

# Sustainability Data

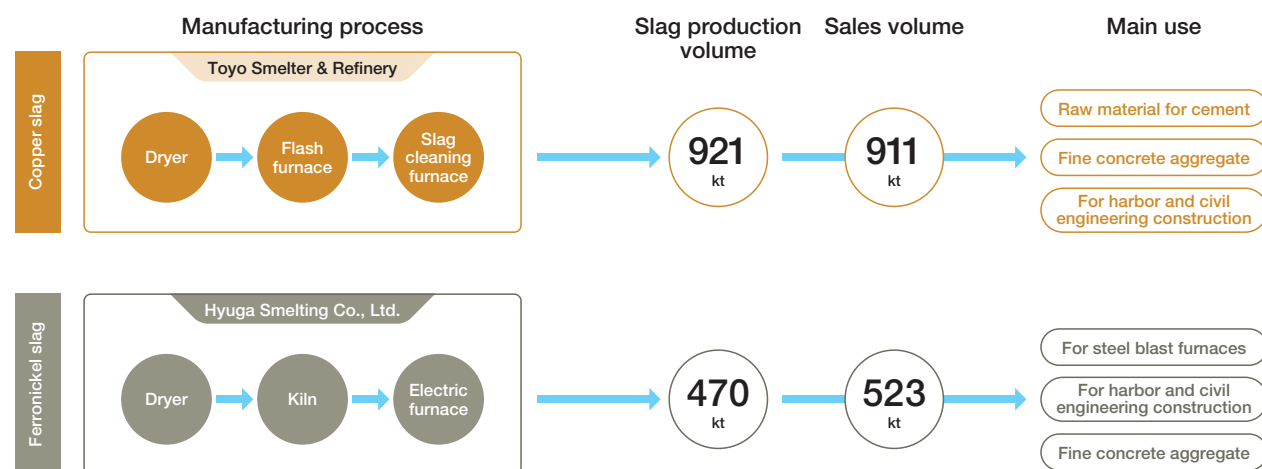
## Effective Use of Resources

### Percentage of Recycled Input Materials Used ☒

FY	2015	2016	2017
Total volume of materials used (kt)	11,795	11,041	10,427
Recycled materials (kt)	233	222	221
Percentage of recycled input materials used (%)	2.0	2.0	2.1

The SMM Group procures copper and precious metal scrap from the market and recovers valuable and precious metals from electric arc furnace dust and used printed circuit boards, among other sources. In FY2017, the proportion of recycled materials such as copper alloy secondary materials and electric arc furnace dust was about the same level as in FY2016. The ratio of recycled materials in products was also level year-on-year, at 23.9% (23.2% in FY2016) as production of electrolytic copper from recycled copper materials was approximately 103 kilotons in FY2017.

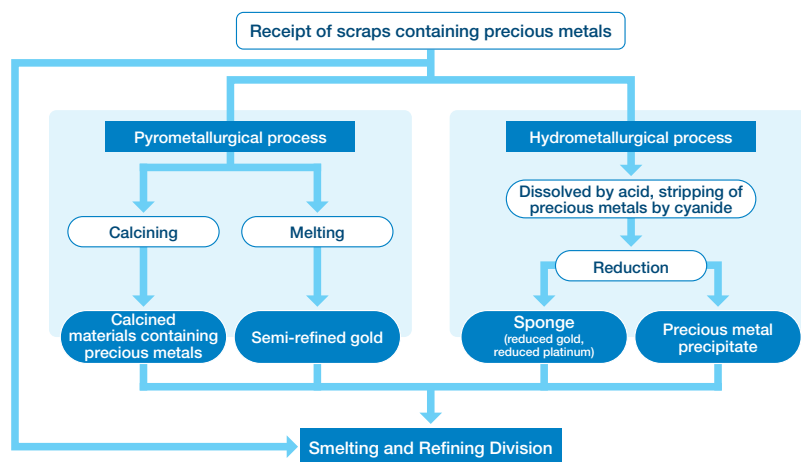
### Slag as a Recycled Material



Copper slag is a by-product produced during smelting at the Toyo Smelter & Refinery, which manufactures electrolytic copper. The main use for copper slag (almost one-half of the total volume) is cement production in Japan and overseas. With an iron content of about 40%, copper slag is widely used as a source of iron for cement.

The ferronickel slag at Hyuga Smelting Co., Ltd., which manufactures ferro-nickel used as a raw material for stainless steel, is mainly used at steel blast furnaces. With a magnesia content of about 30%, ferro-nickel slag is used as a source of magnesia for blast furnace flux.

### Precious Metal Retrieval: Flow Diagram



Collecting the likes of discarded household appliances and discarded electronic parts, as well as scrap created in the manufacturing process of those articles, from across Japan, SMM uses them as raw materials, and recovering and recycling precious metals (gold, silver, platinum, etc.).

After sorting the collected raw materials into parts that contain precious metals and those that do not, SMM uses the pyrometallurgical or hydrometallurgical process, depending on the composition and other aspects of the parts, to condense them, then transports them to the Toyo Smelter & Refinery.

The Toyo Smelter & Refinery smelts and refines those condensed raw materials along with other copper and precious metal raw materials, then recycles them into high-grade precious metals.

## Global Environmental Considerations

### Environmental Management System and Education

#### Environmental Education

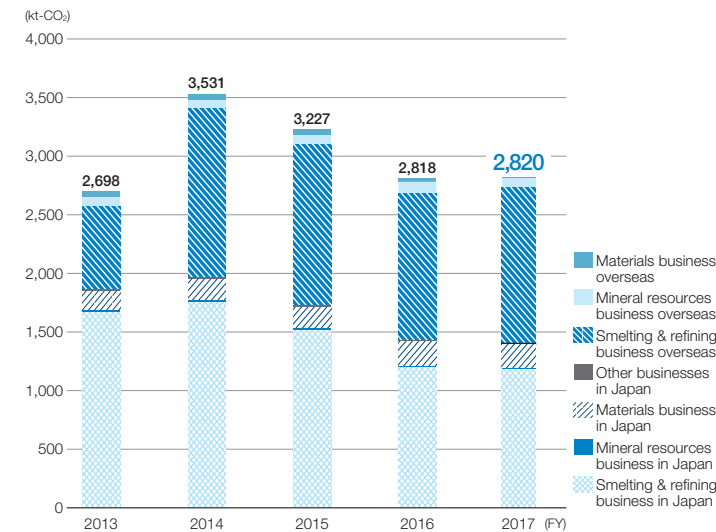
Name of activity	Targeted employees	Purpose, contents (simple overview)
EMS Internal Auditor Training Course	New internal environmental auditors	Training of new internal auditors for the EMS conforming to ISO 14001 (2015)
EMS Internal Auditor Course for moving to the ISO 14001 (2015) standard	Internal environmental auditors	Moving internal auditors with qualifications conforming to ISO 14001 (2004) to the 2015 version
Environmental e-learning (Environmental Laws)	Managers and supervisors, internal environmental auditors	Explanation of Japan's mandatory standards and notification procedures
Environmental e-learning (Environmental Laws, Basic)	Managers and supervisors, internal environmental auditors	Promote understanding of the spirit and idea of Japan's laws
Education of newly-appointed business site general managers	Newly-appointed business site general managers	Promote understanding of the importance of the relationship between corporations and the environment and raise self-awareness and environmental awareness as the business site general manager
Conference for environment managers	Environment managers of each of the business sites	Improve knowledge of Japan's environmental laws and regulations, enhance environmental management capabilities, raise self-awareness
Periodically send out information	Business site general managers	Periodically provide information about revisions of laws and important precedents via an e-mail magazine
Compliance training	Business site general managers	Provide information about environment-related compliance and raise self-awareness
Education about environmental preservation for mid-career hires	Mid-career hires at the Head Office	Impart knowledge about SMM's environmental preservation initiatives
Education about environmental preservation for new employees	New college-graduate employees hired at the Head Office	Impart knowledge about SMM's environmental preservation initiatives and raise self-awareness
Education about environmental preservation for newly-promoted section managers	Newly-promoted section managers	Provide information about SMM's environmental preservation initiatives and raise self-awareness
Periodic education about the Chemical Substances Control Law	Division environment managers	Overview of the Chemical Substances Control Law, checking for revision information, and preventing omissions of notification
Explanatory meeting: overseas chemical substance regulations	Head Office sales representatives	Give information to sales representatives about overseas chemical substance regulations

#### Laws Covered in the Environmental e-learning Courses

Environmental Laws	Environmental Laws, Basic	Environmental Laws	Environmental Laws, Basic
Basic Environment Act	Basic Environment Act	Water Pollution Control Act	Water Pollution Control Act
—	Basic Act on Biodiversity	Soil Contamination Countermeasures Act	—
Basic Act on Establishing a Sound Material-Cycle Society	Basic Act on Establishing a Sound Material-Cycle Society	PRTR Law	PRTR Law
—	Act on the Promotion of Environmental Conservation Activities through Environmental Education	Poisonous and Deleterious Substances Control Act	—
—	Law Concerning the Promotion of Business Activities with Environmental Consideration	Waste Management and Public Cleansing Act	Waste Management and Public Cleansing Act
—	Act on Promotion of Global Warming Countermeasures	PCB Special Measures Law	—
Act on the Rational Use, etc. of Energy	Act on the Rational Use, etc. of Energy	—	Act on Promoting Green Purchasing
Air Pollution Control Act (including the content of the Act on Pollution Prevention Systems in Specified Factories)	Air Pollution Control Act		

The SMM Group has established two e-learning courses on environmental laws with the objective of raising levels of compliance, and employees, especially managers and supervisors involved in environmental management and internal environmental auditors, are taking part in the courses. Moreover, course content, which is updated in line with legal amendments, is also used after learning to check legal requirements and for education on environmental laws in the workplace. The e-learning course on Japan's main environmental laws introduced in the second half of FY2008 covers ten laws that are deeply related to the business of SMM and provides explanations of mandatory standards and notification procedures. As failing to comply with these requirements constitutes a violation of the law, employees must be certain to keep them in mind when conducting business. In the second half of FY2013, an e-learning course entitled Environmental Laws, Basic was released in order to deepen understanding about the underlying spirit of the law and to encourage employees to execute their duties to the best of their ability. Given not only compliance with regulations and obligations, but also the voluntary risk management and information disclosure demanded of businesses today, the course provides a stepping stone for properly conducting business. This course covers 12 laws, including the Basic Environment Act, the Basic Act on Biodiversity, and the Basic Act on Establishing a Sound Material-Cycle Society.

## Prevention of Global Warming

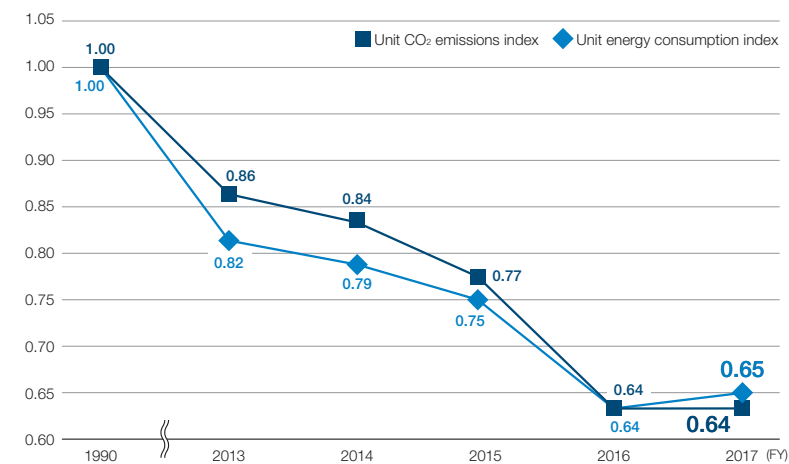
CO<sub>2</sub> Emissions ☒

Figures for both Japan and overseas were calculated using emission factors derived in a manner conforming to the "Act on Promotion of Global Warming Countermeasures" of Japan. Figures include non-energy-derived CO<sub>2</sub> emissions (419 kt-CO<sub>2</sub>), which are not subject to the Act on Promotion of Global Warming Countermeasures, in addition to CO<sub>2</sub> emissions that accompany emissions activities, which are subject to said Act. CO<sub>2</sub> emissions derived from purchased electricity in Japan were calculated in a manner conforming to the market-based methods using emission factors of electric power suppliers. For overseas emission factors, the most recent per-country emission factors disclosed by the International Energy Agency (IEA) were used.

Figures were revised as a result of a careful review of CO<sub>2</sub> emissions in FY2016.

With regard to CO<sub>2</sub> emissions by the SMM Group in FY2017, CO<sub>2</sub> emissions decreased in Japan due to factors such as energy-saving efforts and decreases in production volumes of copper, nickel, and ferronickel. However, due to a worsening of operation conditions in the Group's smelting and refining business overseas, CO<sub>2</sub> emissions for FY2017 were on a par with those in FY2016 at 2,820 kt-CO<sub>2</sub>. Additionally, CO<sub>2</sub> emissions pertaining to domestic transport, which constitutes indirect emissions, came to 23 kt-CO<sub>2</sub>. Having augmented the Kashima Solar Power Plant in Kashima, Ibaraki Prefecture, CO<sub>2</sub> reductions attributable to solar power generation were approximately 1.7 kt-CO<sub>2</sub>.

SMM will continue to promote energy-saving activities in FY2018 as well, and anticipates reductions of 21 kt-CO<sub>2</sub> for the year.

Unit Energy and CO<sub>2</sub> Emissions Index<sup>1</sup> (Scope: Smelting and refining business in Japan) ☒

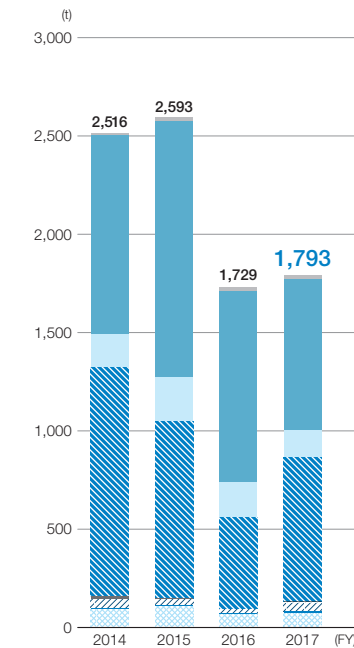
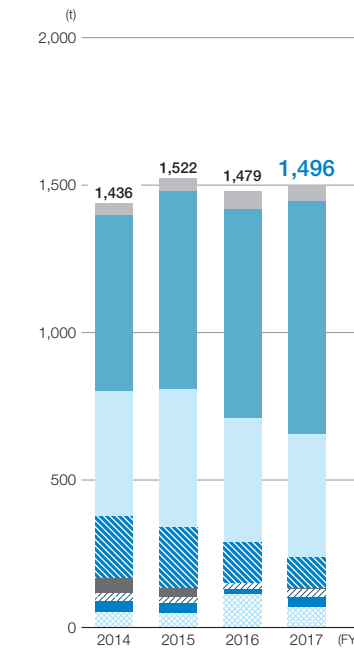
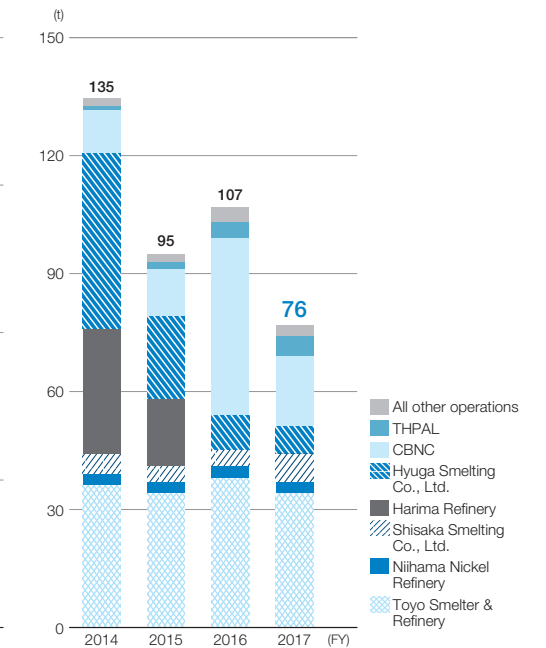
1. Unit energy and CO<sub>2</sub> emissions index: The amount of energy consumed and CO<sub>2</sub> emitted during the production of 1 ton of product, assuming the FY1990 value to be 1 (including fuels used as reducing agents).

In the SMM Group's smelting and refining business in Japan, unit energy for FY2017 was on a par with that for FY2016. This is likely due to the fact that a degradation in unit energy resulting from decreases in the production volumes of copper, nickel, and ferronickel was offset by the effects of improvements from energy-saving activities, which served to curb the increase in unit energy.

SMM is a member of the Japan Mining Industry Association (JMIA), an organization of nonferrous metal smelters, as well as a participant in "The Commitment to a Low Carbon Society" led by the Japan Business Federation (Keidanren).

SMM will also continue to promote energy-saving activities such as thorough energy management and the updating of energy-saving facilities, and will also proactively endeavor to introduce renewable energy and use unutilized heat as the company aims to reduce unit energy by an average of at least 1% per year and further lower CO<sub>2</sub> emissions over the medium to long term.

## Emissions into the Atmosphere

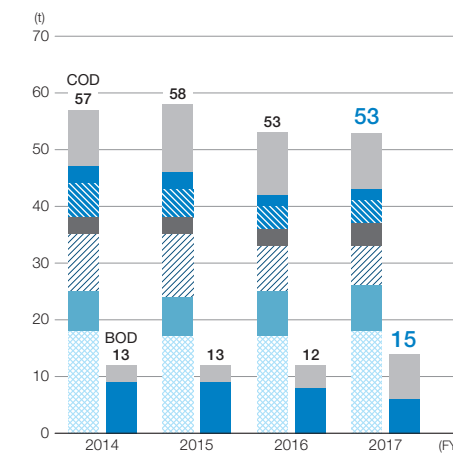
Volume of SO<sub>x</sub> Emissions ☒Volume of NO<sub>x</sub> Emissions ☒Volume of Soot and Dust Emissions ☒

Each emissions figure was calculated based on measurement results for soot and smoke.

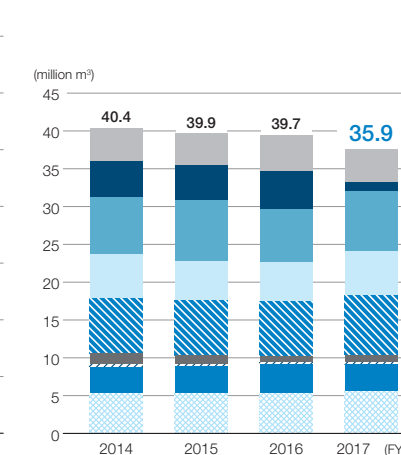
The volume of SO<sub>x</sub> emissions during FY2017 increased by about 4% year-on-year. Hyuga Smelting Co., Ltd. saw an increase of about 58% due to factors such as the state of operation. Taganito HPAL Nickel Corporation saw a decrease of 21% due to the use of low sulfur carbon. Changes in the volume

of NO<sub>x</sub> emissions remained flat with an increase of about 1% year-on-year. The volume of soot and dust emissions decreased by about 29% year-on-year. At Coral Bay Nickel Corporation, that figure decreased by about 60% due to maintenance of the exhaust system equipment.

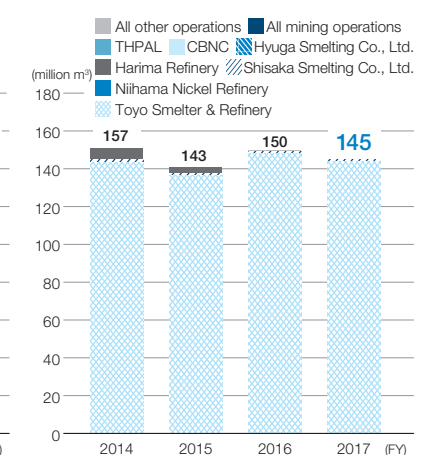
## Emissions into Water

COD and BOD Pollutant Loads ☒

The COD<sup>1</sup> pollutant load in FY2017 was very much the same year-on-year, while the BOD<sup>2</sup> pollutant load increased by about 29%. Many SMM Group business sites face onto Japan's Seto Inland Sea and are subject to controls on the total amounts of COD, nitrogen and phosphorous emissions under the Act on Special Measures Concerning Conservation of the Environment of the Seto Inland Sea.

Freshwater Withdrawal Volume ☒

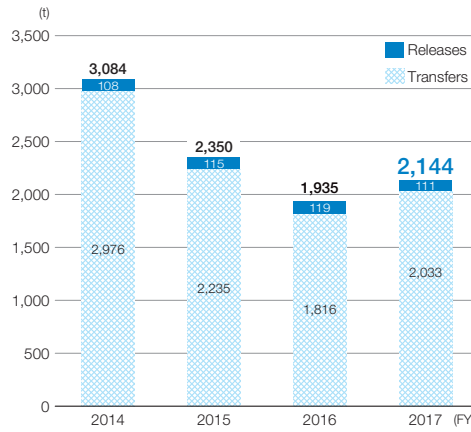
Based on the tallies of water withdrawn measured by each site, freshwater withdrawal volume decreased by about 10% year-on-year to approximately 35.9 million m<sup>3</sup>. This was due to diversion water<sup>3</sup>, which is unrelated to production, being excluded from withdrawal and release at mines. Seawater withdrawal volume decreased by about 3% year-on-year. This was attributable to the decrease in production volume at the Toyo Smelter & Refinery.

Seawater Withdrawal Volume ☒

1. COD (Chemical Oxygen Demand): Measured for emissions into seas, including emissions into rivers flowing into enclosed seas.  
 2. BOD (Biochemical Oxygen Demand): Measured for emissions into rivers, excluding emissions flowing into enclosed seas.  
 3. Diversion water: Water that flows into the site as an input and flows out of the site as an output without being used for production purposes.  
 When diversion water is excluded from freshwater withdrawal volume in FY2016, that volume comes to 35.5 million m<sup>3</sup> for an increase of about 1%.

Release Control for Chemical Substances

Release and Transfer Volume of PRTR Substances ☒



An overview of releases and transfers of chemical substances based on Japan's Pollutant Release and Transfer Register (PRTR) system in FY2017 is as follows.

The number of data-submitting sites in the SMM Group was 27 (27 in FY2016). The Group has 45 substances requiring registration (42 in FY2016).

The total release and transfer volume (releases + transfers) came to 2,144 t, an increase of about 11% year-on-year, due to an increase in transfers. In turn, the increase in transfers was due to an increase in the volume of iron clinkers<sup>1</sup> to undergo final disposal as industrial waste after being generated as a byproduct at Shisaka Smelting Co., Ltd., as well as due to an increase in manganese transferred outside of business sites.

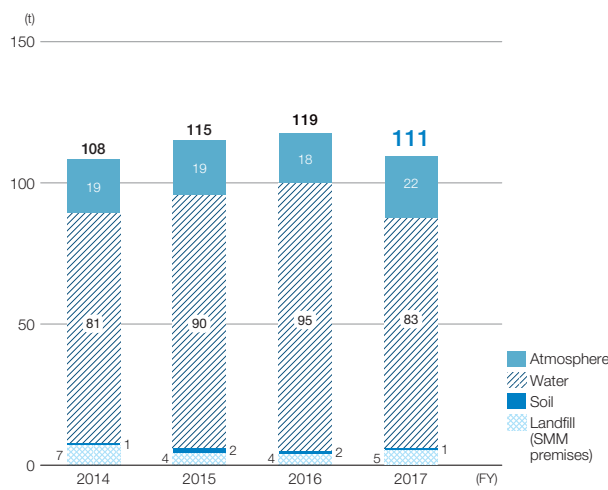
For release volume, discharges into the atmosphere increased by about 23%. The main factor behind this was an increase in releases of dichloromethane at the Ome District Division. Moreover, there were no substances that deplete the ozone layer.

Discharges into water decreased by about 12%. This was primarily due to decreases in both the concentration of boron in eruptions of water and in eruption volume at Hishikari Mine.

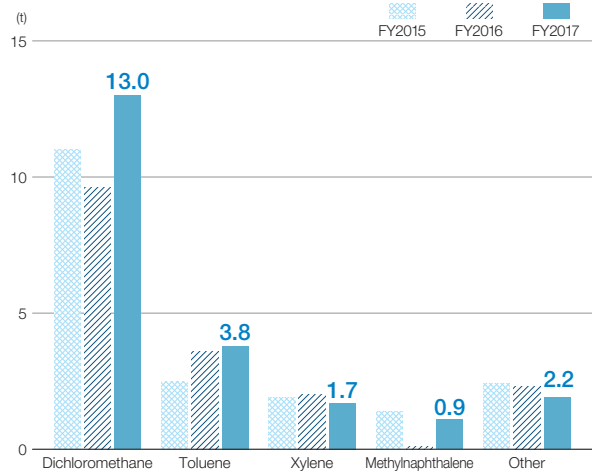
With regard to Persistent Organic Pollutants (POPs), SMM is currently storing, managing, reporting, and detoxifying polychlorinated biphenyl (PCB) in accordance with Japan's Act on Special Measures Concerning Promotion of Proper Treatment of PCB Waste. Additionally, the company is handling dioxins in accordance with Japan's Act on Special Measures against Dioxins.

1. Iron clinker: The residue remaining during the processing of electric arc furnace dust after recovering zinc. The residue able to be sold is called "iron pellets," and the residue to be disposed of is called "iron clinkers."

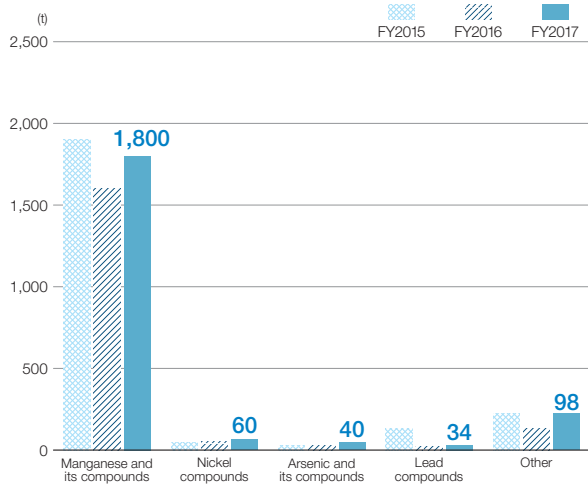
Breakdown of Releases, by Destination ☒



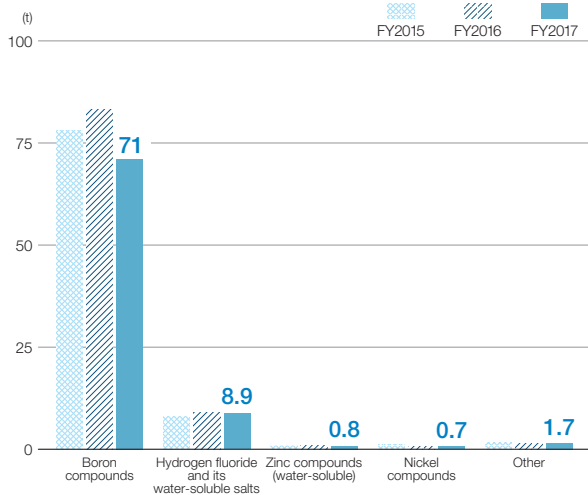
Breakdown of Releases into the Atmosphere



Breakdown of Transfers

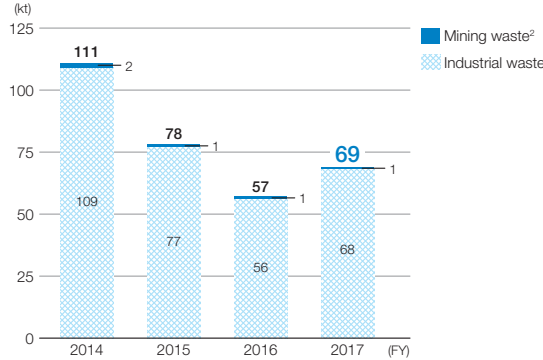


Breakdown of Releases into Water



Final Disposal Volumes of Industrial and Mining Waste in Japan

Final Disposal Volumes<sup>1</sup> of Industrial and Mining Waste in Japan ☒



1. Includes waste destined for landfills and incineration without heat recovery.  
2. Mining waste in the form of wastewater sludge generated by mine-affiliated Toyo Smelter & Refinery that is landfilled within the business site.

The SMM Group has long been making efforts to reduce industrial waste in Japan and the amount of wastewater sludge (mining waste) that undergoes final disposal from the mine-affiliated Toyo Smelter & Refinery. The total final disposal volume in FY2017 was 69 kt, which was an increase of about 12 kt from FY2016. The main factor behind this increase was an increase in the final disposal volume of iron clinkers at Shisaka Smelting Co., Ltd.

Waste, by Type and Treatment Method (FY2017)

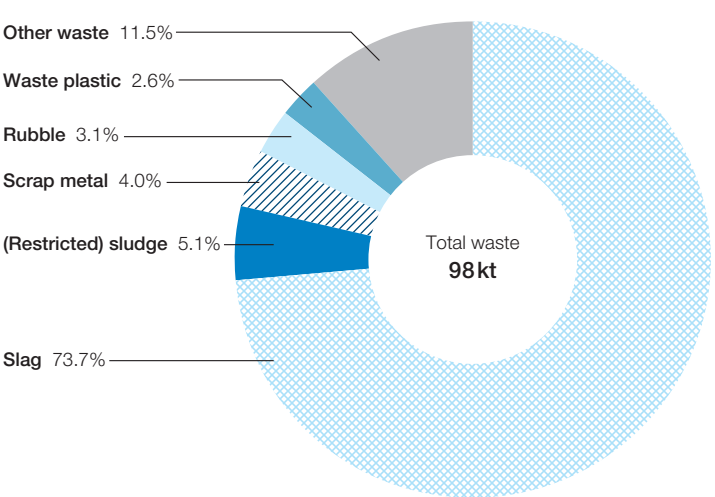
Volume of Waste (Hazardous<sup>3</sup>/Non-hazardous<sup>4</sup>) ☒

	Total	Hazardous	Non-hazardous
Recycling	29	6	23
Landfill	8,479	66	8,413
Incineration	1	0	1
Volume reduction, etc.	2	1	1
Total	8,511	73	8,438

Bury on company grounds	8,413
Contracted disposal	98

3. In general, this depends upon definitions in the countries concerned. Since Japan does not have such laws or regulations, SMM applies the following definition: "Specially controlled industrial waste and waste delivered to controlled landfill sites (excluding designated inert waste that should have been delivered to landfill sites for inert industrial waste, but was disposed of at controlled landfill sites due to the distance limitation)."  
4. Waste other than hazardous waste.  
5. Treatment methods outside of the company were verified based on the written agreement with the disposal company and the manifest.

Breakdown of Industrial Waste (in Japan) by Type of Waste



Material Flows within Business Activity (FY2017)

INPUTS (Resources & Energy) ☒

Raw Materials			Recycled Materials <sup>1</sup>		Materials	
Gold and silver ore	1,095 kt		Copper scrap	135 kt	Silica sand (for copper smelting)	188 kt
Copper concentrates	1,338 kt		Secondary zinc	12 kt	Chemicals (lime-based)	1,281 kt
Nickel oxide ore	7,424 kt		Secondary precious metals	3 kt	Chemicals (sodium-based)	96 kt
Nickel matte, etc.	42 kt		Scrap for metalworking	0.3 kt	Chemicals (magnesium-based)	13 kt
Raw material for batteries	21 kt		Electric arc furnace dust	71 kt	Sulfuric acid	789 kt
ALC raw material, incl. silica rock	208 kt		ALC waste	177 t	Cement, etc.	143 kt
Raw material for metalworking	0.5 kt		Percentage of recycled input materials used			
Hydrotreating catalyst raw material	55 kt		2.12%			

Energy <sup>2</sup>	Consumption	Energy Value
Non-renewable sources		
Heavy oil	48,598 kL	1,993 TJ
Coal/coke	503,422 t	12,990 TJ
Diesel/gasoline/kerosene	22,800 kL	854 TJ
LPG/LNG	8,953 t	455 TJ
City gas/natural gas	8,066 ML	366 TJ
Purchased electricity	1,610,179 MWh	15,699 TJ
Purchased steam	76,542 GJ	78 TJ
Sub-total		32,435 TJ
Renewable sources		
Wood pellets	1,155 t	22 TJ
Sub-total		
Total energy consumption	—	32,456 TJ

Water <sup>3</sup>	
Total volume of fresh water withdrawn	35,894 ML
Surface water (rivers)	13,918 ML
Rain water	83 ML
Groundwater	7,222 ML
Industrial water (water from another organization)	14,256 ML
Tap water (water from another organization)	416 ML
Volume of seawater withdrawn	145,107 ML
Total volume of water consumed from all areas <sup>4</sup>	7,432 ML

1. Does not include materials recycled within plants.

2. Calorific values for both Japan and overseas are calculated using coefficients conforming to the Japanese Act on the Rational Use, etc. of Energy for fuel, heat, electricity, etc. that were consumed in business activities both in Japan and overseas. Fuels used as reducing agents are also included. Energy value indicates the energy input in the case of purchased electricity and purchased steam, and calorific value for all others.

3. SMM uses the WWF/DEG Water Risk Filter to determine regions with high water stress. As a result of this, there are no areas of high water stress at SMM Group's production sites.

4. The total water consumption is estimated by subtracting the total amount of water discharged from the total amount of water withdrawn.

Consideration of Biodiversity

Business Activities in Areas of High Biodiversity Value<sup>1</sup> (FY2017) ☒

Area	Size of production site (hectares)	Details
Seto Inland Sea	62 (Minoshima & Ienoshima islands)	Shisaka Smelting Co., Ltd. operates on Minoshima and Ienoshima islands, neighboring Setonaikai National Park (IUCN Category 2)
The Philippines	428	Coral Bay Nickel Corporation operates on Palawan Island (in hunting-prohibited and bird protection areas (IUCN Category 4))

1. Protected areas classified as Category 4 and above by the International Union for Conservation of Nature (IUCN) and neighboring areas (SMM research). Areas classified as Category 1 are of highest priority.

• Currently, there are no projects in any region requiring the preparation of a management plan.

OUTPUTS (Products & Emissions)<sup>1</sup> ☒

Products		Emissions into the Atmosphere		Emissions into Water	
Electrolytic copper	432 kt	CO <sub>2</sub>	2,843 kt	Total wastewater	173,569 ML
Gold	21 t	Direct emissions <sup>3</sup>	1,858 kt (Increase of 73 kt compared to the previous fiscal year)	Discharges into seas <sup>6</sup>	172,377 ML
Dore <sup>2</sup>	8 t	Indirect emissions <sup>4</sup>	962 kt (Decrease of 55 kt compared to the previous fiscal year)	Discharges into rivers	1,067 ML
Silver	216 t	Emissions during transportation (Japan) <sup>5</sup>	23 kt (No change compared to the previous fiscal year)	Underground seepage	69 ML
Electrolytic nickel	60 kt	SOx	1,793 t	Sewerage, etc.	56 ML
Nickel sulfate	13 kt	NOx	1,496 t	COD (chemical oxygen demand)	53 t
Electrolytic cobalt	4 kt	Soot and dust	76 t	BOD (biochemical oxygen demand)	15 t
Crude zinc oxide	36 kt	PRTR substances	22 t	Total phosphorus	1 t
Ferro-nickel	74 kt			Total nitrogen	77 t
Battery materials	31 kt			PRTR substances (discharged into public water areas)	83 t
Sulfuric acid	636 kt			PRTR substances (discharged into the soil or in landfills within business premises)	6 t
Slag	1,391 kt				
Processed metal products	1 kt				
Hydrotreating catalysts	10 kt				
ALC (Siporex)	420 ML				
Percentage of products from recycled input		4.55%			

Waste (including Items of Value)	
Total waste	8,511 kt
Breakdown of total waste	
Spoil	597 kt
Flotation tailings	755 kt
Wastewater sludge from CBNC, THPAL, etc.	7,058 kt
Industrial waste (Japan)	98 kt
Other	2 kt
Landfill on premises	8,413 kt
PRTR substances <sup>7</sup>	2,033 t

1. There were no major leaks resulting in administrative punishment or instruction.

2. Ingots of rough gold, before refining.

3. Direct emissions for both Japan and overseas are calculated using emission factors conforming to the Japanese Act on Promotion of Global Warming Countermeasures. This includes non-energy-derived CO<sub>2</sub> emissions (419 kt-CO<sub>2</sub>) that are outside the scope of the law. CO<sub>2</sub> from wood pellets is not included.

4. The amount of CO<sub>2</sub> emissions from electric power purchased in Japan is calculated with the market-based method using emission factors of electric suppliers. For overseas emission factors, we used the latest emission factors for each country as published by the IEA. The amount of indirect emissions was 859 kt-CO<sub>2</sub> when calculating both Japan and overseas with the location-based method using IEA country-specific emission factors.

5. Emissions during transportation in Japan are calculated in line with the Act on the Rational Use, etc. of Energy and the Act on Promotion of Global Warming Countermeasures.

6. Discharges into rivers flowing into enclosed seas are included as "discharges into seas."

7. Total transfers to sewerage and off-site transfers.

Amount of Land Developed or Rehabilitated (FY2017) ☒

(hectares)			
	A: Total area of land not rehabilitated (as of the end of FY2016)	B: Area of land newly developed in FY2017	C: Area of land newly rehabilitated in FY2017
Hishikari Mine	21	0	0
Pogo Gold Mine	171	11	1
Coral Bay Nickel Corporation	279	0	7
Taganito HPAL Nickel Corporation	374 <sup>1</sup>	89	34

1. The value has been revised as a result of carefully inspecting the total area of land as of the end of FY2016.





Contribution to Society and Local Communities

■ Presence in the Local Economy

Number of Locally-Hired Senior Managers (General Managers and above) and Employees at Overseas Affiliates (March 31, 2018) ☒

Name of company (Country or region)	Senior managers		Percentage <sup>1</sup>	Locally-hired employees <sup>2</sup>
	Male	Female		
Pogo Gold Mine (U.S.A.)	0	0	—	314
Sumitomo Metal Mining Philippine Holdings Corporation (Philippines)	1	1	3%	62
Taganito HPAL Nickel Corporation (Philippines)	0	0	—	606
Coral Bay Nickel Corporation (Philippines)	0	0	—	550
Sumitomo Metal Mining Management (Shanghai) Co., Ltd. (China)	0	0	—	11
Sumitomo Metal Mining Peru S.A. (Peru)	2	0	12%	17
SMM KOREA Co., Ltd. (South Korea)	1	0	25%	4
Shanghai Sumiko Electronic Paste Co., Ltd. (China)	3	0	7%	41
Taiwan Sumiko Materials Co., Ltd. (Taiwan)	1	0	4%	27
Dongguan Sumiko Electronic Paste Co., Ltd. (China)	1	1	13%	15

1. Percentage: number of senior managers ÷ locally hired employees x 100.  
2. Employees hired directly by overseas affiliated companies and excluding workers on loan and transferred workers.

Percentage of Payments to Local Suppliers and Local Employment

Name of company or business site <sup>1</sup> (payment area)	Local procurement (FY2017) <input checked="" type="checkbox"/>		Local employment, percentage <sup>2</sup> (March 31, 2018)
	Payment to the area	Percentage <sup>3</sup>	
Niihama District <sup>4</sup> (Ehime Prefecture)	¥14.1 billion	50%	74%
Pogo Gold Mine (Alaska)	\$88.3 million	47%	64%
Coral Bay Nickel Corporation (Philippines)	\$58 million	49%	60%
Taganito HPAL Nickel Corporation (Philippines)	\$94 million	41%	43%
Hishikari Mine (Kagoshima Prefecture)	¥1,156 million	56%	87%
Sumiko Energy Materials Co., Ltd. (Fukushima Prefecture)	¥364 million	24%	78%
Shanghai Sumiko Electronic Paste Co., Ltd. (China)	CNY 85 million	29%	93%

1. Totaled for the three core segments (mineral resources, smelting and refining, and materials), business sites that are not only necessary for the business, but are also relatively large-scale (one domestic, one overseas site for each segment).  
2. Percentage of local hiring: number of employees from the payment area ÷ total employees x 100.  
3. Percentage of payments: amount of payments to payment area ÷ amount of total procurement payments x 100.  
4. Sumitomo Metal Mining Co., Ltd.'s Besshi-Niihama District Division, Toyo Smelter & Refinery, Niihama Nickel Refinery, Isoura Plant and Niihama Research Laboratories.

■ Indirect Economic Impact

Closure Plans for Mines and Smelting Plants

Business site	Details	Amount	Time period
Hishikari Mine	Mine pollution control reserve	¥22.59 million	From 1984
Pogo Gold Mine	Reclamation Bond	US\$57.10 million <sup>1</sup>	From 2006
Coral Bay Nickel Corporation	Closure and cleanup for the refinery and mineral processing plant	Total approx. 110 million pesos <sup>2</sup>	8 years starting from 2012 (accumulating every year)
Taganito HPAL Nickel Corporation	Expenses required for the closure plan	Total approx. 120 million pesos	11 years starting from 2016 (accumulating every year)

1. Total reserves for the entire project. The burden of costs, when they actually incur, will be divided among companies according to their participating interest.  
2. Expenses according to the closure plan Coral Bay Nickel Corporation submitted to the Department of Environmental and Natural Resources.

Investment in Infrastructure and Support Services

Region	Details	Amount (FY2017)
Japan	<ul style="list-style-type: none"><li>Donations to scholarship funds for orphans in Iwate, Miyagi, and Fukushima Prefectures, which were hit by the Great East Japan Earthquake (making donations every year since 2012)</li><li>Participation in the J Village reconstruction project in Naraha Town, Fukushima Prefecture (November 2017)</li><li>Undertaking activities for various types of social contribution, such as support and contributions for healthcare groups and sports organizations, culture and art such as historic and archaeological site preservation activities, and contributions to the Keidanren Nature Conservation Fund</li></ul>	¥100 million
The Philippines	<ul style="list-style-type: none"><li>Supporting measures to prevent dengue fever in communities neighboring the plant (awareness activities, spraying insecticide, cleaning activities, etc.)</li><li>Undertaking a coffee cultivation project for communities neighboring the plant (from 2015)</li><li>Undertaking Operation Smile, a program to provide treatment for cleft palates for children, covering all of Palawan, which is where the plant is located (from 2016)</li></ul> <p>In the Philippines we are continuing to provide support through SDMP<sup>3</sup> even after closure of the business site, so the residents can make a living.</p>	¥800 million
U.S.A.	<ul style="list-style-type: none"><li>Construction of a gymnasium for the elementary school in the City of Delta Junction (Alaska) which is near the mine site</li><li>Scholarship funds for the high school and college near the mine site in Arizona (established funds in 1987 and 2006)</li></ul>	¥100 million

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



Respect for People and Human Rights

Education and Training

■ Total Time Spent on Employee Education (FY2017)

(hours)

	Officers		General managers		Section managers		Regular employees		Occasional employees and temporary employees		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
SMM non-consolidated	146	0	557	0	2,658	96	23,344	4,300	301	57	31,458
Consolidated subsidiaries in Japan	484	0	853	0	3,166	1	19,768	2,407	1,955	1,821	30,456
Consolidated subsidiaries overseas	128	0	199	1,164	1,784	590	18,486	6,711	42	60	29,164
	Officers		Managers		Regular employees		Occasional employees and temporary employees	Total			
	Male	Female	Male	Female	Male	Female					
Annual hours of education per employee (average) <input checked="" type="checkbox"/>	7.0	0.0	8.4	22.3	12.9	13.1	2.7	10.5			
Number of officers and employees at the end of the fiscal year	109	0	1,096	83	4,774	1,026	1,577	8,665			

■ Employee Skill Improvement and Transition Support Program

SMM Human Resources Development Program<sup>1</sup>

	Officers	General managers	Section managers	E-class	S-class	F-class J-class
Duty-based program						
Development of global human resources		Overseas training Language training prior to overseas assignment	Overseas training Fee assistance for language proficiency tests	Overseas training, overseas assignment Language training prior to overseas assignment Global staff registration program		
3-yr. program for management track employees						3-yr. training program for management track employees Second-year training Short-term overseas training Introductory training
Seminar for newly promoted employees		2-yr. training program for newly promoted general managers	Section manager seminar	E-class employee seminar	S-class employee seminar (at each branch office)	F-class employee seminar (at each branch office)
Development of next generation of management		SMM-MMP SMM-EMP	SMM-MMP Officers' coaching school			
Project leaders			Project management training	Project management training		
Specialized education						
Step up						
Women's career support						
Compliance, governance, RM						
Safety, skills						
Self-development						
Pre-retirement support						

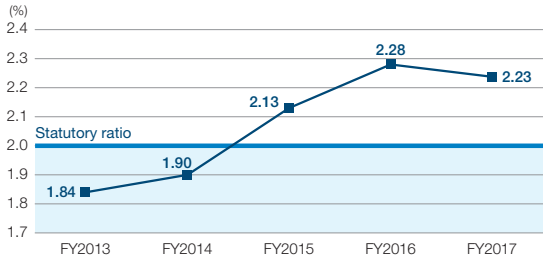
1. Separate education and training is provided at group companies as required.  
2. Life plan training covers such things as help regarding retirement benefits and the transition to life after retirement (explanations about social security, etc.)

Diversity and Equal Opportunity

■ Priority Issues and Main Initiatives Regarding Diversity (FY2017)

Target	Initiative	Specific content
Systems	Introduced various work systems as parts of working style reform	Tested and introduced optional staggered working hours, flextime, and a system for working remotely
	Revised regulations regarding childcare and nursing care leave	Reviewed regulations regarding childcare and nursing care leave in accordance with revisions to the Child Care and Caregiver Leave Act
Promotion	Renewed the "Shining Employee" diversity-related internal bulletin board	Added a page on "promoting employment of people with disabilities," in addition to the existing page on "support for participation by women"
Awareness	Held diversity workshops (deepening understanding of diversity through experience-based learning)	September 2017: Experience Dementia Through Virtual Reality March 2018: Learn Through Games! Barrier-Free Heart
	Held sign language classes and experience events	Held sign language classes within the company to improve understanding and promote the employment of people with hearing disabilities
Support	Child-raising support lunch meetings	Employees currently raising children met during their lunch break to discuss problems and concerns (held four times)
	Lectures for women by industrial physicians	Held lectures on women's health for female employees

■ Employment Ratio of Disabled People Over the Past Five Years ☒  
(SMM non-consolidated, average employment ratio over each fiscal year)



Through initiatives such as expanding work areas in which people with disabilities can participate and accepting interns from special-needs schools, we have continuously worked to recruit new employees with disabilities. Since FY2015, we have maintained an employment ratio above the statutory ratio for Japan (2.0%). As this rate was raised in April 1, 2018 to 2.2%, we will continue to expand the employment opportunities we offer to people with disabilities.

Human Rights Assessment

■ Current Status of the Implementation of the Basic Survey into Employee Human Rights

	Number of business sites for which human rights due diligence was performed in FY2016	Number of business sites eligible for the basic survey into employee human rights	Implementation ratio
Japan	39	40	98%
China	4	7	57%
U.S.A.	2	6	33%
Chile	1	4	25%
Philippines	3	3	100%
Peru	1	2	50%
Canada	0	2	0%
The Netherlands	0	2	0%
Australia	1	1	100%
Malaysia	1	1	100%
Taiwan	1	1	100%
Brazil	1	1	100%
Solomon Islands	1	1	100%
South Korea	1	1	100%
Singapore	0	1	0%
Total	56	73	77%

Social and Environmental Assessment Initiatives

Target	Specifics	FY2017 results
Employees	<p><b>Human rights management program</b></p> <ul style="list-style-type: none"><li>We started operating a human rights management program for employees<sup>2</sup> in FY2014. On-site inspections are conducted, as required, at sites where issues have been identified.</li></ul> <p><b>Human rights seminars</b></p> <ul style="list-style-type: none"><li>Every year, we conduct education on human rights, including the SMM Group Policy on Human Rights, for all Group employees in December, which has World Human Rights Week. Attendance: 100%</li><li>We hold lectures, education for employees scheduled to be posted overseas and promoted individuals, and periodic human rights seminars. Total time devoted to training: 3,918 hours</li></ul> <p><b>Preventing harassment</b></p> <ul style="list-style-type: none"><li>We have established a contact person for sexual harassment and other incidents concerning human rights, as well as appointing a harassment prevention officer, at each business facility.</li></ul> <p><b>Fact-finding surveys</b></p> <ul style="list-style-type: none"><li>We conduct surveys into the work environment at each business site to understand the actual situation regarding harassment, compliance, and communication, and identify any demand.</li><li>We commission an external specialized organization to conduct an Employee Satisfaction Survey every three years, to understand employees' demands and satisfaction regarding the Company.</li></ul>	<p>In FY2017, the following incidents occurred and were dealt with appropriately: Incidents involving discrimination related to human rights: 0 Incidents involving harassment: 8<sup>5</sup> Complaints regarding impact on human rights: 0</p> <p>There were no reports of cases involving child labor or forced labor.</p> <p>There were no serious infringements upon freedom of association</p> <p>There were no reports across the entire Group, in Japan and overseas, of plants closing due to actions such as strikes.</p>
Suppliers and business partners	<p><b>Human rights management program</b></p> <p>For our human rights management program, every three years (starting in 2015) we conduct a questionnaire-based survey on human rights,<sup>3</sup> targeting around 60 of the biggest suppliers to the Mineral Resources, Non-Ferrous Metals, and Materials Divisions, and the Purchasing Department, in terms of annual transactions. Since 2015, we have implemented an initiative in which every year, the Purchasing Department and the Mineral Resources, Non-Ferrous Metals, and Materials Divisions, each select one company for an on-site inspection. In FY2017, we inspected four companies (12 total since the initiative began).</p> <p><b>Environmental assessment</b></p> <p>When the smelting and refining business selects a new mine as a supplier, we assess how that mine carries out environmental management, including water management and tailings dams. In FY2017, there were no new suppliers requiring environmental due diligence.</p> <p><b>Starting/ceasing operations</b></p> <p>When making investments or equity contributions, we use a project risk check sheet for committees, primarily the Management Committee, to carry out deliberations regarding human rights issues such as discrimination, forced labor, and child labor, and also the political system, economy, law and order, locally-specific diseases, labor issues, religious restrictions, and the impact on the local community.</p>	<p>In FY2017, there were no suppliers identified as having current or potential human rights-related problems or issues.</p> <p>There were also no reports of cases involving child labor, forced labor, or risk of infringement on the right to bargain collectively.</p> <p>In FY2017, there were two new investment agreements proposed to management, and both of these were screened for human rights issues <input checked="" type="checkbox"/>. Currently, no issues have been identified at either company, but we are continuing to monitor regularly.</p> <p>There were also two cases of the company withdrawing from businesses. Screening for human rights issues was conducted in both cases, but no issues were identified with either one.</p>
Indigenous people and local citizens in areas where the Company does business <sup>1</sup>	<p><b>Relocation of local citizens for development</b></p> <p>There are occasions when we inevitably have to ask local citizens to relocate to make way for development of the mine or the construction of associated facilities. On such occasions, we seek the understanding of local citizens and offer alternative land. For the Hishikari Mine, from 1983 to 1989 three households in total were asked to relocate. No relocations took place for development of the Pogo Gold Mine. For Taganito HPAL Nickel Corporation, we asked 41 households in areas to be affected by the plant's construction to relocate.<sup>4</sup></p> <p><b>Human rights management program</b></p> <p>We conduct due diligence regarding the human rights of local citizens living around the Hishikari Mine.</p> <p><b>Impact assessment</b></p> <p>During the approval and authorization process for operations at the Pogo Gold Mine, the Alaskan government provided explanations about the project to 13 villages inhabited by indigenous people in an area with a radius of more than 200 kilometers around the Pogo Gold Mine, particularly in the Tanana River basin, and G2G consultations were held to collect opinions. We are responding appropriately to the collected opinions.</p> <p><b>Consideration for biodiversity</b></p> <p>To preserve the ecosystems as well as the foundation of life for the indigenous communities in the area around the Pogo Gold Mine, SMM conducts annual monitoring of rivers where salmon return to spawn, and catches and analyzes fish to check for abnormal levels of heavy metals. To avoid adverse effects on moose habitats, we minimize the impact of mine access road construction by circumventing breeding grounds and not allowing traffic other than mine-related vehicles.</p>	<p>As a result of human rights due diligence, there have been no matters for concern, such as complaints from indigenous people, reported regarding Pogo Gold Mine or any of the mines or smelters and refineries in which SMM has more than a 50% interest.</p> <p>In FY2017, there were no cases of artisanal and small-scale mining (ASM) with work environment issues in regions where SMM operates, nor did SMM have any programs for involvement in ASM.</p>

1. Agreements are entered into with communities in line with the law at all of the mines and smelters and refineries in which the SMM Group has more than a 50% interest.  
2. A group-wide human rights management program that incorporates a human rights due diligence framework based on the UN's Guiding Principles on Business and Human Rights. We aim to build a structured system to prevent and avoid complicity in either direct or indirect violations of human rights, and to make possible more appropriate responses, including relief, to concerns that arise.  
3. Questionnaire-based survey on human rights: Includes content investigating forced labor, child labor, discrimination, and labor-management relations.  
4. A relocation plan was formulated in line with the World Bank's Operational Directive on Involuntary Resettlement. With the agreement of all citizens, the relocation was completed by December 2010. Furthermore, we have continued to provide support since the relocation, including for home repair and maintenance, and programs to help restore livelihoods that encourage getting skills and know-how so the citizens can get income for the rest of their lives.  
5. This does not include information provided through the SMM Group direct hotlines (see p.86: Compliance—Speak Up System)

Diversity and Employment Opportunities

Information Regarding Employees and Other Workers

Number of Employees & Officers Worldwide (Consolidated) (March 31, 2018) ☒

Employees																Total	Temporary employees	
Permanent employees														Occasional employees				
Full-time officers		Managers						Regular employees						Non-regular/ limited-term employees				
		Younger than 30		30–49 years old		50 and older		Younger than 30		30–49 years old		50 and older						
Male    Female		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female			
SMM non-consolidated	21	0	0	0	189	2	293	0	327	74	693	166	520	38	190	38	2,551	157
Consolidated subsidiaries in Japan	64	0	0	0	96	3	214	1	357	82	1,262	275	489	70	263	182	3,358	268
Consolidated subsidiaries overseas	24	0	34	14	214	50	56	13	392	151	641	158	93	12	16	5	1,873	458
Total	109	0	34	14	499	55	563	14	1,076	307	2,596	599	1,102	120	469	225	7,782	883

• In Japan, 75% of employees belonged to workers' unions. Overseas, two companies ☒ have workers' unions (excluding Chinese labor unions) resulting in a workers' union membership ratio at overseas consolidated subsidiaries of 44% ☒  
• Workers' unions membership ratio: percentage of all employees excluding officers.  
• There is no gender disparity in terms of basic salaries in the SMM Group.

Number of Employees & Officers by Country and Region (March 31, 2018) ☒

	Japan	U.S.A.	Canada	South Korea	Peru	Chile	China	Philippines	Taiwan	Malaysia	Australia	Solomon Islands	Brazil	Total
Male	4,978	303	4	2	18	20	65	998	14	0	6	29	11	6,448
Female	931	27	0	2	2	7	39	303	16	0	2	3	2	1,334

Excluding temporary employees

Current Situation Regarding Childcare Leave (FY2017) (SMM non-consolidated)

	Total	Male	Female
Employees with the right to take childcare leave <sup>1</sup>	114	85	29
Employees who took childcare leave	27	0	27
Employees who took childcare leave during FY2017 and have since returned to work	11	0	11
Employees who were still working at the company 12 months after returning from childcare leave <sup>2</sup>	8	0	8
Ratio of workers who returned after childcare leave and retention rate <sup>3</sup>	Return ratio 60% Retention rate 90%	Return ratio — Retention rate —	Return ratio 60% Retention rate 90%

1. Out of employees who have notified the company of a birth:  
Male employees—From the day of birth until the day before the child turns one year old.  
Female employees—From 56 days before the expected delivery date until the last day of the April immediately following the fiscal year (ending March 31) the child becomes one year old (the day before their birthday), or the day the child becomes one and a half years old, whichever is longer.  
2. The number of employees who returned to work in FY2016 and were still working at the company 12 months later.  
3. Return ratio: number of people who returned to work in FY2017 ÷ number of people who intended to return to work in FY2017 x 100.  
Retention rate: number of employees who returned to work in FY2016 and were still working at the company 12 months later ÷ number of employees who returned to work in FY2016 x 100.

### ■ New Hires and Departures (FY2017)

Location		Younger than 30		30–49 years old		50 and older		Total
		Male	Female	Male	Female	Male	Female	
Japan	New employees	105	18	36	8	0	1	168
	New employee ratio (%)	15.4	11.5	1.6	1.8	0.0	0.9	3.3
	Departures	24	7	32	6	20	1	90
	Turnover (%)	3.5	4.5	1.4	1.3	1.3	0.9	1.7
	Total employees	684	156	2,240	446	1,516	109	5,151
U.S.A.	New employees	18	1	32	5	12	0	68
	New employee ratio (%)	34.6	100.0	20.3	33.3	13.3	0.0	20.8
	Departures	11	1	23	3	23	1	62
	Turnover (%)	21.2	100.0	14.6	20.0	25.6	9.1	19.0
	Total employees	52	1	158	15	90	11	327
Canada	New employees	0	0	0	0	0	0	0
	New employee ratio (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Departures	0	0	0	0	0	0	0
	Turnover (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total employees	0	0	2	0	0	0	2
South Korea	New employees	0	0	0	2	0	0	2
	New employee ratio (%)	0.0	0.0	0.0	100.0	0.0	0.0	66.7
	Departures	0	0	0	2	0	0	2
	Turnover (%)	0.0	0.0	0.0	100.0	0.0	0.0	66.7
	Total employees	0	0	1	2	0	0	3
Peru	New employees	2	0	7	1	1	0	11
	New employee ratio (%)	200	0.0	53.8	50.0	50.0	0.0	61.1
	Departures	0	1	1	0	1	0	3
	Turnover (%)	0.0	0.0	7.7	0.0	50.0	0.0	16.7
	Total employees	1	0	13	2	2	0	18
Chile	New employees	0	0	0	0	0	0	0
	New employee ratio (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Departures	0	0	0	0	0	0	0
	Turnover (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total employees	3	1	10	3	4	3	24
China	New employees	8	2	6	2	0	0	18
	New employee ratio (%)	44.4	16.7	19.4	8.0	0.0	0.0	18.6
	Departures	6	1	3	3	2	0	15
	Turnover (%)	33.3	8.3	9.7	12.0	22.2	0.0	15.5
	Total employees	18	12	31	25	9	2	97

Location		Younger than 30		30–49 years old		50 and older		Total
		Male	Female	Male	Female	Male	Female	
Philippines	New employees	27	17	73	23	13	1	154
	New employee ratio (%)	7.8	11.4	12.2	16.1	35.1	16.7	12.0
	Departures	62	15	26	12	0	1	116
	Turnover (%)	18.0	10.1	4.3	8.4	0.0	16.7	9.1
	Total employees	345	149	600	143	37	6	1,280
Taiwan	New employees	0	0	0	0	0	0	0
	New employee ratio (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Departures	0	0	0	0	0	0	0
	Turnover (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total employees	4	1	6	12	2	3	28
Australia	New employees	1	0	0	1	0	0	2
	New employee ratio (%)	50.0	0.0	0.0	50.0	0.0	0.0	33.3
	Departures	0	0	0	1	1	0	2
	Turnover (%)	0.0	0.0	0.0	50.0	0.0	0.0	33.3
	Total employees	2	0	2	2	0	0	6
Solomon Islands	New employees	0	0	0	0	0	0	0
	New employee ratio (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Departures	0	0	0	0	0	0	0
	Turnover (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total employees	1	1	26	2	1	0	31
Brazil	New employees	0	0	0	0	0	0	0
	New employee ratio (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Departures	0	0	0	0	0	0	0
	Turnover (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total employees	0	0	6	2	4	0	12
Total <input checked="" type="checkbox"/>	New employees	161	38	154	42	26	2	423
	New employee ratio (%)	14.5	11.8	5.0	6.4	1.6	1.5	6.1
	Departures	103	25	85	27	47	3	290
	Turnover (%)	9.3	7.8	2.7	4.1	2.8	2.2	4.2
	Total employees	1,110	321	3,095	654	1,665	134	6,979

Total employees: number of employees as of March 31, 2018.

Officers, non-regular and limited-term employees, and temporary employees are not included in the figures for new employees, departures, and total employees.

New employee ratio: number of new employees ÷ total employees x 100.

Turnover: number of departures ÷ total employees x 100.





Occupational Health and Safety

Ratio of Workers Covered by the Occupational Health and Safety Management System (As of December 31, 2017)

	SMM Group employees in Japan		SMM Group employees overseas	
	Ratio	Number of employees <sup>1</sup>	Ratio	Number of employees <sup>1</sup>
Workers covered by an Occupational Health and Safety Management System	100% <sup>2</sup>	6,619	— % <sup>2</sup>	2,457
Workers covered by an Occupational Health and Safety Management System subject to internal audits <sup>3</sup>	100%	6,619	— %	—
Workers covered by an Occupational Health and Safety Management System subject to third party audits and certification <sup>4</sup>	21%	1,389	— %	—

1. Includes temporary employees covered by SMM Group occupational health and safety administration.
2. In Japan, we have built an occupational health and safety management framework as stipulated by the Japanese Industrial Safety and Health Act, formulated policies, targets, and plans, and implement a one-year PDCA cycle. Activities are carried out for each level of the organization and cover 100% of employees. Information for overseas has yet to be surveyed.
3. In Japan, internal audits are carried out at all business sites and are implemented at each business site in turn by the business division with jurisdiction and the Safety & Environment Control Department. The audits confirm each business site's policy, targets, activity plan, and implementation status and ensure a PDCA cycle is being carried out.
4. Certification provided by third parties: OSHMS and OHSAS18001 in Japan (N.E. Chemcat Corporation, Shinko Co., Ltd., Hishikari Mine, and Orme District Division). Information for overseas has yet to be surveyed.
- The occupational health and safety services listed below are available for use by employees. Information for overseas has yet to be surveyed. Services are managed based on local laws.

Our Occupational Health and Safety Management System in Japan is implemented according to internal rules based on Japanese law and therefore only covers SMM Group employees. At some of our business sites, we also carry out similar activities for employees of contractors through collaborative committees and the like. We have also started providing support at overseas business sites and plan to gather detailed information and provide guidance aimed at improvement going forward.

Worker Access to Occupational Health and Safety Services

Examples of occupational health and safety services (Services to maintain physical and mental health)	Supplementary information (Overview of service, etc.)	Targeted employees
Hazard simulations	An experience simulating a hazardous situation. Repeated training is held based on actual conditions at the business site (currently implementing second or higher rounds of training). Simulations are also held at business sites.	All SMM Group employees in Japan. Can also be used by contractors. Introduction at some overseas business sites is planned.
An Anzen Dojo	Held twice a year, once in spring and once in fall. Employees are taught the mechanisms that lead to disasters, and then contribute to activities at their business sites.	Safety leaders are selected from among all SMM Group employees in Japan.
An organizational structure and regulations, including safety managers, qualified personnel, and training plan	Required by Japanese laws and regulations.	All SMM Group employees in Japan. Managed by each business site.
A working environment management framework	Required by Japanese laws and regulations.	All SMM Group employees in Japan. Managed by each business site.
Medical examinations (general, specific, specialized), radiation exposure management, action on results of health checkups, and an insurance guidance framework	Required by Japanese laws and regulations.	All SMM Group employees in Japan. Managed by each business site.
Mental health-related checkups, consultations	Required by Japanese laws and regulations.	All SMM Group employees in Japan. Managed by each business site.
Industrial doctors, health advisors, nurses, etc. (including health consultations)	Industrial doctors are required by Japanese laws and regulations	All SMM Group employees in Japan. Managed by each business site.
Internal workshops, small group activities	Small group activities are held as an <i>Anzen Dojo</i> activity and have the aim of improving hazard awareness. Enhancing communication is also included.	At each business site.
Lectures from external instructors (life-saving and first aid, traffic accident prevention, etc.)	Red Cross first aid courses, life-saving courses by the fire department, traffic safety training by the police, etc.	At each business site.
Emergency rooms and equipment (life-saving and first aid, including AEDs, measures for pandemics or infectious diseases, etc.), an emergency contact network	There is also an emergency contact network covering the entire company.	At each business site.
Break rooms	Provided at business sites as needed, in line with policies related to measures to create a comfortable work environment.	At each business site.
Dining halls, nutritionists		All SMM Group employees at business sites where the service is available.
Laundry rooms		All SMM Group employees at business sites where the service is available.
Bath/shower facilities		All SMM Group employees at business sites where the service is available.
Company housing and dormitories		All SMM Group employees at business sites where the service is available.
Suggestion boxes	Can be posted through the SMM bulletin board. Internal reporting phone lines are also available.	All SMM Group employees in Japan.
Management of personal information	Required by Japanese laws and regulations.	All SMM Group employees in Japan.
Examples of other services	Supplementary information (Overview of service, etc.)	Targeted employees
Tackling lifestyle-related disease and promotion of health	Thorough medical checkups (health insurance union subsidies available), other.	All SMM Group employees at business sites where the service is available.

Work-Related Incidents (2017)

	Japan				Overseas			
	SMM Group employees		Contractors		SMM Group employees		Contractors	
Number of work-related incidents resulting in fatality and frequency rate <sup>1</sup> <input checked="" type="checkbox"/>	1	0.07	0	0	0	0	1	—
Number of work-related incidents resulting in disability and frequency rate <sup>1</sup> <input checked="" type="checkbox"/>	0	0	0	0	0	0	0	0
Number of work-related incidents requiring reporting <sup>2</sup> and frequency rate <sup>1</sup> <input checked="" type="checkbox"/>	13	0.97	11	—	10	1.68	11	—
Main types of work-related incidents	Getting caught between objects, impact injuries, unreasonable actions, lacerations, falls, tumbles				Results of movements or unreasonable actions, impact injuries, getting caught between objects, lacerations, tumbles			
Cumulative hours worked	13,408,538 hours		— <sup>6</sup>		5,955,667 hours <sup>5</sup>		— <sup>6</sup>	
Number of potential incidents <sup>4</sup>	25		10		5		3	
Sources of work-related hazards that lead to disability, and method of determination	1) Heavy loads, 2) chemicals, 3) high-temperature objects, 4) rotating objects, 5) electricity, 6) high places, 7) heavy machinery, 8) cylinders, 9) hand tools Classified based on analysis of past incidents				• Bears (based on incident in 2017) • 1) Heavy loads, 2) chemicals, 3) high-temperature objects, 4) rotating objects, 5) electricity, 6) high places, 7) heavy machinery, 8) cylinders, 9) hand tools Applied based on the results of analysis of incidents in Japan			
Incidents leading to disabilities and resulting from sources of work-related hazards, and actions taken or underway to eliminate these hazards using the hierarchy of controls <sup>2</sup>	Individual incidents • Cylinder (death): Installed an interlock and guard • Rotating object (resulting in absence from work): Improved the safety cover • Heavy load (not resulting in absence from work): Changed methods for transporting and supporting object to methods that do not require human power • High place (resulting in absence from work; contractor): Address with equipment and compliance with basic rules Overall Main emphasis on aiming for more effective activities • Reacted to incidents resulting in death with comprehensive safety checks at all business sites: currently identifying potentially critical equipment and operational hazards and implementing mainly engineering-based countermeasures • The effectiveness of risk assessments needs reviewing • Formulated and distributed guidelines for supervisors and gave instruction for them to be used (strengthened line management)				Individual incidents • Heavy machinery (not resulting in absence from work): Improved the hoisting sling • Heavy loads (not resulting in absence from work): Shifted to transportation methods that assist human power, operations moved outside of area where bolts fall, protective roofing installed Overall • Started introducing hazard simulation training to sites (business sites in the Philippines)			
Incidents resulting from other sources of workplace hazards and actions taken or underway to eliminate these hazards using the hierarchy of controls <sup>2</sup>	• Flying objects (resulting in absence from work): Improved visibility of flying objects, signals, prohibit entry into hazardous areas				• Collisions with obstacles: Signs, etc.			

1. Frequency rate: number of incidents ÷ cumulative hours worked x 1,000,000.
2. Measures considered in the following order: 1) Removing or reducing danger in worker activities in the design or planning stage, such as by eliminating or changing operations that are hazardous, 2) engineering-based measures such as installing interlocks or guards, 3) managerial measures such as upgrading manuals and prohibiting entry, and 4) use of personal protective equipment—Excerpted from Policy Regarding Investigation of Danger or Harm, etc. (Ministry of Health, Labour and Welfare)
3. "Workplace incidents requiring reporting" is the total of injuries that required hospital treatment and resulted in absence from work and injuries not resulting in absence from work.
4. The number of minor incidents (visited the hospital but no treatment needed).
5. Calculated based on one person working 2,000 hours per year.
6. Not calculated, as contractor work hours tend to be fluid.

Work-Related Ill Health (2017)

	"SMM Group employees" includes employees and part-time workers from group companies			
	Japan		Overseas	
	SMM Group employees		Contractors	Contractors
Number of incidents of work-related ill health resulting in fatality	0		— <sup>2</sup>	0
Number of incidents of work-related ill health requiring reporting	0		— <sup>2</sup>	0
Primary types of work-related ill health and method of determination	As stated in the Industrial Safety and Health Act: • Pneumoconiosis • Ionizing radiation injury • Organic solvent poisoning • Damage caused by specified chemical substances (occupational cancer, skin damage, etc.) • Lead poisoning • Vibration-induced damage • Noise-induced hearing loss • Occupational dental problems (dental erosion, etc.)		— <sup>2</sup>	— <sup>3</sup>
Sources of work-related hazards that lead to ill health	• Dust • Ionizing radiation • Organic solvents • Specified chemical substances • Lead • Vibrating tools • Noise • Substances that erode the teeth (acids)		— <sup>3</sup>	
Incidents resulting from sources of work-related hazards leading to illness and actions taken or underway to eliminate these hazards using the hierarchy of controls <sup>1</sup>	• No work-related ill health occurred that required treatment • Implementing improvements to working environments at business sites, primarily in Control Class 3 workplaces • Using a risk assessment database of chemical substances to prevent illness		• No work-related ill health occurred that required treatment	

1. Measures considered in the following order: 1) Removing or reducing harmfulness in worker activities in the design or planning stage, such as by eliminating or changing operations that are hazardous, and changing to materials that are less harmful, 2) engineering-based measures such as installing localized ventilation equipment, 3) managerial measures such as upgrading manuals and exposure management, and 4) use of personal protective equipment—Excerpted from Policy Regarding Investigation of Danger or Harm, etc. (Ministry of Health, Labour and Welfare)
2. Under Japanese laws and regulations, for employees other than those of the SMM Group, this falls under the responsibility and management of the businesses that hire them, so while we provide leadership, we are unable to disclose information.
3. For overseas business sites, depending on local laws, we investigate whether work-related ill health certification is present, but we do not investigate details.

Stakeholder Communication

Stakeholder Engagement

Stakeholders <sup>1</sup>	Stance on initiatives	Specific initiatives
Customers	We engage in communication primarily through sales personnel. Comments received are handled at the management level through the management systems of the individual businesses.	<ul style="list-style-type: none"><li>Introduce products on our website and post contact information along with them.</li></ul>
Shareholders and Investors	To carry out appropriate IR activities, we have established an IR Policy that has standards and methods of information disclosure and is on our website. Comments received are regularly reported to management and are put to use in administration of the company.	<p>For institutional investors and analysts:</p> <ul style="list-style-type: none"><li>Hold Business Strategy Progress Briefing Sessions (2 times/year)</li><li>Hold telephone conferences on the content of financial reports (4 times/year)</li></ul> <p>For individual investors:</p> <ul style="list-style-type: none"><li>Publish <i>The Report for Shareholders</i> (2 times/year)</li><li>Hold a briefing (1 time/year)</li></ul>
Employees	<p>We regularly give explanations and have meetings with labor unions in Japan and employee representatives overseas to hear their requests and opinions. We also have a system for discussions with individual employees and conduct an employment awareness survey.</p> <p>If there will be changes to work that significantly impact employees, we set an appropriate notification period in advance. (Example: At a subsidiary slated for withdrawal from business, we briefed employees eight months before the withdrawal and held discussions on personnel-related measures.)</p>	<p>Japan:</p> <ul style="list-style-type: none"><li>Hold labor-management council meetings, labor-management discussions (1 time/month)</li><li>Hold a Central Labor Management Conference (1 time/year)</li><li>Set individual job targets at the start of the fiscal year, and hold talks between individual employees and their supervisors to ascertain the progress being made toward the targets (2 times/year)</li></ul> <p>Overseas:</p> <ul style="list-style-type: none"><li>Establish opportunities for regularly explaining management status to employee representative organizations, and for hearing the opinions and requests of employees</li></ul> <p>In response to requests for safety and work environment improvements put forth in labor-management discussions, we confirm the conditions and enact the necessary improvement measures. (Examples: Measures to combat heat stroke in summer and measures to prevent contact accidents; use of machines for work with high physical burdens)</p>
Regional Communities	We establish opportunities for regular communication with regional communities, prepare environments that facilitate mutual understanding, and actively undertake a variety of activities for becoming a part of the communities.	<ul style="list-style-type: none"><li>Hishikari Mine: Hold Pollution Prevention Council meetings (2 times/year)</li><li>Pogo: Establish opportunities to disclose information to regional communities and other stakeholders (4 times/year)</li><li>CBNC: Hold regular information exchanges with 22 barangays,<sup>3</sup> including 11 "impact barangays" which are directly affected, near Rio Tuba</li><li>THPAL: Hold regular information exchanges with 14 barangays, including 4 neighboring "impact barangays" which are directly affected</li></ul> <ul style="list-style-type: none"><li>CBNC: Construct facilities required by each barangay, support schools by providing educational supplies and materials required for operation, and promote the Coffee Bean Cultivation Project, etc.<sup>2</sup></li><li>THPAL: Promote regional awareness activities aimed at dengue fever and filariasis, build new local high school buildings, support educational advancement through scholarships, etc.<sup>2</sup></li></ul>
Business Partners	Based on our excellent relationships with business partners, each of our departments actively engages in everyday communication and exchanges of ideas.	<ul style="list-style-type: none"><li>Hold safety training for subcontractors so they can work safely</li><li>Have patrols that evaluate the construction status of buildings, to improve the skills of construction firms handling our products</li></ul>
Citizens Groups	While gaining the understanding and cooperation of citizens groups toward the construction and operation of plants, we keep impact to the local environment to a minimum and work toward co-existence with the natural environment.	<ul style="list-style-type: none"><li>Hold regular exchanges of opinion with the international environmental NGO Friends of the Earth Japan (FoE Japan) on topics such as the water quality of rivers around the CBNC plant on Palawan Island and the THPAL plant on Mindanao Island, both in the Philippines (2 times/year)</li></ul>
Government Agencies	We conduct regular exchanges of information and discussions with local government administrative agencies, industry bodies, and other organizations in regions where we have business sites and affiliated companies.	Hold regular information exchange meetings with the public security sections of police stations near our workplaces (1 time/month)

There were no complaints to the SMM Group regarding impacts on society, and 18 complaints concerning impacts on the environment. These are being handled appropriately.

1. Stakeholders on which SMM has an impact and which have an impact on SMM are defined as customers, shareholders, employees, regional communities, creditors, business partners, citizens groups, and government agencies.

2. Part of our SDMP (Social Development and Management Program) initiative.

3. Barangay: the smallest administrative division that makes up cities and towns in the Philippines, and denotes a village, district, or ward.

Main Organizations in Which SMM Has Membership

Organization	Responsibilities of SMM officers and employees	Initiatives relating to public policy
Japan Business Federation (Keidanren)	Executive member; participation in the following committees: New Industry and Technology, Canada, Environment and Safety, Oceanic Resources, International Cooperation, China, South Asia, Japan-Myanmar Economic, Japan-Brazil Economic, Gender Diversity, National Resilience, the Tokyo 2020 Olympic and Paralympic Games, Energy and Resources (Planning sub-committee), Labor Legislation (Occupational Health and Safety sub-committee)	As a unified business organization with the goal of making improvements to the autonomous growth of the domestic economy and to public life, we act reliably and swiftly after gathering opinions from the business world with regards to various internal and external economic challenges
Japan Mining Industry Association	Director; participation in the following committees: Mining Reserves (chairman and deputy chairman), Planning and Coordination, Energy, Overseas Development, Environmental Management, Customs Duties, Funds, Supply and Demand, Taxation, Exploration and Development, Sulfide Ore and Sulfuric Acid, the Special Committee for Depletion Allowance Measures and Safety Promotion	Submission of mining industry policy requests to relevant government agencies regarding electricity fee issues, taxation, resource development, smelting and recycling technology, mine safety, and development of employee training. Members to be sent to government-sponsored investigative committees to present industry viewpoint.
The Sulphuric Acid Association of Japan	One director; participation in Business Editorial Committee and Technical Committee	Communicating policy and information from the Manufacturing Industries Bureau of the Ministry of Economy, Trade and Industry to member companies and compiling and presenting requests from member companies
International Council on Mining and Metals (ICMM)	Practice the ICMM 10 Principles. Promote ICMM activities and participate in each of the following programme committees: Environmental Stewardship and Social Progress, the Role of Mining and Metals in Society, and Health, Safety and Product Stewardship	<ul style="list-style-type: none"><li>Environment Initiatives for biodiversity, climate change, and water management</li><li>Health and safety Initiatives for sharing information on health and safety and the elimination of accidents</li><li>Materials stewardship Initiatives for science-based chemical substance management and supply chain management</li><li>Society and economy Initiatives to contribute to the economic development of society by the mining industry</li></ul>
Japan Electronics and Information Technology Industries Association (JEITA)		Collection of various statistics, and participation in reviews of regulations, standards, environmental measures and other issues
Battery Association of Japan	Associate member	

■ Involvement with the International Community

The 10 Principles of the ICMM<sup>1</sup>

- Principle 1:** Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development
- Principle 2:** Integrate sustainable development in corporate strategy and decision-making processes
- Principle 3:** Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities
- Principle 4:** Implement effective risk-management strategies and systems based on sound science and which account for stakeholder perceptions of risks
- Principle 5:** Pursue continual improvement in health and safety performance with the ultimate goal of zero harm
- Principle 6:** Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change
- Principle 7:** Contribute to the conservation of biodiversity and integrated approaches to land-use planning
- Principle 8:** Facilitate and support the knowledge-base and systems for responsible design, use, re-use, recycling and disposal of products containing metals and minerals
- Principle 9:** Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities
- Principle 10:** Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner. Effectively report and independently verify progress and performance

1. ICMM: International Council on Mining and Metals <https://www.icmm.com/>

The EITI<sup>2</sup> Principles

1. We share a belief that the prudent use of natural resource wealth should be an important engine for sustainable economic growth that contributes to sustainable development and poverty reduction, but if not managed properly, can create negative economic and social impacts.
2. We affirm that management of natural resource wealth for the benefit of a country's citizens is in the domain of sovereign governments to be exercised in the interests of their national development.
3. We recognise that the benefits of resource extraction occur as revenue streams over many years and can be highly price dependent.
4. We recognise that a public understanding of government revenues and expenditure over time could help public debate and inform choice of appropriate and realistic options for sustainable development.
5. We underline the importance of transparency by governments and companies in the extractive industries and the need to enhance public financial management and accountability.
6. We recognise that achievement of greater transparency must be set in the context of respect for contracts and laws.
7. We recognise the enhanced environment for domestic and foreign direct investment that financial transparency may bring.
8. We believe in the principle and practice of accountability by government to all citizens for the stewardship of revenue streams and public expenditure.
9. We are committed to encouraging high standards of transparency and accountability in public life, government operations and in business.

2. EITI: Extractive Industries Transparency Initiative <http://eiti.org/>

The SMM Group reflects the ICMM 10 Principles in our CSR and other policies, and publishes reports in line with GRI guidelines, as mandated for ICMM member companies. In addition, we comply with the ICMM Position Statements that embody the 10 Principles, and otherwise engage in a variety of actions as a member company.

ICMM has set forth the following position statements to supplement its 10 Principles. SMM is committed to complying with these initiatives.

- Transparency of mineral revenues
- Principles for climate change policy design
- Mercury risk management
- Mining and protected areas
- Indigenous peoples & mining
- Mining partnerships for development
- Water stewardship
- Tailings governance

SMM Group Code of Conduct

All officers (including executive officers) and staff (including fixed-term and temporary employees) shall, in accordance with the corporate philosophy of the SMM Group, comply with the following Code of Conduct. Officers in particular shall, in reflection of their position and responsibilities, exercise strict self-discipline, set an example in carrying out the Code, and educate employees to honor and strictly obey the Code in full.

1. Compliance: Abidance by Laws and Rules

- We will comply with foreign and domestic laws and rules, and conform to social norms.
- We will never under any circumstances commit an infraction of the law or act counter to social norms, even if doing so would seem to be in the company's interests.

2. Respect for Individuals

- We will accept diversity and respect the individuality and rights of people.
- We will never violate human rights, engage in discriminatory conduct, or contribute to such conduct.

3. Assurance of Health and Safety

- We will give highest priority to ensuring the physical health and safety of all persons affected by our operations.

4. Development of Human Resources

- We will strive not only for personal self-improvement, but also to nurture successors through systematic training and by providing various opportunities in the course of work.

5. Risk Management

- We will strive to identify risks, prevent their occurrence, and if risks occur, minimize the effects.

6. Adherence to a Progressive Stance

- We will approach our jobs with a positive and progressive attitude suitable to the creation of technologies and systems in the vanguard of changing times.

7. Respect for Teamwork, Promotion of Good Communication

- We will place high value on teamwork, in the form of cooperation both with other organizations and with fellow workers.
- We will strive to create a cheerful and broadminded corporate atmosphere conducive to the smooth transfer of required information and the timely performance of reporting, liaison and consultation.

8. In Harmony with Society and Local Communities

- As members of society, we will participate in social contribution activities in accordance with our personal beliefs.
- We will strive toward a harmonious and mutually beneficial relationship with local communities.

9. Separation of Corporate Business and Personal Affairs

- We will at all times conduct ourselves based on sound judgment, and make a clear distinction between corporate business and our personal affairs.

10. Collection, Management and Usage of Information

- We will collect information swiftly, properly and lawfully, manage it appropriately, and use it effectively.
- We will utilize information acquired in conjunction with corporate business expressly for that purpose only, and will not leak such information to any third party.

11. Handling of Intellectual Property

- We will nurture and maintain conscious recognition of the importance of intellectual property as a vital asset of the Group, and strive toward the creation of such property.
- We will strive to properly protect and effectively use all corporate intellectual properties; we will also respect intellectual properties of other parties.

12. Assurance of Quality

- We will continuously improve quality management systems and provide products and services that satisfy customers.
- We will enhance technologies and seek to engage in manufacturing that takes into account customers' safety and their environment.

13. Stance toward Performance of Sales and Purchasing

- We will comply with competition laws and conduct sales and purchasing activities based on fair competition.

14. Stance toward Entertainment and Gifts

- We will entertain and present gifts to others, and accept entertainment and gifts, within the proper limits of both the law and social acceptability.
- We will comply with laws against bribery and will maintain healthy and proper relationships with government and political organizations.

15. Severance of Relationships with Socially Disruptive Forces

- We will staunchly eliminate socially disruptive forces and have no relations whatsoever with them.

16. Concern for the Global Environment

- Taking into consideration climate change and biodiversity, we will act in a manner enabling us to contribute to the resolution and/or improvement of resource, energy and environmental problems of global scale.

17. Attitude in the Performance of Global Business Activities

- We will strive to interact with people in the countries or regions where we undertake business and engage in conduct that respects local culture and practices as well as globally accepted norms and their spirit.

Established April 1, 2004  
Revised April 1, 2015



## Other

## ■ Economic Performance

Distribution of Economic Value to Stakeholders (FY2017) ☒

Stakeholder	Amount (billions of yen)	Details
Suppliers	802.5	Payments to suppliers
Employees	40.1	Payments to employees
Shareholders/Creditors	23.6	Payments of dividends/interest
Government	15.9	Taxes paid
Society*	1.0	Donations

Other than the above, there is retained value of ¥79.0 billion. Rent for use of land is minimal and therefore included in "Payments to suppliers."

\* In the Philippines (CBNC, THPAL), the ¥0.8 billion expended through the social development management program (SDMP) and other contributions in the same country is included.

Financial Assistance from the Government (FY2017) ☒

Stakeholder	Amount (billions of yen)	Details
Government	0.2	Subsidies, grants, etc.

• No governments have an equity stake in SMM

## Projected Benefit Obligation

SMM has the following defined-benefit systems in place, principally in Japan: a lump-sum retirement payment plan; a defined-benefit corporate pension plan; and an employees' pension fund. The projected benefit obligation at March 31, 2018 is ¥70.5 billion. The portion of the projected benefit obligation to be funded by pension assets is ¥68.6 billion ☒. Pension assets available for allocation to that portion are ¥63.2 billion ☒.

## ■ External Recognition

## List of Main External Awards (FY2017)

Recognition (awarding party)	Date	Recipients	Award received for
2016 Outstanding Community Project Award (Philippine Economic Zone Authority)	April 4, 2017	Coral Bay Nickel Corporation	The supply of electric power to residents, development of means of livelihood in the surrounding area, medical assistance, scholarship student assistance, volunteer work and a variety of other social contribution activities conducted by Coral Bay Nickel Corporation in its area of location through the Social Development and Management Program were highly acclaimed.
2016 Distinguished Achievements in Research (Japan Society of Powder and Powder Metallurgy)	May 31, 2017	Hitoshi Taimatsu, Outside Director, Sumitomo Metal Mining Co., Ltd.	Achieved outstanding research results in the areas of powder and powder metallurgy science and technology related to metals and ceramics.
10th Award for Excellence in Accuracy Control (The Japan Association for Working Environment Measurement)	June 14, 2017	Sumiko Techno-Research Co., Ltd.	Sumiko Techno-Research Co., Ltd. has been recognized as an elite institution for accuracy control for five consecutive years. Its work environment measurement experts, who have surmounted difficult testing, rise to the challenge every year.
2016 Supplier's Award (Murata Manufacturing Co., Ltd.)	July 4, 2017	Sumitomo Metal Mining Co., Ltd.	Shinko Co., Ltd. was the only company out of approx. 1,000 to be recognized by Murata Manufacturing for quality improvements, cost reductions, and other distinguished achievements in the business of printed circuit boards.
Excellence in Corporate Disclosure as selected by securities analysts (The Securities Analysts Association of Japan)	October 12, 2017	Sumitomo Metal Mining Co., Ltd.	The IR activities of SMM were ranked by securities analysts as number 1 among 14 companies in the Steel/Non Ferrous Metal category.
2017 Internet IR Awards Commendation Award (Daiwa Investor Relations Co., Ltd.)	November 20, 2017	Sumitomo Metal Mining Co., Ltd.	Was acclaimed from among all 3,735 listed companies and given the award.
2017 Presidential Mineral Industry Environmental Award (Department of Environment and Natural Resources of the Philippines)	November 24, 2017	Coral Bay Nickel Corporation	Was awarded the 2017 Presidential Mineral Industry Environmental Award which is the highest in the nation's mining industry, by the Department of Environment and Natural Resources of the Philippines for the fourth consecutive year. Also received the Safest Mineral Processing Extraction Award and the Best Mining Forest Award (second place).
2017 Titanium Award of the Presidential Mineral Industry Environmental Award (Department of Environment and Natural Resources of the Philippines)	November 24, 2017	Taganito HPAL Nickel Corporation	Was awarded the 2017 Titanium Award of the Presidential Mineral Industry Environmental Award (third place) by the Department of Environment and Natural Resources of the Philippines. Also received the Safe Mineral Processing Extraction Award.
Encouragement Award for Integrated Reporting (WICI Japan)	December 1, 2017	Sumitomo Metal Mining Co., Ltd.	Received the Encouragement Award from WICI (The World Intellectual Capital / Assets Initiative) Japan for the Integrated Report 2017.
21st Environmental Communication Awards Prize of Excellence (Global Environment Forum)	February 27, 2018	Sumitomo Metal Mining Co., Ltd.	The Integrated Report 2017 was recognized as "a superior report that goes beyond a certain level to serve as an example to other companies in the same industry and business operators with a comparative business scale."
Viola R. MacMillan Award (Prospectors & Developers Association of Canada)	March 4, 2018	Sumitomo Metal Mining Co., Ltd.	Received the award along with IAMGOLD Corporation for the Côté Gold Project in Ontario, Canada. SMM was recognized for demonstrating leadership in management for the purpose of exploration and developing of resources and in resource procurement.