SMM, Promoting "Four Challenges" For 2021 3-year Plan Even Under Opaque Economic Conditions

This is a transcript of Sumitomo Metal Mining Co., Ltd.'s Progress of Business Strategy briefing for the second quarter of FY2022, held on November 17, 2022.

＜Speakers＞

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FY2022 2nd Quarter Progress of Business Strategy

Akira Nozaki: Good morning, everyone. I am Nozaki, the president. Thank you very much for coming to our business strategy briefing today. We would like to express our sincere gratitude to all of you for your continued understanding and support of our company business.

I would like to highlight the key points of today's briefing.

I Safety Initiatives

1. Safety Initiatives

《Domestic employee occupational accidents》

2021 3-year Plan target: 7 cases or less ➡ 2022 actual (as of the end of Oct.): 24 cases

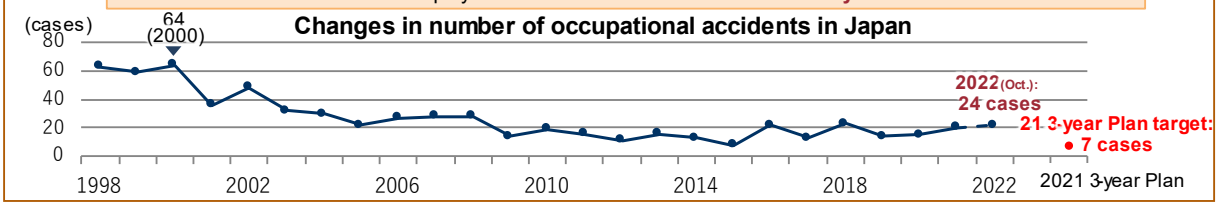
Frequent Recurring accidents (ex. fall and caught accidents) resulted in an increased number of accidents.

Serious accidents resulting in absence from work for more than 3 months: 2 cases (incl. contractors, previous year; 2 cases)

Based on the Three Realities Principle (Real places, Real facts, Real things), "ensuring safe facilities and procedures" has been set as the top priority to be achieved.

2021 3-year Plan targets:

- ✓ Serious accidents of employees and contractors in Japan and overseas sites : **None**
- ✓ Domestic employee accidents: **7 cases/year or less**
- ✓ Employee accidents at overseas sites: **1 case/year or less**

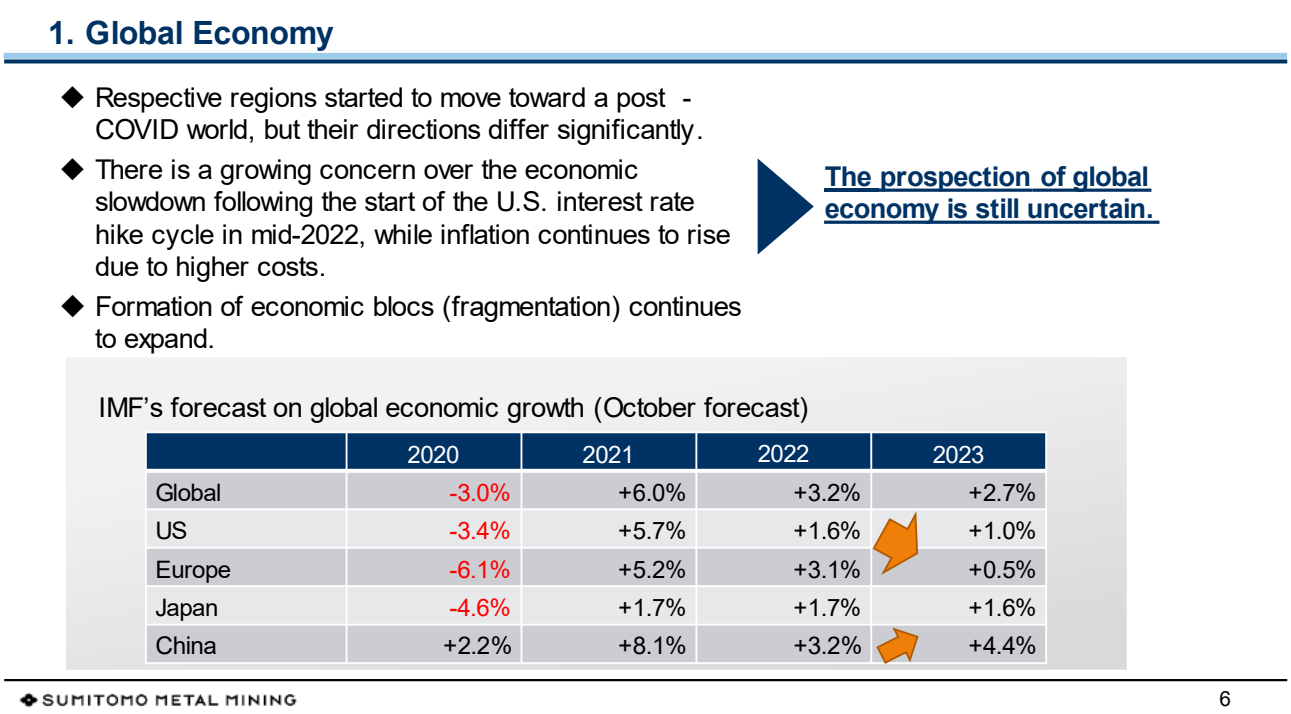


* Recurring accidents: Accidents that occurred multiple times in the previous 20 years within the SMM Group

First, let's talk about our safety initiatives. Safety is our top priority, but as the graphs on this slide show, our performance has been disappointing.

We are currently reexamining our efforts to rebuild our safety system in light of the repetition of similar accidents, incidents related to autonomous equipment and rotating machinery, and other typical work-related accidents.

1. Global Economy



I would like to provide an overview of our economic outlook for 2022. The global economic trends and conditions are shown on this slide. The significant interest rate increases in the United States are said to be measures to control inflation. However, looking at the October data, the one-sided rise in inflation has moderated slightly.

The global economic growth rate is 3.2 % this year, but 3% is at a level where little growth is felt, and it is projected to fall further next year. China had the momentum to drive the global economy after the Great Depression, but it is a little less robust than it was then.

2. Current Status of Downside Risk Factors

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	Mineral Resources Business	Smelting & Refining Business	Materials Business
Russian invasion of Ukraine	No direct impact but metal and energy prices have been affected		Rising energy prices led to higher costs
Energy price hikes	Rising costs due to increasing prices of electricity and light oil for heavy machineries	Rising costs due to increasing prices of electricity and coal	
Slowdown in the global economy	Decreasing metal demand caused a supply -demand imbalance, leading to lower metal prices		Decrease in materials demand due to the difficult sales environment for smartphones, PCs, and other final products
Shortage of industrial materials and supplies such as semiconductors, etc.	Shortage of various operational materials causing increase of project cost Increased the cost of operational materials		
Another spread of COVID -19; and lockdown in major Chinese cities	The metal supply -demand imbalance mainly in China resulted in the decline in metal prices		

The current status of downside risk factors is described, from the Russian invasion of Ukraine to the lockdown in China's large cities. Operations are affected by high and high energy prices, which have a significant impact on our performance.

Concerning the global economy's slowdown, we believe there has been a slight shift in sentiment in recent days regarding the outlook for a worsening supply-demand balance and a decline in metal prices.

3. Impact of Energy and Material Prices

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Rising energy and material prices put pressure on earnings.

	Forecast in May	Additional in forecast in November	Total
Forecast Unit cost differentials (vs. FY2021 performance)	−15.5 billion yen	−37 billion yen	−52.5 billion yen

Estimated impacts

- Impact of rising energy prices: −40 billion yen (incl. exchange rate effect of 6 billion yen)
- Impact of rising material prices: −10 billion yen (incl. exchange rate effect of 1.5 billion yen)
- Unit consumption (consumption per production volume): No significant change
- Impact of volume change : There's only a minor impact while there were affection of decreasing in each metals.

Smelting and Refining business was particularly affected by coal and electricity prices.

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Energy prices are a significant issue, but the impact on our business has been more than 50 billion yen throughout the fiscal year. The increase in energy prices is about 40 billion yen, of which the impact of foreign exchange is about 6 billion yen, and the so-called energy prices themselves are in the middle of 30 billion yen range.

In our case, the main factors that affect price increases are electricity, coal, and coke, as disclosed in our Integrated Report. On a heat-volume basis, electricity and fossil fuels are almost equal, with 13,000 terajoules required.

However, there is a difference between primary and secondary energy, and electricity is still more expensive in terms of unit cost per volume.

The price of coal is an individual contract, so the current index does not necessarily reflect that, but market conditions show that the index is nearly double that of last year.

In terms of the unit cost of electricity, the price for residential use increased by about 20% at the beginning of the period compared to last year and is still rising. There are limits, so it may not go that far, but it may go up to maybe 40%.

On the other hand, the industrial extra-high-voltage power we use is 50% higher at the beginning of the year than last year, and it has soared even more recently.

This is a general statement about Japan's electricity situation. While the situation may vary depending on individual contracts and the conditions of power companies, it is clear that the Japanese industry is facing a difficult situation.

4. Metal Supply and Demand Outlook

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《Copper》 Supply and demand will ease in the short term.

◆Supply: The supply-demand balance will be eased temporally during 2023–2024 due to the opening of new mines and the expansion of existing ones.

◆Demand: Tight supplies are expected in the late 2020s as the number of new projects decreases in the low-price period.

Fundamentals are helped by the demand for copper.
(global decarbonization, clean energy, EV shift, etc.)

Cu	ICSG projection (October 2022)		
(kt)	2021	2022	2023
Production	24,798	25,495	26,344
Usage	25,256	25,823	26,189
Balance	-458	-328	+155

《Nickel》 Continued growth is anticipated.

◆Supply: Increased NPI production will continue in Indonesia; Supply of Class I will be slightly tightened.

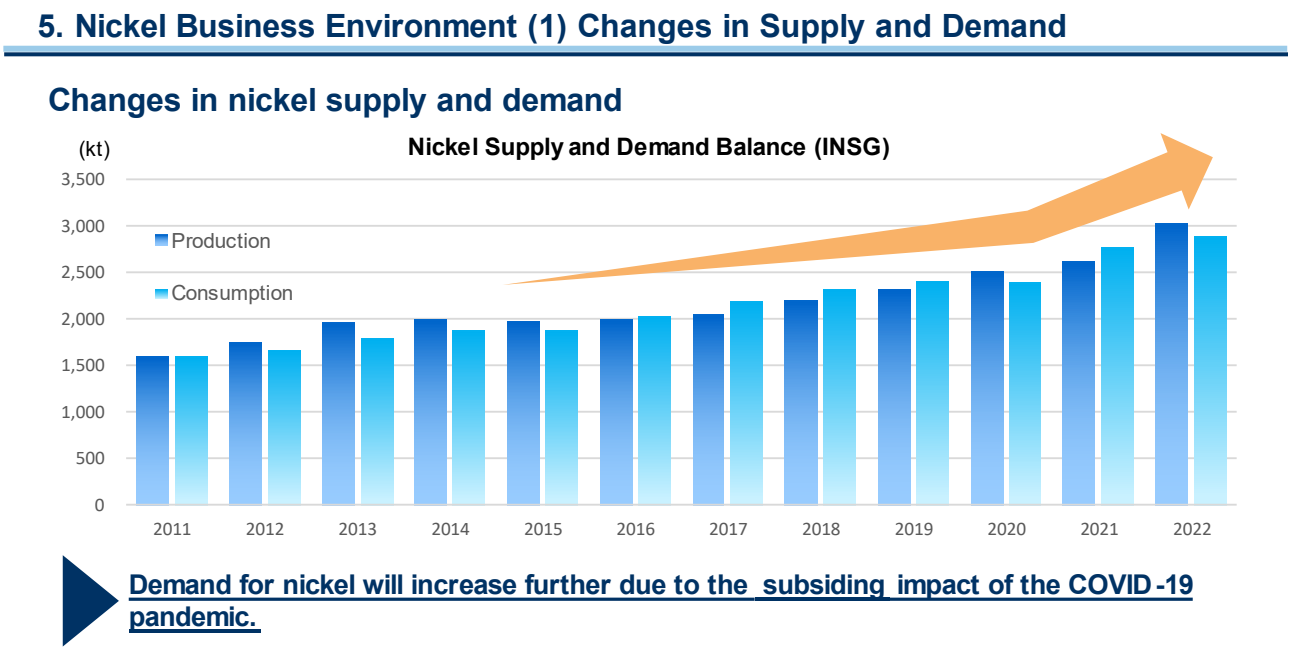
◆Demand: In addition to stainless steel, the production of nickel-based lithium-ion batteries for EVs will continue to rise.

Ni	INSG projection (Oct. 2022)		
(kt)	2021	2022	2023
Production	2,612	3,036	3,387
Usage	2,775	2,892	3,216
Balance	-163	+144	+171

In terms of the supply and demand for copper and nickel metals, we expect demand for both copper and nickel to grow significantly over time due to the impact of EVs and other factors. As for copper, there was a slight supply shortage in fiscal 2022, but next year there will be a slight oversupply, so there will not be a significant impact, and it will be close to a well balance.

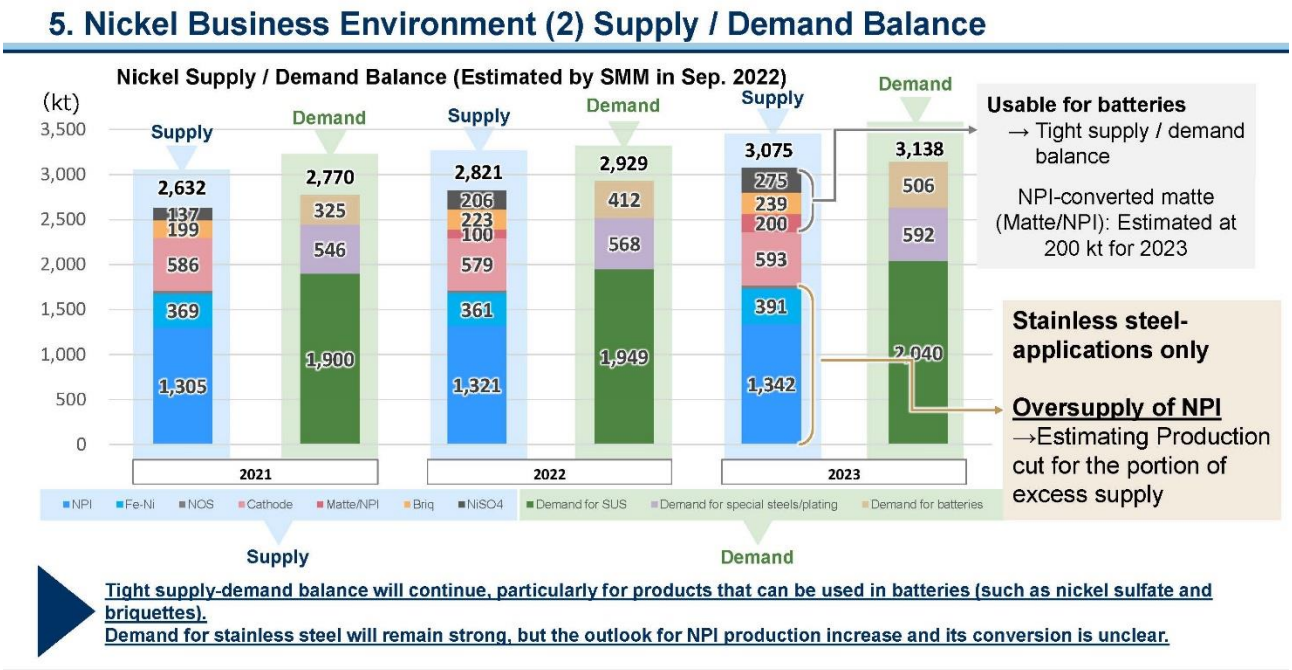
We expect demand for nickel to grow significantly over the long term due to growth in demand for high-performance materials and stainless steel. The International Nickel Study Group (INSG) projects an oversupply of 140,000 tons for this fiscal year and 170,000 tons for next. INSG's projections for the current fiscal year differ slightly from our company's and will be explained later.

5. Nickel Business Environment (1) Changes in Supply and Demand



The supply and demand for nickel have increased in the last five years. The factor is likely to be demand for battery materials, but also against the backdrop of the growth of stainless steel itself. In terms of supply, we expect an increase in production in Indonesia.

5. Nickel Business Environment (2) Supply / Demand Balance



This estimates our company's nickel supply and demand in September. According to INSG, there was an oversupply of 140,000 tons in FY 2022, but our company expects a shortfall of around 100,000 tons.

This view is because we need to fully grasp the trend of nickel production in Indonesia, where production is increasing. Currently, Indonesia produces about 100,000 tons of nickel every month, so we estimate that the country has about 1.2 million tons of nickel annually.

Approximately 700,000 tons of this is exported as NPI (nickel pig iron), about 400,000 tons are processed into stainless steel in Indonesia, and the remaining 100,000 tons are sold in the market in the form of nickel matte, which we also purchase. This is the distribution of the total amount.

On the other hand, the production of nickel pig iron that we are aware of is about 900,000 tons, but some are on the market as NPI, and some are made of stainless steel, which is a little challenging to know where and in what form these are produced.

At least I can tell you that nickel stocks on the LME (London Metal Exchange) are down about 50,000 tons this year. So our view is that Class I is definitely in short supply, and Class II is in oversupply somewhere.

6. Metal Prices estimation of FY2022 / 2H

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《Copper》 **$7,500/t** (FY2022/1H ave.: $8,634/t, Oct. ave.: $7,621)

- Concerns over a slowdown in the global economy outweigh concerns over supply, resulting in a sluggish market.

《Gold》 **$1,625/toz** (FY2022/1H ave.: $1,801/toz, Oct. ave.: $1,665)

- The bearish factor is the continued rise in the US long -term interest rates due to tighter monetary policy.
- However, prices will remain resilient due to uncertainties in the global economy .

《Nickel》 **$9.5/lb** (FY2022/1H ave.:$11.59/lb, Oct. ave.: $9.95)

- The current tight supply -demand balance will be alleviated gradually as the production volume of intermediate products will increase.
- While the supply of Class I is increasingly tight, production of intermediate products in Indonesia is expected to grow.
- Class II supply seems to be in excess of the demand.

As for metal prices, we are making them based on the outlook when we made our second-half forecast. When we estimate, we think of three points: fundamentals, sentiment, and dollar strength, but in terms of fundamentals, we see copper supply and demand as roughly in balance.

The supply of nickel may not be sufficient, but in either case, the reality is that stocks in official warehouses are under pressure.

Copper is around 120,000 tons combined with LME and COMEX, but this is only enough to meet two days' worth of copper consumption.

As for nickel, the total of LME and Shanghai Futures Exchange is more than 50,000 tons. This includes canceled warrants, but it is enough to meet about one week's nickel consumption. Therefore, we have yet to have the view that the fundamentals are weak at all.

On the other hand, the sentiment was not particularly favorable due to concerns about rising interest rates and economic downturns resulting from US monetary policy and the uncertain trend of China's coronavirus regulations. In addition, LME is located in Europe, so there are geopolitical risks, such as the impact of the Russian invasion of Ukraine. Considering these factors, I think the sentiment could have been better.

As for the dollar, it is expected to be strong because of rising interest rates, and metal prices fall accordingly when the dollar is strong.

There is a hope that the range of interest rate increases in the United States will decrease in the future. Sentiment has eased a bit because of the possibility of post-corona policies in China.

7. FY2022 Earnings Forecast (Nov. Forecast vs. May Forecast)

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(in 100 million yen)		FY2022/1H results	FY2022/2H forecast (Nov.)	FY2022 full-year forecast (Nov.)	FY2022 full-year forecast (May)	Changes (Nov-May)
Net sales		7,106	6,664	13,770	13,310	+460
Sales total profit		1,688	682	2,370	2,220	+150
Profit/loss before tax		1,691	319	2,010	1,940	+170
Equity method profit/loss		197	68	265	390	-125
Segment profit	Mineral resources	473	197	670	990	-320
	Smelting & refining	894	276	1,170	860	+310
	Materials	177	-57	120	100	+20
	Other	-10	-30	-40	-20	-20
	Diff. Adjustment	157	-67	90	10	+80
Net income attributable to owners of parent		1,191	179	1,370	1,370	0
Copper (USD/t)		8,634	7,500	8,067	9,000	-933
Nickel (USD/lb)		11.59	9.50	10.55	9.50	+1.05
Gold (USD/Toz)		1,801	1,625	1,713	1,750	-37
Cobalt (USD/lb)		31.79	22.00	26.90	30.00	-3.10
Exchange (JPY/$)		133.98	140.00	136.99	120.00	+16.99

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The next slide is the earnings forecast. The measures for the second half of the year will be the completion of the Quebrada Blanca 2 (QB2), which PR & IR department in charge has already explained. We will also get the Côté Gold Project off the ground and continue to explore the next nickel project.

Regarding battery materials, we will consider the subsequent development while focusing on the construction of plants still in process. We will pursue measures in these four divisions.

1. Four Challenges under 2021 3-year Plan

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Four challenges

Challenge 1. Increasing corporate vlarge-scalealue – Promotion of projects

- Expanding production capacity for battery cathode materials
- Quebrada Blanca 2 project
- Côté gold mine development project

Challenge 2. Improving core business sustainability

- 3-biz collaboration to strengthen the value chain for Ni-batteries
- Shifting Hishikari Mine to sustainability -oriented operation
- Enhancing competitiveness of copper -smelting business
- Strategy for advanced materials business expansion

Challenge 3. Adapting to changes in the social environment

- Reducing greenhouse gas (GHG) emissions
- Promoting the development of products, technologies and processes that can help achieve carbon neutrality
- Adaptation to digital transformation (DX)
- Initiatives for securing, fostering and utilizing human capital

Challenge 4. Strengthening the foundation of business management

- Strengthening safety initiatives
- Reorganizing and enhancing sustainability promotion framework
- Corporate governance

I will omit the four challenges of the 2021 3-year plan because I mention them every time, and I will explain the Côté Gold Project here.

2. Current Status of Côté Gold Project (1)

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Initial start-up costs increased significantly affected by such factors as the COVID-19 pandemic and inflation.
The initial overall schedule has been delayed.

- The amount of investments required before the start of production has almost doubled from the level at the time the construction was decided
  Due to the increasing effects of COVID -19, strikes, materials cost, and other factors.
- The progress rate as of the end of Sep. 2022 was approx. 64%. There was good progress in the construction during this summer season.
- The production is expected to start in the 1Q of 2024.

- The mine has a long mine life. It is ranked high in annual production volume among gold mines developed during the last five years.
- The mine continues to have strong cost competitiveness supported by the good stripping ratio *.

* Percentage of nonere minerals

- We will continue to carried out the project, project management will be strengthened in cooperation with IAMGOLD.
  Involvement of SMM engineers will be boosted to prepare for the start of production.

	Start-up cost (in million US$)
Jul. 2020	1,538
Nov. 2021	1,910
Nov. 2022	2,965

Note: Including costs for leasing majo heavy equipment

(Approx. 30% of which is the expense of SMM)

In October, I was able to visit the site of the project. We have reported on the increase in startup costs for the Côté project, but I expect the project to be competitive in terms of cost. As of the end of September, the overall progress rate of the project was 64 %. Now, I would like to talk about my impressions when I visited the site.

2. Current Status of Côté Gold Project (2)

Close view

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The slide shows the mine site of the Côté. The team wearing orange safety suits on the right side is our visit team. The overall map on the left has the east side on the top and the north side on the left.

The pit is the area that extends to the back right, which used to be the bottom of a lake but now has a lot of stripping and ore. The white building in the center of the left photo is the beneficiation plant. Above it is a small building with a primary crusher, which is the first entrance to the process. If a line is drawn from the primary crusher to the north and south, it will be about 400 meters long, one side of the plant site.

If a line is drawn from there to the lower west side of the photo, there are tanks in the beneficiation plant, and there is a thickener for tailings in the lower right, but this area is about 500 meters, forming a "400-meter by 500-meter" plant site.

To clarify, Coral Bay in the Philippines is a compact plant with a footprint of "300 meters by 500 meters," while the plant at the project site has a footprint of "400 meters by 500 meters." The distance from the pit to the primary crusher at the project site is also approximately 500 meters.

In the back on the left is a district called Gosselin, the subsequent development candidate. We are exploring in anticipation of future development around here. While there, I also met with First Nation chiefs, and we had a good relationship.

2. Current Status of Côté Gold Project (3)

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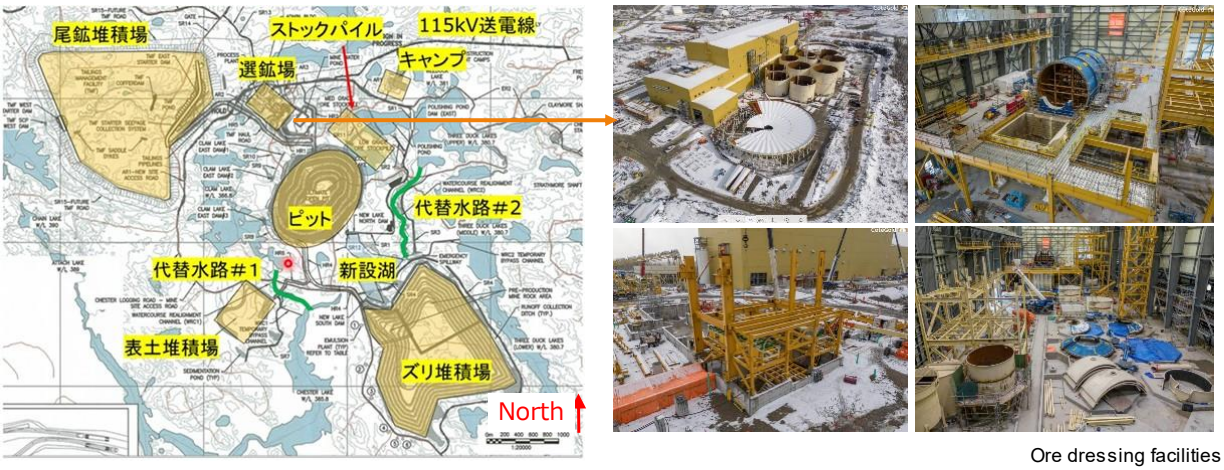


Ore dressing facilities

On the left side of the slide is a drawing of the Côté Gold Project. The north, south, east, and west are different from the previous picture, but it looks like this. The top left photo is the mineral processing plant, the bottom is the tailings thickener, and the top is the tanks.

I will explain in a clockwise direction. The photo in the upper right is a ball mill in the beneficiation plant, which is currently being installed. Below is a tank used in the CIP (carbon-in-pulp) process, which is used to extract gold.

The left side is a screen that is used to classify crushed ore after it is crushed, and it is located between the primary crusher and the beneficiation plant. It is the central location where the ore is sorted.

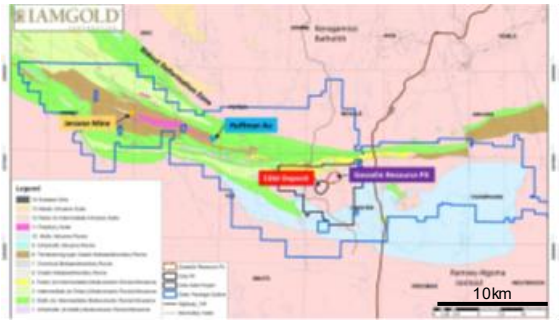
2. Current Status of Côté Gold Project (4)

Positioning of Côté Gold Project

- **Long mine life** and large production volume (more than 10 tons/year)
- **Low cost** (ranked in the top 15% of AISC (total cost), low stripping ratio, easy -to-process ores)
- Introduction of automated trucks
- Vast JV areas and numerous mineralized zone → Upside potential

Accumulation of mine management know -how in politically stable Canada
Accumulation of experience in open -pit mining; development of mining engineers

Côté can serve as a foothold for achieving our long -term vision; we will carry out the project vigorously to its completion.



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As I mentioned earlier, the construction progress rate of this project is 64 %, but like the QB2 project, the stripping ratio is relatively low, so the mining cost is low.

In addition, the use of chemicals is minimal for gold extraction, so we call it beneficiation-friendly, and it is a cost-competitive project.

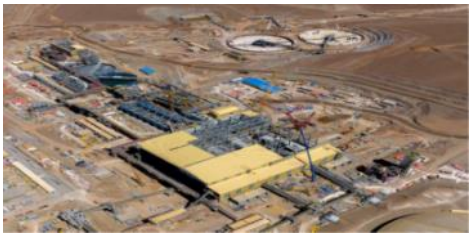
Unfortunately, the construction cost has increased in this review. However, we expect it to be a project that will be effective once operations begin, so we will continue to manage it carefully.

3. Quebrada Blanca 2 (QB2) Project (1)

Quebrada Blanca 2 (QB2) Project

- Currently, the Project is at the final stage of construction with 13,000 workers.
- Electricity started to be supplied to main facilities; the stockpile dome has been completed;
  trial operation of desalinated water plant started
- The amount of start -up investment was reviewed in Aug. 2022
  (revised from approx. 5.2 billion USD to approx. 7.5 billion USD)

- Along with the construction work, commissioning is underway at some completed facilities.
- The Project will be ramped up in 2023 and move to the year-round full production phase in 2024.



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Fumio Mizuno: My name is Mizuno. I will explain the mineral resource business. As the major project, I will explain QB2, a copper mine development project.

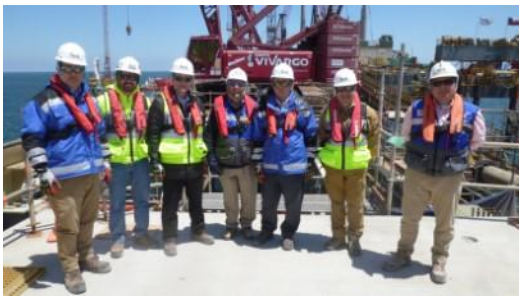
QB2 is in the final stages of construction and 13,000 people on site. The leading equipment has been energized, the stockpile has been completed, and the commissioning of the desalination plant has begun.

Starting a business was revised from about US $5.2 billion to US $7.5 billion in August due to the suppression of mobilization due to the pandemic and the decline in labor performance due to the high altitude. Along with the construction work, the partially completed facility will undergo commissioning and ramp-up in 2023, and total production is expected throughout the year in 2024.

3. Quebrada Blanca 2 (QB2) Project (2)

Quebrada Blanca 2 (QB2) Project (Impressions during on -site visit)

- The construction work is well underway toward completion.
- The visitors realized the hardships of mine development in the high altitude (4,000 meters above sea level) environment.
- Good relationships were maintained with local governments and communities.
- We will promote project through solid cooperation with partners.
- Given the mine's scale and the quality of facilities, we are confident that the mine will become an asset capable of supporting global copper demand over the long term.



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I visited the site in early October and confirmed that the construction was progressing steadily towards completion. At the same time, I felt the hardship of developing a mine in a high-altitude environment exceeding 4,000 meters above sea level. We maintain good relationships with the local government and community and have a cooperative attitude towards mining development.

We are working closely with our partners to advance the project and are confident that, together with the size and quality of the mine, it will be a suitable asset to support global copper demand over the long term.

4. Nickel Business Strategy

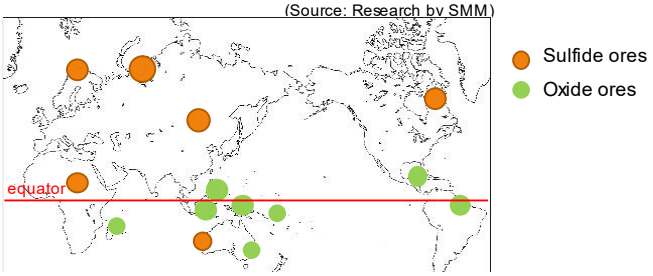
3-business collaboration (Nickel - batteries) to strengthen the value chain

Secure nickel resources and implement measures to enhance collaboration among the three core businesses

- ◆ Enhance the exploration of new nickel projects for the next period (medium - to long-term).
  - ・Accelerate the exploration of projects at various stages, mainly in the Pacific Rim region.
- ◆ Business development utilizing existing intermediate materials in circulation (short-term)
- ◆ Continue to explore measures to secure ore for CBNC and THPAL.
- ◆ Start the designing of battery recycling facilities in full scale.

(Source: Research by SMM)

Distribution of major nickel ores in the world



Large-scale sulfide deposits have already been developed.
Oxide ores are unevenly exist around the equator.

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Nobuhiro Matsumoto: My name is Matsumoto. I will report on the strategy of the nickel business. Here are four measures to strengthen the value chain as a development of measures to secure nickel resources and strengthen 3-business collaboration.

The first is the exploration of new nickel projects. From a medium- to long-term perspective, we have assembled a project team and are currently investigating projects at various stages, mainly in the Pacific Rim region.

At the bottom right of the slide is a world map. The orange circles are areas dotted with what are called sulfide ores.

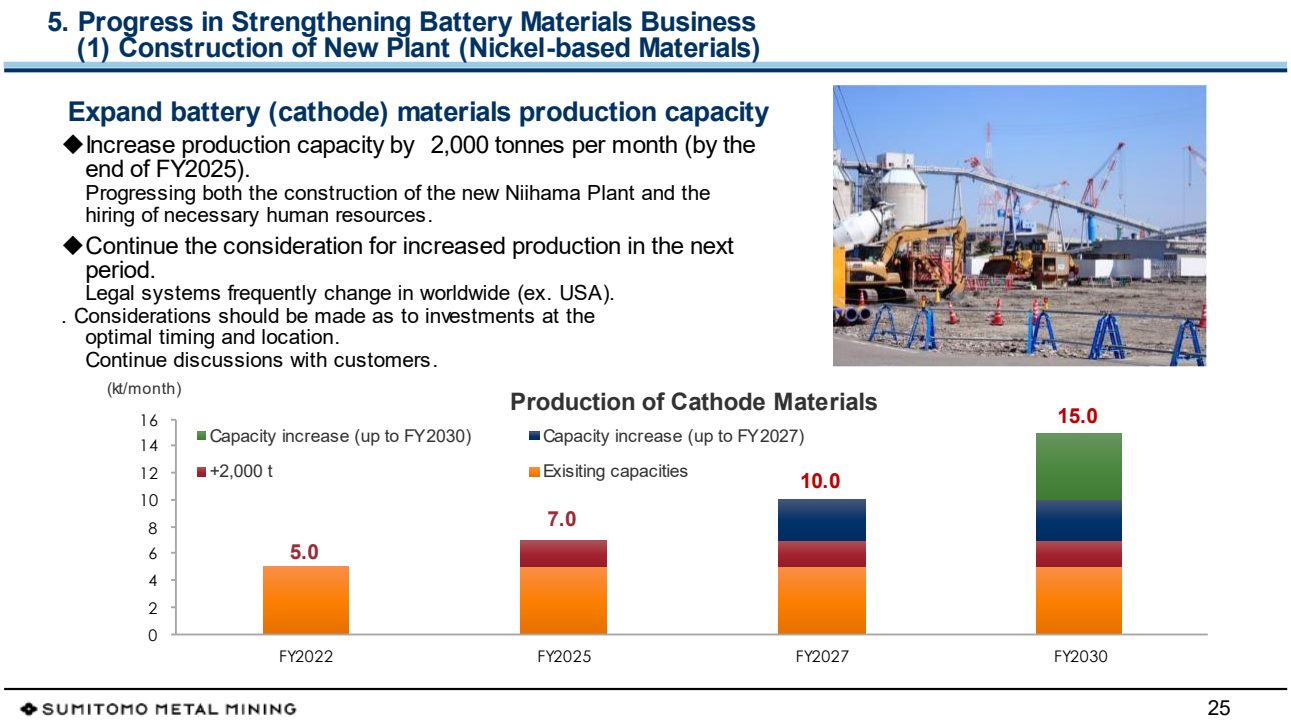
The green circle marks the areas where oxidized ore is located. Only the more prominent mines are listed, but there are also medium-sized and small mines in similar areas. We are currently focusing on the Pacific region.

Second, from a short-term perspective, we are newly considering developing a business utilizing existing intermediate materials in circulation.

Third, as we have been doing for a long time, we are working with our business partner, NAC, to develop new mining areas in the vicinity of our plants and to receive ore from outside the area in order to secure the amount of ore for CBNC and THPAL's plants in the Philippines.

The fourth point is the advancement of battery recycling facility design. As mentioned in previous press releases, we have developed a new technology. It is a revolutionary process combining pyro-metallurgical dry and hydro-metallurgical process and is already technologically established. This allows us to recover elements such as nickel, copper, cobalt, and lithium that were not previously recoverable. We are currently designing facilities to launch this process in the primary plan.

5. Progress in Strengthening Battery Materials Business (1) Construction of New Plant (Nickel-based Materials)



Katsuya Tanaka: I am Tanaka. I will explain the progress of the battery material business strategy. On page 25, we have been working on nickel-based materials for decades, and on page 26, we will discuss the newly added LFP strategy in May.

First, take a look at the bar graph labeled "Production of Cathode Materials" at the bottom of the slide. The bar graph on the far left shows fiscal 2022, with monthly production of 5,000 tons. The actual production is just over 5,000 tons, but we plan to raise that by 2,000 to 7,000 tons in fiscal 2025.

We are building a 2,000 new plant about a 10 minute drive from our main plant, the Isoura Plant in Niihama, with a photo of the proposed site at the top right of the slide. The facilities of the power generation company are shown in the background, but the construction work has just started after the improvement of the land.

The new Niihama plant will be launched in 2025. We still have about two years to go. However, to create linkages and synergies with the mother plant, we are preparing for vertical start-up from the beginning of 2025 by hiring personnel ahead of schedule and in a phased manner and by providing education at the mother plant. We're making good progress right now.

As shown in the graph, FY 2027 and FY 2030 are the final years of each 3-year plan, we will increase the production of cathode materials from 10,000 tons to 15,000 tons.

We are currently considering increasing production in the next years. As mentioned on page 6, economic blocs are becoming increasingly common around the world, and the world of EV batteries is also flocking to industries under the guise of local production for local consumption.

Therefore, it is better to manufacture in Japan or abroad near our local customers. However, as you know,

the legal system is rapidly changing worldwide, including in the United States. Therefore, we are actively considering staying relevant and staying caught up.

5. Progress in Strengthening Battery Materials Business (2) LFP Business

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Promoting consideraion of the possibility of LFP business

The business was acquired on May 1st and is now operated under the name of SMM.
The LFP Project Dept. was established in the Battery Materials Div. as of Oct. 1st.

Production management capabilities have been strengthened through collaboration with SMM's engineering team.
Accelerating development by closely cooperating with Research Laboratories.

Strengthening is under consideration to prepare for future market changes.

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This is LFP business. LFP is an acronym for the elemental symbols of Lithium, Ferror, and Phosphorus, and we started our business this year. As we have already announced in the press release, this business, including human resources, was transferred from Sumitomo Osaka Cement Co., Ltd. on May 1 and changed to the business under the name of our company.

Please take a look at the photo in the lower right corner. There was originally a sign that said 'SOC VIETNAM' on the blue wall, but now it has been changed to 'SMM VIETNAM' as shown in the photo, and the sign replacement is also complete.

Almost all of the head office and business unit members have moved to our company. Initially, we focused on post-merger integration (PMI) and placed them in various related departments. However, to demonstrate the promotion of the LFP business internally and externally, we have established the LFP Project Dept. as of October 1.

In the future, we plan to continue integrating our technical staff with cost, customer demands, new processes, and development. In addition to the unique technology of the LFP business, we will deepen the integration of our technology that has been promoted in nickel-based materials, which is especially stable and can be mass-produced, and we hope to develop it further.

6. Expansion of Advanced Materials Business (1) Overview

6. Expansion of Advanced Materials Business (1) Overview

Demand has declined sharply for the time being.

In the latter half of FY2022, demand for parts and components for smartphones and PCs declined sharply due to the decreasing demand for these products.

→ Sales of powder materials and crystal products have been on a declining trend

Demand is expected to recover in the next fiscal year onwards when inventory adjustments are completed.

We will focus on such priorities as cost reduction, productivity improvement, and product development so as to actively capture the demand when it recovers and improve profits.

Achievement of even higher functionality with high -value-added products
→ Ensure consistent earning power

Hiroshi Yoshida: I am Yoshida. I will explain the advanced materials business. First, let me talk about our overview. The 2021 fiscal year was favorable due to the demand for stay-at-home during the coronavirus pandemic, but in the 2022 fiscal year, demand has started to decline due to the lockdown in Shanghai in April.

In addition, due to the stagnation of logistics caused by the pandemic, inventory has been piled up conservatively in each supply chain. As a result, sales have declined significantly since around the summer of fiscal 2022.

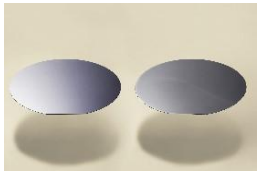
Smartphone-related sales have been feeble, with sales of powder and crystal materials declining. Demand is expected to recover, and we expect a full recovery in the next fiscal year.

Under these circumstances, we are working to improve and maintain equipment that cannot be done during busy periods, improve quality, and develop new products to secure many sales when demand recovers, reducing costs and improving productivity.

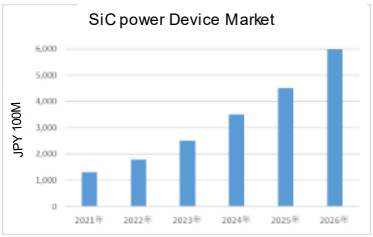
6. Expansion of Advanced Materials Business (2) SiC

6. Expansion of Advanced Materials Business (2) SiC

- SiC (silicon carbide): A semiconductor material used in **power semiconductors**.
  SiC shows superior attributes in high temperature, high frequency, and high voltage environments. It is attracting attention for being often used in driving -system-controlling devices for **EVs and hybrid vehicles**.
- Direct Bonded SiC substrates produced by Sicoxs Corporation [Product name: SiCkrest]
  - **Lower cost than single -crystal SiC due to the use of inexpensive polycrystalline SiC support substrates**
  - **Reduced resistance and increased strength of overall substrates while maintaining the attributes of single -crystal SiC**
- Six-inch SiC products have already been sold to some customers.
- In July 2022, we announced the **establishment of a production line for eight -inch SiC products**. (Scheduled completion: Mar. 2024)
- We plan to increase **monthly production to 10,000 sheets** (in six-inch equivalents) by 2025.



(SMM Estimate)



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I will explain the new product topics. In the advanced materials business, we are developing high-performance materials that can contribute to society and enter the market. Today, I will explain the laminated substrate of SiC (silicon carbide), a material for power semiconductors and attracting attention in EV applications.

SiC is a semiconductor material used in power semiconductors to control power. The market is expected to expand as an excellent material that can reduce energy loss, especially in the high-capacity area required for drive control systems such as electric and hybrid vehicles.

Our subsidiary, SICOX CORPORATION, produces a direct bonded SiC substrate called "SiCkrest." By thinly bonding high-quality single crystals on a low-resistance multi-crystalline SiC supporting substrate, we can maintain the characteristics of SiC single crystals while realizing low resistance and high strength for the entire substrate.

SICOX has decided to build a new 8-inch direct bonded SiC substrate development line and has begun construction of the line at Ohkuchi Electronics Co., Ltd., a subsidiary of our company in Kagoshima Prefecture. Construction is scheduled to be completed in March 2024.

In line with the further expansion of demand, the company is expanding its production lines to include the existing 6-inch line, aiming to produce 10,000 6-inch equivalent units per month in 2025.

In Europe, the shift to EVs has accelerated due to a plan to make all new cars zero-emission since 2035, and plans to adopt SiC, which is more efficient than silicon, are advancing rapidly. As a result, SICOX has seen a surge in inquiries from European semiconductor companies.

We will contribute to a carbon-neutral society by launching the development of the 8-inch line at an early stage and further enhancing it to meet these demands.

7. Human Resource Strategies (Securing/Development/Utilization) (1) Corporate Ads

7. Human Resource Strategies (Securing/Development/Utilization) (1) Corporate Ads

Placement of corporate ads

- Toma Ikuta was appointed as the Company's poster boy; SMM used an actor for the first time in its corporate TV commercial.
- The ad's core message—"Our history continues"—conveys the Company's spirit to go forward into the future based on its long history of more than 430 years.
- Our name recognition should be improved through TV, newspaper, and transit ads, as well as the internet media, to attract more job applicants.

Nozaki: I would like to continue explaining our corporate relationship. As for the development of corporate advertising, we have recently been developing corporate commercials.

In the 21 3-year plan, we have identified three major issues: "Carbon Neutral," "DX," and "Human Resource Strategy." The human resource strategy is about securing, developing, and utilizing human resources. In order to ensure human resources, we need to attract people, and in terms of the correlation with corporate recognition, we have decided to launch a large-scale advertisement campaign.

Advertising is designed to prioritize the company's image, not individual products. Our company has used actors in individual products in the past, but this is the first time it has used actors in terms of corporate advertising.

7. Human Resource Strategies (Securing/Development/Utilization) (2) New Company Dormitory

7. Human Resource Strategies (Securing/Development/Utilization) (2) New Company Dormitory

A new company dormitory was completed in the Besshi District (Niihama and Saijo city, Ehime Pref.)

- The dormitory was completed in Sep. 2022 with 259 rooms.
- A studio-type apartment that allows residents to enjoy their private time; a variety of shared spaces designed to promote communication among employees
- The environment offers peace of mind to new employees who recently joined the Company and spend their crucial time.
- Frequent featuring in local media (incl. TV stations) will contribute to improving the Company's image among potential local job applicants.

This is also about human resources. We completed a large new company dormitory in the Besshi area (Niihama and Saijo cities, Ehime Prefecture). The building comprises two large structures with a total of 260 rooms. I had the opportunity to visit the site shortly after it was completed and was impressed with the high-quality facilities. The local media has also highlighted the building extensively.

8. Reduction of GHG Emissions

8. Reduction of GHG Emissions

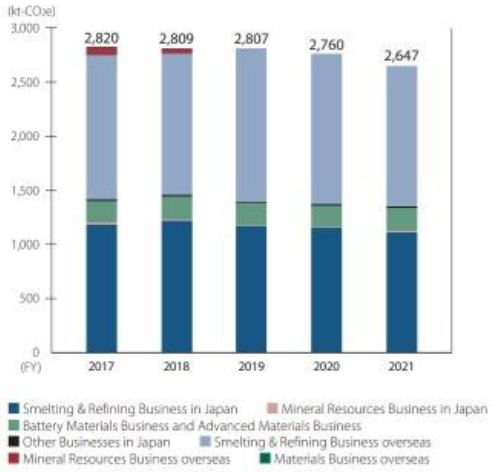
◆In FY2021, the amount of GHG emissions was 2.65 million tons. Electricity-derived emissions continue to account for the majority.
→ We will ensure further reduction efforts.

◆The amount of contribution to the reduction of GHG emissions: Approx. 420,000 tons -CO_2

CWO™ for automotive use was included in the category of low-carbon load. (There was only battery materials before).

◆Scope 3 was disclosed in the Integrated Report.

GHG Emissions (Scope 1 + 2)



Let's talk about reducing greenhouse gas (GHG) emissions concerning another major theme, carbon neutrality. In fiscal 2021, emissions totaled 2.65 million tons. As you can see in the graph on the right, it is down slightly from the previous year, but it is still at a high level.

To achieve our goal of reducing carbon emissions by 2050, we will focus on energy conservation, efficiency, and conversion. We will strive to convert as much energy as possible into electricity. The remaining carbon emissions are neutralization and reduction options. Our calculations show that this will result in a reduction of approximately 700,000 tons of CO2 equivalent.

Of course, even if we convert to electricity, not all electricity is carbon-free. Therefore, we are considering the application of renewable energy to this part of our emissions, although it may be costly. We are actively researching ways to reduce our remaining 700,000 tons of CO2.

Another approach we have taken is to contribute to decarbonization at a societal level, where our GHG reduction contribution is 420,000 tons. Our long-term goal is 600,000 tons, and we have achieved 420,000 tons of that goal.

Foreign investors have asked us about our progress on scope four emissions. To clarify, scope four refers to emissions we can help reduce at a societal level. Recently, there has been a growing trend of counting negative emissions in overseas IRs.

In addition, this is the first time we have disclosed the scope of three emissions in our integrated report. In our case, upstream materials are the main focus. It is challenging to track downstream materials after they are produced, so we focus on the upstream. However, we still have a large number of approximately 4 million tons.

First, we will focus on reducing our emissions in scope 1 and scope 2. We will then work with our suppliers to develop strategies to reduce scope 3 emissions.

9. Accelerated Promotion of Sustainability Measures

9. Accelerated Promotion of Sustainability Measures

◆Based on the UN Guiding Principles on Business and Human Rights, our human rights policy was revised in June to stipulate the following:

- Support for the UN Guiding Principles on Business and Human Rights;
- The Group's approach toward basic human rights violations associated with business activities;
- International norms respected by the Company, including the "UN Declaration on the Rights of Indigenous Peoples" ("UNDRIP");
- Implementation of human rights due diligence, construction of a complaint processing mechanism, and systems to promote them;
- Holding of dialogues and consultations with stakeholders and disclosure of information on a regular basis; and
- The fact that the Policy was supported by external experts, discussed at the internal Sustainability Committee, and approved by the Board of Directors.

◆According to the Responsible Mineral Sourcing Policy, LBMA RGG certificates were obtained for gold and silver, while an RMI certificate was gained for cobalt in 2021.

Appropriate measures will be implemented according to internationally accepted standards within FY2022 for nickel and by 2023 for copper.

In terms of our sustainability measures, as mentioned in the slide, we place high importance on human rights based on our corporate and business nature. Of course, this also applies to the raw materials and supplies we purchase. We are conducting various investigations on human rights to increase transparency and are working to improve in this area.

Regarding the responsible mineral sourcing policy, as stated in the slide, we have obtained certifications for precious metals and cobalt. For nickel and copper, there are various certifications, but we plan to implement internationally recognized responses by 2023.

We would like to provide more detailed information at a specialized IR presentation. That concludes our presentation for today.

Q & A: Measures to Increase Profitability and Supply and Demand of Nickel

I have two questions. At the previous briefing, you mentioned that your expected profit for the next period would be around 120 billion yen annually. However, if you consider this period's profit of approximately 200 billion yen and your outlook for next year, your profit may decline significantly.

As your products are not easily subject to price increases and are determined by market prices, it is not easy to offset the cost-push with price increases.

Based on what I have heard, is it the only way to increase profits by producing and starting up something like QB2 or increasing the production of battery materials, or are there any other measures in place?

As to the mineral resources business, I understand that your company is not mainly a majority in the resource sector. So there may not be much to comment on. However, when we consider the performance next year, we will consider various factors such as market conditions and the structure of 120 billion yen profit, so that any hints would be appreciated.

The second question is about nickel. I would like your explanation of nickel's supply and demand outlook. For example, according to research companies such as Wood Mackenzie and CRU, most forecasts for next year expect a surplus of nickel, and even the International Nickel Association has said that there will be a surplus. However, your company's forecast is for a shortage.

I needed help understanding the reason for this well from the previous explanation, so I would appreciate it if you could explain it.

Nozaki: In order to increase the profitability of our business operations, in terms of mineral resources business, I believe it is essential to increase the number of profitable and cost-competitive projects and expand our core business.

We attach great importance to cost curves in terms of mineral resource projects. For example, Côté is approximately 15% percentile. It is likely that Côté will be able to maintain a black figure even if other companies' gold mines go into the red and is considered to be able to withstand price fluctuations. I believe it is best to increase such good projects. With this strategy, our company has been growing its profitability for more than 20 years.

In addition, as a manufacturing industry, cost competitiveness is essential. However, the problem is what to do in the face of rising energy costs. Taking Côté as an example, I saw a test run of an unmanned 200-ton truck carrying and unloading stones.

This test run is performed on the shortest distance for a certain distance, so there are only two ruts, no matter how many times it goes back and forth. This truck operates 24 hours a day and does not stop even if the weather is bad and the visibility is poor.

We must aggressively acquire such technology and improve our cost competitiveness.

As for the supply and demand of nickel in the second point, it is a very aggressive forecast. The critical point is that we are focusing on Class I and making supply and demand forecasts. In other words, the

market we are looking at is the transaction at the LME warehouse. Since only a limited number of Class I is available here, if we think centering on that, Class I will still be in short supply.

Class II is NPI or stainless steel slab. It is difficult to accurately understand where it is stuck or how much it is. On the contrary, if this is attached, the transition from NPI to nickel matte may proceed.

We assume that NPI nickel matte in Indonesia is 100,000 tons this year and 200,000 tons next year. It is believed that most of this will be transported to China and become sulfuric nickel, etc. If that is the case, the market we are looking at will change. This can only be understood as a difference in opinion.

The fact that the stock of nickel is decreasing is a fact, so we are paying attention to this.

Questioner: As to my first question, I understand there are currently no immediate measures. You will continue to develop mines, introduce new technologies as they become available, and steadily increase our cost efforts and competitiveness.

In terms of the supply and demand of nickel, you are looking at the market structure from Class I, and although there is some uncertainty about Class II, you see a shortage in the overall market. Is that correct?

Nozaki: That's right.

Q & A: U.S. Inflation Reduction Act and risk of losing Japanese facilities

Questioner: I have two questions about the battery material industry. First, what possibilities do you see in terms of business opportunities arising from the impact of the American IRA (Inflation Reduction Act) legislation, such as increased production or exclusion of China?

Second, OEM companies (automobile manufacturers) must procure battery materials from the United States or countries with a free trade agreement by 2030. I want to inquire if there is any risk that your current facilities in Japan will become unusable for the American market.

Tanaka: We are still awaiting details on the IRA legislation, so we are watching the situation along with other material and battery manufacturers. We have already decided on some measures to take as soon as possible, but at this point, the impact will be pretty significant, and we are carefully examining the contents.

The fact that we must use materials from countries with which we have signed free trade agreements or North American materials will significantly affect our customers' procurement strategies. In particular, since Japan has not signed any free trade agreements, there is also concern that Japanese facilities will no longer be usable. This is not a matter for our company alone; we are working with the government to address it.

Q & A: U.S. Production Potential

Questioner: Regarding the recent announcement that Panasonic has signed a sales and purchase agreement with an American recycling company for cathode materials, what is your company's view on the necessity of producing in the United States?

Tanaka: As I mentioned, the trend is now for local production and consumption. Because logistics is the sector that emits the most CO2 in the supply chain, the idea of "shortening logistics that circle the globe" has been advocated to reduce CO2 emissions. I believe this is how the concept of "local production, local consumption" began.

However, the flow has changed along the way, and countries have started to aim for new technologies such as EVs, and there has been a significant movement to enclose industries as part of this paradigm shift.

One example I gave earlier was the United States, where "regulatory systems are changing rapidly," including the IRA legislation.

Depending on future developments, production in the United States will become mandatory, so we are carefully examining factors such as environmental regulations, state laws, and incentives in the United States.

Questioner: There are still many unknowns because the details are not yet fixed, but is there a possibility that the IRA legislation will open up business opportunities for your company?

Tanaka: From a "business opportunity" perspective, there may be opportunities for local production in the United States, and there is the possibility of supplying our current customers and other customers.

Q & A: About the overall balance of battery materials

Questioner: Regarding battery materials, the comment that "we will also strengthen the LFP business" was impressive in your explanation. In the medium to long term, what is your overall view of the balance of battery materials, including NCA, NMC, and LFP?

Tanaka: Our specialty is NCA and NMC for ternary cathode materials, which use much nickel. I think that currently, between 90 million and 100 million cars are sold worldwide, but if all of these are electrified, the current Class Ⅰ nickel alone will not be enough.

Some of the pioneering companies in the United States that were ahead of the EV revolution noticed this early on, and the CEO of the company that is the number one EV seller said that in the future, LFP and nickel-based materials would be roughly half and half. Looking at the company's first-quarter performance, the proportion of LFP is 50 %.
Even a simple calculation shows that nickel will not be sufficient. LFP is also showing technical leadership, so we think that the situation will become bipolar in the future.

Q & A: Nickel supply and demand outlook

Questioner: This is about your view of the supply and demand of nickel. You said that your company emphasizes the supply and demand of Class Ⅰ nickel, but I think the market is also concerned about the conversion from Class Ⅱ to Class Ⅰ.

Is your company ignoring this situation because you do not know the current situation well? Please tell us, including what kind of conversion you are assuming.

Nozaki: As for the conversion of nickel pig iron, we assume that the converted nickel matte will become a metal or nickel-based product based on the product, so we have incorporated this into our supply and demand.

In the future, the technical problems will be more critical in terms of whether this conversion will spread infinitely.

From a technical point of view, how does Mr. Matsumoto see the difficulty of converting nickel matte to metal or nickel products?

Matsumoto: To produce nickel matte from materials similar to NPI or ferronickel, certain technical expertise is required. However, the barrier to entry is not very high.

The biggest problem is cost. It requires using heat to melt the material, spending more resources to cool it down, and then using more material to melt it again.

When nickel pig iron is in excess, and there's no other solution, spending more on costs to increase Class I and sulfuric nickel production may be worthwhile. However, it isn't a given that all excess nickel pig iron will be converted into nickel matte.

Nozaki: How is the refining process?

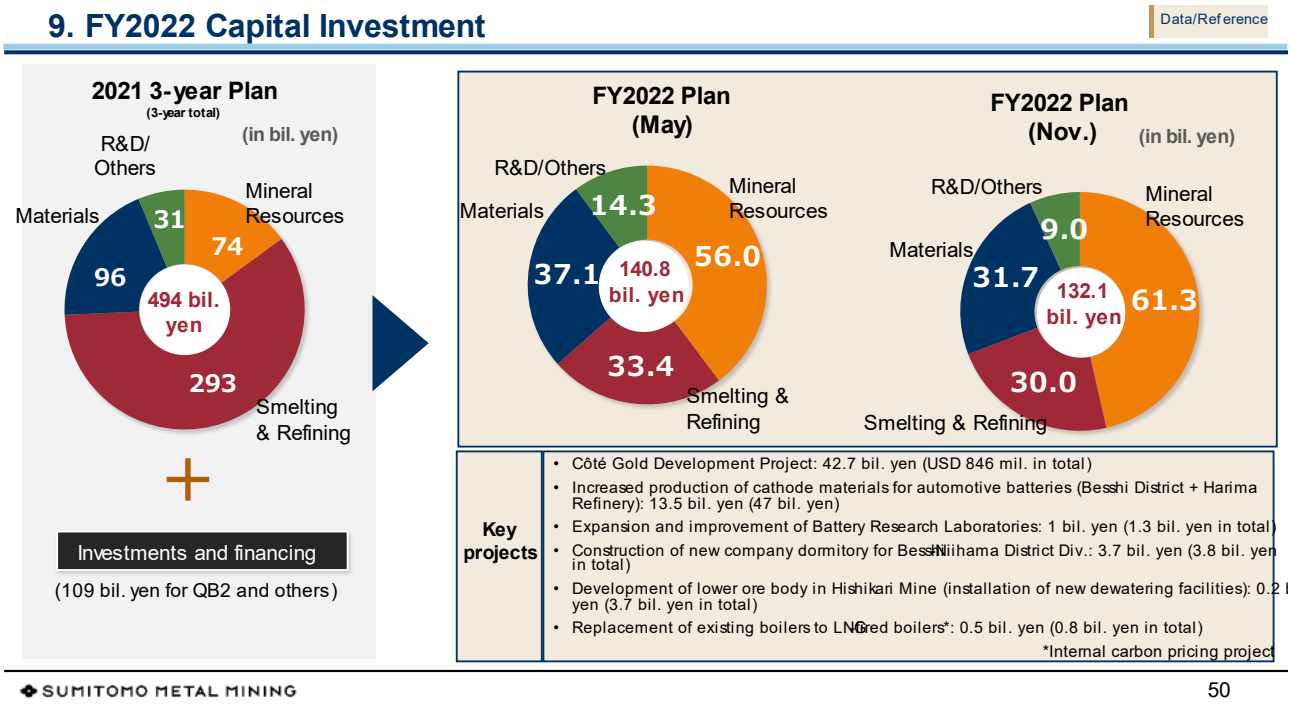
Matsumoto: It's possible to produce sulfuric nickel or nickel cathodes from nickel matte. Of course, we do it, and other companies do it as well.

On the other hand, it's difficult for companies not producing these products to enter the market. Removing impurities is a technology built up over many years of accumulated knowledge. So, even though you have matte, it's still challenging to process.

Questioner: Do you also positively view LFP as a battery material since your customers are starting to use it?

Tanaka: That's largely true, but we've been considering acquiring the LFP business from Sumitomo Osaka Cement for quite some time.

Q & A: Possible Change in Capital Expenditures during the 3-year Plan Period



Questioner: My question is about equipment investment in the 3-year plan. On page 50 of the materials, the 3-year plan for equipment investment is listed as 490 billion yen. However, the Pomalaa project has been canceled, and the external environment has changed significantly due to inflation, etc.

The previous explanation mentioned that although the Pomalaa project has been canceled, the overall amount will mostly stay the same. The impression was given that cash would be used in other places, such as looking for new nickel projects.

Given that the external environment has changed, can you comment on the possibility that the 490 billion yen equipment investment will change over the next three years? In this direction, it may change under the current president's consideration.

Nozaki: With regard to the amount of equipment investment during the 3-year plan period, as you mentioned, the Pomalaa project no longer exists. Initially, we had said that even without the Pomalaa project, there are other things we want to work on, such as other nickel projects.

To update the current situation, QB2 and Côté have unfortunately seen an increase in costs and require additional investment. QB2 will change categories slightly due to investment and financing, but the funds used will be the same. As for new projects, those that are not yet clearly visible may not have funds available for some time if we start working on them.

We currently have yet to make plans to change the amount of our budget for the 3-year plan, nor do we have a definite expectation for the future. However, our industry often involves taking opportunities when they arise, so as always, we will consider our plans and be ready to act on them when necessary. I apologize for not being able to give a clear answer.

Q & A: LFP for battery materials

5. Progress in Strengthening Battery Materials Business (2) LFP Business

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Questioner: Could you please tell me about the LFP material used in batteries? From what I understand by looking at Sumitomo Osaka Cement's IR materials and such, the LFP business in Vietnam did not perform well during that time.

Since that company has now become a part of our company, could you comment on how you analyze past challenges and how you plan to address them in the future?

Tanaka: I'm sorry, but I am unable to provide specific details about Sumitomo Osaka Cement because it's other company.

Generally, there are two main methods for making LFP cathode materials: wet-processing and dry-processing. LFP has been largely produced in China due to patent issues, and China primarily uses dry-processing, while SMM Vietnam uses wet-processing.

Wet-processing originally had higher performance, but as many companies in China have developed and improved their dry-processing technology, it has caught up to wet-processing in terms of performance. While wet-processing still has strong technical capabilities, it has faced challenges in mass production and cost.

For example, in our nickel-based production, we always talk about monthly production volumes of 1,000 or 2,000 tons. But with wet-processing, the production volume is only several hundred tons per year. The difference is significant when comparing productivity and cost on a monthly or yearly basis.

Questioner: So, does that mean that your company may also consider changing its production process from wet-processing to dry-processing in the future?

Tanaka: As mentioned on the slide, we are currently working closely with our research laboratory to accelerate development and are considering various options, including process conversion.

Q & A: Recycling Initiatives

Questioner: Regarding your initiatives in recycling, there was an announcement earlier this year about considering collaborations with other companies and exploring business opportunities in lithium recycling.

Your company has been advancing technical development in this area but has not been heavily expanding its efforts. Recycling processes are important in terms of preparing for future demand for battery materials and working towards carbon neutrality, but how much management resources will be allocated to this?

With a long-term perspective towards 2030 and beyond, can you tell us your thoughts on expanding the business beyond developing virgin metals in-house?

Matsumoto: You are asking how far we will expand our battery recycling efforts. This is a tough question.

If we had abundant raw materials, we could expand our production scale. However, battery recycling products are closely related to the distribution chain from their source. Our company uses black mass as raw material, so it is crucial to consider how it is collected through distribution.

Currently, the scale we are thinking about for recycling is from a few thousand to 10,000 tons per year. We are considering developing a battery recycling business with this target scale.

It is uncertain what will happen in the future, but the process has room for expansion, so we are considering how to scale it in the future, including 10, 15, or 20 years from now.

Questioner: Could you provide a sense of the current scale and timeline for these efforts?

Matsumoto: First, we aim to launch a plant using the process we are currently developing. Then, during the next mid-term plan for the next three years, we hope to increase the scale to what we mentioned earlier.

There are various predictions for how many waste batteries will be generated, but many predict that there will be a significant increase from 2027 to 2030. Our schedule is based on this prediction and our desire to respond.

Q & A: How to think about the profitability of battery materials

Questioner: In terms of the profitability of battery materials, we understand that it can fluctuate due to factors such as the price of raw materials like cobalt.

However, even if we could increase two or three times to 15,000 tons, the profitability in terms of management resources and cost would also increase and provide more options. Could you tell us the opportunities to improve profitability in the relationship with users?

You mentioned starting to train engineers ahead of schedule, but this brings to mind the idea of fixed costs being a priority. Please let us know if there are any efforts to balance this or cost reducing measures.

Tanaka: Regarding the profitability of battery materials, as mentioned in the question, fixed costs take precedence. This also applies to the 2,000-ton factory we are currently investing in. Our primary focus in producing cathode materials is for use in vehicles. One of the benefits of using them in vehicles is that we can produce them in large quantities with few varieties.

In terms of vehicles, design is done well in advance, and battery and cathode technologies are developed in coordination. As a result, once an order is placed, it continues for a long time, and the nickel-based cathode materials we have been producing for the past few years have been operating at total production almost every month.

However, as also mentioned in the question, fluctuations in raw material prices can significantly impact sales. In addition, while EVs have been growing since their inception, there is a comparison with internal combustion engines. Therefore, we are under pressure from our customers to reduce costs to achieve a price range suitable for widespread adoption.

Additionally, because we use high-quality raw materials such as nickel and cobalt, we also face pressure from our upstream suppliers when metal prices rise due to increased demand for EVs. It is structurally challenging to be caught between pressure from upstream and downstream customers regarding reducing costs.

In a way, it is ironic that both upstream and downstream pressures are based on the future expectation of EVs.

However, we are continuously conducting research and development with our customers to improve the structural profitability of our business. We also consider cost reducing measures with our customers, including how we can reduce costs within our supply chain. We are striving to improve profitability through these efforts.