



PACIFIC METALS CO., LTD.

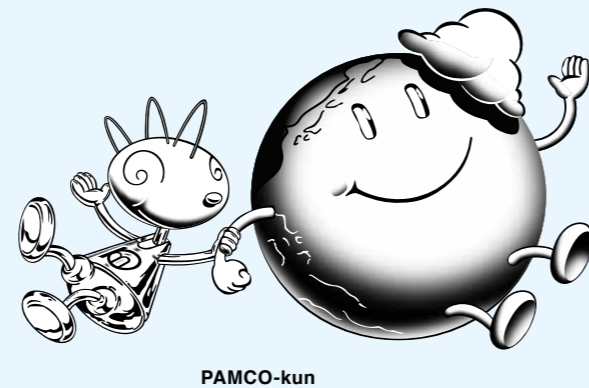


PACIFIC METALS CO., LTD.
Sustainability report 2021

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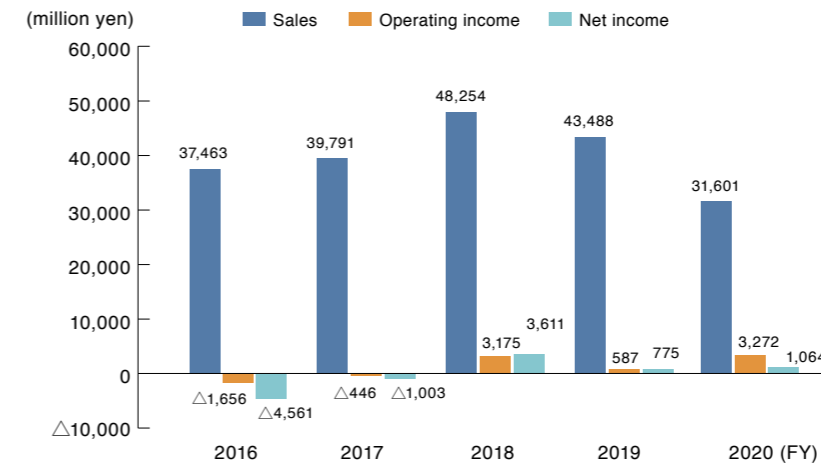
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Overview of the Company

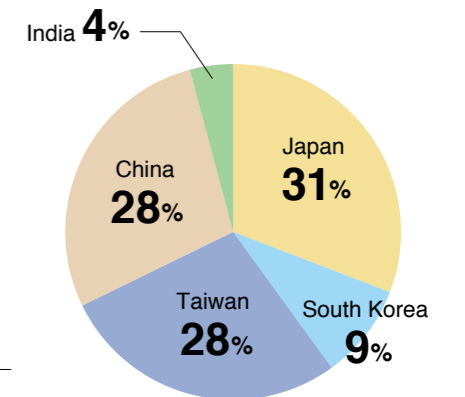
(As of March 31, 2021)

Name	PACIFIC METALS CO.,LTD.
Representative	Masayuki Aoyama, President and Representative Director (Took office on June 25, 2020)
Date of establishment	December 1, 1949
Annual sales	31,601 million yen (nonconsolidated)
Number of employees	415 employees (nonconsolidated)
Capital	13.9 billion yen
Business offices and works	Tokyo Head Office / Hachinohe Head Office (Manufacturing Works) / Philippines Office / Jakarta Office
Business items	Ferronickel, Ferronickel slag
Affiliated companies	Taiheiyo Kosan Co., Ltd. / Pacific Gas Center Co., Ltd. / Pacific Sowa Corporation / Pacific Steel Mfg. Co., Ltd. / Pacific Special Alloy Castings Co., Ltd. / Yonago Steel Co., Ltd. / Pacific Rundum Co., Ltd. / Pacific Machinery & Engineering Co., Ltd.
Affiliated companies(Overseas)	Rio Tuba Nickel Mining Corporation / Taganito Mining Corporation

Financial indicators



Sales volume ratio by country/region (ferronickel)



Editing of the Sustainability Report 2021

Editing policy	This report introduces the business activities and integrated management system initiatives of Pacific Metals Co.,Ltd. for the fiscal year (FY) 2020. Its purpose is to disclose information on our Medium-term Business Plan and IR activities with a focus on the environment, quality management and occupational health and safety from the perspective of ESG to stakeholders including shareholders and investors. A summary of the major financial and non-financial data is also included at the end of this report.
Scope of report	Pacific Metals Co., Ltd. (Domestic Offices) * The activities of some affiliate companies are included.
Reporting period	FY2020 (April 1, 2020 to March 31, 2021) *Some activities outside the reporting period included.
Month of issue	November 2021
Reference guidelines	“Environmental Reporting Guidelines (Fiscal Year 2018 Version)” by Ministry of the Environment “Sustainability Reporting Guidelines Version 4” by the Global Reporting Initiative (GRI)
Publication medium	[Company website] https://www.pacific-metals.co.jp/environment/report.php
Disclaimer	The contents of this report refer not only to past events but also cover future plans and forecasts at the time

SDGs Sustainable Development Goals

Sustainable Development Goals (SDGs) are 17 goals adopted by the United Nations in 2015 to achieve a society where no one is left behind - sustainable, diverse and inclusive - by 2030.

The Company's medium-term Business plan itself is related to the concept of SDGs, which are the global standard, and through our day-to-day business activities, we are actively promoting SDGs and contributing to the development of a sustainable society.





Message from the President

Masayuki Aoyama, President and Representative Director

Medium-term Business Plan achievement status

We are engaging in formulated our PAMCO-2021 Medium-term Business Plan (hereinafter, PAMCO-2021) to achieve our long-term vision of “Become a world-class ferronickel manufacturer with comprehensive power”

Our business environment was severe in FY2020 because, among other factors, the impact of COVID-19 slowed the operations of stainless steel producers, which are the main customers of our nickel business, and overseas stainless steel producers are shifting raw material procurements to Nickel Pig Iron (NPI). Meanwhile, with respect to the procurement of nickel ore, although some of our suppliers were forced to suspend operations at their nickel mines for certain periods of time as part of their infection prevention measures, they recovered operations quickly, which enabled us to maintain procurement in line with our production and sales volumes. Nickel prices on the London Metal Exchange (LME) were sluggish at the beginning of the period but subsequent moves in various countries to get their economies moving again put them on an upward trend, and they remain high thanks to expectations that production will recover and to the practical application of vaccines.

To combat COVID-19, we formulated “behavioral guidelines to stop the spread of infections,” which naturally included daily mask wearing and hand washing/disinfection, and we did our best to prevent infections by working from home and using remote meetings to limit the movement of people as much as possible. We also continued our efforts to raise the level of our business performance and stabilize profits by communicating with customers

and suppliers in a timely and appropriate manner. As a result, we achieved our goals of; more stable procurement of ore, stronger profitability, and more stable business management through the appropriate management of cash flow, which were the priority measures for PAMCO-2021.

We also listed “business diversification,” which will contribute to strengthening our earnings base in the future, as an important issue, embarked on making contributions to the realization of sustainable society as one of our basic policies, and signed a capital and business alliance agreement with AMITA HOLDINGS CO., LTD. as an optimal partner to help us achieve these things. By creating original 100% recycling technology and recycling systems under the theme of “Re-design of industry and living,” AMITA HOLDINGS has become a leading company in the sustainability sector that provides integrated support to customers that are looking to achieve sustainable corporate business management and regional operations. Going forward, we believe that we can achieve added value by fusing the refining technologies that we have cultivated thus far to create new synergies that contribute to environmental friendliness and stable socio-economics.

Business activity and ESG initiatives

Initiatives for achieving the Sustainable Development Goals (SDGs) adopted by the UN are being emphasized, and we believe our initiatives relating to sustainable development are extremely important to enhancing our corporate value and strengthening relationships with our stakeholders. To that end, our management policies and corporate ethics norms include content that contributes

to ESG.

As specific initiatives with respect to ESG, we engage in various activities such as contributing to the creation of a recycling society by fully recycling all by-product ferronickel slag, preventing water pollution from wastewater terminal treatment facilities, and sponsoring local soccer teams. We have made particularly effective use of ferronickel slag by using it as roadbed material for highways within the prefecture in cooperation with other companies. We are also proud that making effective use of resources and reducing waste, by, for example, recycling waste incinerator ash and scallop shells generated by cities, towns, and villages in the prefecture into aggregate for secondary concrete products, etc., are areas where we can make contributions. In September 2020, we were able, as an industrial waste treatment business, to obtain the certification of an excellent industrial waste treatment company.

We also recognize that climate change problems are an extremely important issue when it comes to business continuity.

We have also begun studying medium- to long-term CO₂ reduction targets toward realizing Japan's carbon neutrality by 2050 goal. Although there are many problems we cannot solve by ourselves, we will consider approaches from various angles and formulate concrete action plans.

Our employees will come together as one to tackle important ESG issues and contribute to solving social and regional issues through our business activities.

Toward realization of a sustainable society

We introduced a new human resources system in 2018 with the

goal of “strengthening organizations and human resources in anticipation of changes in the business environment”. Under this system, all employees set their own goals at the beginning of the year and evaluate their progress against those goals with their bosses, and is thus a system that can be molded according to the individuality of each employee. Additionally, some workplaces require specialized qualifications, and so we have a system in place to provide appropriate allowances when employees acquire such qualifications. We have a large number of qualified personnel appointed in various related departments such as energy, environment, and measurement, and they do their best every day to monitor and manage the sound operation of our factories. Corporate activities are sustained by the people. Each of our employees has sense of purpose, and active engagement in their work, which we are confident that will help us overcome severe circumstances in the future as well.

Stainless steel made from nickel is used in buildings, railways, water pipes, etc., and is an indispensable material for the infrastructure that supports modern society. Based on our Company philosophy of “Utilizing human power, providing the resources of the earth as more useful, contributing to the well-being of human society” we are driving to enhance our corporate value and realize a sustainable society.

We hope this report provide you with an understanding of our activities, and we welcome your frank comments and request your continued support.

The Long-Term Vision

Setting our Long-Term Vision

Since our company was founded as “Nisso Steel Co., Ltd.” in December 1949, we have overcome various crises and have been operating until today, supported by the efforts of many seniors.

In May 2016, we set a long-term vision of “Become a world-class ferronickel manufacturer with comprehensive power” and set four pillar themes based on our strengths. To achieve this long-term vision, we set specific goals and policies for each theme and promote activities.

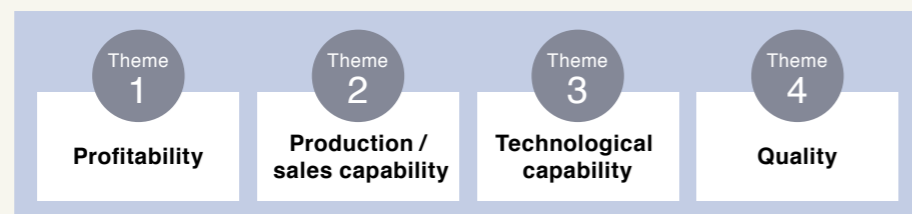
Company philosophy

Utilizing human power, providing the resources of the earth as more useful, contributing to the well-being of human society

Our strengths



Key themes



The long-term vision

Become a world-class ferronickel manufacturer with comprehensive power*

* “Comprehensive power” means having world-class superiority in all themes.

Company Policy

1. Integrate the management strategies of the entire Group to maximize the synergy effects of each Group company.
2. Focus on the development and quality improvement of world-class smelting technology, and establish the world-leading platform for management efficiency and competitiveness.
3. Promote compliance.
4. Secure appropriate profits through fair, transparent and free competition.
5. Actively tackle all environmental problems to protect the irreplaceable earth.
6. To develop the individuality of employees and fully demonstrate their creativity, pursue a sense of comfort and affluence both physically and mentally, and realize a rewarding workplace.
7. Promote wide-ranging exchanges with society and actively disclose fair corporate information.

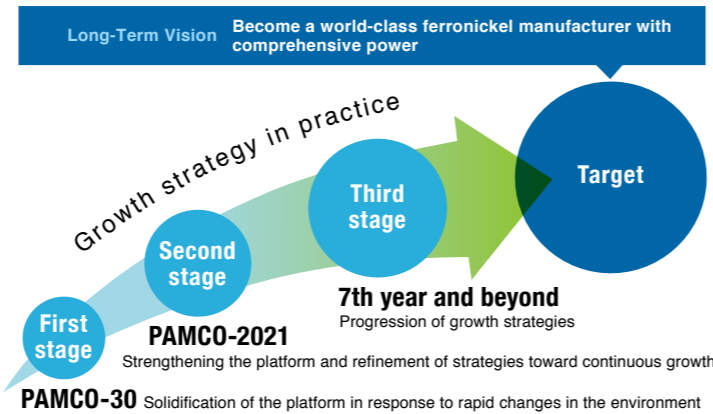
Corporate Code of Ethics

1. **Compliance with rules, laws, and social norms**
 - Conduct corporate activities based on compliance, social norms, and social decency.
 - Insulate the company from antisocial forces that threaten social order and safety, and carry out sound corporate activities.
 - In international business activities, comply with international rules and local laws, respect local culture and customs, and carry out corporate activities that contribute to the development of the country.
2. **Conservation of the global environment**
 - Recognizing that tackling environmental problems is an essential requirement for corporate survival, so proactively engage in corporate activities that contribute to environmental improvement.
3. **Coexistence with local communities**
 - Engage in corporate activities that contribute to the development of local communities by coordinating and cooperating with local communities.
4. **Ensuring customer trust**
 - Provide good quality, safe products that meet consumer needs.
5. **Maintaining good relationships with stakeholders**
 - Meet shareholder and creditor expectations and engage in corporate activities that earn their trust and support by ensuring fair and transparent management.
 - Strive to maintain good, sound relationships with a wide range of societal entities, including consumers, business partners, employees, and shareholders.
6. **Creating a work environment where employees can work together and express themselves**
 - Foster a corporate culture that values employee independence and creativity.
 - Create equal opportunities with no discrimination in employment.
 - Ensure workplace safety and employee health.
 - Respect basic human rights and create a fair work environment with no discrimination.
7. **Communicating with society**
 - Gather social demands required of corporate activities and disclose corporate information as positively and fairly as necessary.

Activities Performance for PAMCO-2021

PAMCO-2021 is our Medium-term Business Plan formulated in FY2018 as a second stage in realizing our long-term vision. In the second stage, we strengthened our business foundation which solidified in the first stage, and narrowed down strategies for continuous growth. We also engaged in business activities with the goal of growing into a company that takes the sustainability of society into consideration.

Although the impacts of COVID-19 prevented completion of some employee training programs in FY2020, we were able to achieve our other priority measures. In terms of ore procurements, although some nickel mines in the Philippines temporarily stopped operations, operation and shipping conditions are returning to normal. We continue to increase procurement of ore from New Caledonia with the aim of ensuring the long-term stability of ore procurement.



Response to COVID-19

Because the safety of our business partners and employees is our top concern, we formulated “behavioral guidelines to stop the spread of infections” and have been working hard to combat the spread of COVID-19, the impacts of which are being felt in Japan and overseas. In FY2020, we created a “Manual for Responding to Persons Infected with COVID-19 and Persons who have Come in Close Contact with Them” as a manual for when employees become infected with COVID-19, and created manuals for our internal response to health centers, disclosing information on our home page, and external disclosure of information (confirmation of whether family members are going to work or children are going to school, etc.) by employees.

We also created a workplace disinfection manual for COVID-19, etc., and clarified workplace responses to daily disinfection, disinfection when there are persons with fevers (suspected infections), and disinfection when there are persons with fevers (suspected infections) that are subject to PCR testing. We continue to work to prevent the spread of COVID-19.

Item	Basic policies	Priority policies	State of completion	Activities performance for FY2020	Policies for future activities
◇Refinement of the strategies toward strengthening and redeveloping the management platform, and toward growth					
①	Strengthening of facilities and stable procurement of ore to develop the optimal production system	<ul style="list-style-type: none"> ◇Optimal production of ferronickel and development of sales system ●Production system: Development of an optimal production system for the company as a whole, including expansion of overseas smelting, and further strengthening of the management platform ●Sales system: Strengthening of stable sales for existing customers, and in addition, acquisition of new customers ◇Long-term stabilization in the procurement of nickel resources ●Long-term stable procurement, with view to expansion of the source based on renewal of existing agreements ●Initiatives toward resource interest acquisition, overseas smelting, etc. 	○	<ul style="list-style-type: none"> ●Regular upgrades to aging equipment (Upgrade and restart of electric furnace No. 6 transformer) ●Continue investigation of projects in Southeast Asia and South Pacific countries to develop new mines and acquire mine interests ●Expand procurement of ore from New Caledonia 	<ul style="list-style-type: none"> ◇Build and optimal system for producing and selling ferronickel ●Execute regular upgrades to aging equipment ●Promote capital investments that contribute to saving energy and reducing CO₂ emissions ●Continue considerations that include commercialization through stronger relationships with overseas partner candidates ●Strengthen stable sales to existing business partners and acquire more new customers ◇Stabilize nickel resource procurement over the long term ●Develop new mines and acquire mine interests
②	Initiatives with view to expanding overseas business			<ul style="list-style-type: none"> ●Expand range of consideration to include commercialization with overseas partner candidates 	
③	Diversification of business in Japan	<ul style="list-style-type: none"> ●Aim for diversification of businesses that contribute to reducing fluctuation in revenue and strengthening the future revenue base 	○	<ul style="list-style-type: none"> ●Begin evaluating the profitability of businesses associated with producing products other than ferronickel using hydrometallurgical technologies ●Make steady progress in further research and development of slag productization technologies 	<ul style="list-style-type: none"> ●Investigate the profitability of businesses associated with producing products other than ferronickel using hydrometallurgical technologies ●Investigate the possibility of expanding or reorganizing the recycling business
④	Strengthen profitability	<ul style="list-style-type: none"> ●Press forward with cost reductions, and pursue an optimal production system with high profitability 	◎	<ul style="list-style-type: none"> ●Response to LME nickel price fluctuation risk ●Continuous implementation of all types of cost reductions (reduction effect of approximately 900 million yen) ●Production cost and energy usage volume reductions through expanded use of recycled resources that include nickel ●Operational cost reductions through improved waste melting and treating technologies 	<ul style="list-style-type: none"> ●Continuous response to LME nickel price fluctuation risk ●Continuous reductions in all types of costs ●Expanded use of recycled resources that include nickel ●Promotion of initiatives for building processes and innovating work based on a variety of issues
⑤	Strengthening of organization and human resources in anticipation of changes in the business environment	<ul style="list-style-type: none"> ●Building a flexible and optimal organization toward achieving the objectives ●Strengthening of human resources to raise the standard 	△	<ul style="list-style-type: none"> ●Plans were made for a company-wide education program for all ranks, but some have not been implemented due to COVID-19 	<ul style="list-style-type: none"> ●Planned implementation of various training programs
⑥	Management focused on cash flow	<ul style="list-style-type: none"> ●Stability of management is improved by maintaining the appropriate asset status and ascertaining efficient cash flow 	◎	<ul style="list-style-type: none"> ●Reduce business management risk through suitable ascertainment and management of cash flow 	<ul style="list-style-type: none"> ●Reduce business management risk and improve stability through suitable ascertainment and management of cash flow
◇Creation of social and economic value					
⑦	Contribution toward achieving a sustainable society	<ul style="list-style-type: none"> ●Pursue measures to help prevent global warming, and contribute to the development of Hachinohe and Tohoku Region also resource-rich countries ●All employees working as one toward zero accidents ●Strengthening of the compliance and governance systems 	○	<ul style="list-style-type: none"> ●Contribute to a recycling society by recycling all ferronickel slag ●Reduce environmental loads by improving production equipment and enhancing waste treatment technologies ●Continued attempts to expand use of resources that include nickel, promote production that takes the environment into consideration, and to bring all employees together to eliminate accidents, but failed to achieve these things ●Compliance with laws and regulations through the use of an Integrated Management System (IMS) 	<ul style="list-style-type: none"> ●Promote production that takes the environment into consideration by using recycled resources and reducing CO₂ emissions ●Bring all employees together as one to eliminate accidents ●Fulfill and strengthen corporate governance

State of completion ◎: Achieved ○: Mostly achieved △: Not achieved

Environmentally Friendly Manufacturing Process

— Ferronickel Manufacturing Process —

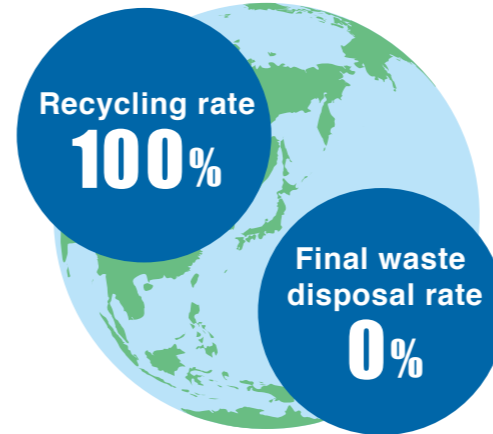


Ferronickel, which is the main raw material for stainless steel, and we are the number one domestic producer of ferronickel. Utilizing the world's top level smelting technology, we carry out efficient manufacturing with the world's largest electric furnace.

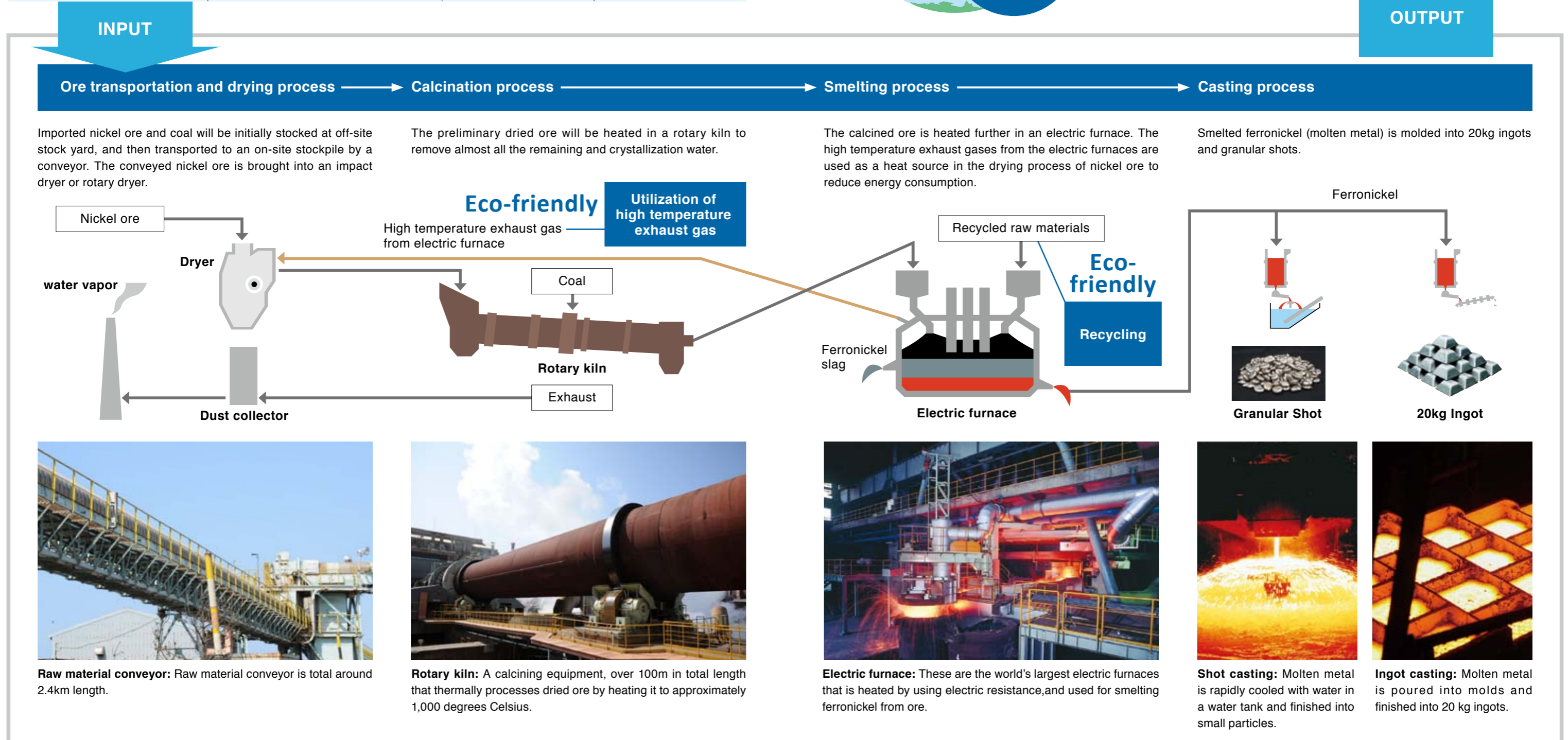
Ingenuity to reduce environmental impact, we apply many technologies such as reducing energy consumption by using high-temperature exhaust gas from electric furnaces into the ore drying process, and recycling by smelting recycled resources containing nickel together with nickel ore.

■ Ferronickel manufacturing process

Main raw materials		Total energy	Industrial water
Nickel ore (wet)	1,510,000 t	6,670,000 GJ	6,680,000 m ³
Secondary ingredients	190,000 t		



Products		Atmospheric release	
Ferronickel (gross)	126,000 t	CO ₂	730,000 t
Resource recycling		SO _x	831 t
Ferronickel slag	890,000 t	NO _x	1,647 t
Drain water		Soot and dust	22 t
Discharged water	5,720,000 m ³		



Raw material conveyor: Raw material conveyor is total around 2.4km length.



Rotary kiln: A calcining equipment, over 100m in total length that thermally processes dried ore by heating it to approximately 1,000 degrees Celsius.



Electric furnace: These are the world's largest electric furnaces that is heated by using electric resistance, and used for smelting ferronickel from ore.



Shot casting: Molten metal is rapidly cooled with water in a water tank and finished into small particles.



Ingot casting: Molten metal is poured into molds and finished into 20 kg ingots.

Eco Products That Contribute to Reducing Environmental Impact



Effective use of by-products

Ferronickel slag obtained as a by-product of the ferronickel manufacturing process is cooled by the slow cooling method, and then the entire product is recycled according to the intended use and sold as an attractive product that can be used in a wide range of applications.

The slag's constituent components are stable, environmentally friendly, and have the same quality as natural resources and thus contribute to energy saving by conserving natural resources, and to the formation of a recycling-oriented society.



Used as a civil engineering material in earthquake disaster reconstruction areas

Ferronickel slag (Product name: Pamco crustone)

After cooling, ferronickel slag is crushed by crushing equipment to particle sizes of 5 mm or less, 5 to 20 mm, or 20 to 40 mm, which thus allows for a wide range of particle size adjustments when combined according to customer requests.

The slag is characterized by the fact that it is environmentally friendly, highly safe, and does not contain harmful substances, and because it has high roadbed bearing capacity after compaction, it is easy to install, and has excellent frost heaving suppression. In the Tohoku area, it is used mainly as a substitute civil engineering material for mountain sand and crushed stone (for roads, embankments, and land development).

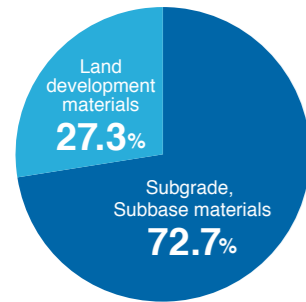


Ferronickel slag, 5 mm or less



Ferronickel slag of 0 to 40 mm

Percentage of ferronickel slag product by application (period ending March 2021) *No sales recorded for (3) and (4)



Application	Main Features and Effects
(1) Land development materials	Suitable as soft ground improvement soil
(2) Subgrade, Subbase materials	Excellent roadbed material strength and low freeze-thaw resistance
(3) Coverage materials, Earthwork materials	Suitable for embankments etc. because it compacts well to form firm ground
(4) Blast furnace steelmaking materials	Used as an auxiliary material for adjusting blast furnace slag components

LCA for ferronickel slag products

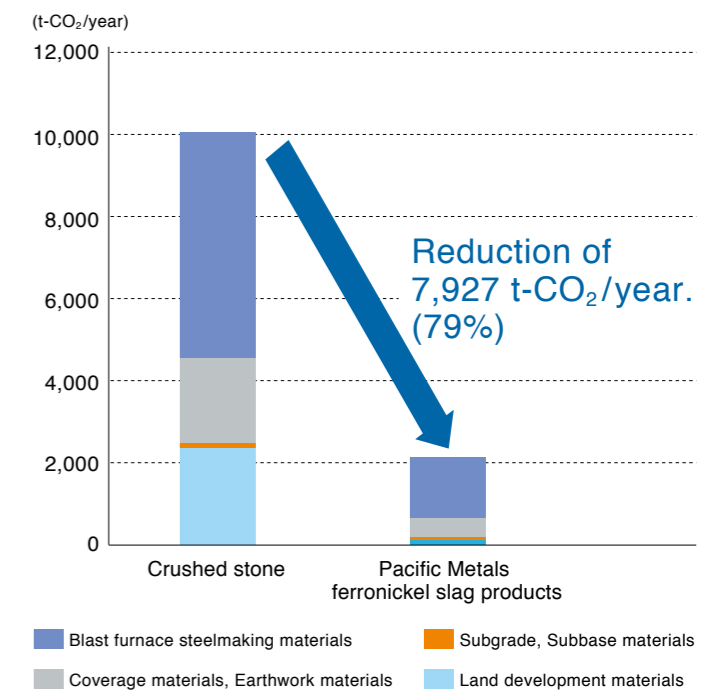
Our ferronickel slag products meet all the elution amount and content standards notified by the Ministry of the Environment, are free from harmful substances, are environmentally friendly and boast high safety, and crushed stones the reduction of environmental load.

The figure below is an LCA⁽¹⁾ evaluation comparing ferronickel slag products and quarry products⁽²⁾, confirming a reduction in CO₂ emissions⁽³⁾.

*1: Abbreviation for Life Cycle Assessment. A method of quantifying the environmental impact of a product during its lifetime (resource extraction, manufacturing, use, disposal).
*2: Products manufactured by collecting and mining natural stones *3: Evaluation results for ferronickel slag products manufactured in FY2018

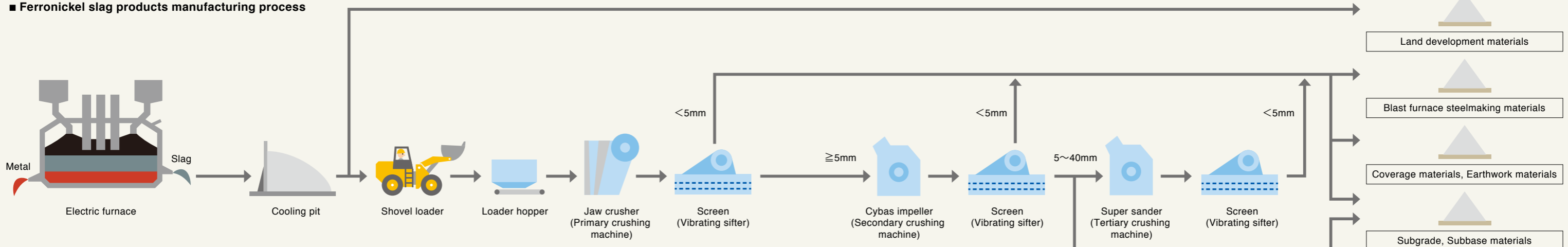
Environmental contribution of ferronickel slag products

Ferronickel slag product application	CO ₂ emissions (t-CO ₂ /year)		CO ₂ reduction rate
	Crushed stone	Pacific Metals ferronickel slag products	
(1) Land development materials	2,360	44	98%
(2) Subgrade, Subbase materials	115	32	72%
(3) Coverage materials, Earthwork materials	2,059	571	72%
(4) Blast furnace steelmaking materials	5,518	1,477	73%
Total	10,052	2,124	79%



[Click here for product information](https://www.pacific-metals.co.jp/en/products/kras.html) <https://www.pacific-metals.co.jp/en/products/kras.html>

Ferronickel slag products manufacturing process



Services That Contribute to the Environment

– Waste Recycling Business –



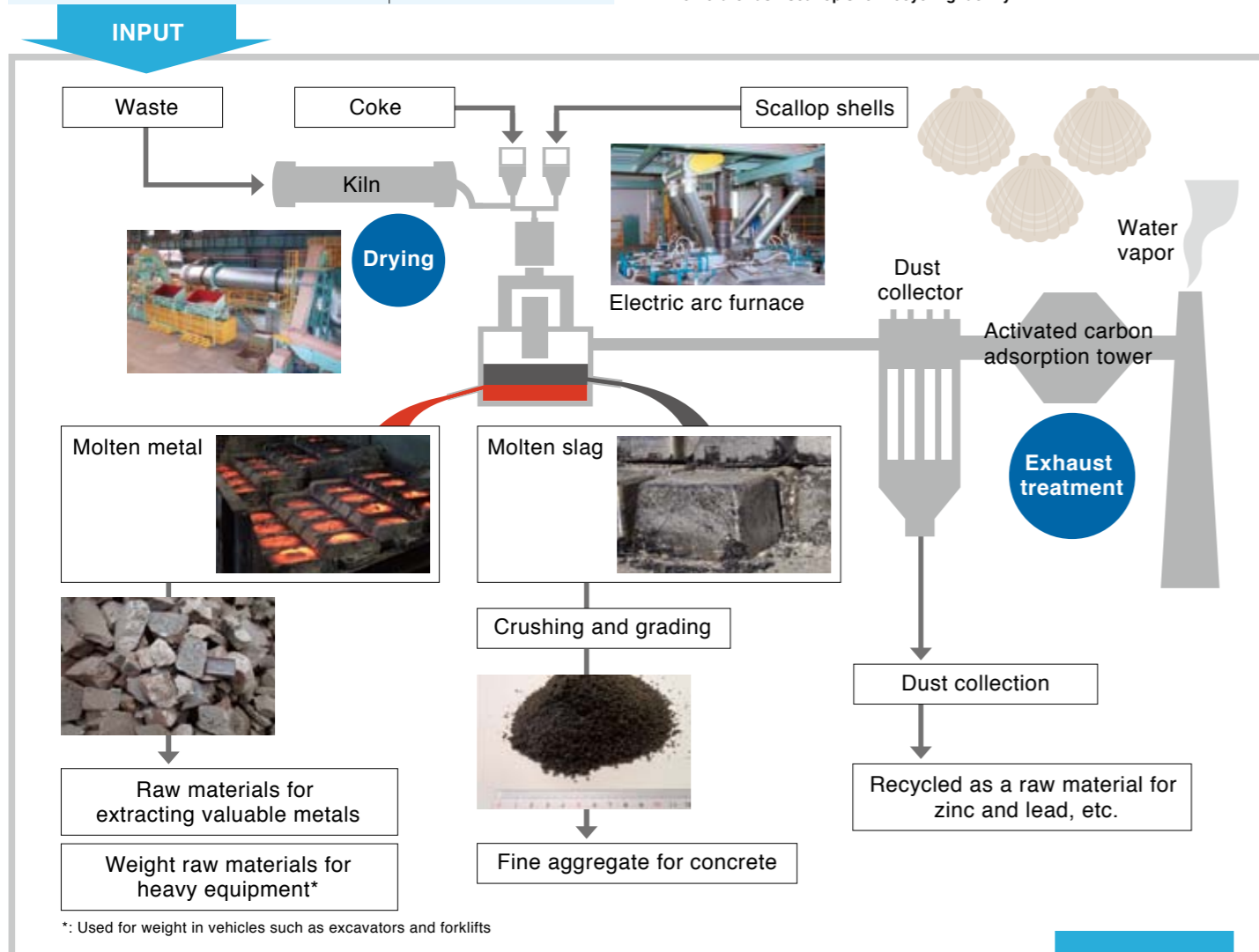
We are engaged in the waste recycling business by utilizing the advanced technology cultivated in ferronickel smelting. At the incineration ash / scallop shell recycling facility, incineration ash from general waste and industrial waste together with scallop shells in Aomori Prefecture are melted in a DC electric furnace and recycled into metal raw materials and fine aggregate for concrete (artificial aggregate).



Incinerator ash/scallop shell recycling facility

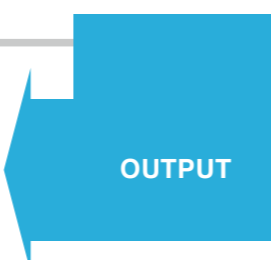
■ Incinerator ash/scallop shell recycling process

Main raw materials		Total energy	
Waste	2,224 t	10,000 GJ	Industrial water
Scallop shells	617 t		
Waste generated in-house	1,232 t	1,251 m ³	
Collateral raw materials	600 t		



*: Used for weight in vehicles such as excavators and forklifts

Product	Wastewater	Atmospheric release		
Molten metal	Discharged water	0 m ³	CO ₂	714 t
Molten slag			SO _x	0.04 t
Waste		NO _x	0.56 t	
Soot and dust, etc.		Soot and dust	0.012 t	



As a waste disposal company, we comply with laws and regulations and we properly recycle. We sell the molten metal produced after processing to metal refining companies for use as weight raw material for heavy equipment and as raw material for valuable metal extraction. We also collect the soot and dust discharged in the processing process and recycle it as raw material for zinc and lead, etc.

We sell the molten slag produced in the same way as fine aggregate for concrete, etc. Secondary concrete products using molten slag and asphalt mixtures have been certified by Aomori Prefecture as recycled products. We are also actively promoting consideration of expanded uses for molten slag products, such as in gabion products for revetment and landscaping material, or in fishing reefs for breeding marine biological resources.

■ Information regarding acceptable industrial waste material, etc.

● Target industrial waste material

Industrial waste material	Cinders (general waste, industrial waste), sludge (inorganic only), plant and animal residue (shells without any deposits of combustibles only), metal scraps, glass scraps, concrete scraps, and ceramic scraps, slag, soot and dust
Industrial waste requiring special treatment (Includes specified toxic substances)	Cinders, soot and dust, sludge (inorganic only)

● Incineration and melt processing capabilities of industrial waste

Classification of business: intermediate processing (melting)

Type of Facility	Melting facility : Incinerated ash and scallop shell recycling facility (Waste material incinerator no.2 PWI-2)
Installed Location	20-2, 21-2 Kawaragi,kaigan, Hachinohe, Aomori
Installation Date	Jul-03
Approval Date	Sep-04
Approval Number	16-15-5
Processing capabilities	79.6t/day (24-hour operation)
Cinders	70.0t/day
Soot and dust	12.8t/day
Sludge	12.8t/day
Plant and animal residue	8.4t/day
Metal scraps	1.7t/day
Glass scraps, concrete scraps, and ceramic scraps	11.3t/day
Slag	11.3t/day

● Incineration and melt processing capabilities of industrial waste requiring special treatment (including specified toxic substances)

Classification of business: intermediate processing (melting)

Type of Facility	Melting facility : Incinerated ash and scallop shell recycling facility (Waste material incinerator no.2 PWI-2)
Installed Location	20-2, 21-2 Kawaragi,kaigan, Hachinohe, Aomori
Installation Date	Jul-03
Approval Date	Sep-04
Approval Number	16-15-5
Processing capabilities	79.6t/day (24-hour operation)
Cinders	70.0t/day
Soot and dust	12.8t/day
Sludge	12.8t/day

★ Certification as an Excellent Industrial Waste Treatment Company ★

There is an excellent industrial waste treatment company certification system certified by prefectures and government-designated cities for excellent industrial waste treatment companies that have cleared standards that are stricter than normal standards. To be certified, companies must comply with all of the following five items.

- ① Achievements and legality (5 or more years of achievements and no adverse dispositions)
- ② Business transparency (authorization details and treatment status are published on the Internet)
- ③ Environmentally-conscious initiatives (conduct business in an environmentally-conscious manner by obtaining ISO 14001 certification, etc.)
- ④ Electronic manifest (able to use electronic manifests)
- ⑤ Sound financial structure (equity ratio of at least 10%, etc.)

We obtained certification as an excellent industrial waste treatment company in September 2020.



Initiatives for Reducing Environmental Impact -1



We use significant amounts of electricity and fossil fuels in the manufacturing process and emit soot and smoke. For this reason, we are actively working on energy-saving measures and to reduce the environmental impact on the atmosphere and water.

Curbing global warming and energy conservation measures

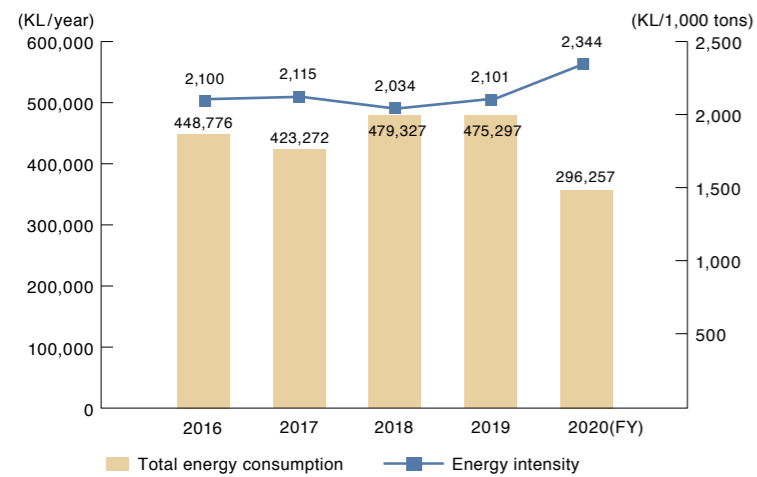
We are engaged in efforts to use energy more efficiently, including using hot electric furnace exhaust gas in our nickel ore drying process to reduce the amount of heavy oil and LNG we use in our production process.

Although our total amount of energy used and CO₂ emissions fell in FY2020 in conjunction with reduced production volumes, the amount of energy used per production volume (energy source units) increased by 12%.

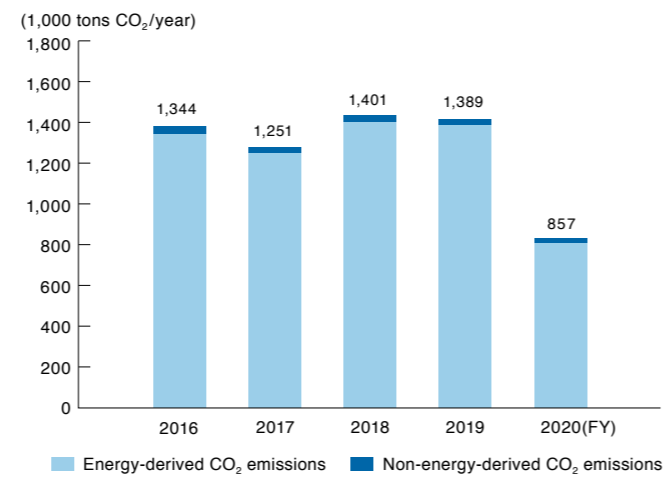


Private power generation equipment

Total energy consumption



CO₂ emissions



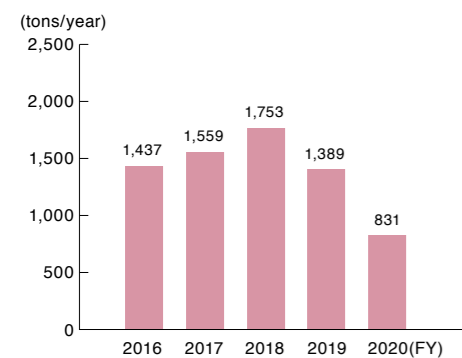
Air pollution control measures

To suppress the soot and smoke generated by production processes and private power generation equipment, we have taken new measures such as constant monitoring using telemeters and upgraded non-gas continuous measuring devices, and have implemented internal circulation of the management status of self-managed values as well as training in legal and regulatory compliance to raise employee awareness. We also prevent the scatter of dust by running watering and dust collecting devices in front of furnaces 24-hours a day in mines and on-premises road surfaces, etc. In FY2020, SO_x, NO_x, and dust emissions fell significantly compared to the previous year due to decreased production and furnace repairs.

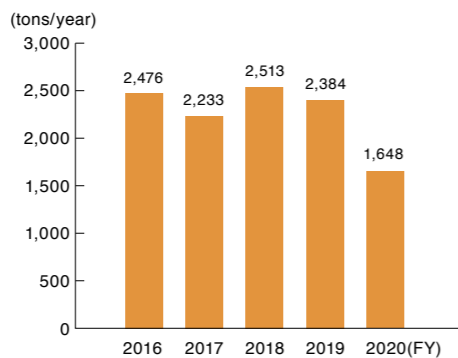


Water Sprinkler Truck

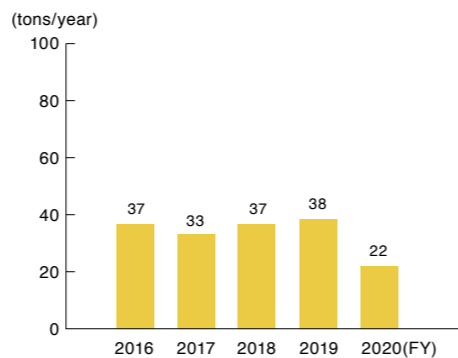
SO_x emissions



NO_x emissions



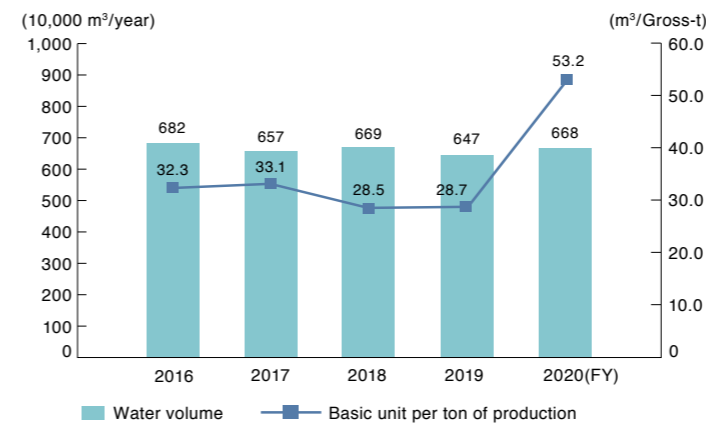
Dust emission



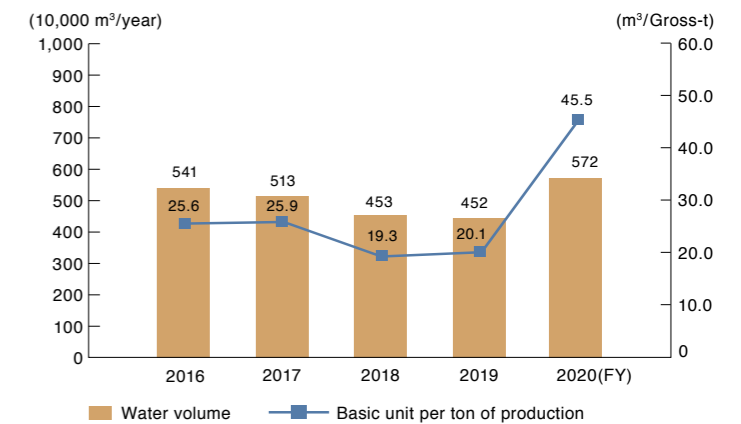
Water pollution control measures

We are making efforts to reduce the amount of water we use by using circulating water to cool electric furnaces and ferronickel slag. In addition to inspecting wastewater regularly, we manage it thoroughly on a daily basis through real-time monitoring using continuous surveillance monitors and employee patrols, etc. Furthermore, at our wastewater terminal treatment facilities, in addition to performing appropriate controls such as adjusting treatment water levels when turbidity concentrations rise during rainfall, we change the filtering media in the filters on a regular basis. Our wastewater terminal treatment facilities ran properly again in FY2020, and there were no values that exceeded the wastewater agreement value. There were no significant changes in the amounts of supplied water or wastewater, however, due to decreased production volumes, source units per production volume increased.

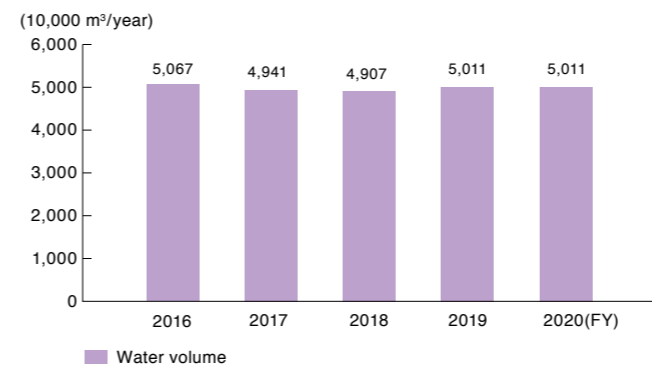
Water supply amount



Total drain water volume



Recycled water volume



Wastewater terminal treatment facilities

Green procurement initiatives

We have formed a policy of prioritizing procurement of products and services from suppliers that are working to reduce their environmental loads, and are striving to procure environmentally friendly products and services that must;

- Use reduced amounts of hazardous substances.
- Conserve resources and energy.
- Be available over the long term.
- Be reusable or recyclable.
- Use recycled materials and components. (products, containers, packaging materials)
- Be ease to disassemble and treat when discarded.

Initiatives for Reducing Environmental Impact - 2

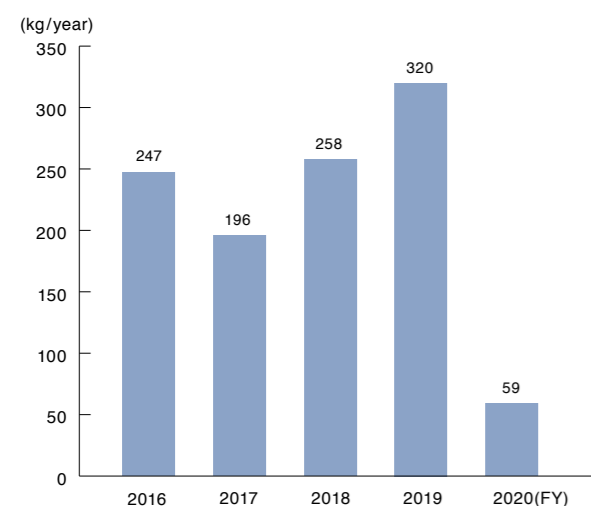


Proper management of chemical substances

Based on the PRTR system, we ascertain the amount of emissions from and movements of substances subject to notification and report them to the government every year. The four types of substances subject to PRTR notification in FY2020 are shown in the table below. We control the amounts of chemical substances we procure, use, and store, and are working to reduce the amounts of hazardous substances we use. Using a chemical control system procured in FY2019, we are controlling the chemicals used in testing more thoroughly than ever before.

Furthermore, since controlling the nickel compounds discharged from our ferronickel production process is one of our most important control items, we take various control measures, including 24-hour a day watering and cleaning with motorized sweepers.

■ Nickel compound emissions



Chemical management system

■ Substances subject to PRTR notification in FY2020

		Nickel compounds (kg/year)	Chromium and trivalent chromium compounds (kg/year)	Manganese and compounds thereof (kg/year)	Dioxins class compounds (mg/year)
Emission volumes	Atmospheric	44	14	8	0.004
	Waterways	14	0	0	0
	Soil	0	0	0	0
	Landfill	0	0	0	0
Transfer volumes	External waste	0	0	0	12

Observance of environmental laws and regulations

We regularly inspect business-use air conditioning, refrigerating, and freezing equipment in accordance with the Fluorocarbon Emissions Restraining Act. Inspection results revealed no leaks that needed to be reported. We also measured total mercury in exhaust gas from waste incinerators, which are classified as mercury discharge facilities under the Air Pollution Control Act, in accordance with the act and there were no mercury emissions that exceeded standards under the act.

We outsource the treatment of product waste that uses mercury (fluorescent lamps, etc.) appropriately in accordance with the Waste Disposal Act. With respect to PCB-containing equipment, we are eliminating the treatment of insulating oil containing trace amounts of PCBs in large transformers.

Initiatives for a recycling Society

In FY2020, we produced 98,000 tons of by-product ferronickel slag. Ferronickel slag is what remains after nickel and steel are extracted from ore, and its main components are silica and magnesia. Since it contains no hazardous Substances, it is effectively used as a soil covering material and earthwork material, etc.

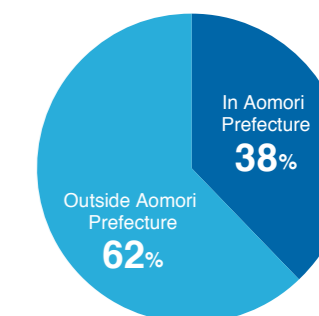
Furthermore, we recycle waste oil generated by our ferronickel production process and private power generation facilities in-house. Since we have all waste we cannot treat in-house recycled by subcontractor industrial waste treatment companies, we have achieved zero waste emissions.

We have participated in the “Aomori Eco Town” since 2007. We also contribute to local zero emissions efforts by effectively using waste as a resource, not alone, but together with multiple nearby companies.

■ Amount of industrial waste disposal subcontracted in FY2020

Type of Waste	Amount Disposed (t)	Type of Waste	Amount Disposed (t)
Dust (hazardous)	105.7	Waste plastics	56.4
Sludge	12.0	Waste plastic and metal scrap mixtures	0.0
Strong acid	2.9	Waste oil	0.9
Cinders (hazardous)	54.4	Wood scrap	18.2
Cinders	1.5	Asbestos	0.0
Waste alkali	13.9	Stable mixed waste	49.9
Waste alkali (hazardous)	0.1	Glass, concrete, and ceramic scrap	0.4
Flammable waste oil	0.2	Other waste	0.1
		Total	316.5

■ Percentage of slag processed products sold by region



Acquisition of environment-related technical qualifications

To enhance environmental awareness and strengthen our environmental control initiatives, we promote the acquisition of environment-related technical qualifications. Acquisition status is as shown below.

■ Number of environment-related technically qualified personnel

Name of qualification	Number of qualified personnel
Atmospheric pollution control manager - Type 1	17
Water quality pollution control manager - Type 1	13
Dioxin pollution control manager	8
Disposal courses relating to specially controlled industrial waste treatment businesses	1
Industrial waste incinerator technical manager	15
Industrial waste intermediate treatment facility technical manager	4
Garbage treatment facility technical manager	7
Crushing and recycling facility technical manager	2
Industrial waste final disposal site technical manager	1
Specially controlled industrial waste management supervisor	6

(As of March 31, 2021)

Integrated Management System

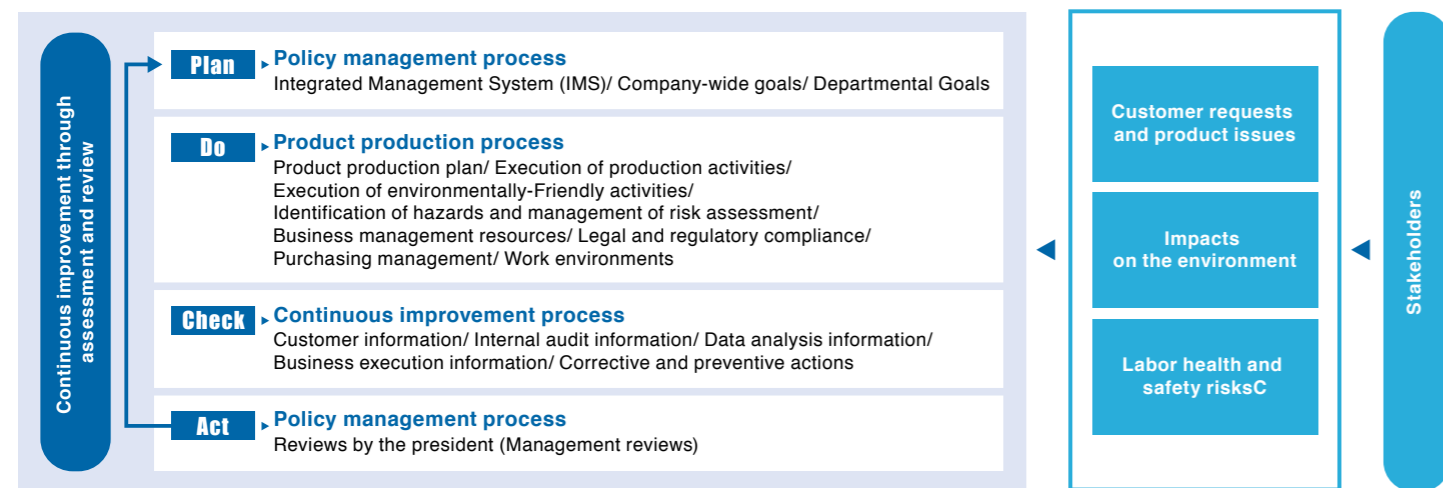


Three management systems - Quality Management, Environmental Management, and Occupational Health and Safety Management - are operated as an Integrated Management System (IMS). This system is maximally utilized, with management policies positioned with IMS policies as goal attainment tools in PAMCO-2021.

Risk management via Integrated Management System (IMS)

We use an Integrated Management System to provide peace of mind to the local community and trust and satisfaction to our customers through the production of ferronickel and slag products that is harmonious with the environment and to realize safe and comfortable workplaces for all of our employees, and we are all working together as one company to reduce business risks and earn the trust of all stakeholders.

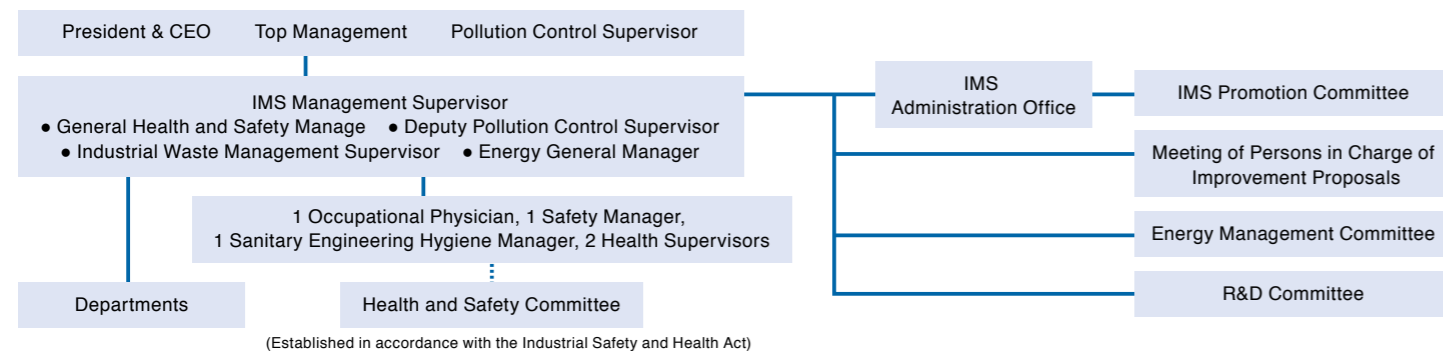
Flow of main Integrated Management System (IMS) activities



IMS system

The management system of the Integrated Management System is as shown below. With the President and Representative Director as top management, the IMS Promotion Committee, Energy Management Committee, Health and Safety Committee, etc. are held regularly to discuss issues and progress, and to discuss and report on important matters.

IMS system diagram



ISO certification registration

We have registered certifications for ISO 9001, ISO 14001, and OHSAS 18001. In October 2020, we underwent an integrated examination in which found no important deficiencies in our management system and confirmed the system was being executed effectively, and we completed updates of ISO 9001 and ISO 14001 and transitions to OHSAS 18001 and ISO 45001.

The examination uncovered one minor nonconformity and 63 opportunities for improvement. The Administration Office and each department are forming action plans and engaging in correction and improvement initiatives. One positive note, we were also given

good assessments on 51 items.

In FY2019, we advanced preparations for transitioning to OHSAS 18001 and ISO 45001, which involved a full review of our Integrated Management System manual and training all employees for the transition. Furthermore, in addition to implementing initiatives for preventing disasters and accidents due to small group activities with the goal of reducing labor disasters and accidents, we strengthened our health management initiatives, including mental health and work hour management, in collaboration with the HR Department.

Certification Registration Information

Certification standard	Registration scope	Registration No.	Expiry date	Initial registration
ISO9001:2015	Hachinohe Head Office (Hachinohe Works)	0314	February 15, 2024	April 9, 1998
ISO14001:2015		E1998		March 19, 2009
ISO45001:2018	Tokyo Main Office	H063		February 16, 2012



ISO 9001 Registration Certificate, ISO 14001 Registration Certificate, ISO 45001 Registration Certificate

Environmental accounting and safety accounting

Aggregated results for environmental accounting and safety accounting in FY2020 are shown below.

We spent about 470 million yen on environmental accounting as a whole. Pollution control costs, resource recycling costs, and environmental damage response costs account for the bulk of this spending.

We spent about 70 million yen on safety accounting as a whole. Most of this was for capital investments in safety countermeasure construction, etc. and in costs relating to health and safety protective equipment.

Environment accounting aggregated result (environmental preservation costs)

Classification	Main content	Cost (10,000 yen)
(1) Business area costs	Pollution prevention costs	17,372
	Resource recycling costs	11,983
(2) Management activity costs	International Organization for Standardization (ISO) inspection costs	3,616
	On-site tree planting and management costs	
	Sustainability report publishing costs	
	Various monitoring equipment maintenance and management costs	
(3) Social activity costs	General road cleaning costs for the vicinity	22
(4) Costs of dealing with any environmental damage	Pollution load levy ^(*)	13,858
Total		46,850

Safety accounting aggregated results

Classification	Amount (10,000 yen)
(1) Capital investment (constructions for safety measures, etc.)	3,105
(2) Safety, health, and disaster prevention education costs	208
(3) Legal inspection costs (boilers, cranes, firefighting related)	552
(4) Health checkup fees	990
(5) Safety and health protective equipment costs	2,412
Total	7,267

*1: We installed a soot and smoke generator as of April 1, 1987, and it is a levy required to be paid by businesses that emit sulfur oxides and have a certain level of exhaust gas. We have fulfilled our obligations since the start of the system.

Initiatives to comply with regulations

We position legal and regulatory compliance as one our most important business activities, and, in addition to forming compliance procedures, we conduct regular site and document monitoring and inspection. There were no violations that exceeded laws, regulations, or standards in FY2020.

Additionally, there were two labor accidents in FY2020. The first was a burn accident that occurred during removal of coagulated slag. As recurrence prevention measures, we raised open portions of gutters, reconfirmed responses when slag overflows, and provided related notifications and training. The second was an accident involving slipping and coming into contact with hot water while checking slag pit water levels. In response, we added lighting points and installed an inspection deck.

In our efforts to prevent labor accidents, we aim to thoroughly implement continuous improvement via the "Plan, Do, Check, Act" protocol that is the standard for management systems, further promote voluntary workplace health and safety management, and join together with our partner companies to eliminate accidents.

To reliably provide products all of our stakeholders can trust, we have come together company-wide to promote quality management activities based on our Quality Management System (QMS) and the Industrial Standardization Act.

Quality control

We have created a Quality Management System in accordance with the Japan Iron and Steel Federation's "Guidelines for Strengthening Quality Assurance Systems in the Iron and Steel Industry," and the Japan Mining Industry Association's "Guidelines for Producing and Selling Nonferrous Slag Products." We engage in quality management activities to ensure we are always able to meet product quality standards, satisfy our customers' requirements, and provide safe, high-quality products without contaminating the environment.

Main initiatives	Specific results
Measures to improve customer satisfaction	<p>Our ferronickel products are highly regarded by our customers in a variety of aspects, including stable quality, stable supply, and precise adherence to delivery deadlines, etc.</p> <p>Daily communication with customers and regular implementation of CS surveys are instrumental in keeping up with customer needs and improving how we make products and provide services.</p> <p>We also try to engage in proposal-type selling, as opposed to just picking up on what our customers tell us, so we can deliver better products and services.</p> <p>We supply our ferronickel slag products mainly to customers in Aomori and Iwate Prefectures. By endeavoring to ensure these products meet the particle size and component (quality) standards our customers demand based on a level of quality so high that they have never exceeded the safety standard values according to the Ministry of the Environment's notifications on elution volume (No. 18) and content (No. 19), they are highly regarded by our customers for their ease of use, etc.</p> <p>We also work to properly control our management system in accordance with the Japan Mining Industry Association's "Guidelines for Managing the Production and Sale of Nonferrous Slag Products," and endeavor to clean roads used for transport so as not to impose environmental impacts on local residents.</p>
Brush up of our analytical techniques to improve product quality reliability	<p>We are focused on handing down analytical techniques and technology to our young employees.</p> <p>We are promoting the accurate hand-down of veteran tacit knowledge, such as sensory-based techniques and knowhow, using skill charts, photos, and easy-to-follow documents, and conducting OJT based on them.</p> <p>We are also working to expand individual scopes of work, implement initiatives to enhance competence, and upgrade analytical techniques.</p> <div style="text-align: right;"> <p>Skills Chart</p> </div>
Laboratory accreditation of certification standards for testing and calibration laboratories (ISO/IEC 17025)	<p>Since the prices of ferronickel products and nickel ore depend on the amount of nickel they contain, ensuring the reliability of nickel analysis values is an important matter. We are certified under ISO/IEC 17025 in "methods for chemically analyzing components in ferronickel," "X-ray fluorescence methods for analyzing components in ferronickel," and "methods for chemically analyzing components in nickel ore," which we use to ensure the international and objective reliability of product inspections and raw material acceptance inspection results.</p> <p>In FY2020, we maintained our certifications by undergoing a once-every-four-years renewal examination.</p>

Each of our departments promotes quality management activities by setting clear objectives and goals. External ISO auditors determined that our "activity status and effectiveness are generally appropriate to the quality goals."

Department name	Status of activities with respect to quality goals												
Sales & Marketing Department, Sales & Marketing Section 1	<p>Sales Section 1 continues initiatives and activities to manage "ferronickel sales volume" goals as it always has.</p> <p>In FY2020, we engaged in new proposal type sales in an effort to provide products that fit (form, presence/absence of drying, etc.) processes used by our customers. For example, by changing from the ingots we have traditionally provided for domestic customers to shot products (no drying), we were able to lower costs for both us and our customers.</p>												
Sales & Marketing Department, Sales & Marketing Section 2	<p>Sales Section 2 sells the ferronickel slag obtained as a by-product in our ferronickel smelting process. We have developed various uses and applications for the ferronickel slag that have increased its value. As a result, the slag has been evaluated as having better workability and performance than natural sand and crushed stone. Slag generation and sales volumes for the past three years, which have led to improved revenues, are as shown in the following table.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>FY2018</th> <th>FY2019</th> <th>FY2020</th> </tr> </thead> <tbody> <tr> <td>Volume enerated</td> <td>1,460,000 t</td> <td>1,470,000 t</td> <td>890,000 t</td> </tr> <tr> <td>Volume Sold</td> <td>1,410,000 t</td> <td>1,450,000 t</td> <td>1,010,000 t</td> </tr> </tbody> </table>		FY2018	FY2019	FY2020	Volume enerated	1,460,000 t	1,470,000 t	890,000 t	Volume Sold	1,410,000 t	1,450,000 t	1,010,000 t
	FY2018	FY2019	FY2020										
Volume enerated	1,460,000 t	1,470,000 t	890,000 t										
Volume Sold	1,410,000 t	1,450,000 t	1,010,000 t										
Procurement Department, Purchasing Section 1	<p>With the theme of "ensuring long-term stable procurement of nickel resources," the Procurement Department strives to sign long-term agreements with mining companies and to develop new partner mines.</p> <p>Since issues in doing business with mines have included variations in quality and gaps in analysis, we have dispatched engineers, including expatriates, and examined contracting methods to address these issues.</p> <p>Furthermore, to develop new mines, we have sent personnel on business trips and invested internal human resources to cultivate mining companies in New Caledonia that provide good quality nickel.</p>												
Procurement Department, Purchasing Section 2	<p>Purchasing Section 2 remained engaged in "increasing recyclable nickel resources" as it has been since 2019. We achieved our 600 ton (nickel conversion) annual goal by leveraging the information networks of existing business partners, etc.</p> <p>Furthermore, out of an awareness of the fact that insufficient manpower is barrier to achieving our goals, we strive to manage section personnel time precisely, and have worked with the Work Process Improvement Promotion Department to consider ways of managing time in a more systematic way.</p>												
Production Department, Production Section 3	<p>Production Section 3 targets cost reductions (at least 2/yr.) as a way to manage goals, and, since last year, we have been working to improve a desulfurization method that does not use soda ash by adjusting our stirrers. As a result, we have reduced the amount of soda ash we purchase from 50 tons to 0 tons per year, which has also led to a reduction in white smoke, etc. Additionally, by improving the refractory anchor of the desulfurization cap, we improved refractory life by about 30%, which greatly contributed to cost reductions.</p>												

We work to disclose information to our shareholders and investors that is appropriate and easy to understand. We use our home page to hold briefings that center on the publication of various types of IR information.

IR activities

We have established an IR Committee built around our IR Director, and maintain a system that promotes constructive dialogue with all of our shareholders and investors.

We convene regular general meetings of shareholders every six months as well as settlement briefings at second quarter settlements where we explain our business performance, plans, and strategies, etc. to all of our shareholders and investors.

Furthermore, we position the returning of profits to shareholders as an important business management task and work to return profits to shareholders via profit dividends while striving to enhance and strengthen our corporate constitution. Our policy is to pay dividends twice each business fiscal year in the form of an interim dividend and a term-end dividend, and these surplus dividends are determined by our Board of Directors.

Dialogues with shareholders and investors

We hold regular briefings on IR for analysts and institutional twice a year.

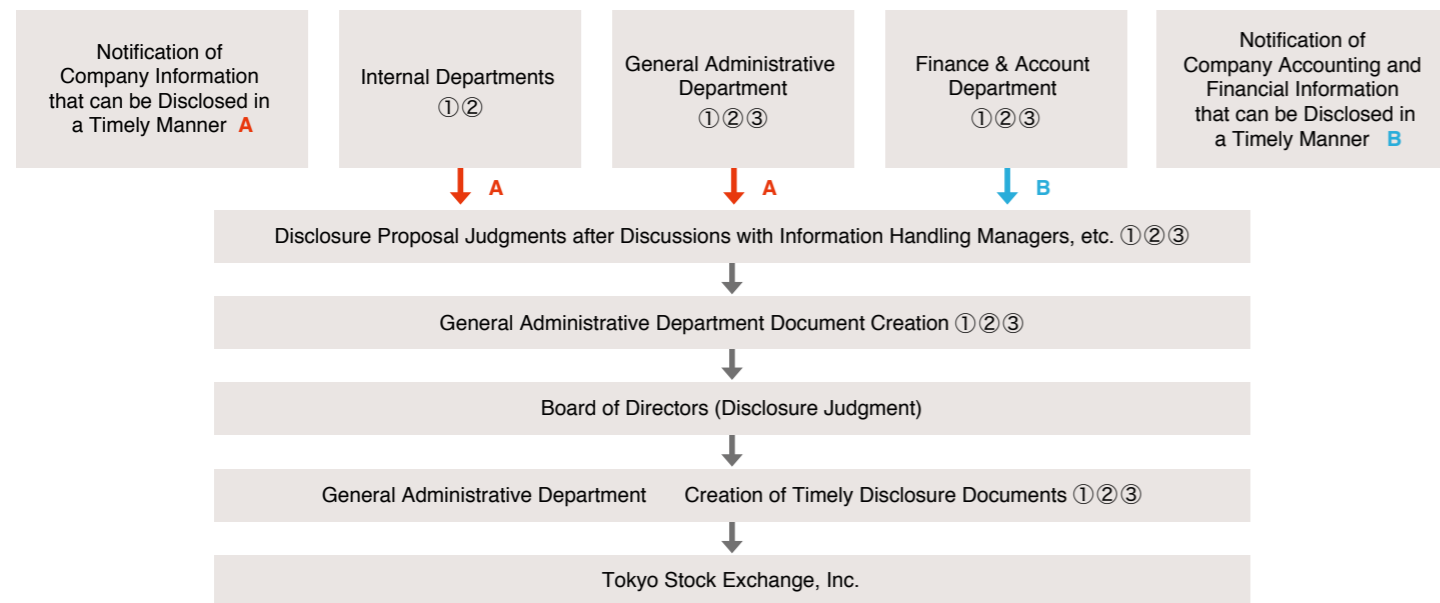
We work to ensure that shareholder opinions are shared with the entire Board of Directors with a focus on the Chairman of the Board. We also take adequate steps to ensure the proper management of insider information and that digital gaps do not develop among shareholders when holding dialogues with shareholders.

Information disclosure

We disclose various information on our home page in an appropriate and timely manner based on the Information Disclosure Policy set forth in our “Basic Policy on Corporate Governance.”

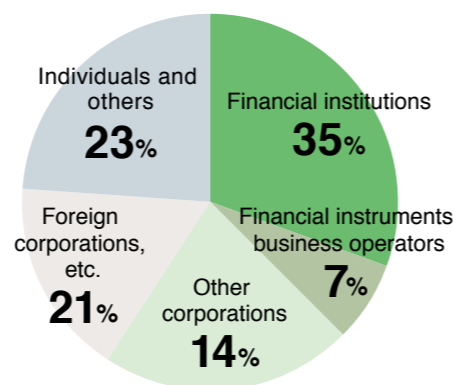
We have created a system for disclosing information relating to decisions, and information relating to occurrences and settlements that could impact investor investment decisions. Under this system, when important facts arise, relevant internal departments examine the necessity of disclosing them, the Board of Directors makes judgments on such disclosure, and, when facts are to be disclosed, they are disclosed to the Tokyo Stock Exchange.

Information disclosure system



① Information relating to decisions (including information relating to subsidiaries)
 ② Information relating to occurrences and settlements that could impact investor investment decisions (including information relating to subsidiaries)
 ③ Information relating to settlements

Composition of our shareholders

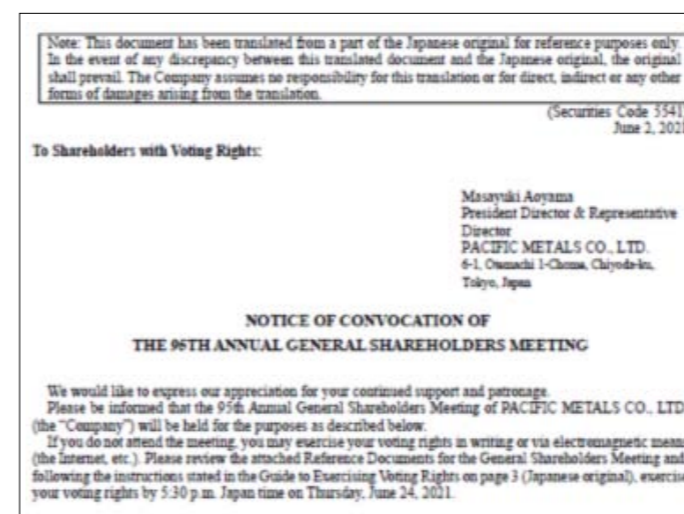


We send notices of convocations of general meetings of shareholders early so that all shareholders can adequately scrutinize details of resolutions and properly exercise their rights. We also disclose relevant convocation notices on stock exchanges or our home page the day before we send them.

Furthermore, with the goal of enhancing the rights and equality of our shareholders, we post “Internet disclosure items at the time of the convocation of regular general meetings of shareholders” on our home page, and translate notices of convocations of general meetings of shareholders into English to ensure that all shareholders can appropriately exercise their voting rights.

Note that, for the general meeting of shareholders held on June 25, 2021, in an effort to combat the spread of COVID-19, we encouraged the advance exercise of voting rights to the degree possible using documents and electromagnetic methods, and had those who attended the meeting wear masks, etc.

General meeting of shareholders convocation notices, etc.



[Click here for IR materials](https://www.pacific-metals.co.jp/en/ir/) <https://www.pacific-metals.co.jp/en/ir/>

Capital business alliance with AMITA HOLDINGS CO., LTD.

We listed contributing to the achievement of a sustainable society as one of our basic policies in our “PAMCO-2021” Medium-term Business Plan, and examined collaborations with optimal partners for realizing this goal.

In April 2021, we signed a capital and business alliance agreement with AMITA HOLDING CO., LTD. under which we will work together to strengthen and enhance our resource recycling business and environmental recycling business.

By creating original 100% recycling technology and recycling systems under the theme of “Re-design of industry and living,” AMITA HOLDINGS has become a leading company in the sustainability sector that provides integrated support to customers that are looking to achieve sustainable corporate business management and regional operations.

We value the connection with the local community, carry out clean-up activities, and endeavor to revitalize the community by sponsoring local organizations and participating in local events. We strive to communicate with all of our stakeholders through local initiatives.

Donations of disinfectants to the city of Hachinohe

We recently donated alcohol-based disinfectants to the City of Hachinohe in the hope that it would be useful in preventing the spread of COVID-19, and received a letter of appreciation from the city in return. In addition, Director Inomata handed a list of the donated disinfectants to Mayor Kobayashi at the Hachinohe City Hall. We will continue to contribute to regional society, beginning with the City of Hachinohe, into the future.

Donated products			
• Hand Squish EX	4.5 ℓ × 3 bottles/case	50 cases	
• Hand Squish EX/with nozzle	0.8 ℓ × 6 bottles/case	30 cases	
• Hand Squish EX/refills	0.8 ℓ × 6 bottles/case	70 cases	

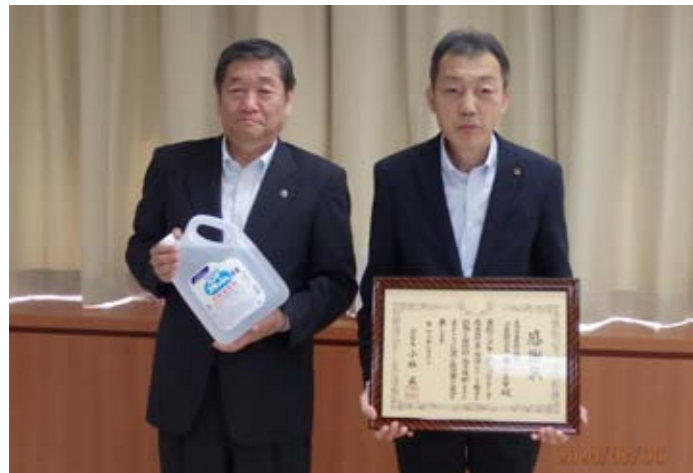


Photo of donation ceremony and awarding of letter of appreciation



Letter of appreciation

Ways of interacting with partners under the new normal

Because the safety of our business partners and employees is our top concern, our group formulated “behavioral guidelines to stop the spread of infections” and has been working hard to combat the spread of COVID-19, the impacts of which are being felt in Japan and overseas, by avoiding business trips, and encouraging working from home, utilization of web conferencing, hand washing, and gargling, etc. We are also working to reduce the impact infections impose on our business activities, etc. while remaining in communication with our customers and suppliers in countries around the world.

Tohoku house sponsorship

In response to a request from Tohoku Economic Federation, we used the opportunity of the Tokyo Olympics and Paralympics to sponsor a “Tohoku House” event designed to broadcast the charm of Tohoku and Niigata.

The “Tohoku House” is an information dissemination base set up for a limited time on the 10th anniversary of the Great East Japan Earthquake to express thanks for the support received from around the world, convey that the Tohoku region is energetic, secure, and making steady strides toward reconstruction, and to invite people from around the world to enjoy the charm of “Tohoku and Niigata” not found in other parts of Japan. The events we sponsored are posted on the “Tohoku House” home page venue panels.

Cleanup activities on factory premises and in the region

It’s been 12 years now since we started cleanup activities along harbor-facing roads around our factory to support regional beautification efforts and make contributions to society. In November 2020, a total of 30 employees, including our employees and employees from affiliates and partner companies, donned masks and practiced social distancing as they participated in cleanup activities in the City of Hachinohe’s Toyosu District and First Industrial Port. They collected a total of 10 kg of combustible and non-combustible garbage.

The City of Hachinohe recorded this cleanup activity in its “Hachinohe Green System,” which supports environmental beautification activities.



Regional cleanup activities



Sponsorship of local soccer teams

We started loaning the artificial turf “PAMCO Field” soccer field, prepared on a final disposal site where we used to bury ferronickel slag, to the local “Vanraure Hachinohe” soccer club in July 2019.

We continued our official partnership with Vanraure Hachinohe into FY2020 as well. We very much hope to remain an active part of “Vanraure Hachinohe,” and continue our contributions to the promotion of regional sports.

We also held the PAMCO Cup, which we sponsor, for the U-10 age group in FY2021. The plan is to hold league matches involving a total of eight teams. We hope the cup will be held at PAMCO Field as a venue where players can gain match experience and find growth opportunities.



PAMCO Field



Photo of soccer match at PAMCO Field

We have been promoting voluntary work accident prevention activities under the slogan “Be Safety!” and working to prevent workplace accidents by raising safety awareness. We are also promoting health management activities so that employees can maintain a safe and healthy work environment.

Occupational safety activities

We have been actively engaged in small group activities lead by team leader class managers since FY2019. In FY2020, 40 internal teams engaged in initiatives listing 65 themes they could apply to problems and issues in their own departments by themselves in the form of “Equipment Improvement Countermeasures,” “Workplace Environment Countermeasures,” and “Emergency Response Training,” etc. Awareness of health and safety is steadily improving thanks to the voluntary actions being taken by workplace teams via small group activities.

For the three years from 2018 through 2020, we, and our contractor partner companies, were evaluated on overall safety performance by the Japan Iron and Steel Federation, and given “Outstanding Performance Awards” under the federation’s Steel Safety Awards. We will continue to actively engage in initiatives relating to health and safety management activities that include our contractor partner companies.



Award certificate



Plaque

Hygiene activities

We have listed “strengthening physical and mental health management” as a company-wide goal. In addition to encouraging employees to engage in voluntary activities under our “individual health goals” designed to reduce the number of findings in regular medical examinations by one, we have, in support of mental health, implemented personal interviews for high-stress and overworked workers with occupational physicians in an effort to prevent mental disorders. We carry out weekly workplace patrols by Health Supervisors as workplace labor environment improvement activities during which supervisors check for work environments that could impact worker health and point out defects, which we then correct.

Disaster prevention Activities

During Comprehensive Disaster Prevention Training, employees are trained to carry out evacuations, report damage, and confirm safety in preparation for large earthquakes with seismic intensities of 5 or higher. It also involves teaching new employees how to fight fires using fire extinguishers and the importance of extinguishing fires quickly.

Our tsunami evacuation training conducted each year on March 11 assumes the issuance of a tsunami warning following a major earthquake, and provides training to enable evacuation to a tsunami evacuation location, matching of evacuees to the employment management system, and reliable identification of evacuated personnel.

We also increased the number of AEDs installed on the premises of our Hachinohe Headquarters by 10 in FY2020. We now have a total of 14 AEDs on the premises. By holding lifesaving training sessions for about 70 team leader class managers, we are focused on establishing a system that enables prompt first aid using AEDs during emergencies.



workplace patrol



Firefighting training

Employee initiatives for preventing the spread of COVID-19

We formulated a “Workplace Disinfection Manual for COVID-19, etc.” under which all employees disinfect facilities and nearby surroundings under their care at all times, with the following in mind.

- ① Focus on disinfecting areas that are likely to be touched by an unspecified number of people at least once a day. In the case of work conducted on shifts, disinfect the operation rooms, and break rooms, etc. at least once every shift.
- ② Disinfect your desk, chair, keyboard, and telephone, etc. every day before leaving the office.

We also distribute masks to employees, thoroughly inform them about disinfection, hold distributed in-house training, and promote at homework and web meetings.

We also ask visitors to fill out check sheets before arriving, submit the check sheets on arrival, agree to having their temperatures taken, and adhere to strict hand washing regimes. We continue to implement thorough measures to prevent the spread of COVID-19.



Contactless thermometers



Hand sanitizer



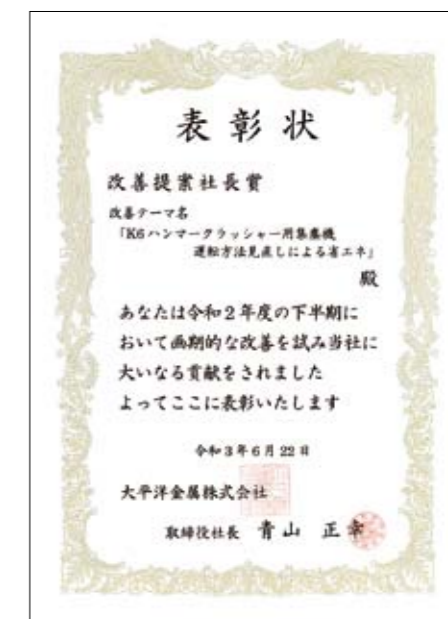
Installation of acrylic panels

Improvement proposal activities

We engage in improvement proposal activities for the purpose of creating habits among employees that improve their awareness of quality, the environment, and safety. There were 1,084 proposals in FY2020, and all participating employees achieved their annual target of at least two proposals. About half of the proposals were related to health and safety, and the best were given awards; 15 winning the President’s Improvement Proposal Award and seven receiving the IMS Management Supervisor’s Award. The quality of improvement proposals has been improving each year, and we are seeing more cases where employees find problems, approach them from multiple perspectives, and produce results that resolve the problems.

Furthermore, each department has also been proposing ideas for COVID-19 countermeasures since the end of FY2019. A production site submitted an improvement measure for preventing contact and splashes by utilizing the materials on hand. We are continuously engaged in improving infection control measures in response to new findings and seasonal changes.

We also hold in-house seminars on improvement proposals for those who evaluate the content of improvement proposals and those who are evaluated. We hold the seminars through a combination of group attendance in conference rooms and remote attendance to avoid crowded conditions.



President's improvement proposal award certificate

Supply chain management

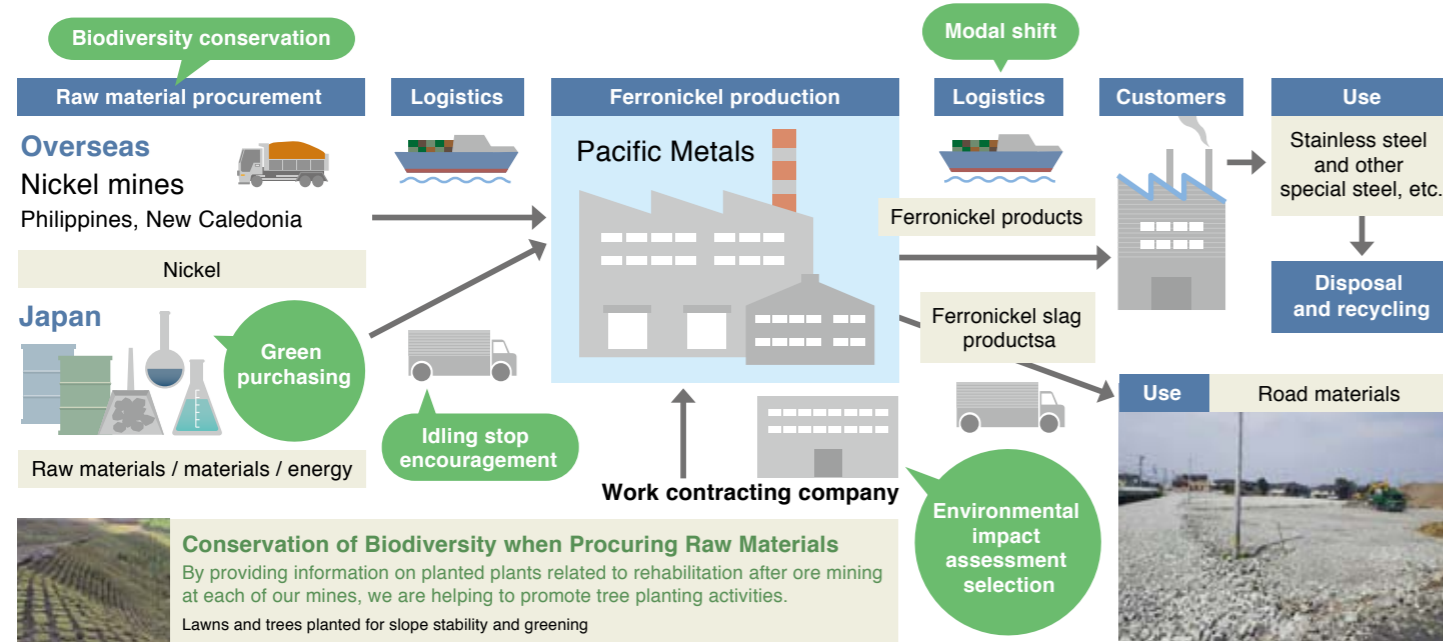


We conduct a variety of activities that take harmony with the environment into consideration at each stage in the supply chain, not just at our production sites.

We import nickel ore, which is the raw materials used to produce ferronickel, from the Philippines and New Caledonia where we are obligated to perform afforestation at local mines in order to restore (rehabilitate) sites to their original states to the degree possible after ore mining. We have always provided information relating to afforestation at every mine to other mines after obtaining permission to disclose the information. We will continue to provide such information as necessary.

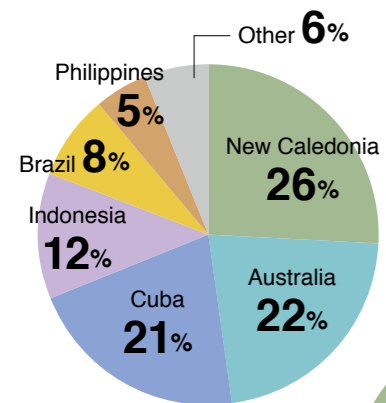
Additionally, internationally unified safety regulations are in place for the sea transportation of solid bulk cargo such as ore. We actively comply with such international regulations, and take safety measures and environmental considerations to prevent accidents on ships.

Overview diagram of the Pacific Metals supply chain

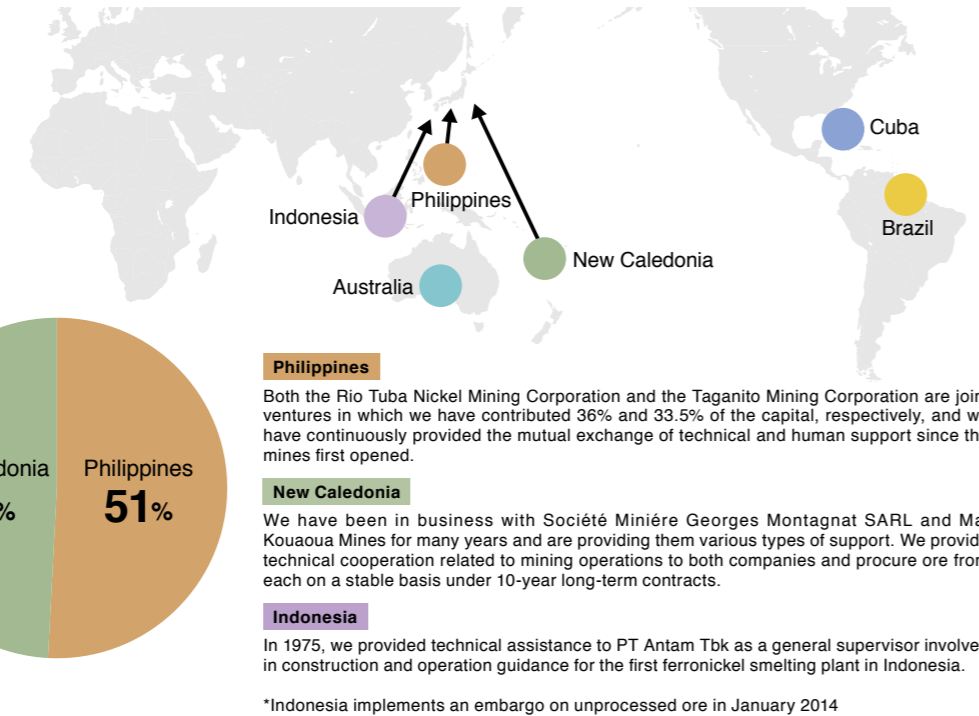


Information relating to purchasing

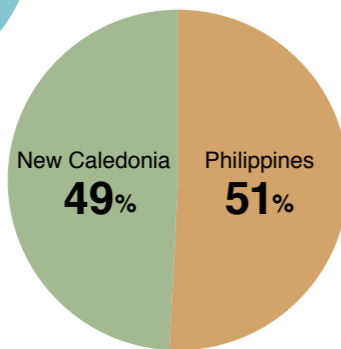
Global nickel oxide ore reserves



Status of nickel oxide ore countries

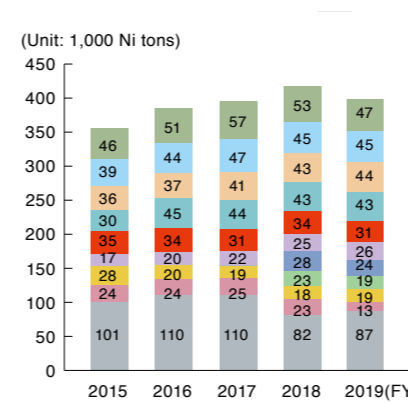


Amount of nickel oxide ore we purchase (Period ending March 2021: 17,000 Ni tons)

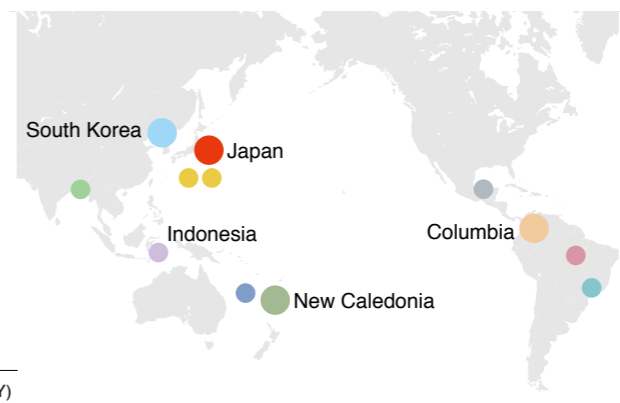


Information relating to production

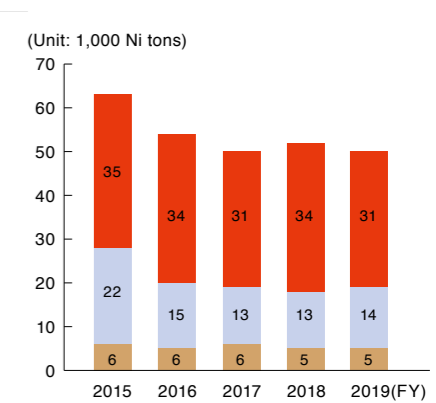
Global ferronickel production



Global ferronickel production bases

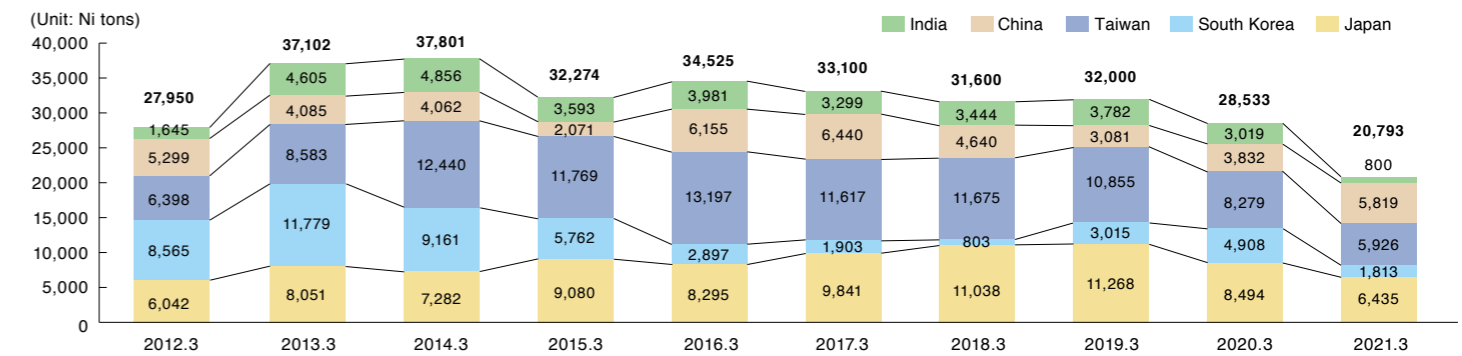


Japan's ferronickel production

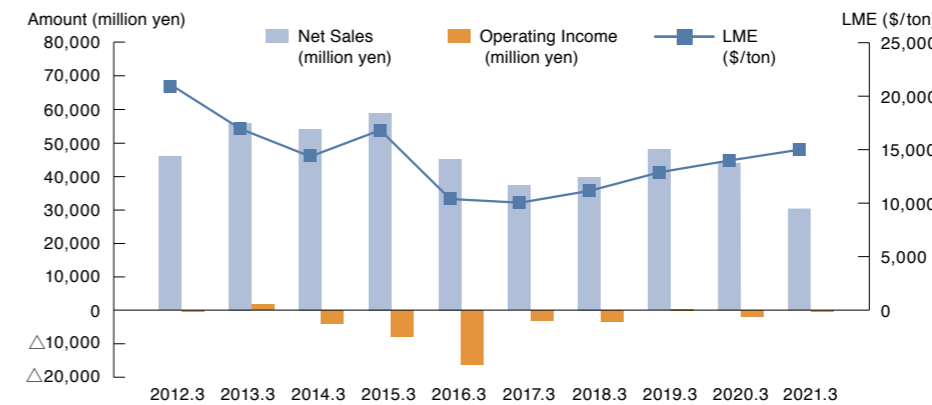


Information relating to sales

Sales volume trends (by country)



Trends in nickel business net sales and LME nickel prices



Standards for ferronickel sales prices

- For domestic use
LME nickel price (average for past three months) × forex market (average for past three months)
- For export
LME nickel price (average for past month) × forex market (spot)

→ Our income is linked to LME nickel prices

Nickel business	Mar. 2012	Mar. 2013	Mar. 2014	Mar. 2015	Mar. 2016	Mar. 2017	Mar. 2018	Mar. 2019	Mar. 2020	Mar. 2021
Net Sales (million yen)	46,015	56,026	54,302	59,065	45,239	37,357	39,855	48,142	44,133	30,419
Operating Income (million yen)	△18	1,780	△3,978	△7,987	△16,208	△3,129	△3,412	382	△1,879	△567
LME (\$/ton)	21,085	16,947	14,356	16,825	10,387	10,042	11,159	12,893	13,991	14,999
Exchange TTS (¥/\$)	80.08	84.1	101.24	110.93	121.14	109.38	111.85	111.91	109.74	107.06

*Changed to a single reporting segment for the nickel business beginning the first quarter of the fiscal year ending March 2020.
*LME nickel price and exchange TTS are both average values during the settlement period.

Aiming to improve corporate value, we strive to strengthen and enhance corporate governance through rapid decision making and management efficiency, and through ensuring transparency and soundness of management by strengthening supervisory functions. In doing so, we are also taking appropriate measures related to risk management and compliance.

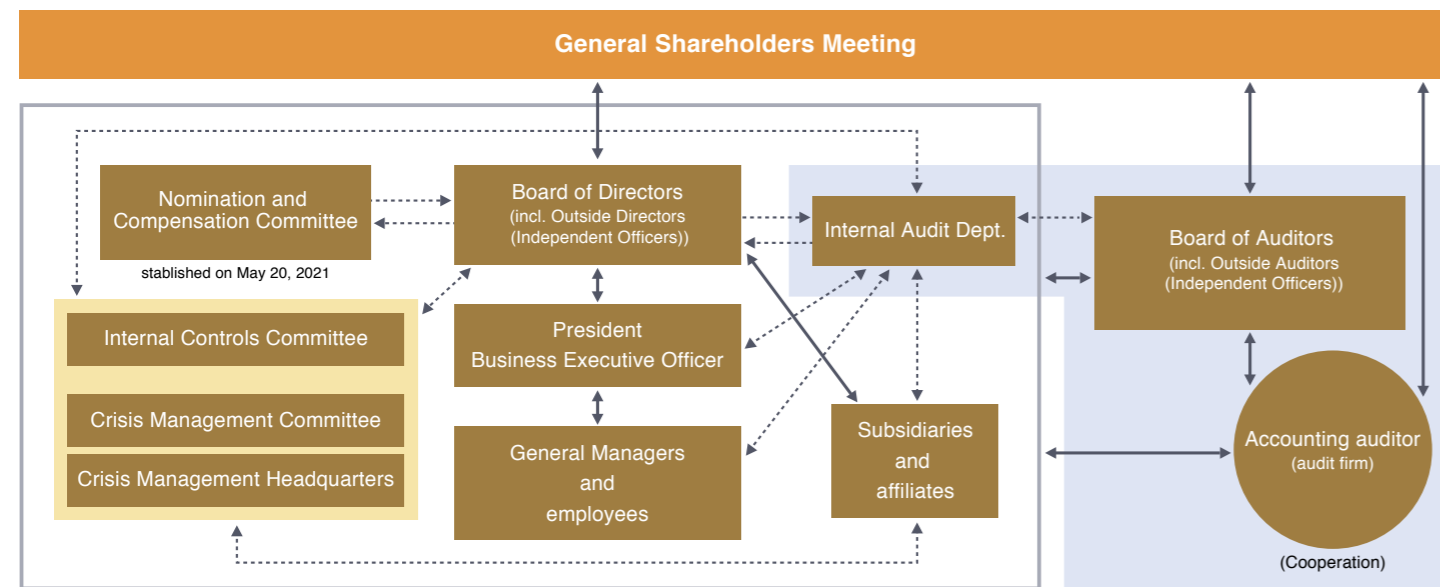
Corporate governance system

Our basic idea is to enhance our corporate governance centered on a system of directors and auditors, and to build fair and transparent business management mechanisms.

Our business management structure consists of nine directors, including three outside directors, and four auditors, including three outside auditors.

■ Corporate governance system

→ Flow of conventional business, etc. Meaning of reports, instructions, audits, appointments, etc. regarding internal controls



● Board of Directors

To respond promptly and appropriately to changes in the business environment, the Board of Directors holds, in addition to monthly board meetings, meetings between directors as needed to ensure prompt responses, efficient execution of operations, and monitoring of execution of operations between directors.

● Board of Corporate Auditors

The Board of Corporate Auditors conducts audits to ensure directors conduct business fairly. To ensure independence, 3 out of the 4 auditors are outside auditors (part-time), and our system is such that all corporate auditors, including part-time employees, can attend all meetings of the Board of Directors.

Compliance

Our Board of Directors has established “Management Policies,” a “Corporate Code of Ethics,” and a “Corporate Code of Conduct,” etc., and advocates compliance with laws and regulations. To ensure business is conducted based on these policies and norms, we have established an Internal Controls Committee to strengthen compliance.

We list the following with respect to compliance and adherence to social norms, and all officers and employees, including directors, carry out their duties with an awareness thereof.

1. Conduct company activities in accordance with compliance, social norms, and social decency.
2. Conduct sound company activities by remaining insulated from antisocial forces that threaten social order and security.
3. Comply with international rules and local laws, and respect local cultures and customs when conducting international business activities. Conduct company activities that contribute to the development of each country.

Efforts for eliminating antisocial forces

We have no relationships with antisocial forces that threaten the order and safety of civil society or any similar organizations, and stipulate that requests for such relationships be categorically rejected.

We cooperate with the police, the Federation for Special Violence Prevention Measures, and external specialized institutions by setting up points of contact and centrally managing information.

Our Attitude toward corporate governance

We are engaged in enhancing corporate governance that is continuously improved based on the basic corporate governance concepts shown below.

- (1) We respect the rights of, and ensure the equality of, all shareholders.
- (2) We work appropriately, and in good faith, taking into consideration the interests of all stakeholders, including shareholders, consumers, business partners, employees, and local communities.
- (3) We proactively disclose not only appropriate information disclosed based on relevant laws and regulations, but also other information that can be used as a basis for investment decisions.
- (4) Our Board of Directors is responsible for achieving sustainable growth and maximizing corporate value over the medium- to long-term based on the fiduciary security from our shareholders.
To that end, we build business management mechanisms that are fair and transparent by implementing an executive officer system and separating decision-making and business execution functions, and by strengthening business execution supervision functions through the appointment of outside officers. (outside directors and outside corporate auditors).
- (5) We engage in constructive dialogue with our shareholders in order to achieve sustainable growth and maximize corporate value over the medium- to long-term.

Furthermore, it is important that we recognize issues and anticipate changes for achieving new growth in the midst of the changes in the environment triggered by COVID-19.

Therefore, we believe it is important for companies to tackle governance issues such as sustainability issues with a sense of urgency in order to achieve sustainable growth and increase corporate value over the medium- to long-term.

● Establishment of a Nomination and Compensation Committee

To enhance the fairness, transparency, and objectivity of procedures related to nominating and compensating directors and executive officers, etc., and to further enhance corporate governance, we established a Nomination and Compensation Committee on May 20, 2021.

The Nomination and Compensation Committee, in response to inquiries from the Board of Directors, mainly deliberates on matters related to the appointment and dismissal of directors, matters related to director compensation, and other matters approved by the committee regarding director nomination and compensation, and provides advice and recommendations.

The Nomination and Compensation Committee is composed of at least three but no more than five persons, half of whom shall be independent outside directors. The Committee Chair shall be an independent outside director (reported to the Tokyo Stock Exchange, Inc.).

● Overview of Outside Directors

One of the three outside directors shall be an attorney, the other two shall be corporate business managers.

In addition to promoting stronger compliance and enhancing corporate governance, we have appointed three people, including women, to incorporate various points of view from a diversity of perspectives.

● Sustainability Initiatives

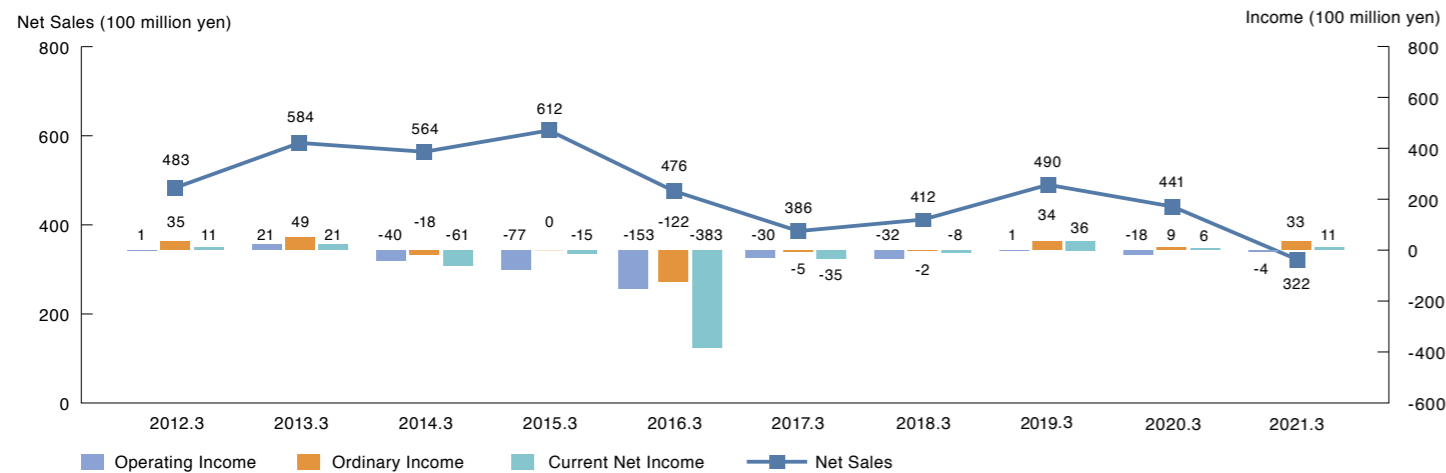
With the aim of realizing sustainable improvement of corporate value while taking social responsibility into consideration, we are actively engaged in SDG initiatives. We are working not only to convey the reality of these initiatives but also to ensure that each of our employees has a deep understanding of, and is strongly motivated with respect to, the significance of our SDGs and sustainability, and develops an attitude for working independently to achieve them.

We have posted our Basic Policy on Corporate Governance and Corporate Governance Report Form on the “Corporate Governance” page of our home page.

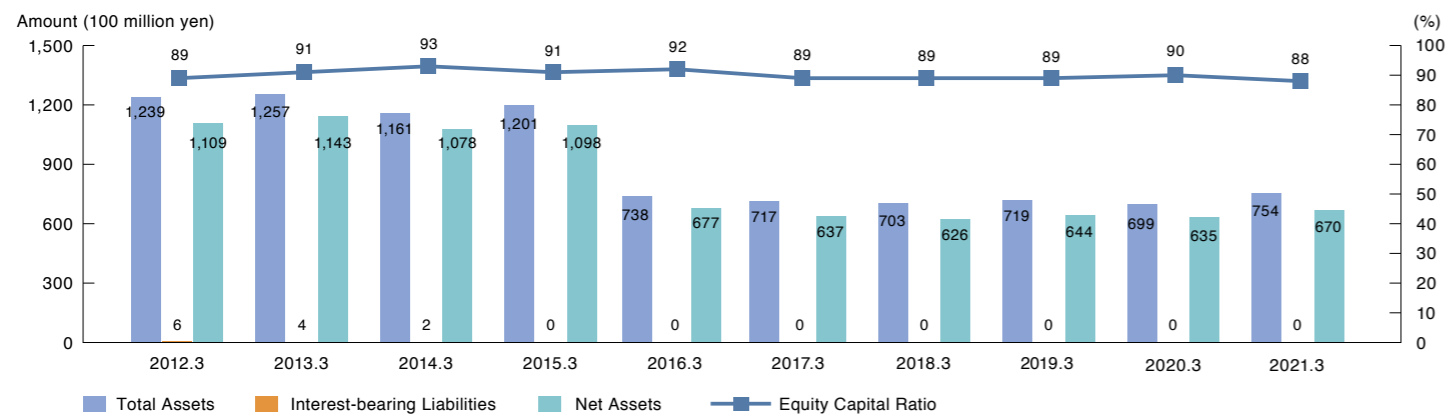
[Click here for information on corporate governance](https://www.pacific-metals.co.jp/en/ir/governance.php) <https://www.pacific-metals.co.jp/en/ir/governance.php>

Data Compilation

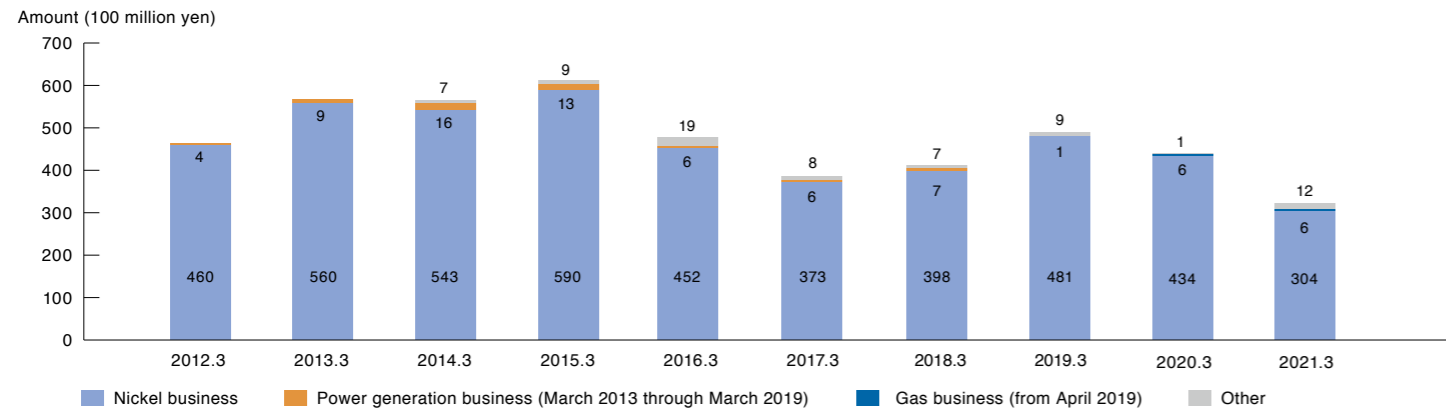
■ Performance trends (consolidated ordinary indicators, etc.)



■ Financial status trends (consolidated ordinary indicators, etc.)



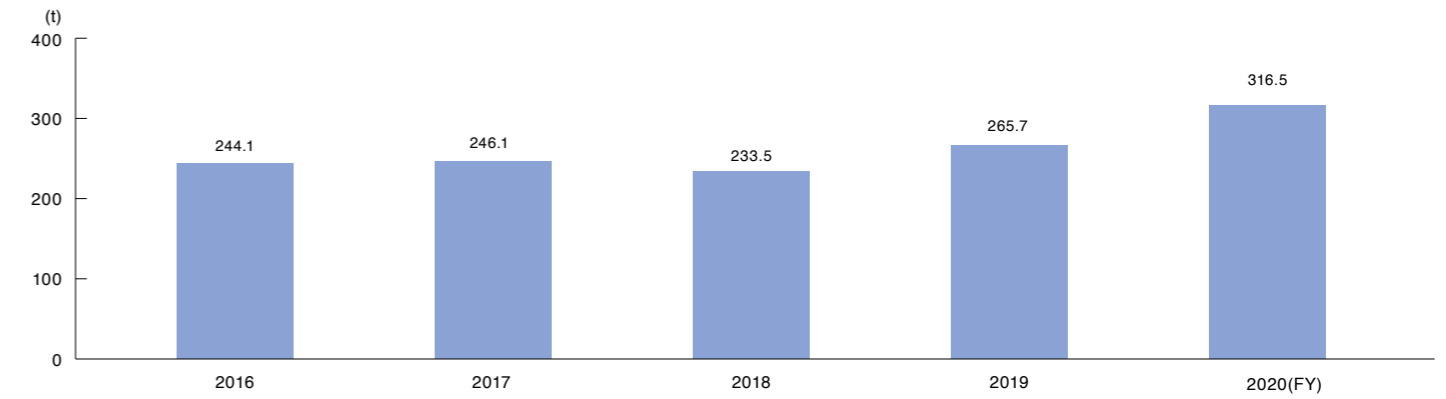
■ Net sales by segment



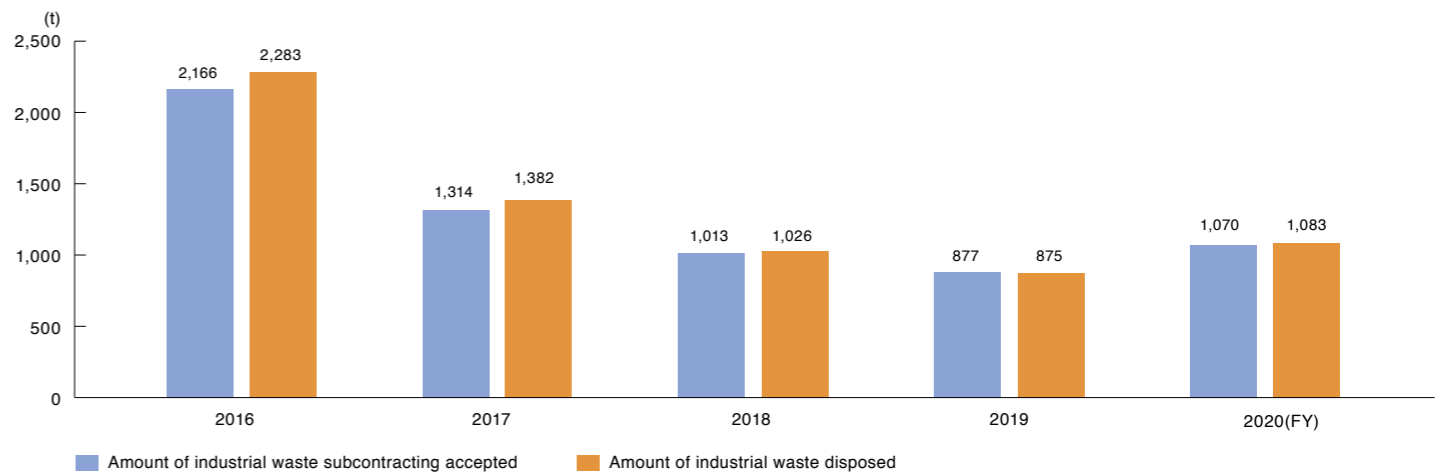
◎: Consolidated subsidiary * : Affiliate accounted for by the equity-method

Segment Name	Company Name	Investment Ratio	Business Description
Nickel business	Pacific Metals		Production and sales of ferronickel products and slag products, incinerator ash recycling
	◎Taiheiyo Kosan	74.0%	Transportation, contracting, real estate related, etc.
	* Taganito Mine Co., Ltd.	33.5%	Ore mining and sales (Philippines)
	* Rio Tuba Nickel Mine Co., Ltd.	36.0%	Ore mining and sales (Philippines)
	* Pacific Sowa	33.7%	Sales of cast and forged steel products, industrial machinery, etc.
Gas Business	◎Pacific Gas Center	50.0%	Production and sales of gases

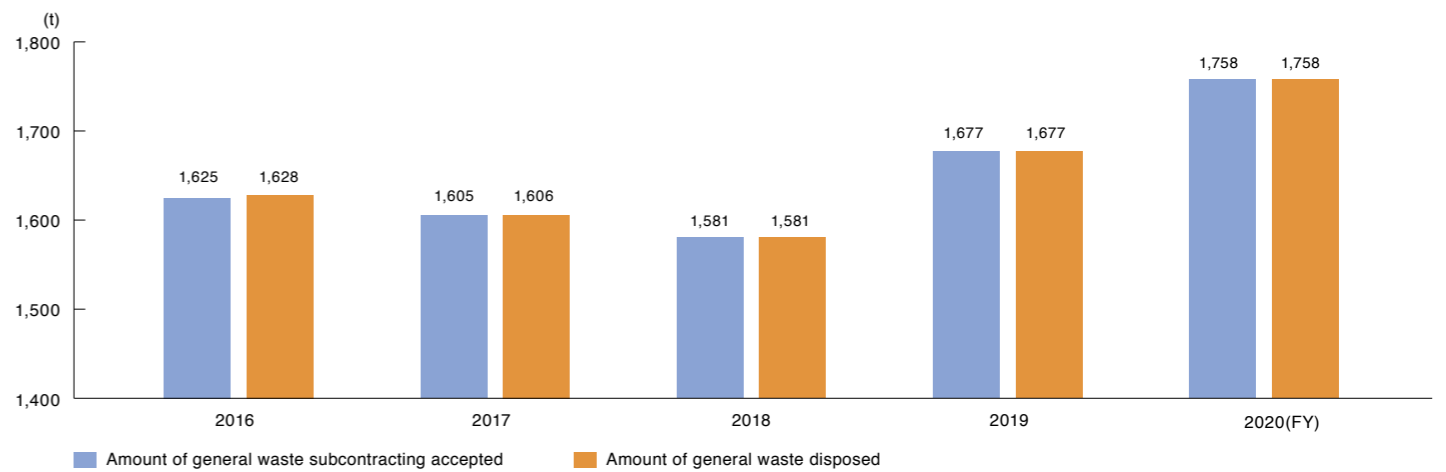
■ Amount of industrial waste disposal subcontracted



■ Amount of industrial waste subcontracting accepted, and amount disposed




■ Amount of general waste subcontracting accepted, and amount disposed



Photographs of the Hachinohe Head Office: 1951 and 2019

Volume of ferronickel produced

1,510,000
Net.t



* From November 1966 through 2020

Volume of slag products produced


5,723,000 t



* From FY2003 through FY2020

Volume of melting treatments by the recycling business


100,000
Wet.t



* From FY2008 through FY2020

Amount of electric power used

44,453 GWH



* From 1971 through 2020


Volume of nickel ore purchased

30,533,000
Wet.t

* From FY2008 through FY2020

Nickel ore ships


634 ships



* From FY2008 through FY2020

**Improvement proposals
President's awards and incentives**


18,000,000
yen



* From FY2009 through FY2020

**Improvement proposals
cumulative effective amounts of one years' worth of president's awards, etc.**

310,000,000
yen



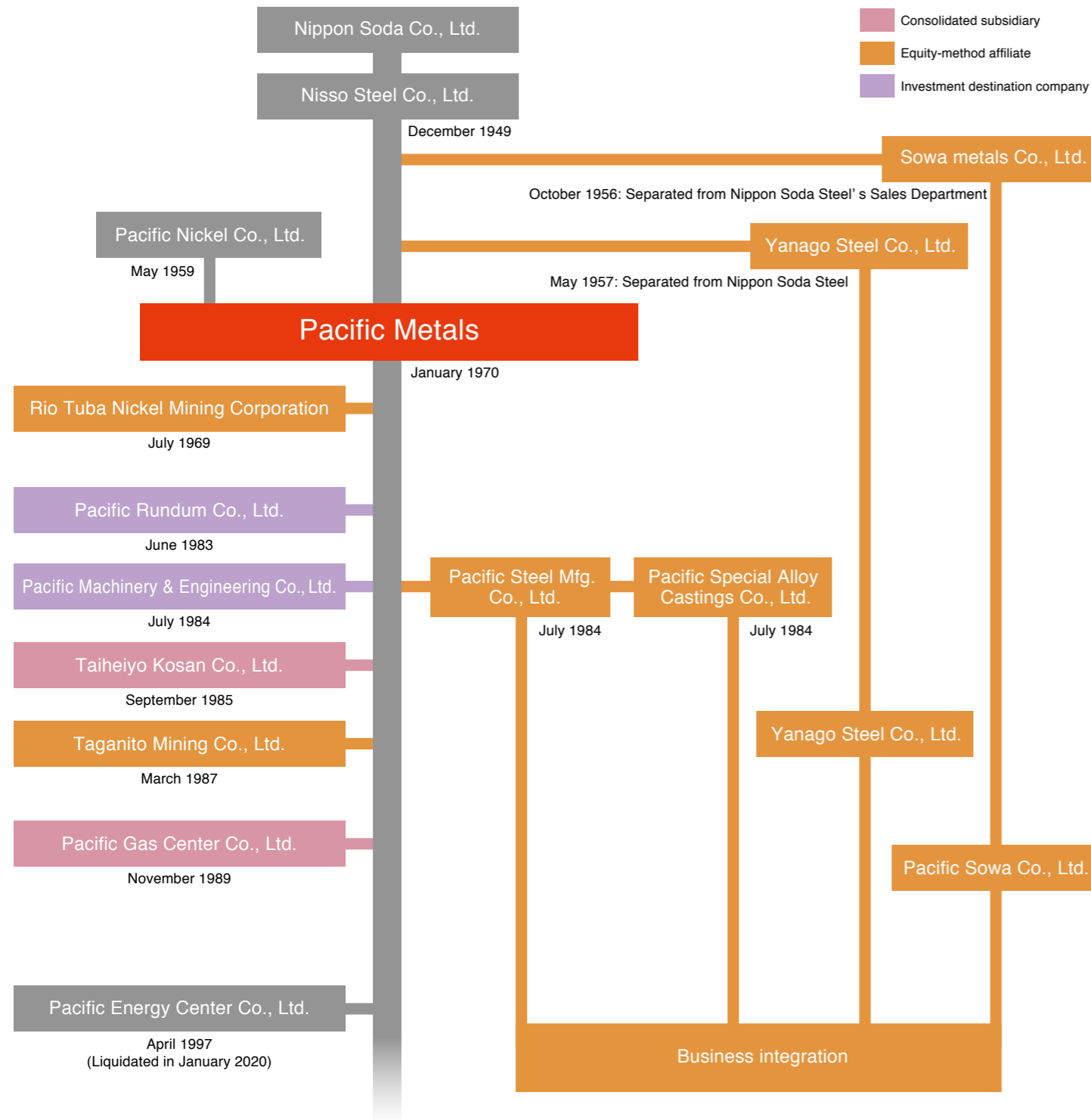
* From FY2009 through FY2020

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History of Pacific Metals and Its Environmental and Social Activities

History of Pacific Metals



- 1949 Separated from Nippon Soda Co., Ltd.'s steel department and established as Nisso Steel Co., Ltd.
- 1952 Listed on the Tokyo Stock Exchange and Osaka Stock Exchange.
- 1954 Converted the pig iron smelting facilities facility at the Shibata Plant to a ferronickel smelting facility.
- 1957 Completed construction of the Hachinohe Plant, production of pig iron from iron sand started.
- 1959 Divested the Shibata Plant with the establishment of Pacific Nickel Co., Ltd., which specializes in ferronickel smelting.
- 1965 Converted part of the Hachinohe Plant's pig iron production facility to alloy iron and ferronickel smelting. Following production start ferromanganese, production of ferronickel began in 1966 and stainless steel in 1968. Installed two large electric furnaces, one 25,000 KVA in 1969 and one 40,000 KVA in 1970 to increase production of ferronickel.
- Absorbed Pacific Nickel Co., Ltd. and changed company name to Pacific Metals Co., Ltd.
- 1970 Established the foundation as a top ferronickel manufacturer.
Opens Philippines Office
- 1972 Signed technical assistance contract for construction of ferronickel smelting plant of Aneka Tambang, Indonesia (Antam Project).
- 1973 Invested in the Rio Tuba Nickel Mining Corporation in the Philippines and developed nickel mine.
- 1974 Concluded a telemeter system agreement.
- 1978 Concluded a pollution control agreement.
- 1980 Acquired industrial waste disposal business permit.
- 1983 Divested the Iwase Plant, and transferred the grinding material department to Pacific Rundum Co., Ltd.
- 1984 Spun off the Naoetsu, Toyama, and Narashino Plants, and the cast steel, forged steel, and machinery departments were transferred to Pacific Special Alloy Castings Co., Ltd., Pacific Steel Mfg. Co., Ltd., and Pacific Machinery & Engineering Co., Ltd., respectively.
- 1985 Renamed Hachinohe Plant to Hachinohe Works.
- 1988 Developed a nickel mine by taking an equity stake in Taganito Mining Corporation in the Philippines.
- 1995 Installed 60,000 KVA ferronickel smelting electric furnace at Hachinohe Works and established 3 furnaces.
- 1996 Completed Hachinohe Port Kwaragi No. 2 Pier (public).
- 1997 Completed raw material transport conveyor line equipment (Kwaragi).
- 1998 Acquired ISO 9002 certification.
- 1999 Moved the head office organization to Hachinohe to become a specialized manufacturer of ferronickel.
- 2003 Completed the "Incineration Ash and Scallop Shell Recycling Facility" for the recycling business.
Transited to ISO 9001:2000.
- Achieved 1 million tons of ferronickel production.
- 2005 Conducted environmental assessment in accordance with the Aomori Prefecture Environmental Impact Assessment Ordinance.
Acquired special management industrial waste disposal business permit.
- 2006 Completed ferronickel production line expansion work.
Installed the second power plant denitration equipment.
- 2007 Installed drainage monitors in all drains.
Installed a small-scale wastewater treatment device at a part of the drainage port.
- 2008 Opened Jakarta Office.
- 2009 Acquired ISO 14001:2004.
- 2010 Completed ferronickel production line expansion work.
- 2010 Installed a dust monitor in the ore yard.
- 2011 Launched webpage for waste disposal status.
Installed drainage port and chimney monitoring cameras.
- 2012 Acquired OHSAS 18001:2007.
- 2013 Started operations of wastewater treatment facility.
- 2014 Started integrated management system operation.
- 2015 Established basic policy on corporate governance code.
- 2016 Formulated new "Long-term Vision."
Awarded "Excellent Workplace" from the Aomori Industrial Waste Association.
- 2017 Participated in Hachinohe Kojyo Daigaku Art Project.
- 2018 Received the "Mottainai Aomori Award" on the 10th Anniversary of the Mottainai Aomori Prefectural Movement Promotion Council.
- 2019 Acquired naming rights for "PAMCO Field," a soccer field exclusively for Vanraure Hachinohe.
- 2020 (Special management) Obtained certification as industrial waste treatment business (Excellence)
- 2021 ISO 45001: Transitioned in 2018

Editor's Notes

This report was compiled in the midst of a business environment that was changing on a daily basis due to the expanding spread of COVID-19. To expand on the public information published in the FY2020 version of this report, we added a compilation of major financial and non-financial data for the first time. This sort of situation is precisely the reason we feel it is important to promote ESG-related activities. Going forward, we will continue to tackle important issues related to ESGs and promote sustainable corporate activities.