existing overseas scholarships (from 2023)

ort people with disabilities and the elderly in collaboration with government, local bodies, /year)

rge-scale disasters

litions and culture of indigenous peoples

tes implementing in-house education: 100% by the end of FY2023

igenous peoples (continue existing initiatives) -related initiatives by NGOs, academic societies, etc.: one initiative or more each yea

nent across the supply chain

neral sourcing management system in line with international standards by the end of

ines, smelters, and refineries complicit in child labor or other infringements of human

received and agreed with the Sumitomo Metal Mining Group Sustainable Procurement FY2030

surement management system in line with international standards by the end of FY2024 ue diligence (DD)

Vision for 2030

1 Effective Use of Non-Ferrous Metal Resources

The SMM Group is engaged in the mining of natural resources, the production of highly advanced materials, and everything in between. We handle a wide range of non-ferrous metal materials in the process. We believe that it is the SMM Group's responsibility to take on the challenge of making more effective use of limited non-ferrous metal resources without waste through the utilization of resources that could hitherto not be used due to technical obstacles and through the development of recycling technologies.

Vision for 2030	A company that generat	generates resources through high technological capabilities		
	1. A company that stably pro	provides non-ferrous metals to society		
	 A company that contribute try, academia, and governr 	ributes to society by effectively using impurities through collaborative, open technological development among i overnment		
	 A company that contribute A company that develops a 	pany that contributes to the construction and maintenance of recycling systems for non-ferrous metals pany that develops and supplies highly advanced materials that contribute to the resolution of social issues		
KPI Indicators		Goals	Main results	Reference p
1, 1) Advance copper r	nine projects	Strengthen production structure at JV mines to achieve and maintain	Copper production from	p. 41

1. 1) Advance copper mine projects	 Strengthen production structure at JV mines to achieve and maintain copper production levels of 300 kt/ year from interests Achieve steady copper production level by reinforcing exploration of surrounding and deep areas in JV mines, expanding mineral processing technology, and improving operations leveraging IoT and AI Advance Phase 2 and later projects at the Quebrada Blanca Copper Mine 	Copper production from interests	p. 41
2) Acquire new superior copper and gold resources	Develop new mines for which we have operatorship		
3) Improve productivity by introducing new technology	Promote remote operation and unmanned operation of heavy machinery and information infrastructure equipment inside and out- side of the Hishikari Mine	• Promotion of DX at Hishikari Mine	p. 80
 Advance nickel ore projects and improve productivity 	 Nickel production: 150 kt/year Recovery rate compared to FY2018: +2% Recovery of scandia by-product Recovery of chromite by-product 	 Nickel-based product production 	p. 41
 Develop technology to separate, stabilize and bleed off impurities, and create value from impuri- ties generated by smelting processes and mines 	Develop technology to stabilize and bleed off impurities: Develop and demonstrate the process		
 Develop technology to create value from unused non-ferrous metal resources 	Contribute to existing (e.g. marine resource development) and new development projects		
3) Recover non-ferrous metals from hard-to-process resources	Participate in business and technology for recovery of lithium from salt-lake water in the presence of high levels of impurities	 Extraction of lithium 	р. 76
 Demonstrate and commercialize automobile sec- ondary battery recycling technology 	Demonstrate, commercialize, and expand scale of recycling technol- ogy that recovers cobalt from automotive lithium-ion batteries Commence commissioning and commercial operation of pre-com- mercial plant: FY2026	Progress in the commer- cialization of the recycling of batteries	p. 64
 Leverage our strengths to create new products and new businesses that contribute to society 	Research, develop, and commercialize new advanced materials in the fields of energy, automobiles, and information communications		
2) Hold raw materials in-house for favorable and sta- ble procurement	Commercialize NiO for fuel cells following demonstration project		
 Expand sales of low-cost battery cathode materi- als through favorable, stable procurement of our own nickel raw materials 	Maintain top class global share in the expanding cathode materials market	Progress in cathode mate- rials market share	p. 69

See Sustainability Report 2023 for details on results https://www.smm.co.jp/en/sustainability/library/sustainability_report/

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age(s)

Main Initiatives

Recycling of Low-Grade Nickel Oxide Ores

Low-nickel-content oxide ores found near the earth's surface are said to account for about 70% of the world's nickel oxide mineral resources, but smelting and refining using these ores as raw materials involves numerous technical challenges that made it difficult to achieve on a commercial basis. Drawing on our advanced equipment engineering and operation technologies, in April 2005 our Group led the world in achieving large-scale commercial production via the hydrometallurgical processing technology known as high pressure acid leach (HPAL) at Coral Bay Nickel Corporation (CBNC) in the Philippines. Further, from 2013, Taganito HPAL Nickel (THPAL) began operations as the second plant using HPAL technology. The nickel intermediate smelted and refined at these two HPAL plants are used in Japan as electrolytic nickel and cathode materials for secondary batteries for electric automobiles.

Recovery of Scandium and Chromite

Nickel ore, the raw material for HPAL, contains trace amounts of scandium and chromite, and THPAL is engaged in the business of recovering them. We began commercial production of scandia in January 2019 and chromite in March 2021. Scandia is expected to be in demand for solid fuel cells and aluminum alloys, while chromite is expected to be in demand for stainless steel and a wide array of other special steels. The SMM Group intends to add value to its HPAL technology by efficiently recovering these by-products.

2 Climate Change

Society's demand for companies to reduce greenhouse gas (GHG) emissions has increased dramatically, and the business risks associated with climate change are also increasing. On the other hand, a stable supply of products contributing to a low-carbon society, such as the secondary battery materials for electric vehicles, and near-infrared absorbing materials produced by our Group, is expected to contribute to the reduction of GHG emissions.

Vision for 2030	A company that actively undertakes climate chang products contributing to a low-carbon society, a fu		
KPI Indicators	Goals		
Reduce GHG emissions		 Continuing to grow our busin achieve net zero GHG emissic Cut GHG emissions intensity b Expand contribution of GHG r 	

Main Results

GHG Emissions (Scope 1 and 2)



Main Initiatives

Reduction of GHG Emissions in the Manufacturing Process

In the manufacturing process, we are working to reduce GHG emissions through initiatives that include medium- to long-term energy conservation and energy conversion.

Using Internal Carbon Pricing

The SMM Group implemented Internal Carbon Pricing (ICP), an action in which companies set an in-house carbon price to promote capital investments for decarbonization and energy savings and consider GHG emission reductions as a capital investment effect. Since introducing an ICP in September 2020, we have moved forward with decarbonization investments that make active use of ICP at business sites. Specifically, in addition to energy-saving investments, such as introducing LED lighting and replacing to highly efficient air conditioning equipment, we are actively taking on various challenges, including those related to solar power and a fuel conversion from heavy oil to LNG, which previously could not be undertaken because of poor investment return. We plan on further expanding ICP measures.

Development and Supply of Products that Contribute to a Low-Carbon Society

Products or materials that contribute to reducing GHG emissions across society through the production and supply by our Group are positioned as low-carbon products, and their development and supply to the market are actively promoted.

* Of our products, the combined value that cathode materials for automobile batteries and near-infrared absorbing material (CWO (only for automobile glass)) from objectively calculated technical data provided by the public or by customers.

e countermeasures, by reducing emissions and stably supplying ture with zero greenhouse gases (GHGs)

ness while maintaining GHG emissions below the level of FY2013. Accelerating actions to ons by 2050 or sooner. by at least 26% compared to FY2013 reduction by products contributing to a low-carbon society: 600 kt-CO2 or more

Expand Contribution of GHG Reduction by Products Contributing to a Low-Carbon Society

GHG Reduction by Products Contributing to a Low-Carbon Society			
FY2021	FY2022		
420 kt-CO2e	540 kt-CO2e		

Realizing a Stable Supply of Non-Ferrous Metal Resources

The SMM Group plays a crucial role in providing renewable energy, which is a major trend in realizing a carbon neutral society, and the main mineral resources used in the electrification of EVs and other vehicles. We are also developing technologies for the efficient recovery of lithium from salt lake water and studying its industrialization.

The exact metal usage per vehicle increases as electrification advances, with copper requiring 3.6 times the weight equivalent of a gasoline-powered vehicle. We believe that meeting the growing demand for such materials is an important role that our Group should fulfill.

Establishing Innovative Technologies that Support Decarbonization

In achieving carbon neutrality for our Group, it is essential to develop innovative technologies that lead to a dramatic reduction in GHG emissions within smelting and refining operations, which account for 90% of our total emissions, and to apply these technologies to our manufacturing processes. In copper smelting and refining, we are developing hydrogen reduction technology to reduce coal consumption, and for nickel smelting and refining, we are developing a next-generation process and CO₂ fixation technology. We have our eye on the future as we work in collaboration with multiple universities and companies to proactively pursue next-generation technology.

2 Climate Change

Action for TCFD

4°C scenario

Scenario

In February 2020, we became a supporter of the Task Force on Climate-related Financial Disclosures (TCFD). We have not only listed climate change as a material issue in Vision for 2030, which was formulated and released in March 2020, and strengthened efforts to achieve the vision of "a company that actively undertakes climate change countermeasures, by reducing emissions and stably supplying products contributing to a low-carbon society, a future with zero greenhouse gases (GHGs)," but also indicated that we will

Climate Change Scenario Analysis

Driver

We considered two scenarios for 2050.

Category

A scenario in which ongoing efforts are made to keep the rise in average temperatures to within 1.5°C. The IEA's WEO 2019 Sustainable Development Scenario (SDS),¹ Beyond 2°C Scenario (B2DS),² and the IPCC's special report "Global Warming of 1.5°C"³ were information sources for this scenario.

A scenario in which no countermeasures are taken, and temperatures are allowed to continue rising. Information sources included the IEA's WEO 2018 New Policies Scenario and the IPCC's RCP⁴ 8.5 Scenario.

Anticipated situation (2050)

move forward with disclosure of related information. The TCFD recommends that the disclosure of climate change-related risks and opportunities should be organized according to four core elements of corporate management and operations (governance, strategy, risk management, and metrics & targets), and we are disclosing information in line with these recommendations. The Group responds to the CDP Climate Change Questionnaire annually regarding its GHG management.

and technological developments, and analyzes the path that should be followed to fully achieve the goals set forth in the Paris Accords 2. A scenario in "Energy Technology Perspectives" (ETP) published by the IEA. 3. A report published by the Intergovernmental Panel on Climate Change (IPCC). 4. Representative Concentration Pathways (RCP)

Risk and opportunity

5. Mobility as a Service (MaaS): a service that optimally combines multiple transportation services (buses, trains, cabs, airplanes, etc.) and performs search, reservation, payment, etc. all	l at once.
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		Carbon pricing (car-		Increased tax burden, etc.	Risk Large	Climate Change: Reduce GHG emissions
	Climate change policy	bon taxes, emissions trading, etc.)	Overall monetary amounts have risen (depending on nation or region)	Increases in R&D costs and investment in low-carbon facilities and equipment	Risk Short- to long-term, large	Climate Change: Reduce GHG emissions Effective Use of Non-Ferrous Metal Resources Improve productivity by introducing new techno
	Climate change policy	Tightening of vehi- cle regulations, pol- icy to promote LEVs	 Fuel consumption regulations have been tight- ened and restrictions on movement introduced Policy is supportive of EVs and LEVs Internal combustion-based vehicles have been replaced by LEVs 	Increase in sales due to growing demand for batteries and nickel accompanying the spread of EVs Increase in sales of nickel oxide powder and lithium-ion batter- ies accompanying the development of a hydrogen society and the spread of FCVs Increase in sales of other products contributing to a low-carbon		Climate Change: Reduce GHG emissions
	Society and infrastructure	Progress of digital transformation related to vehicles, changes in values	 Self-driving vehicles, MaaS⁵, and car-sharing are common Fewer households own cars 		Opportunity Large	 Effective Use of Non-Ferrous Metal Resources Advance nickel ore projects and improve productivo our strengths to create new products and new bus curement, Expand sales of low-cost battery cathod
	Technology	Development of hydrogen technol- ogy, fuel cells	 Fuel cell vehicles (FCV) are common EVs and plug-in hybrid EVs (PHEV) are common 	- society		
1.5°C	Climate change	Shift to electrical energy	Electricity occupies a higher proportion of final energy consumption	Increase in demand for copper accompanying the strengthening of electrical grids (although there is competition from aluminum, etc.)	Opportunity Large	Effective Use of Non-Ferrous Metal Resources Advance copper mine projects. Acquire new sup
	Technology	Technological shift in automobile stor- age batteries	• There has been a shift in the market share of automobile storage batteries	Rise in the proportion of nickel used in batteries and increased sales of nickel accompanying efforts to move away from cobalt Spread of solid state batteries that leverage SMM technology as next-generation batteries Spread of iron and manganese-based batteries accompanying efforts to move away from cobalt Spread of new batteries that do not leverage SMM technology as next-generation batteries	Opportunity Medium Risk Medium	Climate Change: Reduce GHG emissions Effective Use of Non-Ferrous Metal Resources Advance nickel ore projects and improve produce Leverage our strengths to create new products a and stable procurement, Expand sales of low-cos materials
	Society and infrastructure	Interest in matters such as sustainable procurement, environmental foot- print, and the social impact of businesses	 There is greater awareness regarding sustainability ESG investment is mainstream There are more possible applications for alter- native materials and recycled metals 	 Limits on raw materials sourcing, increase in materials and man- ufacturing costs, greater advantages due to owning our own mines Expansion of the automobile secondary battery recycling business Impact of ESG investment on financing Reputational risk if SMM's efforts are evaluated as insufficient 	Opportunity Medium Risk Medium to large	 Effective Use of Non-Ferrous Metal Resources Advance copper mine projects, Acquire new super materials in-house for favorable and stable procure Human Rights in the Supply Chain: Promote sustainable procurement, particularly re Rights of Indigenous Peoples: Understand indig the traditions and cultures of indigenous peoples
4°C		Rises in average temperature, sea surface temperature, and sea levels	Sea levels have risen Storm surges are more frequent	Decline in port functionality, greater risk of storm surges, possibil- ity of facility-based countermeasures needing to be taken at some coastal business sites	Risk Large	Significant Environmental Accidents and Biodi
	Temperatures and rainfall	Increase in abnor- mal climate events,	Heavy rains and typhoons are more frequent	Increase in risk of flooding or water shortages at business sites in certain regions, possibility of facility-based countermeasures needing to be taken	Risk Large	Significant Environmental Accidents and Biodi
		such as heat waves, flooding, and water shortages	 Increased risk of flooding and water short- ages depending on region 	Decline in operations at key suppliers, decline in plant operations due to interruptions to procurement and shipping routes	Risk Large	Significant Environmental Accidents and Biodiv
			Possibility of facility-based countermeasures needing to be taken due to the increased risk of damage to tailings dams	Risk Large	Significant Environmental Accidents: Zero sign	

Impact on business

1. A scenario published by the International Energy Agency (IEA), and adopted in World Energy Outlook (WEO) 2019, a report that presents the outlook for energy supply and demand

SMM Group approach: Initiatives for realizing Vision for 2030

ology, Advance nickel ore projects and improve productivity

ivity, Develop technology to create value from unused non-ferrous metal resources, Leverage sinesses that contribute to society, Hold raw materials in-house for favorable and stable prode materials through favorable, stable procurement of our own nickel raw materials

erior copper and gold resources

tivity, Develop technology to create value from unused non-ferrous metal resources, nd new businesses that contribute to society, Hold raw materials in-house for favorable t battery cathode materials through favorable, stable procurement of our own nickel raw

ior copper and gold resources, Advance nickel ore projects and improve productivity, Hold raw ment, Demonstrate and commercialize automobile secondary battery recycling technology

esponsible mineral sourcing genous peoples and their traditions and culture, Support initiatives that lead to respect for

versity: Zero significant environmental accidents

versity: Zero significant environmental accidents

rersity: Zero significant environmental accidents, Reduce emissions of hazardous substances

ificant environmental accidents

3 Significant Environmental Accidents



The SMM Group recognizes that there are risks of adverse impacts on the natural environment when developing natural resources and using chemical substances. In addition to preventing significant environmental accidents, we recognize that minimizing our negative environmental impacts, including the rationalization of water use, and preserving biodiversity in our day-to-day management of operations are prerequisites for business continuity.

Vision for 2030	A company that values water resources and biodiversity, and protects the richness of the sea and land		
KPI Indicators Goals		Goals	
1. Zero significant environmental accidents		 Promote improvements through the use of risk management and environmental management systems Reinforce and improve equipment and infrastructure to address increases in sources of natural hazard 	
2. Reduce emissions of hazardous substances (year-on-year)		1) Optimize water use; reduce emissions of hazardous substances to the atmosphere and water 2) Promote various environmental preservation and biodiversity preservation activities, such as regular reforestation	

Main Results



PRTR Substance Releases, by Destination



Main Initiatives

Managing Tailings Dams

Tailings facilities in which tailings from mines are dumped may collapse and cause considerable damage.

In August 2020, Global Tailings Review (GTR) formulated the Global Industry Standard on Tailings Management (GISTM). The International Council on Mining and Metals (ICMM) is committed to compliance with GISTM. As a member of ICMM, we are conducting examinations to comply with the standard.

Our Group thoroughly implements measures to prevent major environment accidents at closed mines that it manages and tailings dams managed by Coral Bay Nickel Corporation (CBNC) and Taganito HPAL Nickel Corporation (THPAL), both of which are located in the Philippines

In August 2022, based on the GISTM, we disclosed information on our website about tailings dams with Very High or higher risk (CBNC: 1 location; and THPAL: 1 location).

Rehabilitating Tailings Dams

CBNC and THPAL produce intermediates for electrolytic nickel and nickel sulfate. At tailings dams, the slurry after the recovery of nickel through the production process is treated through neutralization to eliminate toxins and precipitate heavy metals. The treated slurry is then pumped to the tailings dam where it allows the solids to settle down

When the storage capacity of the tailings dams is reached, the site is rehabilitated in order to establish an independent and sustainable ecosystem. Rehabilitation does not simply mean greening, but also making it possible for agricultural farming, and, thus, vegetables and

fruits are also grown in the area. Many local residents and indigenous peoples are involved in this work, and rehabilitation plays an important role in creating local employment.

Water Risk Management

Water is a shared resource of local regions in the lives of local residents and communities, as well as to the surrounding ecosystem. In addition to identifying water risks using WWF Water Risk Filter and then reducing those risks, our Group gives consideration to local communities and the environment in areas where we use water and are working with a sense of responsibility to make good use of the limited water resources.

At CBNC, on Palawan Island, in the Philippines, they treat supernatant water accumulated in tailings dams at recycling facilities and then reuse the water in the smelting and refining process. The company also supplies that water as industrial water to its suppliers of lime slurry.

A team that consists of members from the Environmental Management Office (EMO), the department that conducts environmental management activities for the company, local governments, NGOs, and other entities, strives to reduce the environmental effects caused by wastewater by conducting regular water quality tests to determine if plant operation is having a major impact on surrounding water.

WEB Water policy

https://www.smm.co.jp/en/sustainability/management/ water_policy/

5 Employees' Occupational Health and Safety

It is the responsibility of management to prevent work-related accidents and illnesses, provide a safe and healthy work environment, and strive to improve employee comfort. All of these also lead to greater motivation and productivity among employees. The SMM Group bases management on job classification, striving to ensure the safety and health of our employees through intrinsic equipment safety improvements and safety education.

Vision for 2030	A company where all employees work together wit well as safe facilities and operations		
KPI Indicators	Goals		
1. Prevent occupation	al accidents	Serious accidents: zero (in Japar All accidents: reduce year-on-ye	
2. Prevent occurrence	of occupational diseases	Number of workplaces that pres Occurrence of occupational dise	

Main Results

Work-Related Incidents and Frequency Rate



Main Initiatives

Occupational Health and Safety Committee

In accordance with the Industrial Safety and Health Act, the Occupational Health and Safety Committee meets once a month at each of the Group's business sites in Japan. At the Occupational Health and Safety Committee meetings, a wide range of health and safety issues are discussed, including the progress of health and safety activity plans, analysis of the causes of occupational accidents and measures to prevent recurrence, results of working environment measurements, results of medical examinations, reports on improvements to equipment and work methods, reports on the correction of areas identified during patrols, safety and management methods for new chemical substances handled, results of pre-operational safety examinations of new equipment, and information on legal revisions. A summary of the Occupational Health and Safety Committee meetings is reported monthly by business sites to the Safety and Environment Control Department, which confirms that safety and health activities are being properly implemented at each business site.

At SMM Group's overseas business sites, occupational health and safety committee meetings are held in accordance with the laws and regulations of each country to ensure workplace safety through the creation of accident prevention measures among businesses and their workers.

Regarding regular contractors, Occupational Health and Safety Committee meetings and informal gatherings are held every month by contracting organizations in which contractors and others participate and information is shared. This information is taken back to the company where it is shared and used to make notifications.

Occupational Health and Safety Risk Assessments

The SMM Group proactively uses risk assessments (investigation of

th safety first the priority in a comfortable working environment as

n and overseas, including contractors) ear, with aim of eventually reaching zero sent higher health risks: reduce year-on-year eases: zero

Work-Related III Health (2022)

"Employees" includes employees and parttime workers from Group companies

	Jap	ban	Over	rseas
	Employees	Non- employee workers	Employees	Non- employee workers
Number of fatalities as a result of work- related ill health	0	0	0	0
Number of cases of recordable work-related ill health*	0	0	0	0

* Regarding employees in Japan, we also record the number of workers who receive abnormal findings but do not require treatment (as this is personal information, it is not disclosed)

hazard or harmfulness) to evaluate hazards and take appropriate countermeasures against sources of risk that may cause accidents or health hazards due to equipment, operations, or a combination of both. For example, when we introduce new equipment, we conduct a risk assessment at the time of design, taking into consideration the intrinsic safety of the equipment, and the risk assessment is reflected in the design of the equipment. Before equipment is installed and put into operation, a risk assessment (audit) is conducted again with supervisors, operators, etc., and improvements are made. After the facility goes into operation, we continuously report on the status of maintenance and improvement of residual risks at the Health and Safety Committee meetings, and work to improve the level of health and safety by ensuring that our efforts are promoted.

Education in Hands-on Training Facilities

Since 2010, the SMM Group has been operating a hands-on training facility (Oji-kan) in Niihama City, Ehime Prefecture, which consists of a Hazard Simulation Zone and an Equipment Training Zone. The purpose of the Hazard Simulation Zone is to increase sensitivity to occupational safety and health through simulated experiences of dangers that may be present in daily work, while the purpose of the Equipment Training Zone is to develop operators with strong skills in equipment and devices through hands-on experience with actual on-site equipment, cut models, etc. In addition to the curator and full-time instructors, site managers and supervisors, and veteran employees from throughout the Company and the Group, provide training as associate instructors. Oji-kan staff have been traveling to workplaces since 2013 to conduct hazard simulation training, and we are working to expand the number of participants.

6 Diverse Human Resources

7 Development and Participation of Human Resources

The source of the SMM Group's growth is its employees. We respect individuality and diversity, and aim to create an open and vibrant organizational climate in which everyone can demonstrate their strengths and thrive. With the globalization of business and the rapid development of DX, it is a management challenge to develop human resources who can think and act on their own initiative based on their expertise.

Vision for 2030	A company where all emp 1. A company that respects the 2. A company that provides ea	Ioyees can take a vibrant and active part e humanity of each and every employee, and where employees feel pride, motivation, and joy in work ch and every employee with opportunities to improve his/her capabilities, and grows together with employees
KPI Indicators		Goals
 Promote working styl that make use of digit diverse human resour roles 	e reform and create workplaces tal technology, enabling rces to play vibrant and active	 Improve scores for "Management by managers and superiors," "Appeal of job," and "Work environment" in employee awareness survey (1) Number of female emanagers: 50 (SMM non-consolidated) (2) Ratio of female employees: 20% or higher (SMM non-consolidated) (3) Expand number of managerial track employees of foreign nationality (4) Percentage of employees with disabilities: 3% or higher (SMM non-consolidated) (5) Assign jobs and provide support matched to employees' life stages
2. Support employees' n	nental and physical health	1) Reduce the number of employees taking long-term leave 2) Percentage of employees with abnormal findings indicated in health checkups: 50% or lower
 Diversify opportunitie employees according needs 	es to enhance the abilities of to employee needs and work	 Utilize one-on-one meetings that bring out the motivation and potential of every employee and boost the growth of subordinates through regular dialogues between superiors and subordinates Reconstruct the human resources development program (in-house education, external education, etc.) to provide opportunities to employees to enhance their abilities in line with their roles Provide opportunities for self-development matched to each employee's life plans and needs (correspondence courses, online training, etc.)

Main Results

Number and Percentage of Female Managers



Number of female managers (left axis)
 Percentage of female managers (right axis)

Average Training Hours per Employee (FY2022)

	Offi	cers	Mana	agers	Regular e	mployees	Occasional	Company
	Male	Female	Male	Female	Male	Female	employees	Average
Annual hours of education per SMM Group's employee (average)	11.0	12.0	20.6	9.1	27.4	20.4	8.5	22.9

* In addition to the total time spent on education, employees spent the following number of hours on e-learning courses: 5,763 hours for SMM non-consolidated, and 2,012 hours for consolidated subsidiaries in Japan and overseas.

Main Initiatives

Initiatives toward Gender Balance (women's active engagement)

To realize our Vision for 2030 to create workplaces where diverse human resources can play vibrant and active roles, we have set "number and percentage of female SMM managers" and "number and percentage of female SMM employees" as KPIs. In FY2022, the percentage of female SMM managers was 2.9% (20 managers) and the percentage of female SMM employees was 12.9% (445 employees), both figures having increased from the fiscal year. We have formulated an action plan based on the Act on the Promotion of Women's Active Engagement in Professional Life* and are working to achieve our goals. Furthermore, through various measures such as proactive recruitment, appointment to a wide range of positions, and training of female leaders, we are making efforts toward furthering the active engagement of women.

* Enacted in 2016 with the aim of realizing a society in which women can fully demonstrate their individuality and abilities, this law stipulates the responsibilities of the national government, local governments, and general business owners with regard to the promotion of women's active engagement.

Illness Prevention and Health Promotion Initiatives

In cooperation with the SMM Health Insurance Association, we are making initiatives for illness prevention and health promotion for our employees and their family members (dependents). To prevent lifestyle-related diseases, we promote the implementation of specific health checkups and specified health guidance, and encourage those at particularly high risk of serious illnesses to undergo checkups. We also subsidize all or part of the costs of various medical examinations, complete medical checkups, and complete brain checkups. When undergoing complete medical checkups, employees can take health management leave (up to two days per year).

Furthermore, to promote smoking cessation, we have reduced the number of smoking areas and offer an online smoking cessation program for those who wish to quit. About 70% of participants in the smoking cessation program have successfully quit smoking.

8 Engagement with Stakeholders

The SMM Group's main premise for business continuity is to earn a social license to operate. To this end, we recognize the importance of promoting information disclosure and transparency to the greatest extent possible, as well as deepening mutual understanding and building relationships of trust through ongoing dialogue with local communities and other stakeholders. In particular, when there is a risk that development may affect the livelihood of indigenous peoples, we gain a thorough understanding of their culture, traditions and history and engage in a continuing dialogue prior to development. It is then necessary to proceed carefully to prevent such impacts of development.

Vision for 2030	A company that is apprec	iated and understood to b
KPI Indicators		Goals
1. Further penetrate ou employees	ur Group brand among	Improve results of employee av
2. Ensure quality and q information and dial leader in the non-fer	uantity in communication of logue at the level of "world rrous metals industry"	Expand opportunities for dialog Achieve positive evaluations of
3. Increase in recognitio "world leader in the n	n and understanding of our goal of on-ferrous metals industry"	Improvement in findings of sur

Main Results

Results of Employee Awareness Survey Q. Overall, are you proud to work at SMM?

Very proud Somewhat proud Neutral Not much I feel no pride at all



Main Initiatives

Implementation of the Employee Awareness Survey

The SMM Group has commissioned a specialized external organization to conduct employee awareness surveys in order to measure the satisfaction and engagement of its employees, who are important stakeholders, and to create a better company and workplace. These surveys have been conducted every three years since FY2010, with the fifth survey conducted in FY2021. A total of 5,153 people were surveyed, with a total of 141 questions, and a response rate of 94.4%. Their purpose is to gain a quantitative understanding of how employee awareness has changed over the three years since the previous survey and what kind of awareness employees currently have about working at the Company, and to use this information to develop management measures to create an even better company and workplace.

The results of this survey are fed back to top management, general managers of departments and divisions at the head office, heads of business divisions and business sites, presidents of Group companies, labor unions, etc. For directly controlled business sites, Group companies, and other sites, we disclose data by site to help improve management at each site. In FY2022, we held approximately 30 feedback briefings on the results of the FY2021 survey. The survey results and explanatory articles are published in in-house bulletins for employees to read.

In order to make more effective use of the employee awareness survey, the frequency of the survey will be increased from every three years to annually starting in FY2023, and the survey content and feedback methods will be revised.

Communication with Shareholders and Investors

The SMM Group strives to provide our shareholders and investors



Time Spent on Employee Education

be the world leader in non-ferrous metals

wareness survey (increase ratio of employees who feel pride in working at the Company)

gues with media and investors f our Integrated Report from outside the Company

rveys by external bodies (degree of recognition and understanding, etc.)

Sumitomo Metal Mining Co., Ltd. Integrated Report 2022 Major Awards

	Details of the award	Details of recognition
WICI Japan Integrated Reporting Awards 2022	Silver Award for Excellence in Integrated Reporting	Recognition of descriptive detail and completeness of information
2nd Nikkei Integrated Report Award	Grand Prix S Award	Particularly, the com- pleteness of our report's description of social (S) initiatives

with the information we think they need in a timely, appropriate, fair, and easy-to-understand manner.

On our website, we share our latest announcements, management policies and strategy, business descriptions, business results, and other information. We also deliver reports to shareholders twice a year and report on financial results and the progress of business strategies.

We have also formulated an IR Policy to ensure IR activities are implemented appropriately, which is publicly available on our website. For institutional investors and securities analysts, we hold telephone conferences at the time of announcement of our financial results, four times a year, and twice a year the president and/or general managers of business divisions give Business Strategy Progress Briefing Sessions after the announcements of our financial results. In February 2022, we announced our 2021 3-Year Business Plan and held a briefing session. We are making efforts to proactively disclose information necessary for investment decisions by committing to regular individual dialogues with major institutional investors and holding briefings for individual investors as well.

Enhancement of Information Communication

Since 2016, the SMM Group has published these integrated reports to help shareholders, investors, and other stakeholders attain a deeper understanding of the SMM Group's initiatives toward sustainable growth and maximization of corporate value. In the Sumitomo Metal Mining Integrated Report 2022, published in September 2022, we have tried to make it easy to understand and comprehensive, and have tried to explain the SMM Group's value creation while further integrating sustainability and our business operations.

9 Co-Existence and Mutual Prosperity with Local Communities

The SMM Group's main premise for business continuity is to earn a social license to operate. To this end, we recognize the importance of promoting information disclosure and transparency to the greatest extent possible, as well as deepening mutual understanding and building relationships of trust through ongoing dialogue with local communities and other stakeholders. In particular, when there is a risk that development may affect the livelihood of indigenous peoples, we gain a thorough understanding of their culture, traditions and history and engage in a continuing dialogue prior to development. It is then necessary to proceed carefully to prevent such impacts of development.

A company that contributes to regional development and earns trust as a member of the local community Vision for 2030 **KPI** Indicators Goals Participate in local communities through dia-Accurately identify local issues through dialogues with local communities, and execute the following measures logue and collaboration 1. Support the local community via employee Implement employee participation programs (from 2023) participation 2. Hire and procure locally Continually implement and assess of performance 3. Support for nurturing of the next generation 1) Implement programs to nurture the next generation in collaboration with government, local bodies, NPOs, etc. (one or more times/year) 2) Establish and award scholarships in Japan and maintain existing overseas scholarships (from 2023) 4. Support for people with disabilities and the • Implement programs to support people with disabilities and the elderly in collaboration with government, local bodies, NPOs, etc. (one or more times/year) 5. Support during and after disasters Support regions affected by large-scale disasters

Main Results

Investment in Infrastructure and Support Services¹

Region	Detail	Amount (FY2022)
Japan	 Donations to scholarship funds for orphans in lwate, Miyagi, and Fukushima Prefectures, which were hit by the Great East Japan Earthquake (making donations every year since 2012) Donations to medical organizations such as the Cancer Institute and the Japan Heart Foundation Donations to sports organizations such as the Japanese Para-Sports Association Support for basic science research, environmental research, and activities for the maintenance and restoration of cultural properties through The Sumitomo Foundation Donations to Keidanren Nature Conservation Fund Support for employment of former inmates and others by donating to the National Organization of Labor Support Providers Support for victims of crime through donations to the Victim Support Center of Tokyo Expenditures for social contribution activities, including donations to the Tokyo 2020 Olympic and Paralympic Games 	¥250 million
Philippines	 Supporting measures to prevent dengue fever in communities neighboring the plant (awareness activities, spraying insecticide, cleaning activities, etc.) Undertaking a water supply equipment installation project for communities neighboring the plant Popularizing organic rice cultivation among communities neighboring the plant with the help of technical experts In the Philippines we are continuing to provide support through SDMP.² 	¥1,620 million

1 Investment in infrastructure and support services are non-commercial and provided free of charge.

2 SDMP: Social Development and Management Program, conducted by a company for the welfare of residents living in the vicinity of its operating area

Main Initiatives

Model Project for Dialogue and Collaboration

Local issues vary from region to region, and we believe it is important to understand and resolve the issues facing each region through dialogue with the local community.

The Ome District Division and the Tama University Research Institute collaborated to conduct a model project for dialogue and collaboration called the Localized Contribution Survey. The purpose of this survey was to identify local issues through research, and to develop, operate, and evaluate our unique program that contributes to solving these issues.

The initiatives include interviews with local governments and neighboring companies and their employees, holding panel discussions and workshops with local stakeholders under the title of PROJECT OME, followed by the establishment of a Social Contribution Promotion Committee at the Ome District Division. In addition, regular collaborative meetings with local social welfare councils and government officials have been established to explore issues.

Going forward, the Ome District Division will involve its employees in the formulation of the OME VISION and other activities to foster a sense of ownership and create concrete results with local stakeholders. In addition, the model projects implemented at the Ome District Division will be implemented at other business sites to contribute to the sustainable development of local communities by resolving issues faced by those communities.

Establishment of Scholarships in Japan

As one of the measures to support the nurturing of the next generation, in FY2023 we established the JEES-SMM Regional Contribution Scholarship within the Japan Educational Exchanges and Services (JEES) based on our donation to support students who are willing to contribute to the sustainable development of the regions where our plants and mines are located and who need financial assistance.

This scholarship provides ¥100,000 per month, non-repayable until graduation, to students who are motivated to contribute to the sustainable development of the Tama District of Tokyo, Hyogo, Ehime, and Kagoshima Prefectures. We are awarding 20 scholarships to selected applicants in FY2023.

In addition, as a program to help scholarship recipients learn about supporting local communities, we are considering the formation of a community among scholarship recipients and the implementation of experiences for scholarship recipients to participate in efforts to solve real community issues in collaboration with the local community.

10 Rights of Indigenous Peoples

The SMM Group's main premise for business continuity is to earn a social license to operate. To this end, we recognize the importance of promoting information disclosure and transparency to the greatest extent possible, as well as deepening mutual understanding and building relationships of trust through ongoing dialogue with local communities and other stakeholders. In particular, when there is a risk that development may affect the livelihood of indigenous peoples, we gain a thorough understanding of their culture, traditions and history and engage in a continuing dialogue prior to development. It is then necessary to proceed carefully to prevent such impacts of development.

Vision for 2030 A	company that understa	nds and respects the trad
KPI Indicators		Goals
1. Understand indigenous and culture	peoples and their traditions	Percentage of SMM Group site
2. Support initiatives that l tions and cultures of ind	ead to respect for the tradi- igenous peoples	 Provide scholarships for indic Support indigenous people-

Main Initiatives

Initiatives through Dialogue at Business Sites

The SMM Group collaborates with local governments, NGOs, and other stakeholders to engage in dialogue with indigenous peoples directly affected by its business activities.

In the Philippines, Coral Bay Nickel Corporation (CBNC) and Taganito HPAL Nickel Corporation (THPAL) have established organizations to carry out community development (Social Development) in accordance with local laws and regulations, and are engaged in a Social Development and Management Program (SDMP). Under this program, based on dialogue with local residents, budgets are prepared for the categories of health, education, welfare, livelihood, etc., and free health checkups, medical treatment, agricultural assistance, etc. are provided after obtaining approval from the local government. In addition, we also separately budget for activities not included in the SDMP, such as the construction of schools and assembly halls for indigenous peoples to educate them about their culture and unique languages.

In Canada, together with our partner in the Cote Gold Project, IAMGOLD Corporation, we have held ongoing dialogue with First Nation peoples affected by it, as well as providing explanations before gaining approvals, with the aim of helping them understand the project. We have fostered relationships of mutual trust and understanding with the organization through participation in initiatives such as cultural workshops hosted by the organization, and as a result, we were able to conclude an Impact Benefit Agreement. Currently, we are working with indigenous groups and partners to construct a new lake with the same water surface area as the lake on the proposed development site, and to conserve biodiversity by releasing aquatic organisms from the existing lake into the newly constructed lake and surrounding water system.

Implementation of In-house Education

The SMM Group conducts in-house education to ensure that employees understand who indigenous people are and how the Group should handle indigenous rights. This education will enable

ditions and culture of indigenous peoples

es implementing in-house education: 100% by the end of FY2023

igenous peoples (continue existing initiatives) -related initiatives by NGOs, academic societies, etc.: one initiative or more each year

employees to understand that it is an issue that concerns us all through messages from top management and case studies from within the Group. We are also continuing dialogues with experts¹ on indigenous people regarding content and receiving guidance to ensure fairness in the materials.

Acting under the guidance of experts, we will continue our efforts to further deepen Group employees' understanding of indigenous peoples and their traditions and cultures.

1 Keiichi Omoto (emeritus professor of anthropology at the University of Tokyo), Tomoaki Nishihara (professor at Seisa University), Eiichiro Noguchi (coordinator of the NGO Taiga Forum)

Grievance Mechanism: Membership in JaCER

SMM has joined the Japan Center for Engagement and Remedy on Business and Human Rights (JaCER)² established in 2022 as a founding member (regular member).

JaCER is an organization that aims to support and promote the redress of grievances of member companies from a professional standpoint by providing a non-judicial Engagement and Remedy Platform for grievance redress based on the United Nations Guiding Principles on Business and Human Rights. They also established an Advisory Board consisting of external experts and an Advisory and Mediation Panel and Investigation Panel consisting of independent expert individuals.

In addition to existing mechanisms such as the Whistle-blowing System (Speak Up System)³, the Group will also utilize the platform provided by JaCER to operate a more transparent and effective grievance (remedy) mechanism. The main scope of this platform is local residents and indigenous peoples, and the supply chain (including employees therein).

• Grievances received by JaCER about the Group: 0 (FY2022)

2 Japan Center for Engagement and Remedy on Business and Human Rights (JaCER): https://jacer-bhr.org/en/index.html

3 Whistle-blowing System (Speak Up System) **P**.117

1 Human Rights in the Supply Chain

From the perspective of Business and Human Rights, the calls for companies to take strong measures to prevent human rights violations throughout their supply chains are increasing. The SMM Group must work with its suppliers to establish sustainable supply chains to ensure that its business activities do not have any adverse effects on human rights in its extensive supply chains.

Vision for 2030 A cor	mpany that undertakes sustainable p	rocurement across the supply chain
KPI Indicators	Goals	
Promote sustainable procurem sible mineral sourcing	nent, particularly respon- 1. Responsible mine 1) Establish a resp FY2021 2) Maintain a recc rights in the su 2. Sustainable procc 1) Business partm Policy: 100% by 2) Establish a sust 3) Continue imple	ral sourcing onsible mineral sourcing management system in line with international standards by the end of rd of zero mines, smelters, and refineries complicit in child labor or other infringements of human pply chain irrement rs that have received and agreed with the Sumitomo Metal Mining Group Sustainable Procurement r the end of FY2030 ainable procurement management system in line with international standards by the end of FY2024 menting due diligence (DD)

Main Results

Third-Party Audits at Smelters and Refineries

			Subject	Minerals	
	Gold	Silver	Cobalt	Nickel	Copper
Audit standards (issuing organization)	RGG(LBMA)	RSG(LBMA)	RMAP Cobalt(RMI)	JDDS(The Copper Mark)	JDDS(The Copper Mark)
Audit start date	FY2012	FY2018	FY2020	FY2022	FY2023
Certification Body	LBMA	LBMA	RMI	RMI	RMI

Main Initiatives

Initiatives Related to Responsible Mineral Sourcing

We undertake responsible mineral sourcing initiatives in line with mechanisms advanced by the international Responsible Minerals Initiative (RMI)* to ensure supply chain transparency. This system aims to ensure transparency in a more efficient manner in the supply chain from mines that are upstream to finished product manufacturers downstream by starting from smelters and refineries, which are relatively few in number.

Downstream from the smelters and refineries, a standardized survey is extended by customer companies for the purpose of identifying the smelters and refineries that produced the minerals used in their products. We are working to ensure unified responses to these surveys across the SMM Group, and in FY2022, we responded to 330 surveys.

Upstream of smelters and refineries, we regularly undergo thirdparty, international standards- based audits of responsible mineral sourcing mechanisms at our smelters and refineries, covering matters including risk assessments of suppliers. Since audit standards vary from mineral to mineral, we work to ensure that each standard is met by conducting due diligence, developing internal systems and regulations, and providing internal training.

Additionally, when the Smelting & Refining Business selects a new company as a supplier, we assess that company's environmental management, including management of water resources and tailings dams.

*Responsible Minerals Initiative (RMI): An international initiative on the responsible sourcing of minerals by the Responsible Business Alliance (RBA), an organization founded in 2004 for the purpose of promoting a common code of conduct in the world's electronic equipment industry.

Initiatives Related to Sustainable Procurement

The SMM Group aims to build a sustainable supply chain for its major suppliers (including local suppliers) through the following initiatives. - **Requesting for consent to the procurement policy:** In FY2020, we asked major business partners to consent to the procurement policy, in response to which approximately 99% of those business partners have stated their consent.

Request for responses to questionnaire on sustainable procurement: We prepared a questionnaire on sustainable procurement in FY2021 and sent this questionnaire to our major suppliers who consented to our procurement policy, and received responses from 98% of our suppliers. The questionnaire responses reveal that S, A, and B evaluations (the highest of the five levels of evaluation) accounted for about 85% of overall evaluations, confirming that many business partners are advancing initiatives related to sustainability.

- Exchange of opinions with suppliers on sustainability: We selected five of our major suppliers to exchange opinions on sustainability (especially concerning business and human rights) in FY2022 based on their responses to a survey on sustainable procurement conducted in FY2021. In addition to hearing about their actual situations, we exchanged opinions about effective activities while introducing the initiatives of our Group.

Special Feature 2 Initiatives of the Carbon Neutrality Committee

SMM established the Carbon Neutrality Committee in April 2022 to clarify the policy and path toward the realization of carbon neutrality that our Group should aim for, and to promote it more quickly and more strongly Groupwide. The basic principle is that each business division, and each organization related to carbon neutrality, should work together with the aim of having all parties involved actively engage in activities according to their roles. The committee is chaired by the executive officer in charge of promoting carbon neutrality (Hideyuki Okamoto, Executive Officer in charge of the Technology Division), with the Executive Officer in charge of the Safety & Environment Control Department as deputy chair, and the General Managers of each division and related departments as the members, and they hold regular committee meetings.

Details of Activities in FY2022

In FY2022, the Carbon Neutrality Committee met six times. The committee chair and the members shared issues for realizing carbon neutrality at the Group and formulated policies on action to resolve the issues. More specifically, the committee established a policy in order to disclose information on Scope 3 emissions and a policy on procurement of renewable power to reduce Scope 2 emissions.

The committee also deliberated on the appropriateness of capital investment to save energy and reduce greenhouse gas emissions using the internal carbon pricing (ICP) system proposed by each site and participation in the GX League¹ among other topics.

Examples of Initiatives

Participating in GX League

Based on our Corporate Philosophy, which states, the SMM Group "shall, through the performance of sound corporate activities and the promotion of sustainable co-existence with the global environment seek to make positive contributions to society and to fulfill its response bilities to its stakeholders, in order to win even greater trust," we form lated the Vision for 2030 in March 2020. As part of our vision, we identified climate change as a key issue, and we are aiming to becom "A company that actively undertakes climate change countermeased by reducing emissions and stably supplying products contributing low-carbon society, a future with zero greenhouse gases (GHGs)."

As the concept behind the GX League aligns with the Group's stat on realizing carbon neutrality, the Carbon Neutrality Committee decided to join the GX League in April 2023 after endorsing the GX League Basic Concept² in 2022. In terms of its activities in FY2023, th Carbon Neutrality Committee will discuss the Group's emission redution targets and a roadmap (transition strategy) for realizing carbon neutrality by 2050 in relation to the emissions trading trial starting in the GX League from FY2023, thereby contributing to the GX League activities.

 See the following website for details on the GX League Basic Concept (Ministry o Economy, Trade and Industry)

WEB https://www.meti.go.jp/english/press/2022/0201_001.htt

Main Topics of Discussion	 Issues and policies on actions aimed at realizing carbon neutrality Disclosure of Scope 3 emissions Procurement of renewable power Capital investment eligible for ICP in FY2023 budget SMM Group Green Metal concept Participation in GX League
1. Green transfo	prmation (GX) refers to the transformation of the entire economic and
social system	by shifting from a fossil fuel-based to a clean energy-based economy,
society, and i	ndustrial structure. The GX League was established by the Ministry of
Economy, Tra	de and Industry as a forum under which a group of companies that
are taking on	the challenge of transitioning to carbon neutrality as quickly as possi-
ble and leadi	ng GX with the inclusion of other stakeholders come together with
the lananese	coverrment universities and other educational institutions financial

institutions and other players making efforts to realize GX to discuss GX and practice creating new markets. WEB Official website preparing for the establishment of the GX League

https://gx-league.go.jp/en/

on which SMM is Taking Action
Initiatives to reduce emissions (voluntary emissions trad- ing and disclosure of status)
 Formulate reduction targets for FY2030 and interim targets (FY2025) for Scope 1 and 2 emissions in Japan under the emis- sions trading scheme (GX-ETS) and publish progress on reduc- tion targets Publish a 2050 Carbon Neutrality Declaration, formulate the transition strategy toward carbon neutrality, and publish
progress
progress SMM's View of the Effects of Participating in the GX League
SMM's View of the Effects of Participating in the GX League In addition to enabling wide-ranging dissemination of the Company's own GX-related initiatives, thereby gain- ing the trust of suppliers, customers, financial institutions, investors, and others, the following effects are expected.
progress SMM's View of the Effects of Participating in the GX League In addition to enabling wide-ranging dissemination of the Company's own GX-related initiatives, thereby gain- ing the trust of suppliers, customers, financial institutions, investors, and others, the following effects are expected. Using knowledge gained through GX League activities in accelerating the Company's own climate change initiatives
 progress SMM's View of the Effects of Participating in the GX League In addition to enabling wide-ranging dissemination of the Company's own GX-related initiatives, thereby gain- ing the trust of suppliers, customers, financial institutions, investors, and others, the following effects are expected. Using knowledge gained through GX League activities in accelerating the Company's own climate change initiatives Securing an advantage in fund procurement, including ESG investment and green finance, etc.
 progress SMM's View of the Effects of Participating in the GX League In addition to enabling wide-ranging dissemination of the Company's own GX-related initiatives, thereby gain- ing the trust of suppliers, customers, financial institutions, investors, and others, the following effects are expected. Using knowledge gained through GX League activities in accelerating the Company's own climate change initiatives Securing an advantage in fund procurement, including ESG investment and green finance, etc. Enhancing environmental reputation and brand value