



CSR Report 2011

 SUMITOMO METAL MINING CO., LTD.

# SUMITOMO METAL MINING



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## Editorial Policy

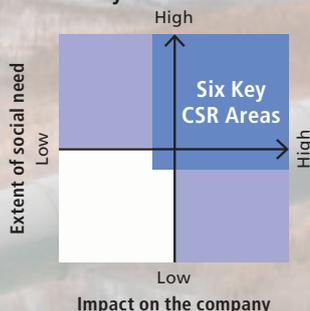
This report was created for the benefit of customers, citizens of local communities, shareholders, suppliers, employees and all other stakeholders. The intention has been to provide a clear outline of activities Sumitomo Metal Mining Co., Ltd. (SMM) is pursuing in order to achieve sustainable co-existence with society and the global environment.

The articles in this report focus on activities relating to “Six Key CSR Areas,” which were selected in 2008 after three months of deliberation in six workshops by an in-house group of 20 people comprising executive officers and general managers of Head Office divisions. Their selection was based on the impact those areas have on the company and the extent of related social needs. To determine the social need, insight gained through regular communication with stakeholders and information from other sources (e.g. GRI<sup>1</sup> guidelines and other international standards, and trends in civil society) were used. Subsequent deliberation in six subcommittees, covering each of the Six Key CSR Areas, led to the CSR Committee incorporating findings from reviews of action plans for achieving the CSR Vision for 2020 in May and November 2010.

This report is our second report prepared in alignment with the GRI Sustainability Reporting Guidelines at an application level of A+. This declaration is externally assured.

1. **Global Reporting Initiative (GRI):** An organization established with the purpose of creating and promoting international guidelines for sustainability reports.

### Process for determining the Six Key CSR Areas



A workshop in progress

## Boundary of the report

Sumitomo Metal Mining Co., Ltd. (SMM)

The Sumitomo Metal Mining Group (consolidated subsidiaries)

**Economic Aspects:** SMM, consolidated subsidiaries and affiliates

**Environmental Aspects:** SMM and consolidated subsidiaries

\* From the perspective of significance, we included equity-method application affiliate Nippon Ketjen Co., Ltd., but excluded consolidated subsidiaries with a low environmental impact. The following subsidiaries and affiliates have been covered. Some statements on Taganito HPAL Nickel Corporation have been made, but the company is not included in aggregate data as operations are not yet underway.

Sumitomo Metal Mining Pogo LLC, Sumiko Logistics Co., Ltd., Taihei Metal Industry Co., Ltd., Hyuga Smelting Co., Ltd., Shisaka Smelting Co., Ltd., Coral Bay Nickel Corporation, Ajimu Electronics Co., Ltd., Okuchi Electronics Co., Ltd., Sumiko Kunitomi Denshi Co., Ltd., Shinko Co., Ltd., SumikoTec Co., Ltd., Nittosha Co., Ltd., Niihama Electronics Co., Ltd., M-SMM Electronics SDN. BHD., Sumiko Electronics Suzhou Co., Ltd., Sumiko Electronics Taiwan Co., Ltd., Sumiko Leadframe Chengdu Co., Ltd., Sumiko Leadframe (Thailand) Co., Ltd., SMM Precision Co., Ltd., Igeta Heim Co., Ltd., JCO Co., Ltd., Sumiko Lubricant Co., Ltd., Nippon Catalyst Cycle Co., Ltd., Japan Irradiation Service Co., Ltd., Sumitomo Metal Mining Siporex Co., Ltd., Nippon Ketjen Co., Ltd., Sumitomo Metal Mining Engineering Co., Ltd.

**Social Aspects:** SMM and consolidated subsidiaries

## Period covered

April 1, 2010 – March 31, 2011

(Some activities before or after the above period have also been included)

## Publication date

October 2011

Previous publication: October 2010

Next scheduled publication: October 2012

## Referenced guidelines

GRI Sustainability Reporting Guidelines, Version 3.0  
Environmental Reporting Guidelines of the Japanese Ministry of the Environment (2007 version)

Unless otherwise stated, the term ‘ton’ refers to a metric ton.

## Enquiries

PR and IR Department, Sumitomo Metal Mining Co., Ltd.,  
11-3, Shimbashi 5-chome, Minato-ku, Tokyo 105-8716, Japan  
Tel: 81-3-3436-7705 Fax: 81-3-3434-2215

# Executive Message

SMM commenced CSR activities three years ago. President Nobumasa Kemori explains the role SMM plays in resolving the world's issues, focusing on progress made and challenges up ahead, along with the company's goals.

## Q1 What issues do you believe the world faces?

**A1** There are three types—financial risk in advanced nations, inflation risk in emerging nations, and global environmental and energy risks. I think we can attribute these risks to the persistent following of existing formulas for growth despite recognition of the Earth's finite nature. At this rate, it will not be long before limits are reached.

SMM has engaged in mineral resources, and smelting and refining businesses inside the Pacific Rim, with copper, nickel and gold being our three main areas. But if we are to help resolve society's problems, I think we have to free ourselves of conventional frameworks restricting us to certain types of minerals or geographical regions, and operate across a broader field. For example, we could use our technology to develop items whose costs are disproportionate to the benefit or their development technically difficult, or even items we have not previously acknowledged as resources. We need to make efforts to achieve effective use of the limited resources available.

## Q2 A year has passed since formulation of the 3-year business plan. How is it progressing?

**A2** Progress has been good. Of our three core businesses, mineral resources, and smelting and refining businesses have been particularly strong due to rising metal prices. On the other hand, in the materials business, where we supply the market with items like cathode materials for secondary batteries installed in electric vehicles, a number of factors have meant demand has not grown as much as we hoped. But this is an important business that contributes to improvements in energy efficiency and we will continue to focus on it.

In developing core businesses, we place utmost importance on gaining the trust of people living and working in communities where our plants and other facilities are located, and showing consideration toward the surrounding environment. In emerging nations, laws and operational aspects can be quite different, but we work to build up trust through close communication based on good faith. At Coral Bay Nickel Corporation (CBNC), there is new potential for turning iron in residue into a resource. We will continue working on this as it would contribute to waste reduction and effective use of resources.



**SMM helps to  
resolve social issues through its**

**Q<sub>3</sub>** It is three years since SMM commenced CSR activities. How well have they taken hold inside the company?

**A<sub>3</sub>** The response is promising, except so far the focus has been on heads of divisions and facility representatives leading by example. Now we need all employees to embrace activities. Take safety for example. It is employees working at the front line of operations who are more likely to get caught up in an accident. While managers and supervisors are more aware and safety assurance systems have been improved, that awareness has yet to spread to everyone. But if we did try to get everyone on board all at once, a sense of having been “forced” might prevail. Rather than company-wide education, what we will do is have supervisors try to get through to individual employees, primarily through education in small groups.

**Q<sub>4</sub>** What is your approach to human resources development?

**A<sub>4</sub>** “Respect for people and human rights” is one of the SMM Group’s Six Key CSR Areas, and that is our basic policy. On top of that, we have to look beyond existing frameworks and try to generate new value. Viewing the full picture, we must break down whatever needs to be broken down, and cross boundaries that need to be crossed in order to move forward. We want to develop human resources who can solve problems for themselves and who are not afraid to take up a challenge. And the commitment of people involved in various projects is one of SMM’s strengths. These are the traits we will be looking for in human resources over the long term.

**Q<sub>5</sub>** Where did your ideas about CSR originate?

**A<sub>5</sub>** To become a major company in the non-ferrous metals industry, SMM has to do business overseas among different cultures and customs. Overseas, the values we observe in Japan may not apply. I realized we had a responsibility to learn what society needs and to learn about internationally-observed standards.

When I first started thinking about CSR, I found myself recalling the 1995 sarin gas attack on Tokyo’s subway system. I had been shocked to hear that among the perpetrators were budding scientists—people like me. I saw the attack as the reckless actions of scientists who had devoted themselves to nothing but research in their chosen fields. What they lacked was ethics, and an objective view of the impact their actions would have on society as a whole.

This made me realize that our organization should not be allowed to shut itself in its own world; that we had to be able to listen to opinions from people outside.

**Q<sub>6</sub>** In terms of CSR, what is required of SMM following the Great East Japan Earthquake?

**A<sub>6</sub>** Immediately after the earthquake, I reminded officers and employees that as a corporation, and as members of society, we were required to act in a way that did not offend hard-hit communities. I set forth three policies—that we should avoid inconveniencing affected communities when procuring supplies; that we could support affected communities by restoring operations; and that even in emergencies, we had to continue ensuring the safety of employees and local residents and preserving the environment. SMM’s stance is that by following these policies, we can contribute to recovery efforts through our business.

SMM was quick to contribute relief funds, but donations alone are not sufficient for a disaster on this scale. Given that taxes will be directed toward the recovery, corporations should support those efforts by increasing profits, and therefore taxes. And it is important that SMM, as a supplier of materials, provides high-quality raw materials and highly functional processed materials necessary for the recovery.

Our response to the disaster is the same as our approach to CSR efforts—achieve sustainable co-existence with society and the global environment through our business. I would also like employees to constantly consider the impact of their work and actions on society, and for everyone to press ahead aware that they can help resolve society’s problems and contribute to society in some way through their jobs.

President and Representative Director: **Nobumasa Kemori**



business

# Corporate Philosophy for a Sustainable Society

The Sumitomo Group has been developing its business for around 400 years through continuous adherence to the Sumitomo Business Spirit. Acknowledging the importance of the values and ethics our forerunners built into the Sumitomo Business Spirit, we will make every effort to strengthen SMM Group business and consolidate society's trust in us.

The SMM Group upholds the Sumitomo Business Spirit in its Corporate Philosophy and Management Vision. The very activities we pursue to substantiate the visions expressed in those lines constitute SMM's CSR activity and their implementation will take us closer toward our goal of "sustainable coexistence with society and the global environment."

## The Sumitomo Business Spirit

### Article 1

**Sumitomo shall achieve strength and prosperity by placing prime importance on integrity and sound management in the conduct of its business.**

### Article 2

**Sumitomo shall manage its activities with foresight and flexibility in order to cope effectively with the changing times. Under no circumstances, however, shall it pursue easy gains or act imprudently.**

"Business Principles" forming the "Rules Governing the House of Sumitomo," formulated in 1928

## SMM Group Corporate Philosophy

- Sumitomo Metal Mining Co., Ltd. (SMM), in accordance with the Sumitomo Business Spirit, shall, through the performance of sound corporate activities and the promotion of sustainable co-existence with the global environment, seek to make positive contributions to society and to fulfill its responsibilities to its stakeholders, in order to win ever greater trust.
- SMM shall, based on respect for all individuals and recognizing each person's dignity and value, seek to be a forward-minded and vibrant company.

## SMM Group Management Vision

- By developing and employing innovative technology, we shall fulfill our social responsibilities as a manufacturing enterprise.
- Based on the principles of compliance, environmental protection and operational safety, the Sumitomo Metal Mining Group shall pursue maximum corporate value through the provision, via its global network, of high-quality materials such as non-ferrous metals and electronics and advanced materials.

# CSR Policy

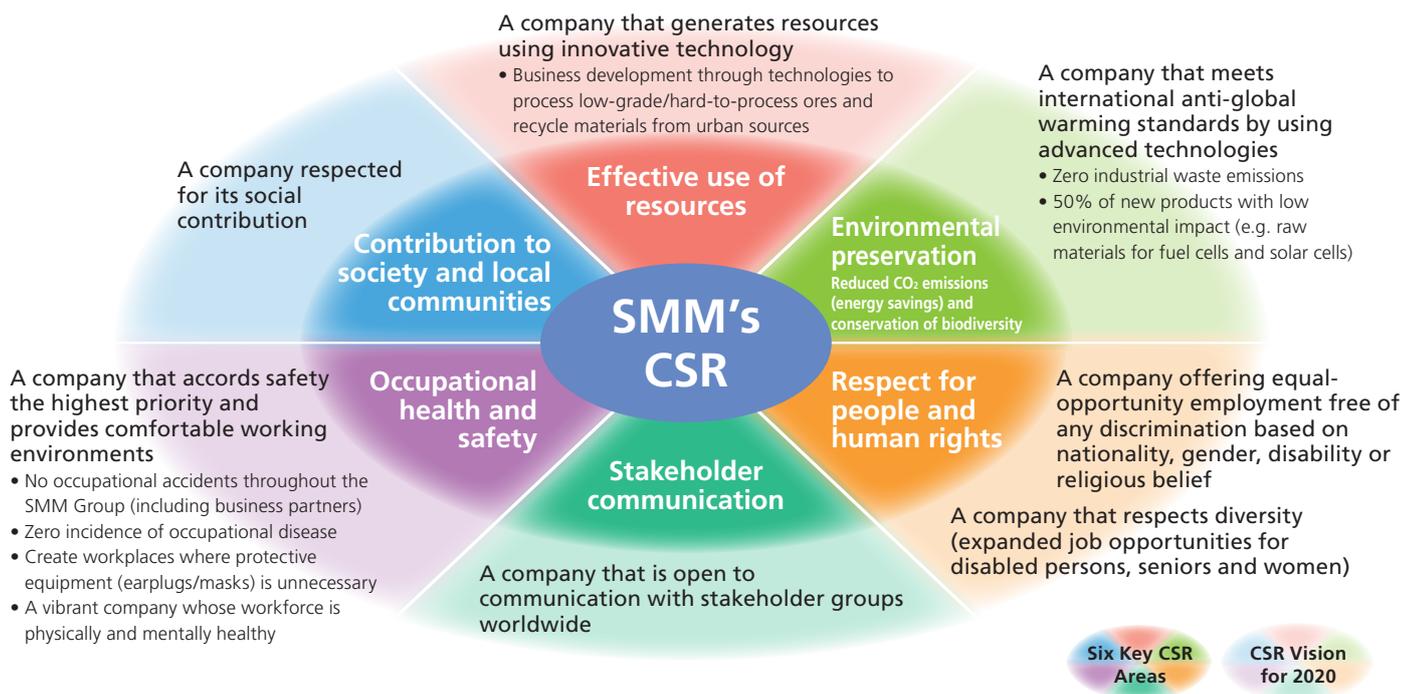
In 2008, SMM determined key areas of CSR activity for the Group and a CSR Vision for 2020 based on the impact of those areas on the Group and the extent of related social needs. We will actively pursue initiatives in those areas in line with the CSR Policy, toward our goal of "sustainable co-existence with society and the global environment."

## SMM Group CSR Objectives Sustainable Co-existence with Society and the Global Environment

### CSR Policy

1. SMM shall work to combat global warming by promoting recycling and effective resource utilization while also targeting technological innovation and continuous improvements in energy efficiency.
2. SMM shall promote sustainable co-existence with society by respecting the needs of local communities in which we operate around the world.
3. SMM shall respect human rights and safeguard diversity in the workplace.
4. According safety the highest priority, SMM shall provide safe, comfortable working environments and seek to eliminate occupational accidents.
5. SMM shall strengthen communications with all stakeholders to build healthy, trust-based relationships.

### Six Key CSR Areas and CSR Vision for 2020



### The 10 Principles of ICMM

SMM joined the International Council on Mining and Metals (ICMM) in 2002. As of June 2011, ICMM members comprise 20 of the world's major mining and metals companies and 31 mining associations. The objective is to lead the movement towards the attainment of sustainable development in the world's metal mining sectors.

They are also required to issue CSR reports in line with GRI guidelines.

The 10 Principles of ICMM in the right column are also reflected in the SMM Group's policies and thinking.

### The 10 Principles of ICMM

1. Implement and maintain ethical business practices and sound systems of corporate governance.
2. Integrate sustainable development considerations within the corporate decision-making process.
3. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.
4. Implement risk management strategies based on valid data and sound science.
5. Seek continual improvement of our health and safety performance.
6. Seek continual improvement of our environmental performance.
7. Contribute to conservation of biodiversity and integrated approaches to land use planning.
8. Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.
9. Contribute to the social, economic and institutional development of the communities in which we operate.
10. Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders.

# Overview of Business Operations

## Corporate Data (March 31, 2011)

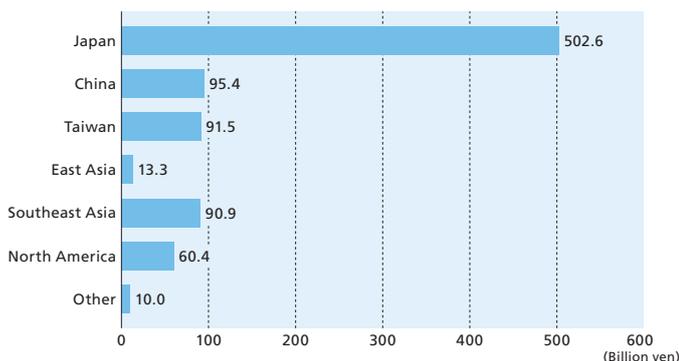
Company name: Sumitomo Metal Mining Co., Ltd.  
 President: Nobumasa Kemori  
 Founded: 1590  
 Incorporated: 1950  
 Capital: ¥93.2 billion  
 Listing: Tokyo Stock Exchange and Osaka Securities Exchange  
 Number of consolidated subsidiaries: 60  
 Number of equity-method affiliates: 14  
 Number of employees (consolidated)\*: 9,189 (939)  
 Net sales (consolidated): ¥864.1 billion  
 Recurring profit (consolidated): ¥123.7 billion

**Main Operating Sales Offices & Plants**  
 Head office: 11-3, Shimbashi 5-chome, Minato-ku, Tokyo  
 Main branch: Osaka Branch  
 Branches: Nagoya Branch  
 Besshi-Niihama District Division (Ehime Prefecture)  
 Plants (in Japan): Toyo Smelter & Refinery (Ehime Prefecture)  
 Niihama Nickel Refinery (Ehime Prefecture)  
 Harima Smelter (Hyogo Prefecture)  
 Ome District Division (Tokyo)  
 Sagami Plant (Kanagawa Prefecture)  
 Isoura Plant (Ehime Prefecture)  
 Mines: Hishikari Mine Department (Kagoshima Prefecture)  
 Research laboratories: Ichikawa Research Laboratories (Chiba Prefecture)  
 Niihama Research Laboratories (Ehime Prefecture)  
 Battery Research Laboratories (Ehime Prefecture)

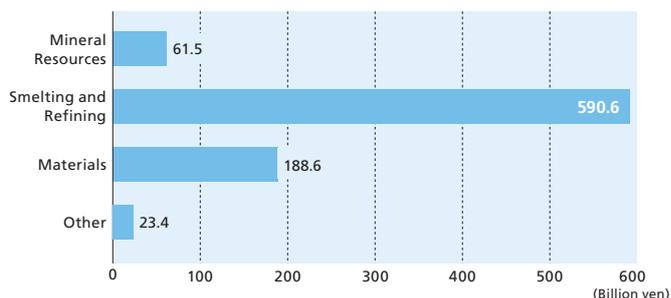
Number of countries and regions where business is conducted: 12

\* Full-time employees: Figures in parentheses are additional temporary staff.

### Net sales by region



### Net sales by segment



## Business Operations

### Mineral Resources

Gold & silver ores, copper concentrates, mine development and geological surveys, etc.



Cerro Verde Mine (Peru)



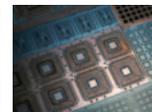
Resources exploration (Solomon Islands)

### Materials

Semiconductor materials (lead frames, tape bonding materials such as copper-clad polyimide film (CCPF) and chip-on-film (COF) substrates, bonding wire, etc.), electronic component materials, thick film materials (paste, powder), thin film materials, single crystal products, printed circuit boards, battery materials such as nickel hydroxide, magnetic materials, etc.



Bonding wire



Lead frames

### Smelting and Refining

Gold, silver, copper, ferronickel, lead, zinc, chemical products, wrought copper and copper alloy, special steel products, etc.



Gold



Electrolytic nickel

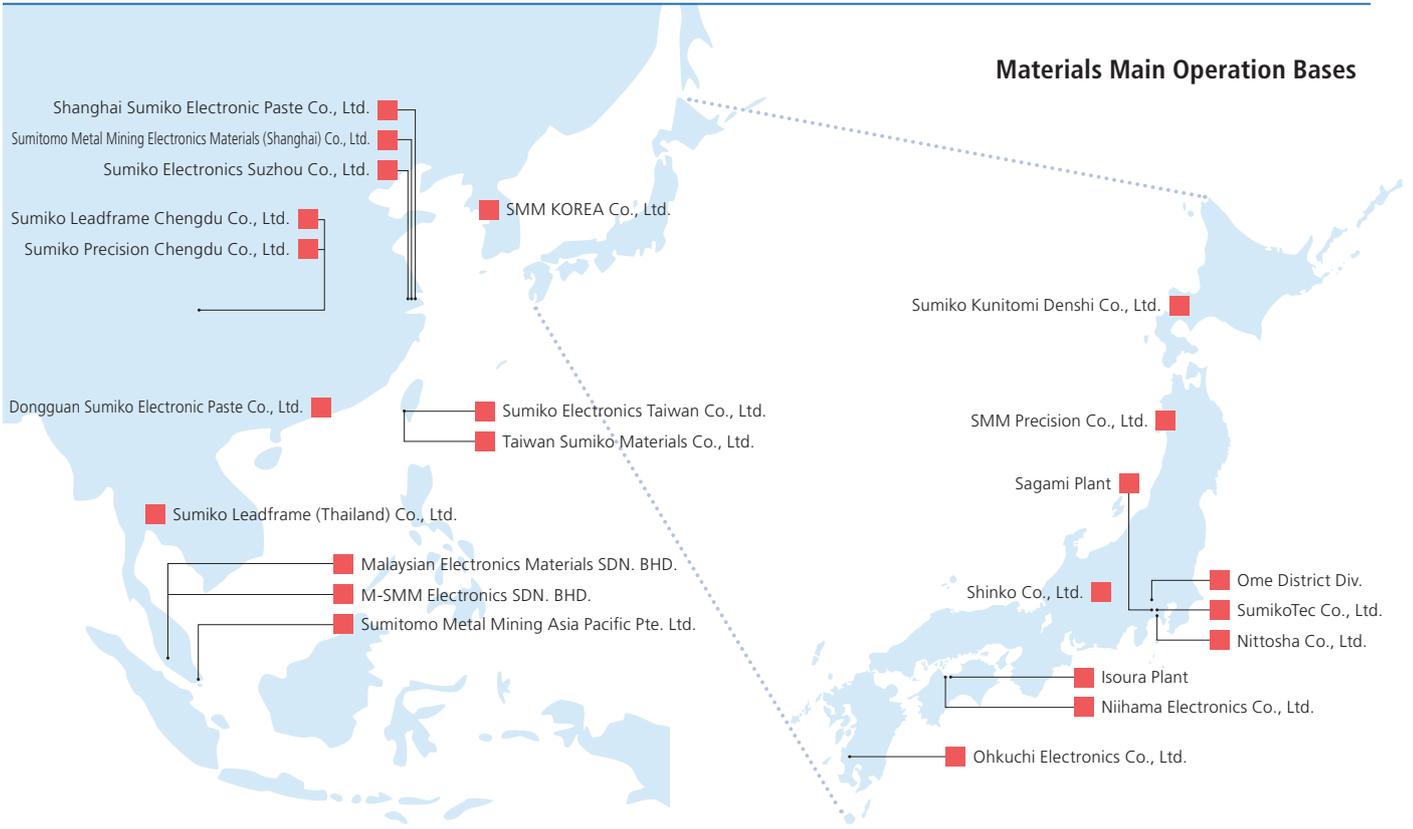
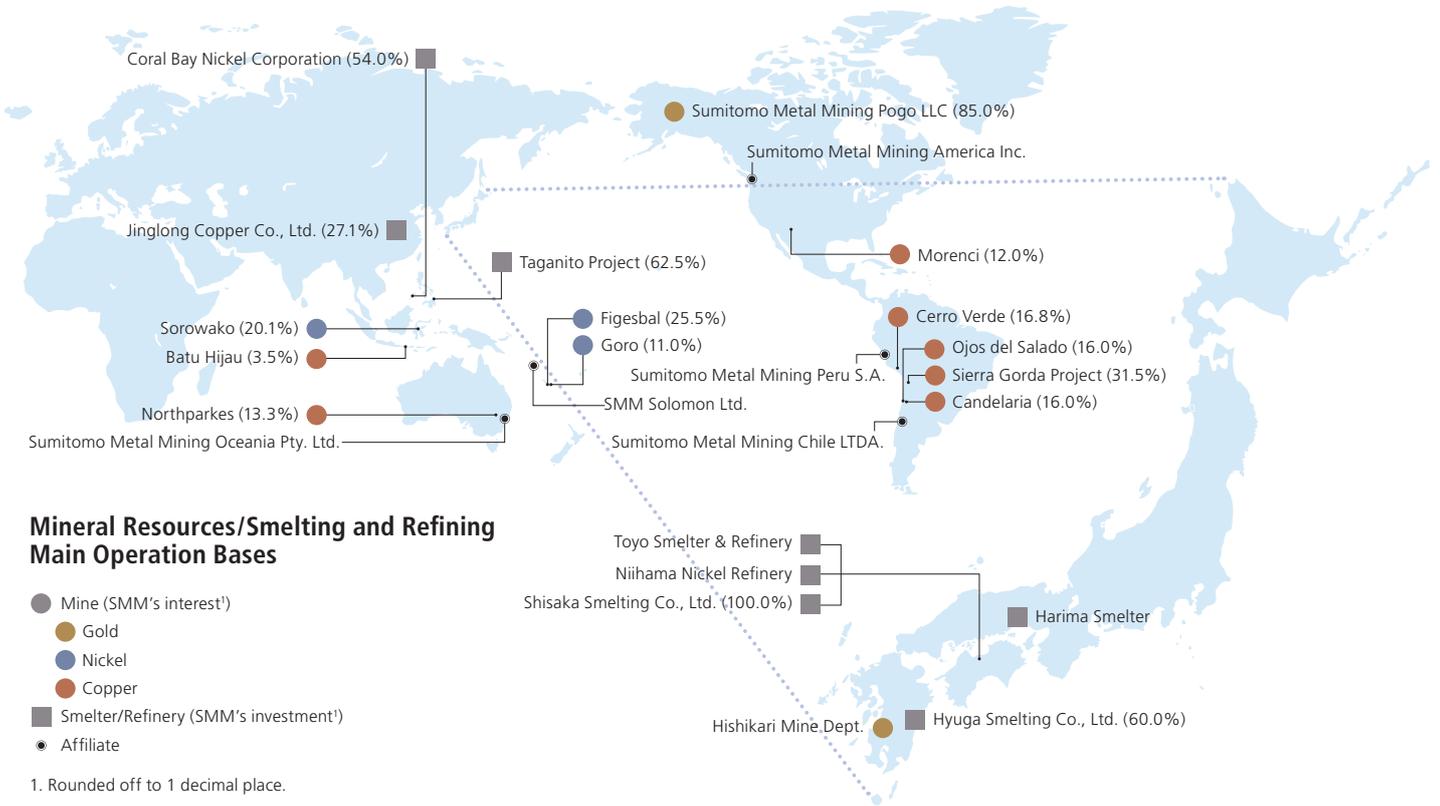
### Other Operations

Chemical catalysts, autoclaved lightweight concrete (Siporex), environmental protection equipment, lubricants, etc.



Siporex

## Operation Bases by Business



# CSR Activity Promotion Framework

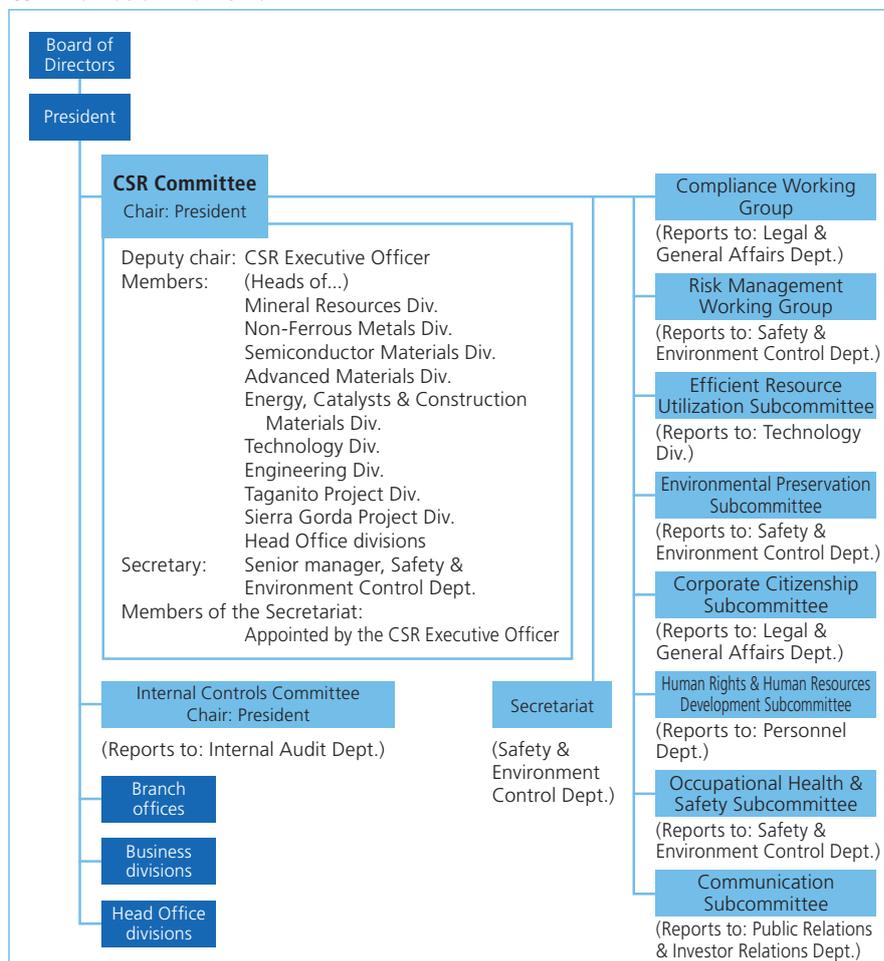
SMM's CSR activity is promoted by the CSR Committee, which convenes at least once a year and comprises the president, as chairman, and the heads of business and Head Office divisions.

Attached to the CSR Committee are two working groups—the Compliance and Risk Management Working Groups—and six subcommittees overseeing the following areas: efficient resource utilization, environmental preservation, corporate citizenship, human rights and human resources development, occupational health and safety, and communication. Each of these six subcommittees, which correspond to the SMM Group's Six Key CSR Areas, works toward annual targets in the quest to realize the CSR Vision for 2020.

CSR activities consistent with these annual targets are advanced principally through line management. Actual implementation is carried out by all officers and employees according to their individual roles.

The CSR Committee operates a PDCA (Plan–Do–Check–Act) cycle, reviewing activities each year and evaluating the company's performance in social, environmental and economic terms.

## CSR Promotion Framework



## Examples of Social Recognition

Some of the awards received by the SMM Group in FY2010 are listed below:

Recognition (Awarding party)	Date	Recipients	Award received for
Rare Earth Society of Japan Technology Award (Rare Earth Society of Japan)	May 28, 2010	Kenji Adachi (Technology Div., Ichikawa Research Laboratories)	Development of new transparent, solar radiation-shielding ultrafine particles and dispersing elements
Japan Mining Industry Association Awards (Japan Mining Industry Association)	March 31, 2011	Shinya Takemoto (Mineral Resources Div., Hishikari Mine Dept.)	Initiatives relating to operational issues in mining at the Pogo Gold Mine
		Yasuhiro Kusaba (Sumitomo Metal Mining Pogo LLC)	
		Naofumi Shiraishi (Sumitomo Metal Mining Pogo LLC)	
		Yasunori Manabe (Niihama Engineering Center, Sumitomo Metal Mining Engineering Co., Ltd.)	Operator training at the Oji-kan facility for developing strong equipment skills and knowledge
		Hiroki Hata, (Technology Div., Niihama Research Laboratories)	High-precision chip-on-film (COF) substrate with high heat dissipation manufactured using semi-additive processes
		Shinichi Sogame (Oji-kan, HR Development Center, Personnel Dept.)	An experience-based training facility at Sumitomo Metal Mining Co., Ltd. — an outline of the Oji-kan facility and related activities

# Our Stakeholders

Prior to commencing CSR activities at SMM, much time was spent discussing revisions to the SMM Group Corporate Philosophy and the SMM Group Management Vision, the establishment of the CSR Policy, and other matters. After

deliberation on the SMM Group Corporate Philosophy, Management Vision, CSR Policy, and CSR Vision for 2020, the following entities with an interest in SMM's activities were identified as stakeholders: customers, shareholders,

employees, local communities, creditors, business partners, citizen groups, and government. SMM aims to maximize its corporate value and has established targets that specify the "ideal company" for each stakeholder category.

## Communication with Stakeholders

### Customers

Communication with customers occurs mainly via sales personnel. Comments and opinions received are responded to through action at the management level for each business through the frameworks in place.

### Shareholders and Investors

Institutional investors are informed about the running of the company through conference calls and business strategy progress briefings at the time of earnings announcements, as well as meetings held

on an individual basis as the occasion arises. Individual investors are briefed on business conditions via the company website, the Report for Shareholders, and other media. All feedback from investors is regularly reported to management and applied to administration of the company.

### Employees

Workers' unions formed at branch offices and SMM Group companies fall under the umbrella of the Federation of Sumitomo Metal Mining Workers' Union in Japan. SMM routinely holds briefings or

discussions with each union. Talks between individual employees and their supervisors are also held to ascertain progress made against job targets set for the fiscal year. Many comments and questions are fielded through these talks.

### Local Communities

SMM seeks communication with people in the community when making inroads into a new region. Opportunities for communication are regularly arranged even after operations commence and an effort is made to offer adequate explanations to members of the community when problems occur. We also provide support for events and carry out various other activities as a way to strengthen ties with the community.

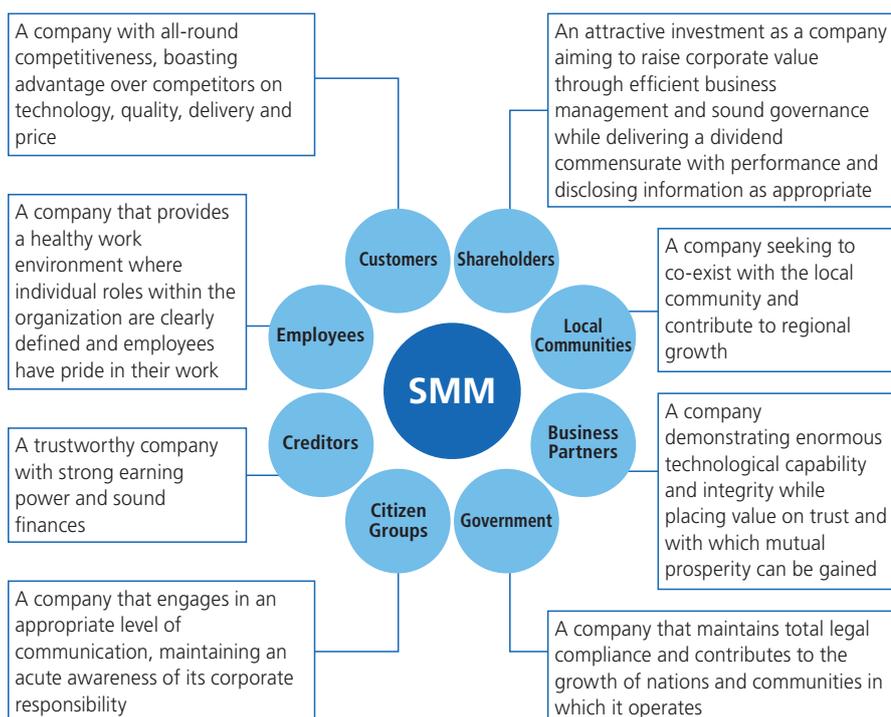
### Business Partners

Individual divisions within the SMM Group stay in touch with business partners on a daily basis to hold dialogue on business operations and products and to exchange technological information. This is based on friendly relationships built up over the years.

### Other Stakeholders

SMM also engages in regular information exchange and round-table discussions with local government in communities where our facilities are located, industry groups, and citizen groups related to our business.

### SMM Group stakeholders and each stakeholder category's "ideal company"



# Initiatives in the Six Key CSR Areas

In this section, subcommittee chairmen outline activities and report on progress. Ways in which employees have incorporated initiatives in the Six Key CSR Areas into their jobs are also introduced.

## Effective Use of Resources

### FY2010 Review

Initiatives progressed steadily along with business. In anticipation of future degradation of copper raw materials, we carried out full-system semi-bench-scale testing of hydrometallurgical processes from leaching through to residue processing, as well as field testing of high-speed, high-yield copper leaching, solvent extraction and electrolysis. Our aim is to establish processing technologies for ores that are hard to process.

In regard to conversion of residue from leaching of nickel oxide ores into resources, we looked into removal of chromite from hematite using classification (sizing) and gravity separation, and surmised that we could achieve chromite concentrations above 40%, the

general market level.

As part of efforts to recycle items of value in automotive batteries, we are currently field testing processes for recovering nickel and rare earths from nickel metal hydride (Ni-MH) battery scrap together with Toyota Motor Corporation. We have also constructed a demonstration plant for verifying recycling technologies relating to lithium ion (Li-ion) batteries.

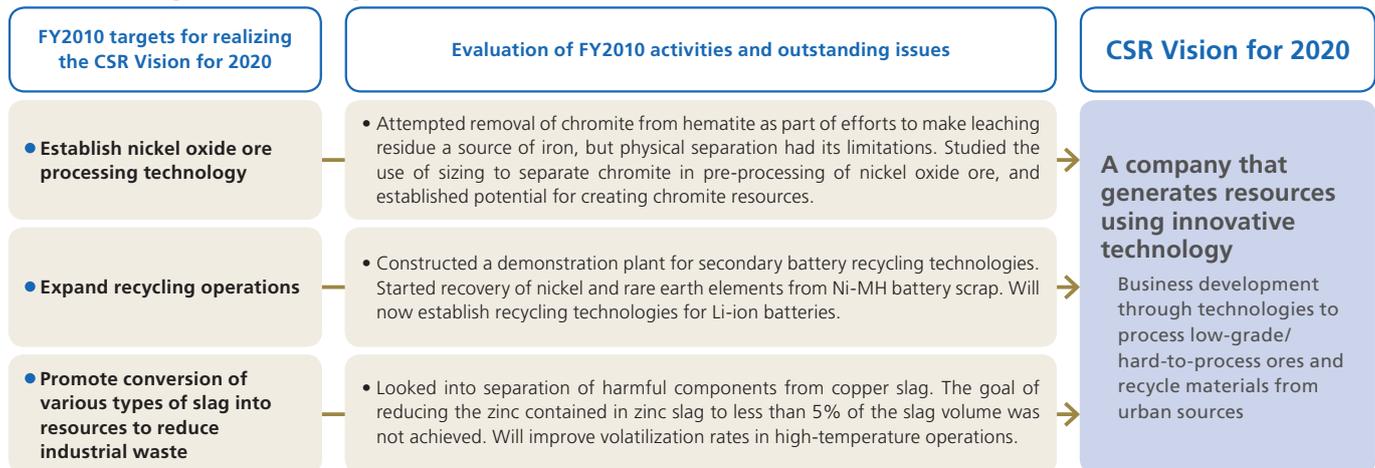
As we advance toward the CSR Vision for 2020, we will look to fulfill our corporate responsibility to society through effective use of resources within all material flows of business activities.

We will commercialize all recycling technologies we are currently working on in order to contribute to the creation of a recycling-oriented society.



**Koza Baba**  
Chairman, Efficient Resource Utilization Subcommittee; Director and Senior Managing Executive Officer; General Manager, Technology Div.

### Current Targets and Progress



#### Action Example (1)

As the Manager of the Production Section of SMM Siporex's Tochigi Plant, I supervise production of Siporex autoclaved lightweight concrete (ALC) panels.

Siporex, the main component of which is silica, is a resource-efficient building material. No industrial waste is generated even during its manufacture, with all materials, including water used for processes, but excluding items like iron scrap, being completely recycled within the plant. Offcuts are also collected from construction sites and reused. An important role of mine is to supervise production to see to it that these recycled materials are used appropriately and ensure consistency in product quality.

Siporex has excellent thermal insulation properties and is used in exterior walls, for example, of detached houses and condominiums.

When I see a completed building, having thoroughly supervised the production process and delivered Siporex on time to customers, it is then that I truly sense the social benefits of my job.



**Kazuyoshi Nakamura**  
Tochigi Plant, Sumitomo Metal Mining Siporex Co., Ltd.

#### Action Example (2)

I'm working to establish a "battery to battery" manufacturing process for recovering materials like nickel and cobalt from used Ni-MH and Li-ion batteries so they can be used again in new batteries. This process enables low-cost recycling of materials using processes at SMM's nickel refinery and even allows recovery of rare earths, which other companies have yet to achieve commercially.

Access to resources is expected to tighten as ores are generating metals of an increasingly lower grade. Even newspapers are beginning to provide major coverage of the resource issue. If we use ores under the same mentality as in the past, a shortage of resources may cause manufacturers to collapse, and it may affect the livelihoods of citizens. To make sure that doesn't happen, it is increasingly important to continue our initiatives promoting effective use of resources.



**Masatoshi Takano**  
Technology Div., Niihama Research Laboratories

## Environmental Preservation

### FY2010 Review

Initiatives were undertaken to reduce energy consumption, waste, and chemical substance releases. Although we managed to reduce energy consumption per unit of production, more effort is required in order to control global warming. Little progress was made on waste reduction.

Any reduction in environmental impact resulting from these measures helps to preserve biodiversity, and a major task of the Environmental Preservation

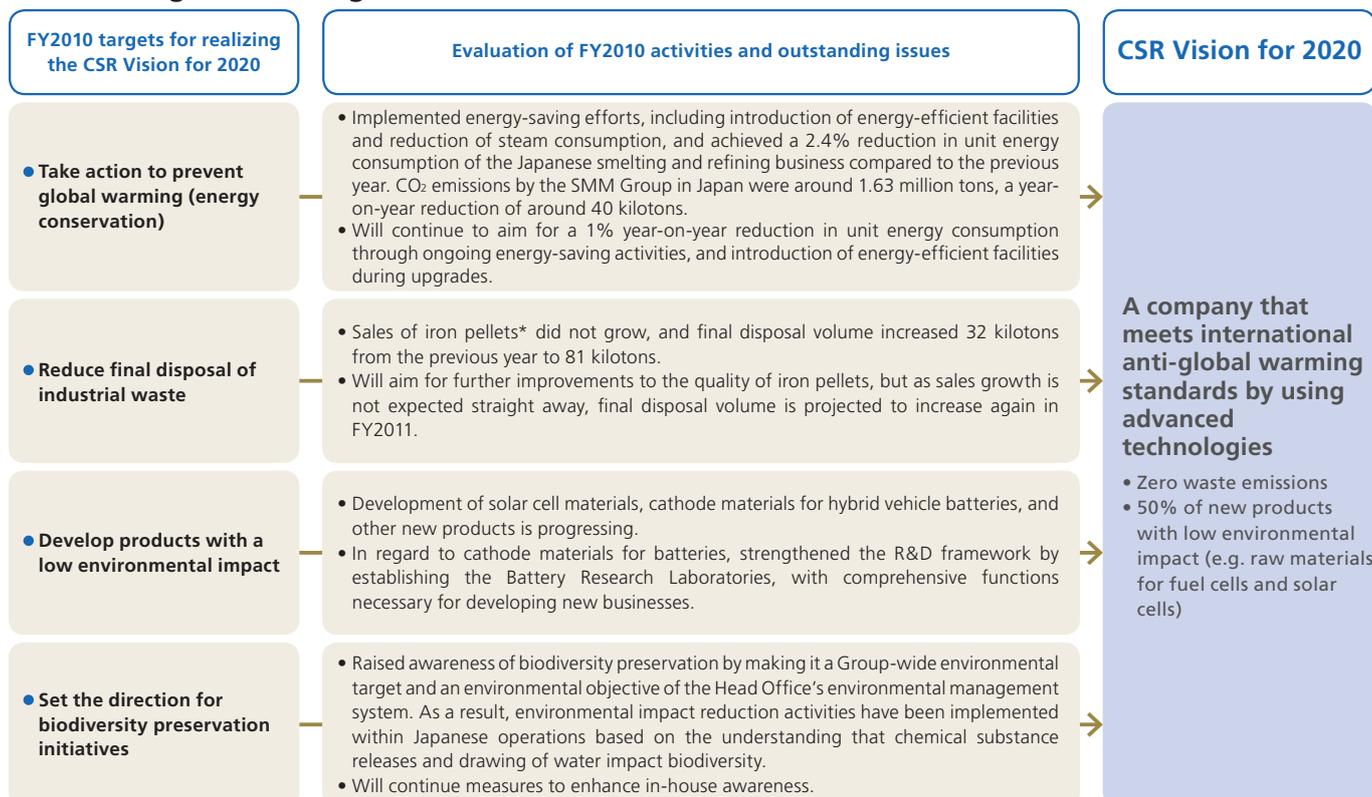
Subcommittee is to spread awareness of that among employees.

Environmental preservation activities are pursued under themes relating to major social issues. Despite the challenges, these issues need to be overcome for the planet to be sustainable. I would like to see all employees strive to minimize environmental impact as part of their commitment to resolving social issues through business, and in order for the SMM Group to realize its growth strategies.



**Takahito Kusada**  
Chairman, Environmental Preservation Subcommittee; Managing Executive Officer; CSR Executive Officer; General Manager, Safety & Environment Control Dept.

### Current Targets and Progress



\*Formerly "reduced iron pellets." Called "iron pellets" since FY2010.

#### Action Example (1)

I'm the Environmental Management Officer at Taganito HPAL Nickel Corporation, which primarily involves executing and monitoring environmental protection measures in accordance with the Philippine government permit for the project, implementing and reporting on environmental surveys, and meeting and negotiating with environmental authorities.

Recently, I've been interacting more with people outside the company. For example, I hold regular meetings with other mining companies nearby so we can coordinate and cooperate on activities in common monitoring areas. The start of construction for the project has led to a spike in the area's population, and so I also confer with the local community in finding resolutions to issues such as maintaining order and securing water resources. One of my commitments is to hold discussions and information exchange with local residents in relation to biodiversity protection and management for the benefit of future rehabilitation of the forest and coast. And I plan to get involved in developing new technologies for operations that will help prevent global warming, such as switching from fossil fuels to alternative forms of energy.



**Cherry M. Tagocon**  
Environmental Management Officer, Taganito HPAL Nickel Corporation

#### Action Example (2)

I am responsible for processing of water used inside the plant, production of pure water, storage of gases and management of gas supply equipment, industrial waste management and removal, boiler operation, and other general utility management at the plant.

When I took up my current duties, I learned that not all industrial waste removed from the plant is incinerated or landfilled, and that some of it is recycled. Once I knew, I told myself I had to ensure waste was sorted thoroughly before it was removed.

In daily operation and monitoring of facilities, non-compliance with laws, standards and in-house control values leads to immediate pollution of the surrounding environment. Because of this, I believe observing environmental standards during performance of my job helps to protect the local community. I intend to continue assigning priority to management of industrial waste, and aim to reduce the amount of waste that undergoes final disposal through greater care in separation of recyclable items.



**Hiroyuki Kikuchi**  
Engineering Sect., Sumiko Kunitomi Denshi Co., Ltd.

# Respect for People and Human Rights

## FY2010 Review

Various training facilities have been established after we acknowledged that human resources (HR) development initiatives, relating to both systems and facilities, were needed in order to achieve the CSR Vision for 2020.

The Oji-kan facility built in the Besshi district of Niihama City, Ehime Prefecture, carries out hazard simulation and equipment skills training. Full activities commenced in spring 2010.

The Hoshigoe-kan facility, adjacent to the Oji-kan, reopened in March 2010. It is principally used for lecture-based training. In September 2010, the SMM Strategy Planning Training Center was opened in Susono City,

Shizuoka Prefecture. The purpose of the center is to train personnel who will be responsible for planning and execution of strategy.

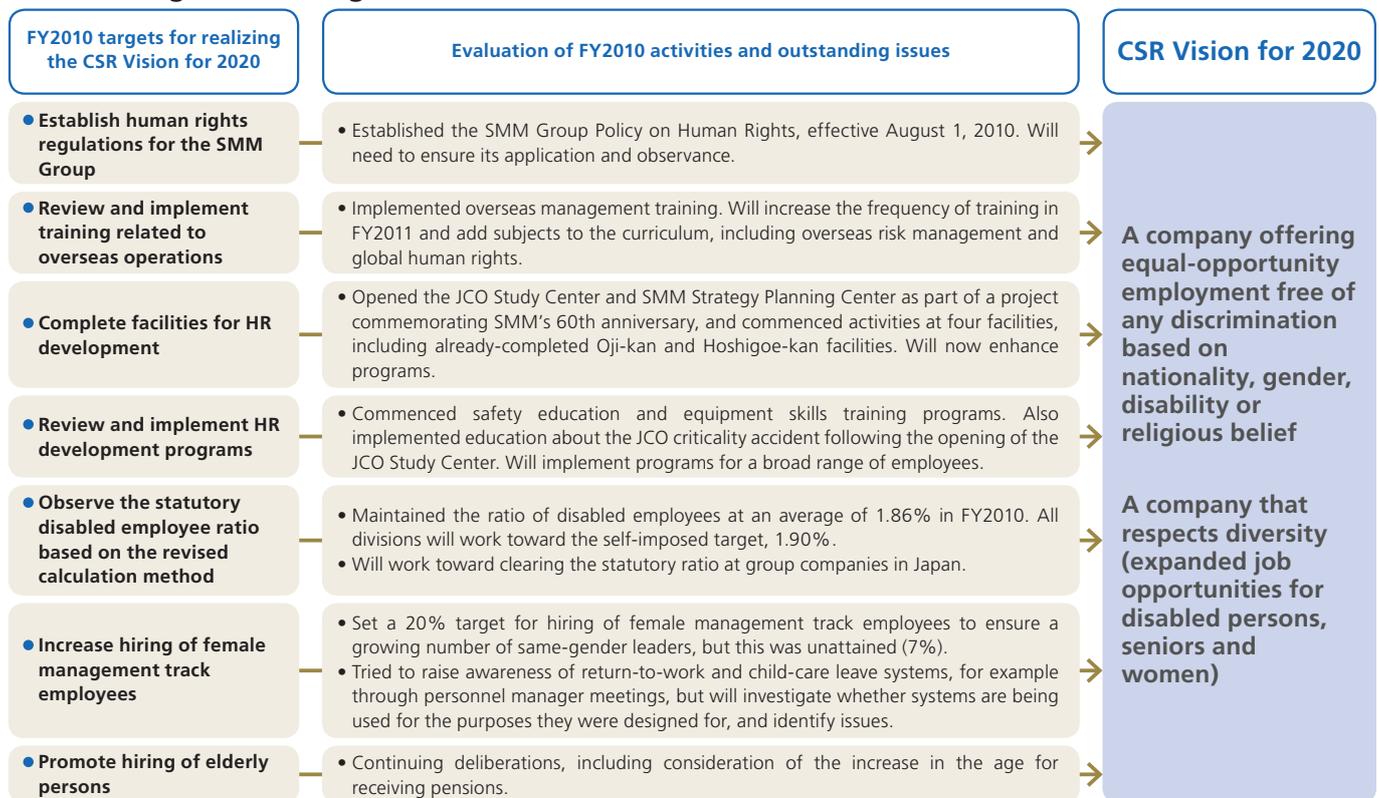
In October 2010, the JCO Study Center was established in one section of the Hoshigoe-kan and commenced training that will teach employees to individually pursue safety and compliance. This is to ensure that lessons learned from the JCO criticality accident remain in our memories. New training programs and HR development measures were deployed with the opening of these facilities.

We will continue to enhance these facilities and improve the service they provide while also directing efforts into visualization of the benefits of training.



**Hiroyuki Asai**  
Chairman, Human Rights & Human Resources Development Subcommittee; General Manager, Personnel Dept.

## Current Targets and Progress



### Action Example (1)

I maintain machinery and equipment in raw material sintering processes. I'm now involved in training younger employees so I'm really trying to be a good example. To achieve that, I think it's important, in addition to having maintenance skills, to be an upstanding member of society. Especially when I caution employees in my charge, I can't forget my responsibilities and have begun to take better note of my own words and conduct.

The first two pieces of advice I give new employees are—greet people properly, and stick to decisions made. Employees will not be able to ensure front line safety if they cannot manage these two things, so I drill it into them. Seeing younger employees getting involved in the community outside work in activities like clean-up campaigns and festivals, I feel HR development activities are contributing indirectly to society through them. I want to continue leading by example to help create a close-knit workplace where colleagues at any level can talk and consult openly with one another.



**Koichi Osaki**  
Maintenance & Engineering Sect., Harima Smelter

### Action Example (2)

Until March 2011, I was head of the road safety committee at Shinko. This involved participation in road safety campaigns run by Nagano Prefecture and roadside campaigns along national highways during the same period, as well as informing employees about road accidents occurring in the vicinity, and inviting road safety officers from the Ina Police to give road safety lectures. When reporting on actual accidents, I urged employees to drive safely by adding cautions they could take to prevent similar accidents happening to them.

Even if accidents are similar, I think the information should be repeated as it leads to greater awareness when driving and helps to develop personnel who are going to follow rules and avoid accidents. In FY2010, one road accident caused by other parties occurred while there were no accidents caused by Shinko parties. No accidents occurred during the winter period when they are more likely to occur. I get the feeling committee activities have contributed to an improvement in awareness about safe driving. I want to continue to help maintain zero accidents and serve as a model for younger employees by being a careful driver, with respect for human life.



**Hidemasa Nakamura**  
Corporate Planning Dept., Shinko Co., Ltd.

## Stakeholder Communication

### FY2010 Review

Attaching priority to communication with employees again in FY2010, we implemented and disclosed results of an awareness survey of employees at workplaces under direct SMM control and employees seconded to group companies. The purpose of the survey, consistent with the PDCA (Plan–Do–Check–Act) cycle, was to learn employees' views and concerns relating to the corporate culture, business policies, and workplaces, as well as improvements they wanted made, and to establish, then execute, an action plan for making SMM a "good company."

This inaugural survey was extremely worthwhile as we managed to clarify issues faced by various departments and action plan formulation commenced at organizations within the Group. The next survey will be implemented in 2013 when we hope to learn the effects of the executed action plan on employee awareness. As we set our sights on our CSR Vision for 2020—a company that is open to communication with stakeholder groups worldwide—we have recognized enabling smooth communication with suppliers and citizen groups like NGOs as an issue for the near term.



**Hajime Sato**  
Chairman,  
Communication  
Subcommittee;  
General Manager,  
PR and IR Dept.

### Current Targets and Progress

#### FY2010 targets for realizing the CSR Vision for 2020

- Create opportunities for face-to-face dialogue with stakeholders

- Acquire GRI Application Level A+ by creating a better CSR report

#### Evaluation of FY2010 activities and outstanding issues

- Summarized findings of the employee awareness survey implemented the previous year, and reported to executive management. Also provided feedback on survey findings to employees through in-house bulletins.
- Will advance an action plan within individual business divisions.
- Continued regular meetings with NGOs relating to environmental issues.
- Held meetings with three NGOs for information exchange relating to resource development issues.
- Will cooperate with NGOs to ensure common, fact-based understanding relating to specific environmental issues.

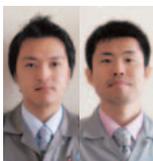
- Acquired Application Level A+ for CSR Report 2010.
- Won third prize in the 14th Sustainability Reporting Awards sponsored by Toyo Keizai Inc.
- Need to make reporting on progress and issues relating to initiatives in the Six Key CSR Areas easier to understand.

#### CSR Vision for 2020

**A company that is open to communication with stakeholder groups worldwide**

### Action Example (1)

As part of our communication with the community, we provide plant and product introductions to neighborhood associations and other local bodies, and give prior notice of works and emergency drills. Many people in the Besshi district have a favorable image of SMM and declare themselves fans, but our activities and products are not so well known recently and we run the danger of becoming a close but distant presence. For that reason, we held a briefing for local residents in the historical Hoshigoe-kan facility (formerly the Sumitomo Club) and recently we've fielded comments like, "We're proud that a local plant makes electronic components that enjoy a large share of the world market." And in recent years, more people in the community are interested in the history of the Besshi district. Supporting related activities both helps to vitalize the community and provides us opportunities for new discovery. Relationships with the local community can only be achieved through ongoing strengthening of ties. We will keep working to ensure SMM has fans in the community.



**Atsushi Takahashi (left) & Shigeru Ito (right)**  
General Affairs Center,  
Besshi-Niihama District Div.

### Action Example (2)

I'm a coordinator for plant tours at our facility. We even accept visits by junior high school groups, during which guides explain what goes on at the facility and about its products, as well as environmental initiatives like wastewater management and power saving. I personally haven't acted as guide for plant tours, but I feel all employees have to study more about our products and initiatives so they can be explained better to the students. It's very pleasing when participants take an interest in the products we make, like parts for mobile phones, LEDs and game consoles which aren't obvious but are essential for society, and it makes me realize our jobs benefit society.

I believe that making improvements in terms of safety, the environment, quality, and other areas earns us the trust of stakeholders. As an employee of the personnel affairs group within the General Affairs Department, I will also work to communicate the Ome District Division's "vision" to employees, and create an environment where each and every employee can do their jobs knowing exactly what is required.



**Yui Okuda**  
General Affairs Group, General Affairs Dept.,  
Ome District Div.

# Occupational Health and Safety

## CY2010 Review

In 2010, we wanted to achieve 15 or fewer occupational accidents for the second year in a row in order to firmly establish a declining trend, but unfortunately the target was not attained. Many of the accidents resulted from failure to follow basic procedures or rules, and it was painfully clear that we had to do more to instill the "safety first" mentality within the organization and among individual employees.

Meanwhile, we are extremely happy to see hazard simulation courses launched at the Oji-kan facility. If each employee manages to raise their sensitivity to dangers through simulated experience of hazards, workplace accidents are bound to fall. We plan to make

hazard simulation courses a core element of safety education.

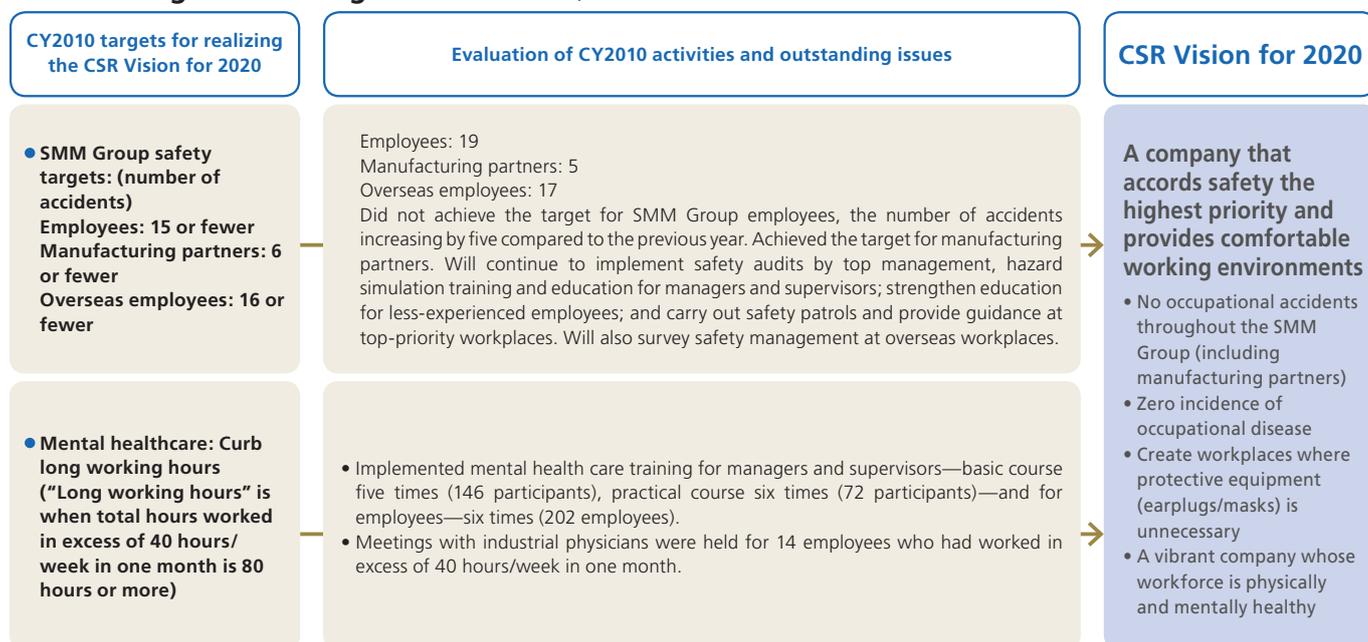
Corporations are sustained by its people, and health and safety assurance is vital for the happiness of employees and their families. That's why we need to lower the number of accidents. As we set our sights on the CSR Vision for 2020, we must nurture in workplaces a safety culture whereby all employees accord safety the highest priority and are capable of taking spontaneous action. We also have other major challenges, like improving operating environments and health management. Our aim is to create vibrant workplaces where protective equipment is unnecessary and the workforce is healthy both physically and mentally.



**Takahito Kusada**  
Chairman, Occupational Health & Safety Subcommittee;  
Managing Executive Officer; CSR Executive Officer;  
General Manager, Safety & Environment Control Dept.

## Current Targets and Progress

\*For the calendar year (Jan. to Dec.)



Reporting boundaries are as follows.

Health and safety: SMM, consolidated subsidiaries, Nippon Ketjen Co., Ltd., N.E. Chemcat Corporation, and the Mie District Div. of Mitsui Sumitomo Metal Mining Brass & Copper Co., Ltd. Overseas consolidated subsidiaries are only covered if they engage in production activities.

Mental health: SMM and consolidated subsidiaries

### Action Example (1)

At Hyuga Smelting, I advance health, safety and environmental management activities and undertake notifications relating to laws and other regulations. I understand that through my day-to-day duties my role is to ensure continuation of our accident-free status, prevent illnesses and prevent environmental accidents. When I first took up this position, my boss told me a painful experience about a past accident which had resulted in someone dying. That had a big effect on me and reminded me that proper management of health, safety and the environment was vital for the continuation of business. Because of the major generational shift underway at Hyuga Smelting, ongoing safety activities are complemented by an annual Hyuga Safety Culture Campaign for making sure that lessons learned from painful experiences in the past are not forgotten.

For Hyuga Smelting to continue being a company that accords safety the highest priority and provides comfortable working environments, we must steadily advance management programs paying constant attention to the prevention of accidents and compliance with laws. I also want to prevent safety activities becoming a dreary routine and will endeavor to maintain a workplace where employees know they will return home safely each day.



**Takashi Ito**  
Environment, Safety and Technical Dept., Hyuga Smelting Co., Ltd.

### Action Example (2)

I'm working to eliminate occupational accidents and road accidents, and to ensure continued zero incidence of occupational diseases and environmental accidents, aiming for workplaces where all employees feel safe.

Since joining the Safety & Environment Control Section, I've had to respond to and follow up on a number of major occupational accidents and road accidents. From those experiences, I've realized that accidents affect not only the people involved, but also the victims and families and that the impact on the workplace and the community as a whole is huge.

I never used to view occupational accidents and road accidents affecting other departments so seriously, but now I feel we mustn't allow any more accidents to occur.

Company-wide occupational and road accident prevention activities help ensure the safety of employees and preserve peace of mind among families and the local community. I believe continuation of activities in my workplace to ensure zero incidence of occupational accidents, road accidents and environmental accidents will contribute to initiatives of the SMM Group as a whole.



**Takao Arizono**  
Safety & Environment Control Sect., Ohkuchi Electronics Co., Ltd.

## Contribution to Society and Local Communities

### FY2010 Review

In FY2010, we pursued initiatives in these four main areas—(1) Disaster relief assistance to communities: relief fund donations and volunteer activities following the foot-and-mouth disease outbreak, flooding in Australia, and the Great East Japan Earthquake; (2) Culture, education and society: donation for Las Shicras Andean archaeological site excavations, donation for rebuilding of the Oyamazumi Shrine's main gate, and sponsorship of the Roman Empire exhibition; (3) Social contribution activities with employee participation: Support for Ecocap Movement activities (collection and recycling of PET bottle caps), charity calendar activities, the Midori no Bokin environmental fund calendar bazaar exhibition, and a charity secondhand book pick-up

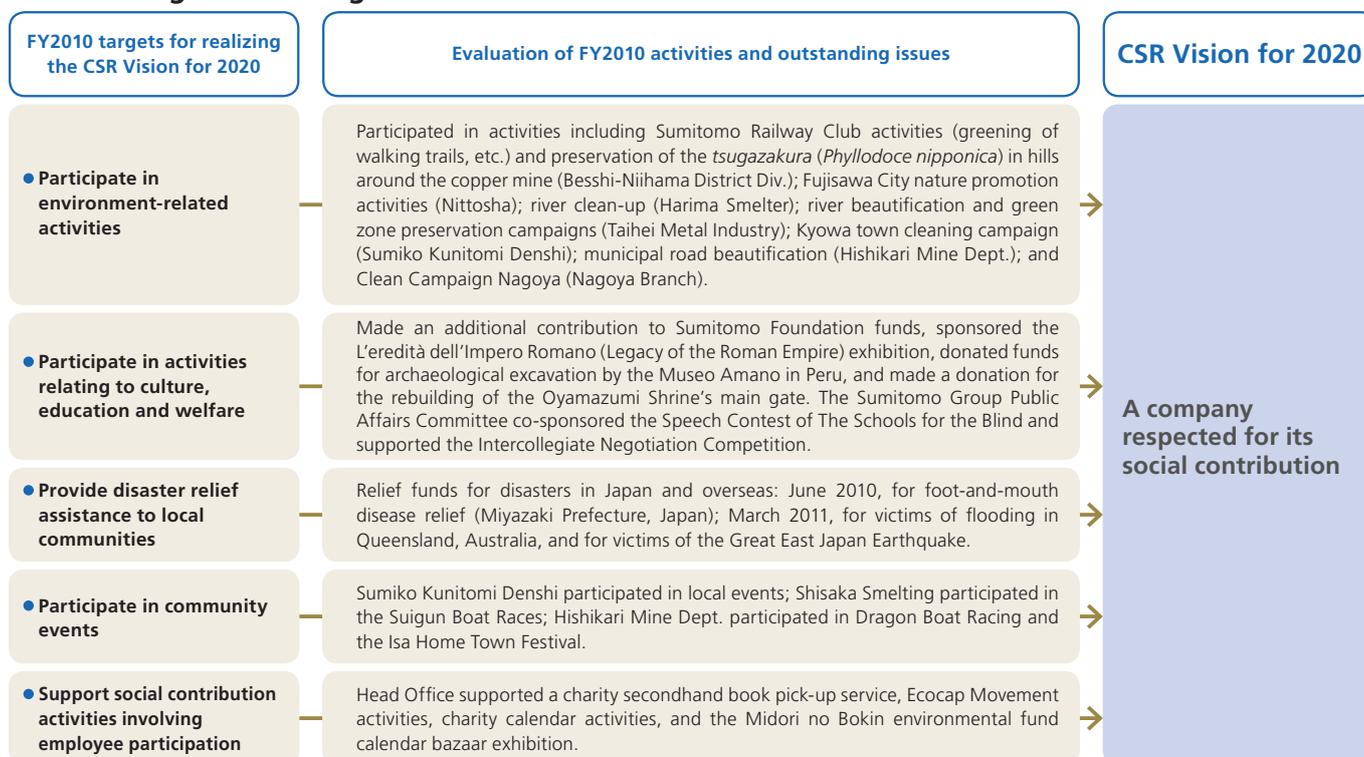
service; and (4) Other activities, including establishment of an awards system recognizing employee involvement in social contribution activities.

A challenge in realizing our CSR Vision for 2020 will be to identify and implement social contribution activities appropriate for SMM. With operations expanding overseas, we want to consider ongoing contribution activities that are compatible with business and would be strongly associated with SMM. They should also be activities of which employees will be proud. From FY2011, we'll be looking into support for coral reef conservation and growing projects, bearing in mind business in the Philippines and the Solomon Islands. We hope to raise awareness among employees that their work is linked to social contributions.



**Yoshiaki Hashinaka**  
Chairman, Corporate Citizenship Subcommittee; Senior Managing Executive Officer; General Manager, Legal & General Affairs Dept.

### Current Targets and Progress



#### Action Example (1)

I engage in general affairs and personnel matters within the Administration Section of the Hishikari Mine Department. My main duties are acting as coordinator with the community and local authorities on environmental matters, managing facilities, providing information on mine tours, and managing land-related acquisitions. Twenty years ago, I joined the community fire brigade after a leader petitioned local companies to help make up for a firefighter shortage. We engage in fire prevention awareness activities throughout the year and mobilize to respond to fires, typhoons (flooding) and missing person searches when ordered. We also participate in water supply inspections, fire drills and New Year fire brigade demonstrations.

Residents and brigade members have aged compared to when I first joined the brigade, and there are now many vacant houses and elderly people living alone in the community. I therefore feel that such fire prevention activities are even more important in society now and that governmental authorities are only able to do so much.

In both my general affairs work and fire brigade activities, I interact a lot with community residents, firefighters and government officials—communication with the local community is fundamental. I want to continue serving the community, placing value on close ties.



**Toshihisa Sawazu**  
Administration Sect.,  
Hishikari Mine Dept.

#### Action Example (2)

Besides general affairs work, I am on the review committee for Niihama history and culture examinations, and I attend to mountain climbers visiting the former Besshi Copper Mine. A request was made for someone to join the review committee for the local history and culture examinations because of the Besshi Copper Mine's strong ties to the history of Niihama. I have prepared articles for the exam guide book as well as exam questions.

In attending to climbers, I field requests from Sumitomo Group companies relating, for example, to employee training. I prepare schedules, provide on-site guidance, and accompany climbing groups. I provide support in various ways to ensure their safe return—they include management of climbers' physical condition and carrying a satellite phone for emergencies while climbing, installation of stretchers on trails, and arranging helicopter pick-up points with the help of the Niihama Fire Department. Trails undergo maintenance annually to ensure that climbers from the general public also enjoy a safe expedition. I sometimes hear independent climbers commenting that Sumitomo really looks after the Besshi hills, where the company originated, and it reminds me that we really are serving the community.



**Yoshiki Imai**  
General Affairs  
Center,  
Besshi-Niihama  
District Division

# What Society Expects of SMM

On December 7, 2010, three outside experts and four people representing SMM gathered for a stakeholder dialogue<sup>1</sup> to discuss aspects of CSR that the SMM Group should incorporate into business strategy.

This section displays the main comments by outside experts during the dialogue.

1. **Stakeholder dialogue:** A discussion held with people who have an interest in the corporation. This particular dialogue involved outside experts.

## What does society expect of the SMM Group?

### Q What aspects of CSR should the SMM Group incorporate into business strategy?

**Mr. Adachi:** In terms of the environment, effective utilization of resources from mining through to recycling. Improvements to smelting and refining methods will be needed, too, so as to reduce the carbon footprint<sup>2</sup>, not just to increase economic viability. I also think internationally consistent know-how about biodiversity compensation<sup>3</sup> will become necessary at some stage. In terms of human rights, the scope of considerations is extremely broad. For example, you will need to consider related issues in localities where you procure raw materials. And you will need group-wide policies defining what diversity<sup>4</sup> means to you, your stance on participation in worldwide initiatives like the United Nations Global Compact, and your intended role in the development of local communities.

**Mr. Okazaki:** I feel you have an issue in the fact that many consumers believe environmental and safety problems faced by resources companies are concerns for the companies and nothing to do with them. In the case of overseas projects, you will need to ensure transparency of money flows and clarify how profits will be channeled back into local communities.

**Mr. Nagasaka:** Environmental impact and issues relating to indigenous peoples are particularly significant. You will be expected to consider the impact of operations on living environments of indigenous peoples and determine how you will

support their self-sufficiency. The SMM Group is aware of this and most other issues relating to the sustainability of local communities. Now you need to incorporate it into specific plans and activities for achieving your CSR Vision for 2020.

2. **Carbon footprint:** A carbon footprint ascertains the processes by which greenhouse gases are emitted, and the amount of emissions, throughout the life cycle of products and services from raw material procurement to disposal and recycling.
3. **Biodiversity compensation:** Compensating for the impact of human activities on ecosystems in one location by regenerating ecosystems in a different location.
4. **Diversity:** The existence of various differences—such as of race, religion, nationality, age, and gender—among individuals or groups.

## What is the SMM Group's stance on respect for people and human rights?

### Q What should the SMM Group do to protect human rights, and how far do we go?

**Mr. Adachi:** Besides direct human rights violations by corporations, ISO 26000<sup>5</sup> calls for action on three forms of complicity. The first is direct complicity, which is when a company knowingly assists in a violation of human rights. The second is beneficial complicity. An example of this might be tacit approval of force used by police to suppress a strike at a plant, resulting in people getting injured. This would include human rights violations along the supply chain, for instance purchasing items made very cheaply. The third is silent complicity. In the context of doing business in a country where human rights violations are committed by the state, this might involve hiring employees based on their political beliefs out of consideration for the government's authority. Such an act

#### Hajime Sato

Chairman, CSR Communication Subcommittee  
General Manager, PR and IR Dept.  
Sumitomo Metal Mining Co., Ltd.

#### Takeshi Kubota

Director and Managing Executive Officer  
General Manager, Non-Ferrous Metals Div.  
Sumitomo Metal Mining Co., Ltd.

#### Eiichiro Adachi

Research Chief  
Head of ESG Research Center  
The Japan Research Institute, Ltd.

#### Katsuhiko Okazaki

Director General, Credit Risk Analysis and Environmental Review Dept.  
Japan International Cooperation Agency (JICA)



would be complicity in the violation of human rights of the citizens of that country. To heighten sensitivity to such human rights violations, it is important to increase the number of people inside the company who are from different countries or backgrounds.

**Mr. Okazaki:** If a human rights issue arises in an overseas project, do you put profit first and press ahead, or do you pull out? Stakeholders will be divided in their response as they all think differently. This makes it important to ensure that shareholders and other stakeholders know the full story by maintaining an open decision-making process at all times. The worst situation is when stakeholders learn about events afterwards. In terms of the human rights of employees, I think it is essential to create working environments that make employees glad they work for the SMM Group.

5. **ISO 26000:** Guidance on social responsibility for organizations. A broad range of stakeholders, including corporations, consumers, labor unions, governments and NGOs, were involved in creation of the guidance, which aims to contribute to sustainable development.

## How should we communicate with stakeholders?

### Q What NGOs should we associate with and in what way?

**Mr. Nagasaka:** I think you need to make a certain commitment when deciding to become a major company in the non-ferrous metals industry. How you associate with non-governmental associations (NGO) is part of that. The world's major non-ferrous

companies believe NGOs speak on behalf of citizens; that they are the world's conscience. They know that by associating with NGOs they can stay up-to-date with the latest social issues. And a growing number of NGOs collaborate with corporations to take advantage of the latter's influence. It is important to realize that engaging in earnest association and sharing information with NGOs will eventually lead to greater business competitiveness.

**Mr. Okazaki:** You don't have to associate with all NGOs. It is important to get involved with ones that are serious about what they do, and treat them as partners. You may be able to gain access to information you wouldn't get from other corporations, and it's also a good idea from a risk management perspective to maintain ties with a variety of channels.

**Mr. Adachi:** You must be willing to associate with NGOs because their presence and influence, globally speaking, are going to keep rising. Expectations placed on corporations have been raised a notch these last few years.

### Q Who else should we seek communication with?

**Mr. Okazaki:** Consumers. The resources business is unavoidably associated with pollution, and labor issues in developing nations. You need to raise consumer awareness about how our lives benefit from resources. It is also important to convey how the SMM Group contributes to society. Your reforestation efforts at the site of the Besshi Copper Mine ought to be a valuable asset for developing nations. In your overseas operations, I think you should definitely take advantage of the Sumitomo brand.

## In Response

**Takahito Kusada** (Sumitomo Metal Mining Co., Ltd.)

We undertake CSR activity so that we can achieve our growth strategy. Close communication with NGOs and other groups in society allows us to stay in touch with social needs, and to learn about leading corporate trends as well as expectations likely to be placed on corporations in the future. Through the dialogue we re-acknowledged the importance of persistent efforts to do what is required of us to meet those expectations.

In business, we often consider risks involved with actions we

are about to take. But more often than not we forget to consider the risks of *not* doing something. We must not base decisions to not take activities past a certain point solely on the example of other companies. As we go about our business, we will actively seek the opinions of people in society through cooperation with NGOs and other groups, while communicating our policies and activities as the occasion requires.

### Toshihisa Nagasaka

Professor, Faculty of  
International Studies  
Takushoku University

### Yoshiaki Hashinaka

Senior Managing Executive Officer  
Chairman, CSR Human Rights & Human  
Resources Development Subcommittee  
General Manager, Personnel Dept.  
(currently General Manager, Legal & General  
Affairs Dept.)  
Sumitomo Metal Mining Co., Ltd.

### Takahito Kusada

Managing Executive Officer  
CSR Executive Officer  
General Manager, Safety &  
Environment Control Dept.  
Sumitomo Metal Mining Co., Ltd.



# What to Do with the Knowledge Gained in the Alaskan Wilderness

The Pogo Gold Mine is the first overseas mine that the SMM Group has been involved in from the exploration stage. Based on the knowledge and skill accumulated, we are now working towards further development in Alaska by accommodating strict Alaskan environmental regulations, using the most advanced mining and processing techniques to maximize resources, building excellent relationships with the local community, and educating our employees.

### First Overseas Mine Managed by SMM Group

At Sumitomo Metal Mining, we have set ourselves the objective of joining the major players in the non-ferrous metals industry, and we are aiming to extend the global reach of our mining business. The existence of the Pogo Mine in Interior Alaska, the first overseas operation by SMM, is very important to us as a first step on this path.

Before the discovery of gold at the Pogo mine site in 1994, SMM had created an international consortium for joint exploration. The discovery of gold deposit was made after other companies had withdrawn from the consortium. Now, SMM is the principle partner in the mine operations with a majority stake of 85% of the interests. This is the first time that SMM has an operatorship and holds responsibility for operations at an overseas mine. Unlike our participation in mining operations as a minority partner, in this project we are not just responsible for day-to-day operations, but also various associated responsibilities. These include safety management, environmental considerations, co-existence with local communities, and recruitment of employees. As such, we are subject to the high expectations and demands of the society we are working in.

For this reason, our long experience of operations in Japan and our accumulation of advanced environmental technologies and knowledge has become one of our greatest strengths. We began operations at Pogo in 2006, 11 years from the discovery of the deposit, and we now currently produce about 12 tonnes of gold annually.

### Comprehensive Environmental Management System

A defining characteristic of the Pogo Mine is as a “environmentally friendly mine” with comprehensive environmental measures. In addition to accommodating stringent United States and Alaskan environmental regulations, we are keeping the environmental impact of our operations to a minimum through regular monitoring.

The most important element of this is our water management system. Since toxic cyanide is used to recover the gold, we employ a system to ensure that no cyanide can be leaked from the process.

Other water management measures include a system that has proven to keep tailings (the sediment left after extracting the gold) within the dry stack tailing facility, and stringent checks on the quality of water being discharged into surrounding rivers. Other waste products are also comprehensively managed with strict separation and disposal procedures.

As Chris Kennedy, the Safety, Health and Environmental Manager on site, explains, “Pogo’s environmental prevention plans are but a part of the goal to reduce the impact on the environment. Solid environmental management combined with a proven environmental performance is a priority for both Sumitomo and the Pogo Mine.”

In addition, we submit reports on environmental considerations to local agencies every quarter and these are made available to the public. We also hold annual meetings and share information with governmental bodies and citizen groups. In the future, we will introduce even more advanced equipment and systems



for environmental management, and we are on track to receive ISO 14001 certification.

**Chris Kennedy**  
Safety, Health and Environmental Manager,  
Pogo Gold Mine  
(currently General Manager)

### Maximizing Nature’s Richness

In our operations at the mine, one important issue has been increasing recovery, this being the ratio of the amount of useful metal (meaning gold) to the amount of ore taken out. In truth, initial recovery at the Pogo Mine was not as high as expected.

As Toshihito Toyoshima, a senior metallurgist, recalls, “At that point, we decided to change the reagents and those addition schemes we use in the mineral processing (the process of extracting valuable metals from the mined ore) and thereby attempt to increase the gold recovery. The questions were then what reagents to use and what conditions would be most effective. We gathered and analyzed information based on past



work and performed repeated experiments at Niihama Research Laboratories and the laboratory at Pogo.”

The conclusion to more than a year of trial and error, including experiments, testing, and improvements in plant control to suit the new reagents, was that we were able to establish a new system. And the result was an approximate 5% increase in the gold recovery. As Toyoshima explains, “That we were able to obtain a solid increase without making any fundamental changes to the process can be put down, I believe, to the techniques fostered by SMM and the steady efforts of the individual technologists.”

He adds, “Ever since I started in this business, I have always believed that if we are going to extract metals that are part of nature’s riches from the earth, we have to utilize them to the fullest extent possible—we owe that much to Mother Nature who put them there. From the same amount of ore, we will extract as much product as we possibly can and supply it to society. This is,



perhaps, a good description of our mission in working with our mineral resources.

**Toshihito Toyoshima**  
Senior Metallurgist  
(currently President,  
Sumitomo Metal Mining  
Pogo LLC)

## Prioritizing Communication with the Local Community

SMM understands the importance of communication with the local community and is making a concentrated effort to maintain this as part of Pogo’s social responsibility. As Norifumi Ushirone, president of Sumitomo Metal Mining Pogo LLC, points out, “In mining, we can never operate in isolation from the location where the resources are. For this reason, cooperation with the local community is vitally important.”

Before SMM became the operator of Pogo mine, there was very little contact between the local community and Pogo, and stories about Pogo rarely appeared in the local media. At that point, SMM became the operator, whereupon Ushirone actively



**Norifumi Ushirone**  
President, Sumitomo Metal  
Mining Pogo LLC  
(currently Senior Deputy  
General Manager of  
Mineral Resources Div.)

sought to share information with the local community and substantially increased the number of mine tours at Pogo. As he recalls, “It was often noted just how ‘environmentally friendly’ our mining operations are.”

“Another important issue is communication with our locally-hired employees. Rather than lamenting the differences in culture, we made great efforts to deepen mutual understanding based on an awareness that there would be differences. We also worked hard to ‘get SMM known’ by our employees through media such as public relations videos.”

Ushirone also mentioned how much he continued to benefit from having experience working at the SMM’s Hishikari Gold Mine under the motto of “Co-existence and mutual prosperity with the local community.” Similarly, when we undertake the operation of second and third mines after Pogo, those currently working at Pogo will surely become important leaders.

We will be able to take the experience gained at Pogo and make best use of it in that next step. With this thought in mind, Sumitomo Metal Mining will continue to look for new challenges.



Meeting with stakeholders

# Corporate Governance

## Basic Approach

Corporate governance refers to the frameworks in place which give order to corporate activity for the purpose of maximizing the value of the corporation and ensuring sound business. SMM views corporate governance as one of the most important management themes.

SMM has adopted corporate auditor and executive officer systems, thereby clarifying authority and responsibilities within executive functions and enabling the Board of Directors to concentrate on supervision and swift decision-making.

The company has also set down the SMM Group Corporate Philosophy based upon the Sumitomo Business Spirit. Furthermore, the SMM Group Code of Conduct was formulated as a set of behavioral guidelines for officers and company employees to follow in putting this philosophy into practice.

Through persistent efforts to practice the Corporate Philosophy, and sound and efficient corporate activity, we will contribute to society and fulfill our responsibilities toward all our stakeholders.

## Corporate Governance Framework

SMM's corporate governance framework is outlined in the diagram on the right:

- (1) SMM's organizational structure is divided into three areas: "decision-making and supervision," performed by the Board of Directors; "execution of business affairs," with the president taking overall responsibility; and "audits," performed by the Board of Corporate Auditors and an independent public accountant.
- (2) "Business activity" and fulfillment of "social responsibility" (CSR activity/internal controls) are viewed together as "execution of business affairs."
- (3) The Management Committee discusses important matters relating to the management of the company.

It aims to promote rational business judgment and decision-making by deliberating on issues in advance of meetings of the Board of Directors, as well as efficient management and appropriate internal controls.

- (4) The CSR Committee, chaired by the president, comprises the heads of business divisions and corporate staff divisions. The committee was formed with two working groups and six subcommittees, when existing activities were restructured under the new program of CSR activities on October 1, 2008.
- (5) The Internal Controls Committee, chaired by the president, advances internal controls in line with the Japanese Financial Instruments and Exchange Act of June 2006. In compliance with the act, a report on the effectiveness of internal controls was submitted in June 2011, together with the company's securities report for the year ended March 2011, to the Director-General of the Kanto Local Finance Bureau after first obtaining an internal controls audit report recognizing its appropriateness from an auditing firm.

In establishing and upholding internal controls, we will work to clarify the roles and duties of SMM Group officers, executive officers and employees and ensure that continual improvements are made.

## Roles of Divisions and Bodies

### Directors/Board of Directors

As of August 2011, SMM has eight directors, including one outside director. The term of a director<sup>1</sup> is one year. Remuneration for all directors except outside directors is determined according to a performance-based remuneration system.<sup>2</sup> Ordinary meetings of the Board of Directors are convened once a month and extraordinary meetings are held as required. This structure allows for agile

decision-making. The Board of Directors discusses and passes resolutions on important matters relating to the execution of business affairs of the company, including issues relating to conflicts of interest, in line with provisions such as those stipulated in laws and ordinances, articles of incorporation and regulations pertaining to the Board of Directors. Details are disseminated through reporting to the Executive Officers' Meeting. SMM's president chairs the Board of Directors.

### Management Committee

Management Committee meetings are convened by the president, executive vice president, senior managing executive officers and other concerned executive officers and personnel. SMM's outside directors and corporate auditors may also attend.

The Management Committee engages in broad-ranging discussion on important matters which will require a resolution by the Board of Directors or the final approval of the president and which demand particularly careful deliberation. The Committee decides for or against submission of matters to the Board of Directors and provides support on matters falling under the president's direct authority.

### Executive Officers

SMM adopted an executive officer system in June 2001. A provision was included in the articles of incorporation in June 2004 to clarify the status of executive officers.

Executive officers<sup>3</sup> are entrusted with important positions such as the general manager of a business or corporate staff division and are conferred inherent authority for executing business affairs.

The progress of business affairs is reported to the Executive Officers' Meeting once a month. Remuneration to executive officers, as for directors, is determined according to a performance-based remuneration system.

**Corporate Auditors/Board of Corporate Auditors**

As of August 2011, SMM currently has four corporate auditors, two of whom are outside (part-time) auditors. Corporate auditors attend and express opinions at important meetings, including meetings of the Board of Directors and the Management Committee. Corporate auditors originating from the company, while taking care to remain independent, provide audit-based opinions as full-time auditors. Outside auditors offer independent opinions based on specialized experience and knowledge.

Corporate auditors carry out audits, such as audits of the execution of duties

by directors, according to auditing plans approved by the Board of Corporate Auditors.

The Board of Corporate Auditors convenes once a month immediately prior to ordinary meetings of the Board of Directors and as otherwise required.

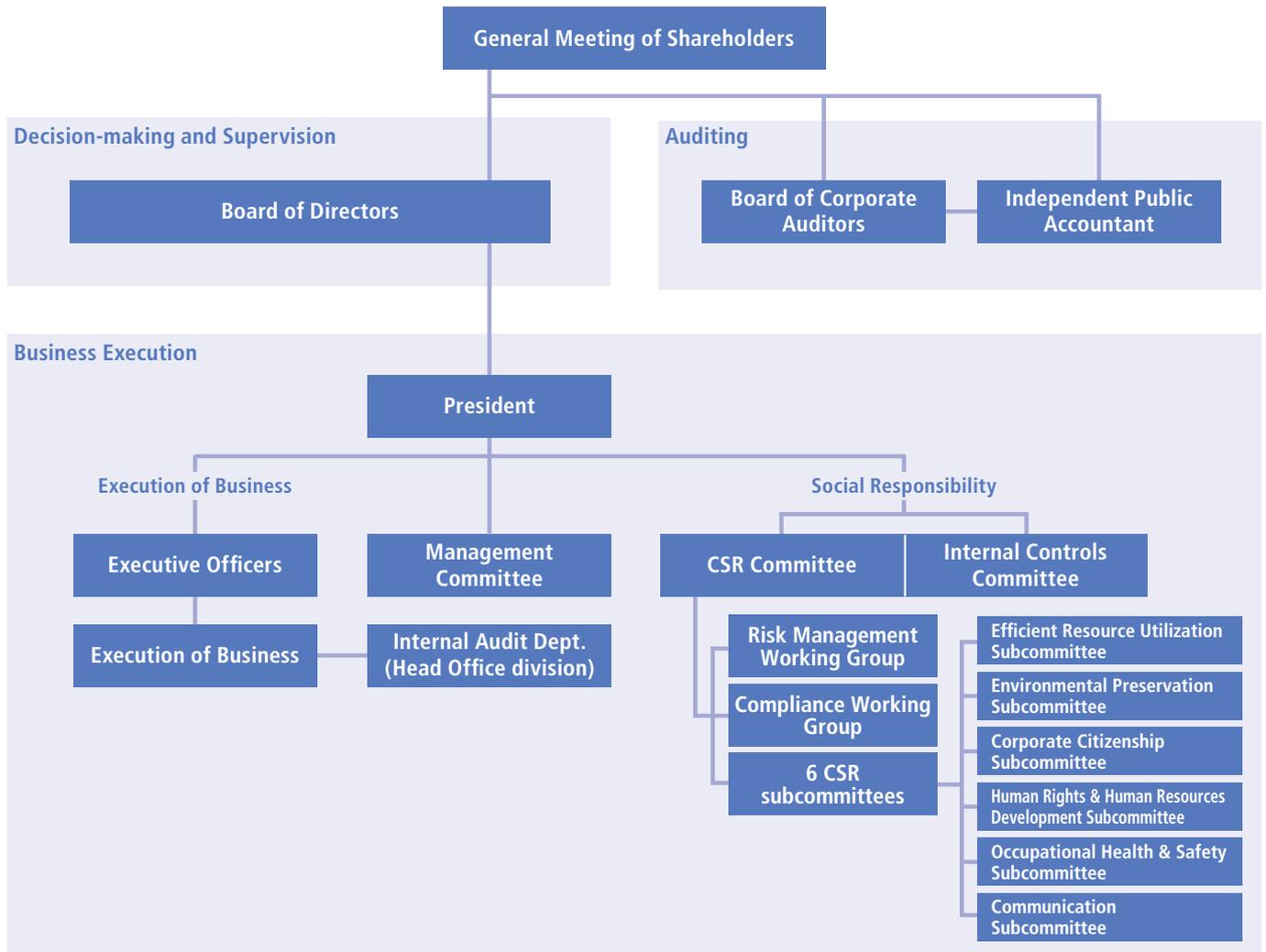
**Internal Audit Department**

The Internal Audit Dept. was established for the purpose of undertaking routine internal audits used for monitoring and supervision of the execution of business affairs. The department carries out internal audits of the entire SMM Group. The department supplies information to corporate auditors on a timely basis,

providing explanations of auditing plans, for example. Corporate auditors are also in attendance during the department's internal audit briefings for executive officers and other personnel.

1. Candidates for director, possessing the character and abilities required for implementing the SMM Group Corporate Philosophy and fulfilling social responsibility, are nominated of the Board of Directors and approved by a resolution by the General Meeting of Shareholders.
2. Directors (excluding outside directors), executive officers and senior managers are evaluated on various criteria, chiefly quantitative results, safety, business strategy and human resources development.
3. Seven executive officers also serve as directors (as of August 2011).

**Corporate Governance Framework**



# Regulatory Compliance

## Basic Approach

The corporate activities of the SMM Group are founded upon principles of compliance. Though compliance is usually construed as applying to laws and regulations, the SMM Group goes further, viewing compliance as the fulfillment of social and moral duties as a member of society through sound corporate activities.

In 2000, the year after the JCO criticality accident<sup>1</sup> of September 1999, the SMM Group formulated a Corporate Reform Plan and embarked on a new beginning with three initial priorities:

- (1) Reconfirm and disseminate corporate philosophy;
- (2) Strengthen the condition of the corporation; and
- (3) Reform corporate culture.

The corporate philosophy and SMM Group Code of Conduct<sup>2</sup> were consequently revised in 2004. "Compliance: Abidance by Laws and Rules," the first of 17 items included in the Code of Conduct, calls for conduct complying not only with laws and rules, but also with social norms, as follows:

- Officers and employees will comply with foreign and domestic laws and rules, and conform with social norms.
- No officer or employee will 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 interests of the company.

1. **JCO criticality accident:** On September 30, 1999, criticality occurred as uranium was being handled at an SMM subsidiary, JCO Co., Ltd. Two workers died from radiation injuries as a result. The radiation accident caused immeasurable suffering to the local community, with citizens living close to the facility forced to evacuate.

2. The SMM Group Code of Conduct can be viewed in the "Corporate Philosophy" section of the SMM website:  
[http://www.smm.co.jp/E/corp\\_info/philosophy/](http://www.smm.co.jp/E/corp_info/philosophy/)

## Compliance Management and Strengthening

Compliance management is performed according to our basic compliance regulations. The Compliance Working Group of the CSR Committee plays a

central role in compliance improvements and strengthening with represented divisions taking charge of the following main measures.

- (1) Draft revisions to the SMM Group Code of Conduct
- (2) Establish and revise compliance-related regulations
  - Basic compliance regulations
  - Regulations on insider trading prevention and information management
  - Regulations on the safeguarding of personal information
  - Export administration regulations
  - Regulations for managing database of conditions for revoking permits and authorizations
  - Regulations on the management of confidential information, etc.
- (3) Implement compliance education

A range of different training programs draw upon principles within the Sumitomo Business Spirit, SMM Group Corporate Philosophy and CSR Policy to ensure awareness among employees that compliance within the SMM Group calls for ethics-based conduct and decision-making, going beyond conformance with laws and regulations.

- (4) Convene the Compliance Working Group

Confirmation of the compliance status in FY2010 by the Compliance Working Group indicated that there were no major violations of laws or regulations relating to the environment and products and services, including antitrust legislation.

## Speak Up System

In situations where problems or doubts

remain after referring to the SMM Group Code of Conduct, and consultation with a superior fails to bring forth an appropriate response, employees are able to report the matter directly through several channels (in-house liaison: Legal & General Affairs Dept., Safety & Environment Control Dept., and Internal Audit Dept. general managers; outside liaison: designated legal attorney). The source of the information is always kept secret and if, for any reason, the informant is unfairly treated, the person responsible will be accordingly punished.

## Compliance Seminars

The SMM Group commenced annual "compliance conferences" in 2001, giving employees an opportunity to reaffirm their knowledge of compliance basics and learn about the latest legislative changes. After deliberation on the objectives and structure of these conferences, the Group now implements compliance seminars in order to educate senior management of SMM and group companies about the Code of Conduct and to ensure compliance with work-related laws and ordinances. These seminars include education for personnel in charge of legal processes at each workplace involving introduction of specific case examples.

In addition to seminars, guidance provided in the workplace on an ongoing basis integrates Code of Conduct dissemination, compliance with laws and rules, and CSR awareness.

## Recipients of compliance education (FY2010)

Type of seminar		Scope	Participants
Compliance education	Compliance seminar (Basic course)	Newly-appointed division general managers and group company officers	61
	Compliance seminar (Advanced course)	General managers of business divisions, Head Office divisions and branch offices, presidents of group companies in Japan, etc.	76
	Group seminar for new employees	Newly graduated employees and clerks in the Head Office zone	33
	Seminar for newly promoted E-class employees	Employees newly promoted to E-class	29
	Seminar for newly promoted section managers	Employees newly promoted to section manager	21
	Education for mid-career employees	Newly mid-career employees	5
Antitrust law seminars		Officers, general managers and sales managers, etc.	111

# Risk Management

## Basic Approach

The Corporate Reform Plan, formulated by SMM in April 2000 based on reflections from the JCO criticality accident of 1999, acknowledged the importance of risk management improvements for strengthening the company's condition. The Code of Conduct, too, stipulates that "all officers and employees will incorporate risk management principles into the performance of their business operations or related work."

In August 2001, a Group-wide risk management system was established, structured upon features such as total compliance. The purpose was to ensure SMM will never again cause a major incident. Regulations pertaining to risk management systems were also established. Energy has been channeled into risk management initiatives ever since as they are essential for business continuity. With the launch of CSR activities in the autumn of 2008, risk management initiatives were integrated into a new framework together with activities and initiatives relating to compliance, occupational health and safety, environmental management and quality management. In addition to efficiency, we have also been working to raise the effectiveness of activities. For example, overlapping between systems has been fixed and activities of focus have been reviewed to match the characteristics of each facility.

Since 2002, SMM has established regulations pertaining to the inherent safety of equipment and has been implementing initiatives aimed at realizing inherently safer equipment and preventing occupational accidents throughout the SMM Group. Furthermore, to prevent more serious industrial accidents, we conduct risk assessments employing HAZOP (hazard and operability studies) or other methodology as part of systematic safety evaluations and measures at plants. Always leaning toward the side of safety, SMM has been actively incorporating preventive approaches to risk management.

## Climate Change Risk

One potential risk for SMM in relation to

climate change is a raw materials shortage, which is possible if source mine operations are disrupted due, for example, to abnormal weather. In recent years, SMM has been strengthening day-to-day energy conservation efforts in order to combat global warming, which is said to be a cause of abnormal weather. The company is also directing efforts into the development of energy-saving refining processes in readiness for further climate change.

## Frameworks and Initiatives

Risk management in the SMM Group is generally advanced through the efforts of individual business divisions. Business divisions seek to accurately identify the risks involved in managerial decision-making and within each business process and to determine courses of action, bearing in mind their specific economic, environmental and social circumstances. SMM has put together a framework for risk management based on these efforts, establishing risk identification guidelines along with various systems, including a risk registry, an in-house risk management auditing system and risk management patrols.

The Risk Management Working Group of the CSR Committee, with close affiliation to the Compliance Working Group, coordinates risk management matters for the Group as a whole and directs energy into preventing the actualization of risks.

Risk management systems have been introduced for each business unit at business divisions throughout the Group, even at overseas group companies. At least once a year, or when the need arises, divisions identify and assess the various types of unlawful behavior and other risks and take action to control those risks, registering or reviewing them as required and implementing countermeasures.<sup>1</sup>

In FY2010, we set a policy to ensure risk reduction across all business sites and implemented focused risk reduction in each department.

Self-checks by individual business divisions and various audits<sup>2</sup> are performed to ascertain whether risk management PDCA (Plan-Do-Check-Act) cycles are operating smoothly and according to rules and to

determine revisions. Findings are reflected in plans for the following fiscal year.

1. The Finance & Accounting Dept., for example, uses various methods to check accounting processes of the entire Group, which are performed according to uniform standards and procedures. Effort also goes into actually lowering risk through procedural improvements such as centralizing processes for payments to outside parties at Head Office.
2. Audits include risk management internal audits/patrols, audits by the Internal Audit Dept, investigation by senior management of group divisions and audits by the Safety & Environment Control Dept.

## Issues and Targets

SMM will make intense efforts to ensure readiness, particularly with regard to "SMM Group-wide serious risks"<sup>3</sup>, and focus on minimizing incidence and damage in the case of a risk being actualized.

At overseas facilities, we will make efforts to establish more effective operation of risk management systems. Specifically, a "model plant" will be created for each business division and best practices at those plants will be pursued elsewhere.

3. Risks which, if realized, are expected to have a major impact on or cause significant damage to the SMM Group as a whole and cause irreparable damage (as influence or physical damage) to SMM if swift and appropriate action is not taken. The Group must unite in determining action to take in the case of these risks being realized.

## Overhaul of Earthquake Countermeasures

Due to the Great East Japan Earthquake that occurred on March 11, 2011, buildings and facilities of the SMM Group in the Sendai Region of Miyagi Prefecture and the Tokai Region of Ibaraki Prefecture were damaged and business and operations were stopped. Although each division has established their own earthquake countermeasures according to existing risk management, we are using the harsh experiences of the recent disaster to implement a company-wide overhaul.

Based on the principles of "safety first" and with top priority for human life, we will verify whether disaster countermeasures are effective—beginning with the initial response to emergencies, to the restoration of operations—then extensively discuss ways to resolve any inadequacies. When concluded, we will finally examine items to prioritize in the event that a situation exceeds the extent of countermeasure preparations.

# Strengthening Economic Ties with Stakeholders

## Overview of FY2010 Financial Results

In FY2010, policies advanced by governments allowed a gentle but unstable recovery in the world economy to continue despite difficult conditions persisting, with employment sluggish. Conditions in Japan were tough overall but the economy picked up slightly due to a recovery in exports among other factors.

In the non-ferrous metals industry, demand in Japan recovered gradually as domestic and overseas economies firmed. Prices for non-ferrous metals rose above levels prior to the crisis triggered by the Lehman Brothers bankruptcy and kept



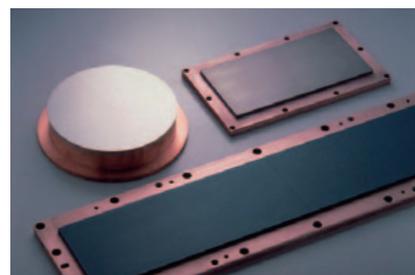
climbing through to the end of the fiscal year due to an accelerating flow of funds into the market. On the foreign exchange market, the yen continued to appreciate as a result of uncertainty in United States and European economies.

In the electronics industry, a gradual recovery in demand continued due to factors such as growth in emerging economies, despite hesitation over concerns for swelling inventories.

Against this backdrop, the SMM Group is working to strengthen competitiveness in the three core businesses—mineral resources, smelting and refining, and materials—and channel resources into growth businesses in line with the 2009 3-Year Business Plan for FY2010 to FY2012.

Consolidated net sales for FY2010 were ¥864.1 billion, increasing ¥138.3 billion from FY2009 due to factors including higher prices for non-ferrous metals, and despite appreciation of the yen.

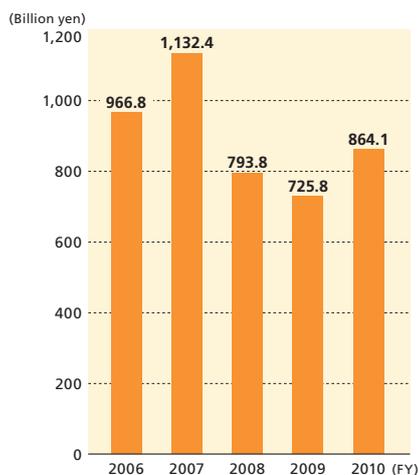
Consolidated operating income increased ¥29.7 billion from FY2009 to ¥96.0 billion as a result of higher non-



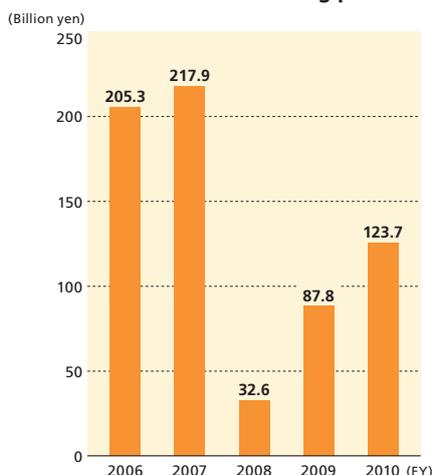
ferrous metal prices, an upturn in demand for electronics industry products, and other factors. Consolidated recurring profit increased ¥35.9 billion to ¥123.7 billion, while consolidated net income increased ¥30.0 billion to ¥84.0 billion.

Consolidated total capital was ¥1,052.4 billion, composed of ¥368.3 billion in liabilities and ¥684.1 billion in net assets.

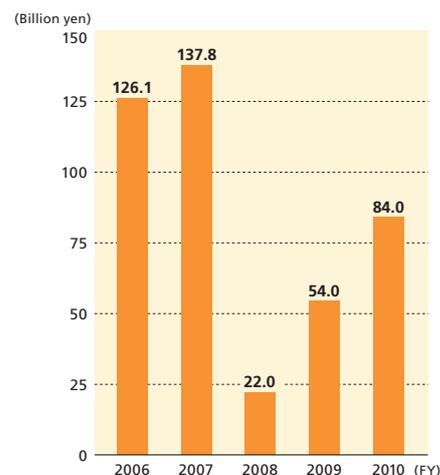
Consolidated net sales



Consolidated recurring profit



Consolidated net income



### Promoting a New Growth Strategy under a Long-Term Vision through Business Realignment

FY2011 is the second year covered by the 3-year business plan announced in February 2010. Business strategies for achieving mid-term targets will be deployed.

Efforts will be directed into strengthening the mineral resources, smelting and refining, and materials businesses. As well as advancing measures for establishing self-sustaining growth cycles for each of the core businesses, we will work toward realizing sustainable growth strategies through development of new businesses and products that is firmly based upon business and product life cycles.

To successfully implement SMM Group growth strategies, we will push ahead with our plan by aiming to realize

sustainable co-existence with society and the global environment through CSR activity. In major overseas projects, particularly, we will place importance on consideration toward human rights and communication in emerging nations, which are centers of development and target markets.

### Distribution of Value to Stakeholders

Economic value was distributed to stakeholders during FY2010 as follows.

Payments made to suppliers, for example to purchase merchandise necessary for business, were ¥677.0 billion.

Employee salaries and welfare expenses were ¥96.4 billion. To shareholders and creditors, SMM paid a total of ¥25.3 billion in dividends and interest on debt.

To the government, we paid ¥32.5 billion in taxes.

To society, we contributed ¥0.8 billion, for example in the form of donations for social contribution activities.

Financial assistance from the government totaled ¥0.1 billion and included cash subsidies and investment grants.

### 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 (in some cases, a qualified retirement pension plan) and an employees' pension fund. The projected benefit obligation is ¥52.4 billion. The portion of the projected benefit obligation to be funded by pension assets is ¥50.0 billion. Pension assets available for allocation to that portion are ¥41.1 billion.

\* Amounts are rounded to one decimal place.  
Detailed financial information can be viewed in the "IR Information" section of the SMM website.  
<http://www.smm.co.jp/E/ir/>

### Distribution of economic value to stakeholders

#### Distributed economic value

Stakeholder	Amount	Details
Suppliers	¥677.0 billion	Payment for purchase of merchandise, etc.
Employees	¥96.4 billion	Payments to employees
Shareholders/Creditors	¥25.3 billion	Payment of dividends/interest
Government	¥32.5 billion	Taxes paid
Society	¥0.8 billion	Donations, etc.

\* A retained value of ¥70.0 billion is not included in the above. Rent for use of land is minimal and therefore included in "Payment for purchase of merchandise, etc."

#### Financial assistance from the government

Stakeholder	Amount	Details
Government	¥0.1 billion	Subsidies, grants, etc.

\* No governments have an equity stake in SMM.

# Initiatives in Promotion of Environmental Management

## Policy and Vision

Protecting and co-existing with the global environment are duties we must fulfill to sustain a healthy planet for the benefit of generations to come and important managerial challenges that can provide stability to our business base.

Applying this way of thinking to our day-to-day activity and conduct, we have engaged in business according to the SMM Group Code of Conduct, which calls for officers and employees of the company to act in a manner enabling them to contribute to the resolution and/or alleviation of environmental problems of global scale, and the CSR Policy, which states that SMM shall work to combat global warming by promoting recycling and effective resource utilization while also targeting technological innovation and continuous improvements in energy efficiency.

In addition to ongoing efforts relating to pollution and contamination prevention, chemicals management and other major environmental issues pertaining to operations of the SMM Group, we have also identified key challenges for adoption by the Group, taking into account issues of a global nature and the Group's current situation. They include reducing CO<sub>2</sub> emissions (energy savings), zero disposal of industrial waste at landfills and development of products with a low environmental impact.

We are taking up these key challenges through a roadmap of activities that will direct SMM toward its CSR Vision for 2020.

### SMM Group Code of Conduct (Extract)

#### Guideline No. 16

#### Concern for the Global Environment

Officers and staff will act in a manner enabling them to contribute to the resolution and/or improvement of resource, energy and environmental problems of global scale.

## Promotion Framework

Promotion of activities relating to key challenges that will direct SMM toward the CSR Vision for 2020 is undertaken by the Environmental Preservation Subcommittee. This organization within the CSR Committee carries out duties that include studies,

activity coordination, performance monitoring and formulation of measures.

These activities and existing challenges, like pollution prevention, are taken into account each year when the president's targets (SMM Group environmental targets) are set. Business sites and Group companies of each business division play a lead role in advancing environmental preservation activities of the SMM Group for the purpose of achieving the president's targets. Through environmental management systems established according to the ISO 14001 standard, each place of business adopts specific targets and plans and seeks continual improvements while executing the PDCA (Plan-Do-Check-Act) cycle.

Each place of business sets targets and takes action relating to specific themes, including:

- Pollution prevention (environmental risk reduction/control);
- Compliance with environmental laws and acts;
- Energy conservation;
- Waste reduction, reuse and recycling (3Rs); and
- Chemicals management.

Business divisions and the Safety & Environment Control Department at Head Office collect and analyze performance data and urge corrective action as required.

## Environmental Education

We seize every available opportunity to provide education, covering introductions to environmental issues through to seminars on preservation and management practices. We also encourage acquisition of pollution control manager and other public environmental qualifications by employees.

### On-site Introductory Education

Education is provided to raise awareness among newly graduated employees and new mid-career employees, helping them to acknowledge the importance of environmental preservation and recognize the direct influence of day-to-day tasks on environmental matters.

After placement, employees undergo education programs that are determined according to the needs of each workplace.

Programs might include education relating to work procedures for avoiding environmental impact, chemicals, and environmental preservation activities in the workplace and their respective roles, as well as emergency drills.

### Environmental e-learning

An e-learning course dealing with principal environmental legislation was launched in the second half of FY2008 with the objective of raising levels of compliance. By the end of the year, more than 1,900 people had taken the course, which is intended for administrators and supervisors of environmental management processes as well as internal environmental auditors. We will update the course by modifying content to reflect law revisions, ensuring its continued effectiveness as a tool for learning by newly appointed internal environmental auditors and other personnel, for confirming regulations and statutory limits, and for education about laws relating to workplaces.

### Internal Environmental Audit Seminars

This is a program for training internal auditors, who play a central role in environmental management activities, taking responsibility, for example, for performing internal audits of their respective divisions. Participants who pass a final examination after completing the two-day curriculum become certified auditors. More than 2,100 internal environmental auditors have been trained through a total of 105 seminars between 1999 and 2010.

## Issues and Targets

SMM will continue to do its utmost to ensure compliance and prevention of environmental accidents.

We will pursue biodiversity preservation through consideration of indirect influences in environmental impact alleviation, and direct influences in new project development.

For the prevention of global warming, we will continue advancing energy-saving activities with an objective to reduce total CO<sub>2</sub> emissions.

# Material Flows within Business Activity

The SMM Group ascertains the amount of resources and energy it consumes, as well as the Group's overall environmental impact in quantitative terms, and carries out various activities to lower environmental impact. Here we summarize the inputs and outputs to and from operations in Japan and overseas during FY2010.

## INPUT Resources & Energy

### Energy<sup>1</sup>

Heavy fuel oils	61,433 kl	(2,539,617 GJ)
Coal/Coke/Wood pellets	375,958 t	(9,988,121 GJ)
Gasoline/Kerosene	15,672 kl	(586,974 GJ)
LPG	9,432 t	(479,124 GJ)
City gas	793 km <sup>3</sup>	(34,874 GJ)
Purchased electricity	1,676,144 MWh	(16,257,878 GJ)
Purchased steam	35,913 GJ	(36,631 GJ)

### Recycled Materials<sup>2</sup>

Copper scrap	59 kt
Secondary zinc	36 kt
Secondary precious metals	10 kt
Scrap for metalworking	1 kt
Electric arc furnace dust	90 kt
Waste catalyst	7 kt
ALC waste	401 t

1. Calorific values for both Japan and overseas are calculated using coefficients conforming to the Japanese Act on the Rational Use of Energy. Fuels used as reducing agents are also included. Figures in parentheses indicate the calorific value input in the case of purchased electricity and purchased steam, and calorific value output for all others.

2. Materials recycled inside plants are not included.

### Raw Materials

Gold and silver ore	1,061 kt
Copper concentrates	1,491 kt
Nickel oxide ore	3,744 kt
Nickel matte, etc.	40 kt
Zinc concentrates	36 kt
Lead concentrates, etc.	67 kt

ALC raw material, incl. silica rock	180 kt
Raw material for metalworking	1 kt
Hydrotreating catalyst raw material	38 kt

### Materials

Silica sand (for copper smelting)	111 kt
Chemicals (lime-based)	585 kt
Chemicals (sodium-based)	48 kt
Chemicals (magnesium-based)	14 kt
Cement, etc.	53 kt

### Water Usage

Freshwater total	30,982 km <sup>3</sup>
Industrial water	13,356 km <sup>3</sup>
Groundwater	9,848 km <sup>3</sup>
Tap water	2,605 km <sup>3</sup>
Surface water	5,174 km <sup>3</sup>
Seawater	175,714 km <sup>3</sup>

## OUTPUT Products & Emissions

### Products

Electrolytic copper	404 kt
Gold	39 t
Dore	13 t
Silver	265 t
Electrolytic nickel	41 kt
Nickel sulfate	10 kt
Electrolytic cobalt	2 kt
Prime western grade zinc	71 kt

Electrolytic lead	24 kt
Crude zinc oxide	6 kt
Ferro-nickel	88 kt
Sulfuric acid	900 kt
Slag	1,587 kt
Processed metal products	1 kt
Hydrotreating catalyst	8 kt
ALC (Siporex)	376 km <sup>3</sup>

Recycling-derived products ratio 2.35%

### Emissions into the Atmosphere

CO <sub>2</sub>	2,142 kt
Direct emissions <sup>3</sup>	1,199 kt
Indirect emissions <sup>4</sup>	921 kt
Emissions during transportation (Japan) <sup>5</sup>	22 kt
SO <sub>x</sub>	1,387 t
NO <sub>x</sub>	714 t
Soot and dust	151 t
PRTR substances	23 t

### Emissions into Water

Total wastewater	205,995 km <sup>3</sup>
Emissions into seas <sup>6</sup>	197,273 km <sup>3</sup>
Emissions into rivers	6,800 km <sup>3</sup>
Underground seepage	80 km <sup>3</sup>
Sewerage, etc.	1,842 km <sup>3</sup>
COD (chemical oxygen demand)	61 t
BOD (biochemical oxygen demand)	13 t
Total phosphorus	1 t
Total nitrogen	81 t
PRTR substances (discharged into public water areas)	88 t
PRTR substances (discharged into the soil or in landfills within business premises)	15 t

### Waste (including items of value)

Total waste	4,549 kt
Landfill on premises	4,417 kt
Breakdown of total waste	
Spoil	482 kt
Flotation tailings	570 kt
CBNC precipitate, etc. <sup>8</sup>	3,360 kt
Industrial waste (Japan)	127 kt
Other	10 kt
PRTR substances <sup>7</sup>	1,454 t

3. Direct emissions for both Japan and overseas are calculated using emission factors conforming to the Japanese Act on Promotion of Global Warming Countermeasures.

4. Emission factors used by electric power suppliers are employed for electricity purchased in Japan. Emission factors for overseas are based on International Energy Agency (IEA) data.

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

6. Emissions into rivers flowing into enclosed seas are included as "emissions into seas."

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

8. Precipitate from wastewater treatment.

# Initiatives for Reducing Environmental Impact

## Basic Approach

The history of our copper smelting and refining business, forming the core of the SMM Group, also tells the history of our action against smoke pollution, which manifests as damage to crops caused by sulfur dioxide released during the smelting process. Initiatives for reducing environmental impact are therefore considered an essential part of business and are sustained by successive generations.

Learning from the JCO criticality accident of 1999, the SMM Group has established, and acquired ISO 14001 certification for, environmental management systems at all business sites in Japan to ensure compliance with laws, covenants and other regulations is thoroughly observed. These systems are the basis of the Group's initiatives for reducing environmental impact. Risk management activities are also implemented to prevent actualization of a wide range of environmental risks.

## Initiatives for Responding to Environmental Accidents

SMM business sites handle large amounts of chemical substances during the manufacturing process, particularly in smelting and refining operations. For that reason, we have been continually checking initiatives to lower the risk of environmental accidents at sites where environmental risk is high since FY2008.

During environmental patrols, the Safety & Environment Control Department uses checklists to make sure there are no outstanding issues relating, for example, to chemical substance management procedures at each stage—acceptance, storage, management, monitoring and measurement, and disposal—or to education for employees who handle the substances, and performance. Actual procedures are confirmed on site and issues (areas for improvement) are identified. Reports on findings are prepared in order to share issues among site representatives and heads of related divisions.

In FY2010, 13 sites underwent such checks. Detailed management and on-site checks were performed at 10 of these sites

and 49 issues were identified. Checks will be continued to ensure ever tighter management of chemical substances.

No major spills or environmental infringements (against international treaties, covenants, laws or ordinances) occurred during FY2010.

## Containing Abnormal Wastewater During Emergencies

Ichikawa Research Laboratories strengthened measures for dealing with abnormal wastewater over two years from FY2009. Containment was ensured by switching from manual closing of wastewater channel valves when abnormalities are registered during regular pH monitoring of wastewater, to a system that additionally monitors chemical oxygen demand (COD)—an indicator of the amount of organic pollutants in water—and automatically stops wastewater when abnormalities are registered, and which also enables contaminated water to be drawn into an emergency storage tank. Furthermore, monthly inspections of monitoring equipment and emergency drills at least once a year ensure readiness. Water pollution is prevented through implementation and maintenance of the new system together with constant wastewater monitoring.

## Risk Management for Mining Waste

The SMM Group carries out appropriate management of mining waste such as topsoil, spoil, tailings, sludge, and slag.

Oxidization of rocks (spoil) containing sulfide minerals can often cause acidic water that contains sulfate ions, or water containing heavy metal ions, and therefore wastewater from mines is properly processed in water treatment facilities before release. The Pogo Mine further alleviates risk by surrounding all mineralized spoil with dehydrated flotation tailings so as to isolate it from the outside environment. Tailings containing chemicals that are a high risk to the environment are stabilized by mixing them with cement for use as backfill, while all other tailings are dehydrated and stored outside the mine. Dehydration reduces the area required for accumulation sites and alleviates risk related to the structural stability of sites. At the

Hishikari Mine, crushed ore is shipped as a product, and no tailings are generated as a result of operations.

## Initiatives in Reducing Soot and Smoke Emissions

SOx and NOx emissions decreased dramatically in FY2010 (see Fig. 1 and 2), particularly due to increasing use of coal with low sulfur and nitrogen content as fuel at Coral Bay Nickel Corporation (CBNC). At Hyuga Smelting, SOx emissions decreased with a reduction in output due to electric furnace upgrading. Soot and dust emissions have been included in tabulations for disclosure from FY2010 (see Fig. 3).

## Initiatives in Reducing COD and BOD

Many SMM Group sites face onto Japan's Seto Inland Sea and are subject to total emissions controls under the Act on Special Measures Concerning Conservation of the Environment of the Seto Inland Sea. Chemical oxygen demand (COD) is declining somewhat. We are also working to further reduce emissions of nitrogen and phosphorus.

## Chemical Substance Management

The following is an overview of FY2010 releases and transfers of chemical substances managed in line with the Pollutant Release and Transfer Register (PRTR) system (all comparisons are made with the previous year). The SMM Group in Japan had 26 (-2) data-submitting sites, and the number of substances requiring registration increased to 40 (+7) following Cabinet order revisions.

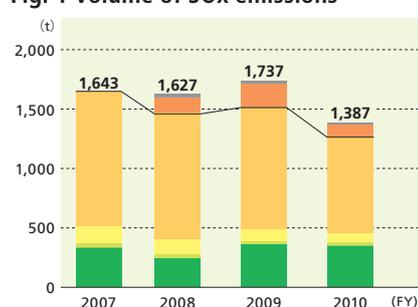
The total release and transfer volume (releases + transfers) increased to 1.58 kilotons (+ approx. 0.6 kilotons) due to an increase in transfers of around 70%, but there has been a gradual decline over the past few years (see Fig. 5). Contributing to the increase in transfers in FY2010 was the large reduction recorded in FY2009 due to spot sales.

Releases increased by 12 tons. Releases into the atmosphere increased due to the

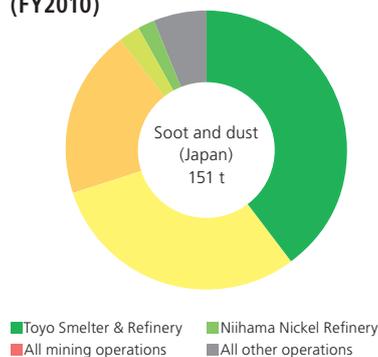
inclusion of methylnaphthalene, which is found in grade A fuel oil, as a PRTR substance. Boron releases into water increased due to an increase in wastewater. Releases of arsenic and other substances to landfills on SMM premises increased due to a fall in the volume of recycling within processes caused by restrictions on impurities. (See Fig. 6)

No ozone-depleting substances were released from production processes of the SMM Group.

**Fig. 1 Volume of SOx emissions**



**Fig. 3 Volume of soot and dust emissions (FY2010)**



**Fig. 5 Total PRTR substance release and transfer volume**



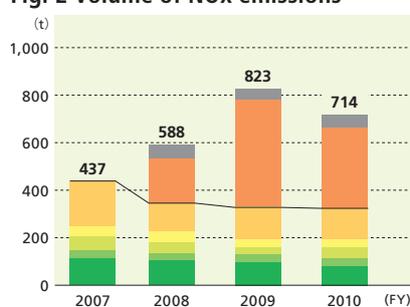
Note: The boundary of tabulation for SOx emissions, NOx emissions and COD has been expanded from FY2008 to include CBNC, mining operations and other operations. Tabulation of BOD data also commenced in FY2008. COD is measured for emissions to seas (including emissions into rivers flowing into enclosed seas). BOD is measured for emissions into rivers (excluding emissions flowing into enclosed seas). PRTR tabulation covers SMM Group business sites in Japan.

## Issues and Targets

Initiatives for reducing SOx and NOx emissions will include ongoing considerations in procurement of fuels due to the impact on direct emissions of sulfur and nitrogen content in coal used for processes where sulfuric acid is not manufactured.

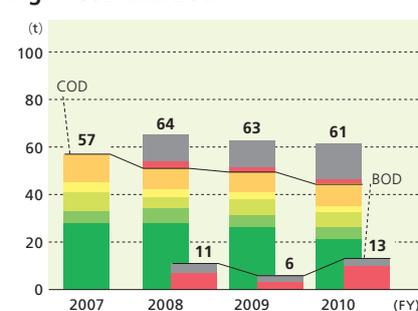
Despite achieving a large decrease in nickel compound releases in recent years,

**Fig. 2 Volume of NOx emissions<sup>1</sup>**

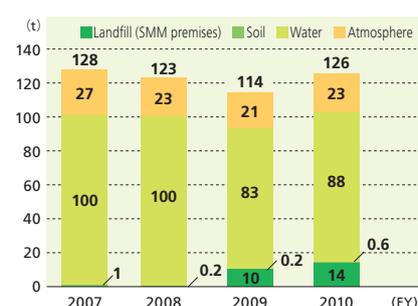


1. Data for FY2007-2009 (Toyo Smelter & Refinery and Hyuga Smelting) has been revised due to a change in calculation methods.

**Fig. 4 COD and BOD**



**Fig. 6 Breakdown of PRTR substance releases**



further reductions of volatile organic compounds (VOCs) and other PRTR substance releases to the atmosphere will be sought. We will also aim for additional waste reductions as transfer volumes are closely related to the volume of waste that undergoes final disposal.

**SMM Group's FY2010 PRTR<sup>2</sup>**

Chemical substance	Releases				Transfers	
	Atmosphere	Water	Soil	Landfill	Sewerage	Waste
Zinc compounds (water-soluble)	0.0	1.0	0.0	0.0	0.0	3.9
Antimony and its compounds	0.0	0.0	0.0	0.1	0.0	2.1
Ethylbenzene	0.0	0.0	0.0	0.0	0.0	0.2
Ferric chloride	0.0	0.0	0.0	0.0	0.0	0.8
Cadmium and its compounds	0.1	0.1	0.0	2.2	0.0	2.7
Xylene	1.4	0.0	0.0	0.0	0.0	0.2
Silver and its water-soluble compounds	0.0	0.0	0.0	0.0	0.0	1.5
Chromium and chromium(III) compounds	0.1	0.0	0.0	0.0	0.0	100
Cobalt and its compounds	0.0	0.0	0.0	0.0	0.0	1.1
Inorganic cyanide compounds	0.2	0.0	0.0	0.0	0.0	0.1
Dichloromethane (methylene dichloride)	13	0.0	0.0	0.0	0.0	0.0
Selenium and its compounds	0.0	0.1	0.0	0.3	0.0	0.3
Copper salts (water-soluble)	0.0	0.3	0.0	0.0	0.0	13
1,2,4-trimethylbenzene	0.2	0.0	0.0	0.0	0.0	0.0
Toluene	2.3	0.0	0.0	0.0	0.0	7.2
Naphthalene	0.0	0.0	0.0	0.0	0.0	3.8
Lead	0.0	0.0	0.0	0.0	0.0	250
Lead compounds	3.4	0.1	0.0	0.1	0.0	21
Nickel	0.0	0.0	0.0	0.0	0.0	5.5
Nickel compounds	0.8	0.7	0.0	2.8	0.0	9.4
Vanadium compounds	0.0	0.7	0.0	0.0	0.0	3.2
Arsenic and its inorganic compounds	0.6	0.2	0.6	8.9	0.0	27
Hydrogen fluoride and its water-soluble salts	0.0	7.2	0.0	0.0	0.0	0.0
Water-soluble salts of peroxodisulfuric acid	0.0	0.2	0.0	0.0	0.0	2.6
Boron compounds	0.0	75	0.0	0.0	0.1	3.4
Formaldehyde	0.1	0.0	0.0	0.0	0.0	5.5
Manganese and its compounds	0.0	0.9	0.0	0.0	0.0	960
Methylnaphthalene	0.7	0.0	0.0	0.0	0.0	3.5
Molybdenum and its compounds	0.1	0.8	0.0	0.0	0.0	26
Dioxins	670	0.0	0.0	0.0	0.0	34

2. Of 40 registered substances, only those with amounts of 0.1t or above are shown.

# Initiatives for Effective Use of Resources

## Basic Approach

SMM Group business centers on the utilization of the Earth's valuable, yet limited, resources. Effective utilization of resources is therefore considered an important issue for management as we seek sustainable business development. Based on this understanding, the SMM Group has included "effective use of resources" as one of its Six Key CSR Areas and is advancing recycling efforts. As the CSR Vision for 2020 depicts "a company that generates resources using innovative technology," we endeavor to recover precious and other valuable metals from items such as used home appliances and electronic devices, and to develop and refine recovery technologies.

## Environmental Impact Reductions from Effective Utilization of Resources

### 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, for almost two thirds of the total volume, is cement production in Japan and overseas. With iron content of around 40%, copper slag is widely used as a source of iron for cement. Copper slag output in FY2010 was around 870 kilotons. The volume of copper slag sold was around 880 kilotons.

Hyuga Smelting manufactures ferro-nickel, a material used in stainless steel, and generated around 690 kilotons of ferro-nickel slag in FY2010. Around 710 kilotons of ferro-nickel slag was sold as a recycled material, its main destination being blast furnaces for steelmaking. With magnesia content of around 30%, ferro-nickel slag is used as a source of magnesia for blast furnace flux. Both copper slag and ferro-nickel slag are also used as substitutes for natural sand in concrete aggregate and public works in ports and harbors.

## Recycling of Nickel Metal Hydride Batteries

SMM engages in manufacturing and sale of materials for nickel metal hydride (Ni-MH) batteries employed in hybrid electric vehicles (HEVs). Since FY2000, we have also been conducting research into recycling of Ni-MH batteries. With the growing popularity of fuel-efficient HEVs, demand for Ni-MH batteries, an essential item, has jumped.

Collection routes for automotive batteries are already in place, meaning that the idea of "battery to battery," if it takes off, could help to reduce the environmental impact of nickel ore extraction and realize stable supply of resources.

The cumulative number of HEVs sold worldwide has grown to more than two million. SMM expects to be able to launch a full-scale used Ni-MH battery collection and recycling operation in the near future and in 2010 commenced recycling of nickel electrode plates at its nickel refinery in Niihama, Ehime Prefecture, becoming the first in the world to realize "battery to battery" recycling. We are also developing nickel, cobalt and rare earth recovery processes and are advancing field tests at a pilot plant with an eye toward commercial application.

By applying nickel manufacturing technologies to the recycling of materials, we are working to ensure effective use of resources and thereby contribute to environmental preservation.

### Zero Emissions Initiatives at Ome District Division

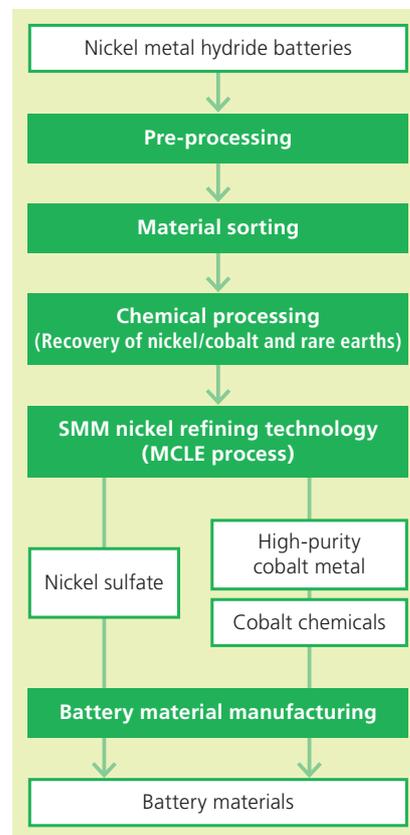
Supply chain management is indispensable for achieving zero emissions\*. This is because, instead of limiting efforts to minimizing waste emissions during the production stage, primarily through the design of environmentally-friendly production processes, we must also ensure that considerations toward the environmental impact of consumption and disposal are incorporated into selection and production processes for raw materials.

The Ome District Division has been pursuing environmental impact reductions through waste reduction since FY2001. Zero emissions were achieved in FY2003 when the district division sought to recycle waste as resources together with a number of other companies, and the status has been maintained since (except for FY2006).

Employees are highly committed to waste reductions and their efforts in support of thorough waste sorting and recycling contributed to continued zero emissions in FY2010, with only 0.2% of waste disposed in landfills.

\* **Zero emissions:** When less than 1% of total waste is disposed in landfills.

Ni-MH battery recycling: flow diagram



### Using Resources Effectively through Recycling

Besides procuring and utilizing copper, zinc and precious metal scrap from scrap dealers, the SMM Group recovers precious metals and other valuable metals from electric furnace dust, waste catalyst and waste containing precious metals. In FY2010, the recycled materials ratio increased to 3.0% from 2.3% in FY2009 due to an increase in secondary copper and zinc materials, and an increase in electric furnace dust (see Table 1).

Recovery and recycling of copper, the archetypal base metal, and its alloys was readily pursued even before recycling became a necessity because of their high scrap value. For example, almost all the copper shavings generated during the fabrication of parts are recycled as raw material by manufacturers of electric cables and wrought copper and copper alloy products. The SMM Group is working to convert copper from waste cables and used copper pipes into new resources. In FY2010, the volume of copper recycled by the SMM Group increased 15.2 kilotons from the previous year to 42.5 kilotons (a 10.5% recycling rate).

**Table 1 Recycled materials as a percentage of materials used**

	FY2008	FY2009	FY2010
Total volume of materials used (kt)	5,990	6,875	6,861
Recycled materials (kt)	246	160	204
Recycled materials ratio (%)	4.1	2.3	3.0

### Initiatives in Reducing Final Disposal of Industrial Waste

The SMM Group has long been trying to reduce volumes of industrial waste (Japan) and mining waste from refineries affiliated with mines that undergo final disposal. Although final disposal volumes increased in FY2010 from the previous year, there has been a gradual decline over the past few years (see Fig. 1).

We will advance recycling of residue from processing of electric furnace dust, as well as improve technologies to increase the amount of precipitate from wastewater treatment returned to the refining process and reduce mining waste. Table 2 summarizes total volumes of harmful and harmless waste generated at all business sites, including overseas sites, according

**Fig. 1 Final disposal volumes<sup>1</sup> of industrial and mining waste in Japan**



1. Includes waste destined for landfills and simple incineration.
2. Mining waste generated by refineries affiliated with mines (Toyo Smelter & Refinery) that is landfilled within the business site.

**Table 2 Volume of waste (harmful<sup>3</sup>/harmless<sup>4</sup>) by disposal or processing category (FY2010)**

Disposal/processing category	Harmful/Harmless		Total
	Harmful	Harmless	
Recycling	2	52	54
Landfill	75	4,417	4,492
Incineration	1	1	2
Volume reduction, etc.	0	1	1
<b>Total</b>	<b>78</b>	<b>4,471</b>	<b>4,549</b>
Direct/Contracted	Direct	—	4,417
	Contracted	—	132

3. In general, this depends upon definitions in the countries concerned. Japan does not have such laws or regulations, therefore SMM applies the following definition: "Specially-controlled industrial waste and waste delivered to controlled landfill sites (however, this excludes waste usually delivered to landfill sites for stable industrial waste (5 stable items) that has to go to controlled landfill sites due to the distance from a stable site)."
4. Waste other than harmful waste.

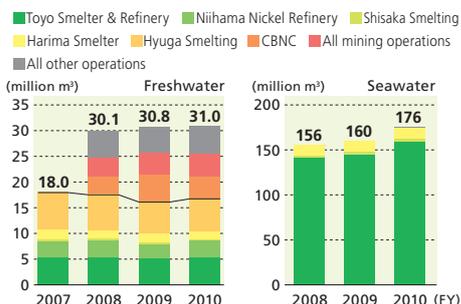
to disposal or processing method, and whether disposal or processing was performed directly or contracted.

### Initiatives in Reducing Water Usage

The SMM Group has commenced initiatives to reduce water usage with a view to preserving biodiversity. Reviews of water drawing at business sites are underway.

Seawater usage increased about 10% in FY2010 compared to the previous year. Contributing factors would be an increase in electrolytic copper output, and an increase in the volume of water used for cooling in sulfuric acid manufacturing (see Fig. 2).

**Fig. 2 Water usage (freshwater/seawater)**



\* The boundary of tabulation has been expanded from FY2008 to include CBNC, mining operations and other operations. Tabulation of seawater usage commenced in FY2008. Seawater usage for FY2008 and FY2009 has been revised due to a change in calculation methods.

# Initiatives in Global Warming Control

## Basic Approach

SMM views climate change due to global warming as one of the more critical environmental challenges confronting the human race, and a potentially serious risk factor for business activities of the SMM Group. SMM aims to become “a company that meets international anti-global warming standards by using advanced technologies,” as stated in our CSR Vision for 2020. The company is focusing both on reducing CO<sub>2</sub> emissions directly generated by business activities and reducing CO<sub>2</sub> emissions through products and services.

Our main objective in FY2010 was to contribute to global warming countermeasures through energy conservation activities, with reduction of CO<sub>2</sub> emissions across the entire Group and a 1% year-on-year reduction in energy consumption per unit of production put forward as targets for environmental preservation, one of the Six Key CSR Areas.

We also put in place an energy management framework, applicable to the entire Group, in line with CSR objectives and in response to revisions to the Act on the Rational Use of Energy, which oblige business operators to manage energy consumption. Specifically, efforts to stimulate energy-saving initiatives and reduce CO<sub>2</sub> emissions across the entire Group are headed by the Technology Division. Meetings of energy-related personnel are held and patrols are undertaken to confirm energy conservation activities at business facilities.

Individual business facilities have set out to achieve the 1% year-on-year unit energy consumption reduction target by working toward environmental ISO targets. Their energy-saving measures have had success, with improvements made to facilities, including introduction of inverters for pumps and blowers and lighting upgrades, and management improvements mainly involving reviews of boiler and compressor operation methods.

## Initiative Examples

### Hyuga Smelting Co., Ltd.

Hyuga Smelting each year manufactures around 100 kilotons of ferro-nickel (Fe-Ni), a material used in stainless steel and specialty steels.

Fe-Ni manufacture involves the use of fossil fuels and electrical energy for the reduction of nickel oxide ore, which is imported from New Caledonia, Indonesia and the Philippines. Decreasing the amount of fuel and energy used helps to reduce CO<sub>2</sub> emissions, and therefore curb global warming. Recent examples would be improvements made to rotary kilns and electric furnaces to raise heat transfer efficiency and therefore reduce energy consumption, and substituting fossil fuels with biomass to reduce CO<sub>2</sub> emissions.

These initiatives led to a CO<sub>2</sub> emissions reduction in FY2010 of around 10 kilotons (approx. 88,000GJ) compared to the previous year.



Rotary kilns



Electric furnace

### Ome District Division (AA+ Rating Under Tokyo CO<sub>2</sub> Emission Reduction Program)

The Ome District Division has worked hard to establish global warming prevention measures. As a large-scale business facility operating in Tokyo, initiatives were advanced under the first phase (FY2002-2004) of the Tokyo CO<sub>2</sub> Emission Reduction Program, instigated by a Tokyo Metropolitan Government ordinance as a means of encouraging and evaluating global warming prevention plans. The division then set out to achieve a voluntary target to reduce CO<sub>2</sub> emissions by 0.802 kilotons (a reduction of 10%, or approx. 19,600GJ) over the five years from FY2005 to FY2009.

Evaluations under the program focus on the ability to incorporate all basic measures into plans and then implement those measures. Ome District Division managed to reduce emissions by more than 8%, earning it an AA+ evaluation (February 2011), the second highest rating after AAA.

Because the division's principal source of energy is electricity, initiatives primarily consisted of power saving. Naturally this involves introduction of power-saving facilities, but the commitment of employees is also important. Personnel at Ome District Division are persisting with efforts to reduce electricity consumption, for example by turning off lights when not necessary, ensuring appropriate air conditioning settings, and refraining from elevator use.

An even tougher Tokyo ordinance, placing caps on total CO<sub>2</sub> emissions and introducing emissions trading, came into effect in FY2010. The division will once again have to review its operations in order to meet the stringent requirements.

**Shinko Co., Ltd.  
(Energy Efficiency Tests)**

Shinko has been trialing the use of third-party observations on facilities and processes in advancing improvements to the energy efficiency of operations since FY2007.

Third-party observations were made once in FY2008, and two checks were performed by the Nagano Association for Conserving the Environment in FY2010. Advice on layouts and operation settings for boilers, compressors and other equipment, and on ways to save energy in operation of clean room air-conditioning systems was received. As a result, boilers were positioned together and centralized management was introduced for compressors. Combined with appropriate operation settings for equipment, Shinko managed to reduce electricity and heavy fuel oil usage in FY2010 by 3.2% and 2.3% respectively compared to the level achieved in the three years from FY2007. Employee awareness about energy conservation has also benefited from detailed facility management, such as changing temperature settings in clean rooms as much as permissible without affecting quality, and introducing compressors equipped with inverters.

Shinko will continue to combine employee efforts with third-party observations to help curb global warming while persisting with operations.

**FY2010 Achievements**

In our Japanese smelting and refining business, energy consumption during FY2010 remained roughly level with the previous year despite a 2.7% increase in output. Unit energy consumption fell 2.4% as a result.

This was achieved by upgrading and improving equipment at business facilities, as well as by strengthening management through operational reviews. Meanwhile, CO<sub>2</sub> emissions by our Japanese smelting and refining business decreased 1.2%

compared to the previous year due to reductions achieved through energy conservation activities as well as the lowering of emission factors by power suppliers.

In FY2011, we aim for an additional CO<sub>2</sub> emissions reduction of 50 kilotons in smelting and refining and other businesses in Japan through a continuation of this kind of activity and new measures.

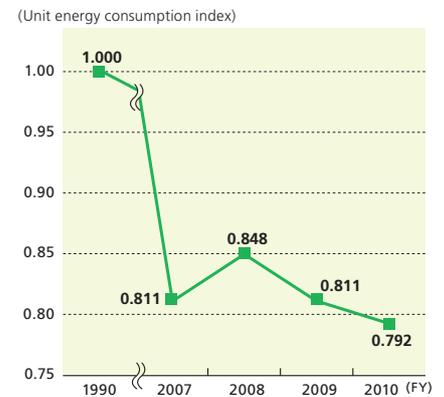
CO<sub>2</sub> emissions from transportation within Japan, which are indirect emissions, were around 23 kilotons (which includes approximately 1 kiloton of direct emissions generated by Sumiko Logistics as a result of transactions within the SMM Group and therefore does not match the 22 kilotons for “emissions during transportation (Japan)” on page 31). This was an increase of around 1 kiloton from the previous year caused by an increase in sales volumes for items such as electrolytic copper despite efforts to increase the use of boat transportation and improve load efficiency.

**Issues and Targets**

SMM has introduced a full range of initiatives for cutting greenhouse gas, primarily CO<sub>2</sub>, emissions generated by business activities, but in order to bring about further benefits, we are going to have to invest considerably in facility and process improvements. Switching to low-carbon energy sources also factors in rising costs.

In the refining business, our energy requirement will inevitably rise due to the degradation of ores, the raw material. Striking a balance between lessening environmental impact and securing profit will therefore require great resourcefulness, accompanied by technological innovation, and not just an extension of initiatives advanced so far. Companies within the Group will unite in pursuing the aim to reduce our unit energy consumption by 1% each year.

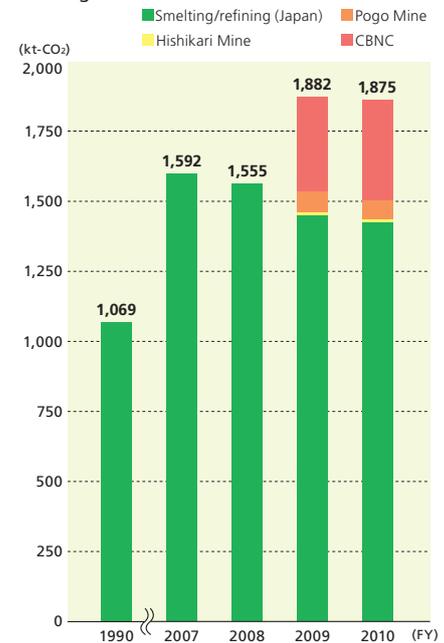
**Unit energy consumption index\* transition  
(Boundary: smelting/refining business in Japan)**



\* **Unit energy consumption index**  
The amount of energy consumed during the production of 1 ton of product, assuming the FY1990 value to be 1. Fuels used as reducing agents are also included.  
Data for FY2007-2009 has been revised based on a review of data accuracy.

**CO<sub>2</sub> emissions transition**

FY1990-2008 scope: smelting/refining business in Japan  
FY2009-2010 scope: mining and smelting/refining businesses



\* Fuels used as reducing agents are included. We used to apply a flat emission factor of 0.555kg/kWh for electric power. For calculations from FY2009, however, we apply emission factors used by individual electric power suppliers for each year.  
Calculations up to and including FY2008 only covered smelting and refining operations in Japan. Mining operations in Japan and overseas and overseas smelting and refining operations were included in calculations from FY2009.

# Environmental Considerations in Areas of Business

## Basic Approach

Mineral resources business operators cannot choose where to operate as they are only able to mine where there are ore deposits. This is one major difference from other industries. Incorporating environmental considerations into business activities is therefore a challenge for mineral resources business operators that will go on indefinitely.

These operators must also think about returning land to nature on closure of a mine once the job there is complete when ore deposits are exhausted. Smelting and refining, a core business of the SMM Group, is another industry in which due consideration of the environment is required, as the history of smoke pollution shows.

We acknowledge that the SMM Group cannot do business without environmental initiatives. When planning a new operation, we carry out detailed studies in advance on the expected environmental impact and take appropriate action according to those findings.

SMM's Hishikari Mine, where production of ore began in 1985, is today the only metal mine in Japan operated on a large scale. Prior to the start of operations at the Hishikari Mine, we carried out a voluntary environmental assessment, steps ahead of Japanese domestic legislation at the time. This initiative has become a model for mine

development overseas.

SMM also advances initiatives relating to biodiversity and ecosystem services<sup>1</sup>, acknowledging that the type of business we are involved in makes it paramount that we consider both the direct impact of new projects and the indirect impact of factors such as emissions of CO<sub>2</sub> and various kinds of chemical substances from existing businesses.

1. **Ecosystem services:** Benefits for humans provided by ecosystems. The benefits are broad and include the provision of physical materials and regulation of the environment.

## Biodiversity Considerations

Together with global warming prevention, the preservation of biodiversity, or the intricate balance of living things, is often put forward as a major environmental challenge.

Both mining businesses operating in the midst of nature and smelting or refining businesses with their varied environmental aspects have an impact on biodiversity, whether it is direct or indirect.

Right from the design stage of all projects undertaken by the SMM Group, due consideration is paid to the surrounding environment in accordance with laws as we pursue development and operations. It is also our basic policy to engage in adequate communication with citizens of local communities and governments at national and regional levels, and to disclose information where

permissible as requested by citizen groups and other parties.

For projects over a certain size, checks are undertaken to determine whether there is any risk of biodiversity being undermined. If it is determined, through third-party environmental surveys performed prior to development, that development and business activities in a locality will have a significant impact on rare species, then we will prepare and implement management plans for preventing, or for minimizing, restoring and compensating, that impact. To date, no localities have been designated as requiring preparation of management plans as a result of preliminary environmental surveys, and we are conducting our operations with due consideration to the surrounding environment (see Table 1).

The SMM Group has always paid due consideration toward the protection of nature in the running of our business and we will continue with efforts to preserve biodiversity based on the above approach.

## Hishikari Mine Surveys of Protected Species

The Sendai River running through Isa, Kagoshima Prefecture, where the Hishikari Mine is located, is home to *chisujinori* (*Thorea okadae*),<sup>2</sup> a threatened red algae protected as a Japanese natural monument, and *kawagoke-so* (*Cladopus japonicus*),<sup>3</sup> a riverweed designated as a prefectural natural monument.

The Hishikari Mine carries out independent monitoring of *chisujinori* and *kawagoke-so* growth and reports findings to government authorities and local citizens.

2. ***Chisujinori* (*Thorea okadae*):** A protected freshwater algae species endemic to Japan belonging to the Thoreaceae red algae family and whose distribution is limited to select rivers in central and southern Kyushu. It grows mainly in flowing waters, clinging to rocks and trees. The Japanese name (lit. "blood-vessel moss") comes from its similarity in color and shape to blood vessels.

3. ***Kawagoke-so* (*Cladopus japonicus*):** A rare algae-like plant found in Japan only on the island of Yakushima and in parts of mainland Kagoshima Prefecture and Miyazaki Prefecture. It grows in fast-flowing rivers in tropical and subtropical areas, adhering to bedrock and large loose rocks. As the plant can only grow in clear rivers with extremely high water quality, it serves as an indicator of river pollution and other environmental change.

Table 1

### Business activities in areas of high biodiversity value

Area	Size of production site (thousand m <sup>2</sup> )	Details
Seto Inland Sea	620 (Minoshima & Ienoshima islands)	The Shisaka Plant operates on Minoshima and Ienoshima, neighboring the Setonaikai National Park (IUCN <sup>4</sup> Category 2)
The Philippines	3,237	Coral Bay Nickel Corporation operates on Palawan Island (in hunting-prohibited and bird protection areas (IUCN <sup>4</sup> Category 4))

4. 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.

### Area of land developed and revegetated

(hectares)

	A: Total area of land developed but not revegetated (as of end-FY2009)	B: Area of land newly developed in FY2010	C: Area of land newly revegetated in FY2010	D: Total area of land developed but not revegetated (A+B-C)
Hishikari Mine	18.4	0.2	0	18.6
Pogo Mine	151	1	1	151

**Biodiversity Considerations at Mines and Refineries**

**Initiatives in Development of the Pogo Mine**

The Pogo Mine in Alaska, United States, required 83 separate permits before operations could begin as it falls under extremely stringent environmental protection standards enforced by state and federal governments.

SMM undertook exhaustive environmental considerations right from the design stage, seeking to preserve ecosystems as well as infrastructure sustaining indigenous communities in the mine vicinity. Particularly important issues were protection of rivers where salmon return to spawn and prevention of adverse effects on moose habitats.

Groundwater from the mine is purified by a treatment plant and partially reused in production processes. In gold extraction, water that comes into contact with chemicals during the process is isolated within a closed system to make sure it is not released. The impact of mine operations is confirmed through annual monitoring of the salmon run, as well as by catching and analyzing fish to check for abnormal levels of heavy metals.

We have also tried to minimize the impact of mine access road construction on moose habitats by circumventing breeding grounds and prohibiting entry by the general public.



Fish are caught in a river near the Pogo Mine for monitoring

**Environmental Considerations in Operations at Coral Bay**

Coral Bay Nickel Corporation (CBNC) in the Philippines produces intermediates used in the manufacture of electrolytic nickel.

**Fig. 1 ECC acquisition process**



To construct a refinery in the Philippines, we first had to obtain an Environmental Compliance Certificate (ECC) from the Department of Environment and Natural Resources (DENR). This required undertaking various procedures (see Fig. 1) before submission of an Environmental Impact Assessment (EIA) summarizing the environmental effects to the DENR.

When constructing the refinery, we sought adequate dialogue with the Philippine government, local authorities and local citizens right from the planning stage. Efforts were made to construct a plant that would have a minimal impact on the environment. For example, a pier used to deliver sulfuric acid and methanol to the plant was made to circle around the coral reef, and wastewater outlets were also positioned to ensure protection of the coral reef.

CBNC, with its environmentally-friendly design, commenced operations in 2004. An Environmental Management Office (EMO) under the direct supervision of the plant's general manager was set up to head environmental management activities. Besides environmental surveys by the EMO, a team of representatives

from organizations such as the DENR, local authorities and NGOs carry out regular sampling of air, water, flora and fauna, ensuring ongoing monitoring of the environment.



Third-party monitoring near the CBNC pier

**Initiatives for the Taganito Project**

SMM began construction for a nickel refining project in the Taganito district of north-eastern Mindanao Island in the Philippines in 2010, aiming for a start of operations in 2013. As the site for the plant had already been used to grow coconuts, we consider the impact of the project on ecosystems to be small. A preliminary survey of flora and fauna by outside experts discovered no rare species on the construction site itself. However, a number of wildlife species in the surrounding area, where there is potential for adverse environmental effects as a result of the plant development, are included on red lists of endangered species issued by the International Union for Conservation of Nature (IUCN)—three bird species and one mammal species—and the Philippine government—eight plant species.

Although the plant vicinity has not been designated an important area (an area that, if threatened, will affect the survival of the species) for any of the species, we commenced quarterly monitoring from a perspective of biodiversity preservation. The project will be advanced cautiously while ensuring that plant construction and operations do not have a significant impact on ecosystems and minimizing the environmental impact of wastewater and other factors.

# Initiatives in Creating Products with Low Environmental Impact

## Basic Approach

The SMM Group is making every effort to reduce the environmental impact of manufacturing, distribution and other business activities. The Group also makes use of technology and knowledge relating to metals and minerals gathered over the years through the manufacture of non-ferrous metals to fully draw out the features of each material.

So that we have an even greater involvement in reducing environmental impact during use of the final product, SMM Group supply chains will be strengthened.

## SMM Group Products Helping to Lower Environmental Impact

The SMM Group considers the environment in the development of its business. Here we introduce examples of SMM Group products that help to lower environmental impact, relating, for example, to base materials and industrial equipment.

### Solar Radiation-Shielding Materials Conserve Energy

SMM's solar radiation-shielding ink, developed using nanoparticle<sup>1</sup> technology, lets through visible light but absorbs, or

cuts out, invisible infrared rays, which generate heat. Mixed with resins or applied to the surface of glass or PET film, the ink can curb climbing indoor temperatures by absorbing 60-80% of infrared rays.

The ink is used most with film for automobile windows to prevent temperatures climbing inside the cabin. But demand has risen in recent years for application to glass windows of office buildings and housing, and to greenhouses for agriculture, where temperature control is crucial. Shielding film employing the ink was applied to all windows of SMM's Head Office building in 2009, helping to reduce the energy requirement for cooling.

With hybrid cars and other environmentally friendly vehicles growing in popularity, there are greater calls for solar radiation shielding to be added even to front windshields, where transmittance issues have been an issue, in order to raise fuel efficiency by reducing the air conditioning burden. SMM is advancing development of products that improve transparency by letting through as much visible light as possible, while retaining high infrared-blocking capability that contributes to greater energy efficiency.

1. **Nanoparticle:** A substance whose particles are sized between around one ten-thousandth and one millionth of a millimeter. Particles of this size sometimes demonstrate special properties.

### Transparent Conductive Film and Light-Absorbing Layer Materials

Solar cells have attracted much attention in recent years as one way to harness natural energy. Solar cells come in many varieties. SMM's transparent conductive film materials and light-absorbing layer materials are employed in crystalline solar cells, as well as thin-film solar cells, which use less silicon.

SMM's Advanced Materials Division produces transparent conductive film materials at the Ome District Division. Light-absorbing layer materials are produced at the Sagami Plant.

Transparent conductive films are films that are both transparent and conduct electricity. They function as electrodes used in deriving electrical energy from sunlight. Light-absorbing layer materials function as semiconductors in the same way as silicon. SMM's materials help improve the quality of customers' products and contribute to the solar cell market, for example through incorporation in solar panels for housing, which need to generate a lot of power in a small area.

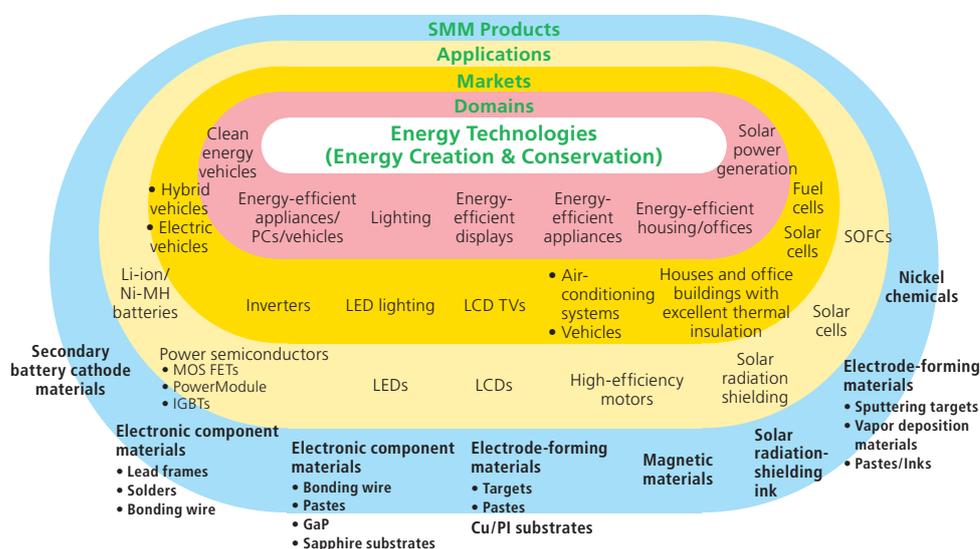
While targeting greater functionality of materials, we now aim to expand application by lowering costs through a review of manufacturing methods and processes. We are also working to achieve effective utilization of resources through collection of used targets from manufacturers for recycling and reuse.

### COF Substrates and LED Lead Frames

Chip-on-film (COF) substrates are essential for connecting LCD panels and integrated circuits (ICs) of LCD televisions with ever higher resolutions. SMM is a pioneer in the industry, producing COF substrates using a new "semi-additive" manufacturing method. The method employs extremely thin copper plating, enabling a pattern pitch of 25 microns (0.025mm) or narrower, which until then was complicated. This contributes to IC size reductions and supports efforts to conserve resources and energy.

Lead frames for LEDs, mass produced from 2011, are another semiconductor material employing plating technology. These lead frames are used as circuit

### SMM materials relating to energy



materials for LCD backlights in devices like LED televisions, which are growing in popularity. High-quality silver plating is applied to the surface to ensure high reflectivity, supporting energy-efficient products with improved LED luminous efficacy and durability.

### Wet Electrostatic Precipitator with High Collection Efficiency

Sumitomo Metal Mining Engineering (SMMEC) supplies wet electrostatic precipitators, which are highly efficient in removing soot and dust and harmful substances from exhaust gas, to iron, non-ferrous metal and chemical manufacturers, and waste treatment plants. SMMEC's wet electrostatic precipitators enjoy the top share of the Japanese market and are particularly popular for sulfuric acid production processes at non-ferrous metal refineries.

Raising energy efficiency has become an urgent priority in recent years as greater efforts are required to curb global warming. For example, iron and steel works are advancing efforts to recycle unburned gas in exhaust gas and engage in power generation fired by coal-to-liquid fuels. In order to purify exhaust gas containing unburned gas and protect facilities, impurities and harmful substances like sulfur dioxide are removed. This requires high particulate collection efficiency.

SMMEC's wet electrostatic precipitators collect impurities using a relatively high voltage (more than 70,000 volts) while spraying water. This removes soot and dust to the degree that concentrations at the outlet are less than 1mg/m<sup>3</sup>N. This collection efficiency is much higher than dry electrostatic precipitators manufactured by SMMEC in the past, which achieved soot and dust concentrations of around 10mg/m<sup>3</sup>N. Using reinforced conductive plastic, not metal, collecting electrodes, to which high voltages are applied, in square configuration prevents electrode deformation and makes the system lightweight, enabling long periods of continuous operation without maintenance.

High collection efficiency and low

maintenance help to lessen environmental impact.

### Action on Harmful Substances in the Materials Business

SMM Group companies are working together on the management of chemical substances used in products. We are striving, through proper management of chemical substances from the product design and development stage, in the selection of raw materials, and right up to procurement and manufacturing processes, to comply with domestic and foreign laws and regulations and customer requirements, as well as to provide appropriate information in an expeditious manner. Here we will introduce initiatives in the materials business. Semiconductor materials and advanced materials are incorporated into products such as electronic components and circulate widely through domestic and foreign markets. SMM therefore places importance on communication with suppliers and customers for promoting green procurement and providing information on substances contained in our products.

Some of our products are ultimately exported to countries within the European Union (EU) after finding their way into products of customers via the supply chain. The SMM Group has frameworks in place for complying with the RoHS Directive<sup>2</sup> and REACH Regulation<sup>3</sup>, EU-enforced regulations with objectives including the protection of human health and the environment.

### RoHS and REACH Compliance

The RoHS Directive meant that electrical and electronic equipment sold in EU states after July 1, 2006 was not allowed to contain any of six substances—lead, mercury, cadmium, chromium(VI), polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE). Under the REACH Regulation, chemical substances are gradually being announced as candidates for inclusion as substances which cannot be manufactured or imported except under authorized

conditions covering application and control methods (Candidate List substances).

The Advanced Materials Division has been implementing initiatives for strengthening chemical substances management since 2005, establishing a set of green procurement guidelines for suppliers in order to shut out substances that will potentially be targeted by these regulations at the source, or to properly identify such substances. We have also modified the chemical substance database, originally created to comply with Japanese legislation, to achieve additional compliance with RoHS and REACH regulations. Harmful chemical substance management information for the entire electronics and advanced materials sector is centrally managed. Responding to the RoHS Directive, SMM has made efforts in shifting to lead-free products, managing to commercialize lead-free solders as well as pastes employing resistive glass, a focal product group. For products containing chemical substances that will potentially be targeted by the REACH Regulation, we are searching for alternative substances that will not be targeted and have customers evaluate items we develop.

Information on chemical substances contained in SMM products is conveyed to customers through the submission of material safety data sheets (MSDS)<sup>4</sup> or the provision of information about Candidate List substance content. To ensure action within the supply chain, we carry out reconfirmation each time a Candidate List substance is announced to check whether it is contained in any of our products.

**2. RoHS Directive:** The Restriction on Hazardous Substances Directive, or the Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

**3. REACH Regulation:** The Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals.

**4. MSDS (Material Safety Data Sheet):** A sheet outlining safety data that must be handed to other business operators when delivering products containing certain chemicals stipulated under the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management, the Industrial Safety and Health Act and the Poisonous and Deleterious Substances Control Act.

# Relations with Customers

## Basic Approach

The SMM Group's core businesses are the mineral resources business, the smelting and refining business, and the materials business (semiconductor materials and advanced materials). In addition to ore refining and the manufacture and sale of metal ingots for use as a raw material, we manufacture and sell semiconductor materials and advanced materials, drawing out the potential of each metal through our own processes. Customers of our raw materials and processed materials businesses may differ, but we strive to fulfill the needs of each, introducing world-class, cutting-edge technologies to ensure high levels of performance and quality. The SMM Group pursues quality, safety and environmental considerations in the creation of products through compliance with product safety and other product-related laws and regulations. This is something only we can do as a company carrying out superior manufacturing from the raw materials stage.

### Company-wide Quality Policy

Provide quality to satisfy our customers through continual improvements of quality assurance and control systems.

- 1 Pursue quality levels that stand out from the trends of the time
- 2 Abide by laws and rules and strive to create products incorporating safety and environmental considerations

## Quality Management Frameworks

At SMM, based on our company-wide quality policy, personnel with responsibility over each business site set policies and plans tailored to their particular circumstances and issues and put in place management systems that center on implementation of the ISO 9001 standard.<sup>1</sup> Furthermore, we pursue effective activities through proper system operation, and those activities are audited under an internal quality audit system.

The Quality Management Committee works to promote and support the implementation of quality activities of each business division throughout the company.

The committee is responsible for reviewing company-wide activities and deliberating on changes to the company-wide quality policy. The Safety & Environment Control Dept. at the Head Office is in charge of communicating and administering matters relating to the company-wide quality policy and also provides support, for example in the form of providing guidance, assistance and information to personnel in charge of quality control for each business.

1. Around 80% of business sites in Japan have acquired ISO 9001 certification. All locations which have not been certified operate their own quality management systems.

## Employee Growth through "Quality Training"

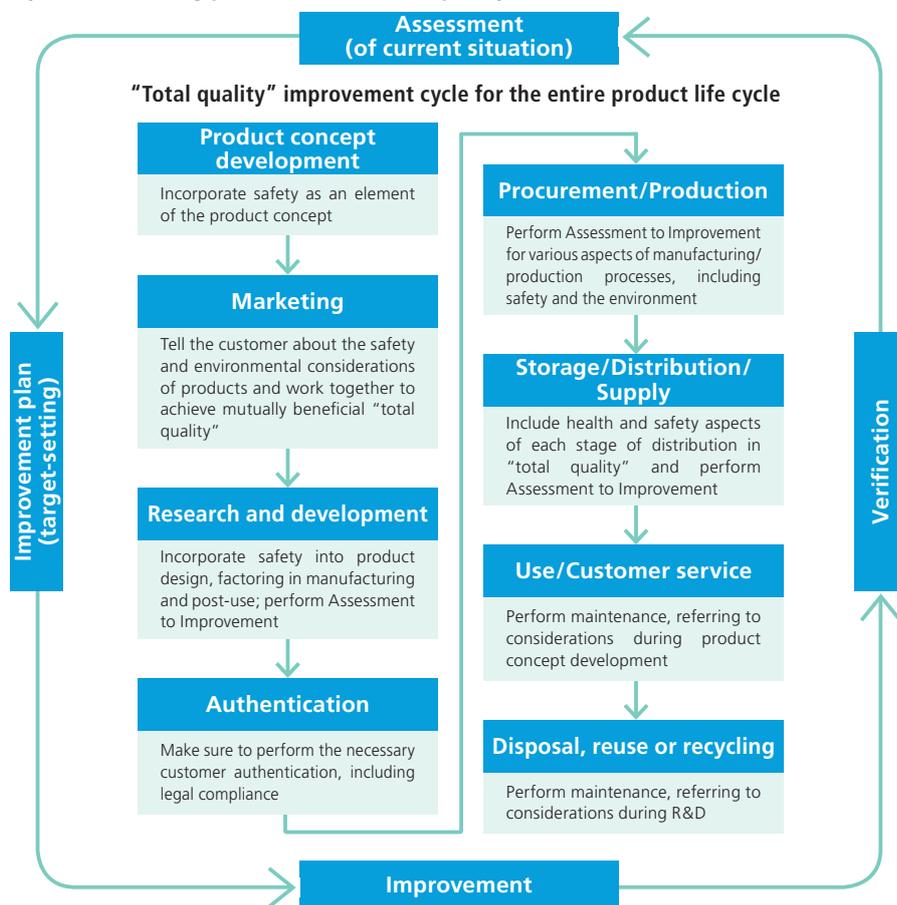
To maintain consistent customer satisfaction in quality, it is necessary to nurture employees who can respond to ever-changing demands and circumstances. To that end, we have begun systematic quality training for administrators and

manufacturing sites. Furthermore, we are conducting skill improvement programs for internal quality auditors to ensure the integrity of all processes and to systemize consistent improvement.

## "Total Quality" Management

At SMM, we accurately determine the effects of products and services on health and safety and seek improvements through organized implementation and linking of management systems covering the environment (safety through the environment), occupational safety (safety of business processes) and quality (performance of products). We work to raise the level of "total quality" through current assessments, setting of improvement targets, execution of improvements and verification for each process. Almost all our products are subjected to this kind of cycle.

### Cycle for instilling products with "total quality"



## Disclosure of Information on Products and Services

Most items in the SMM Group product lineup are supplied as raw or processed materials for use by customers in the manufacture of their products. Information customers require in order to handle our products properly from safety and environmental perspectives, as well as information enabling them to supply the final product, is generally communicated in product specifications at the time of contract, during technical discussions, and via inspection certificates<sup>2</sup> and MSDS, based on a database of past to the most recent information, acquired knowledge, and necessary surveys.

SMM products supplied as final products to customers are carefully designed, even incorporating considerations toward safety and environmental compatibility, and are delivered after sufficient trials and inspections during manufacturing.

We make sure that information utilized for the above is always appropriate through operation of a management system, reviewing the information based upon the latest technology, recent laws and regulations, and requests from customers.

2. **Inspection certificate:** Product composition and performance documentation issued for each batch.

### Important Information on Products and Services

- Does the product or service contain or involve materials that are potentially harmful, particularly to the environment or society?
- What information is available regarding how to use the product or service safely?
- Will recycling or disposal of the product harm the environment or society?

We also conduct surveys linked to life cycle assessments (LCA) for copper, nickel and zinc through associations related to individual products.

### Methods for Providing Information Provision of information relating to specifications

Information regarding product specifications requested by the customer on an order placement sheet is provided to the customer by showing specifications of the product delivered by SMM on an order received sheet.

**Provision of information relating to chemicals**  
Customers have a major interest in companies' response to regulations on health and safety relating to product handling and chemical substance regulations. The SMM Group provides information on chemical substances contained in products using MSDS and other methods.

#### Other methods

The SMM Group also engages in transactions such as sales of different types of lubricants and ingots of gold, where the customers are general consumers. In line with related laws and regulations, we provide information on products and

services in this area through labeling and advertisements and explanations to ensure correct understanding among consumers. There were no violations of laws or regulations relating to products and services during FY2010.

## Communication with Customers

As mentioned earlier, most SMM Group products are raw or processed materials and they have a major influence on the performance and quality of products manufactured by customers. It is therefore vital that we engage in apt and adequate communication with customers from order through to delivery and right through to follow-up confirmation that our products performed according to specifications after passing into the hands of customers. With regard to some of our products, we implement other initiatives, including routine questionnaires, and use information such as complaint trends and customer feedback to evaluate the satisfaction of individual customers on a five-tiered scale. Findings are incorporated into action and measures at the management level through the frameworks in place.

## Issues and Targets

In connection to overall initiatives relating to quality assurance frameworks, SMM continues to enhance auditing functions and make other general improvements to management systems while aiming for optimization of those systems in light of process modifications and changing environments. In terms of product safety and information disclosure, we will enhance frameworks for disclosing all the information customers require, including information on substances in our products, and further ensure frameworks allowing swift and appropriate response to customer needs. As for raising the level of customer satisfaction, first we will improve methods of measuring and evaluating customer satisfaction and then work to increase customer satisfaction through effective measures after accurately identifying the issues at hand.

### Information on SMM products requiring disclosure by labeling and applicable products/services

Information requiring disclosure	Applicable products/services
Are any parts of the product or service outsourced?	Not applicable, as SMM products are raw materials or internally-processed materials
Does the product or service contain or involve materials that are potentially harmful, particularly to the environment or society?	All products/services containing substances requiring management under legislation
What information is available regarding how to use the product or service safely?	All products/services containing substances requiring management under legislation
Will disposal of the product harm the environment or society?	All products/services containing substances requiring management under legislation

# Relations with Employees

## Basic Approach

The SMM Group's corporate philosophy states "SMM shall, based on respect for all individuals and recognizing each person's dignity and value, seek to be a forward-minded and vibrant company." The Group's CSR Policy similarly states, "SMM shall respect human rights and safeguard diversity in the workplace."

In line with the CSR Vision for 2020, the Group has committed to further realizing a company offering equal-opportunity employment free of any discrimination based on nationality, gender, disability or religious belief and showing respect for diversity (expanded job opportunities for disabled persons, seniors and women).

The 3-year business plan integrates these ideas from the philosophy, policy

and other statements into human resources strategy, through which we are pursuing a wide range of initiatives.

## Employee Diversity

Given our aims to raise corporate competitiveness and achieve sustainable growth, we are making efforts to acquire and develop a diverse workforce

### Numbers of employees/officers (March 31, 2011)

(people)

	No. of employees at year-end				Employee gender breakdown		Non-regular/limited-term employees	Total	Temporary employees
	Full-time officers	Managers	Regular employees	Subtotal	Male	Female			
SMM (non-consolidated)	20	454	1,676	2,150	1,928	222	217	2,367	77
Consolidated subsidiaries in Japan	62	369	2,762	3,193	2,722	471	374	3,567	96
Overseas consolidated subsidiaries	36	404	3,426	3,866	2,480	1,386	348	4,214	104
<b>Total</b>	<b>118</b>	<b>1,227</b>	<b>7,864</b>	<b>9,209</b>	<b>7,130</b>	<b>2,079</b>	<b>939</b>	<b>10,148</b>	<b>277</b>

\* The 20 full-time officers and executive officers of SMM (excluding subsidiaries and affiliates) are not included in the figures presented in the Overview of Business Operations on page 6 of this report, hence the different totals here.

### Number of employees/officers in each region (March 31, 2011)

(people)

Japan	United States	South Korea	Peru	Chile	China	Philippines	Taiwan
5,882	315	9	7	16	942	569	1,155
Singapore	Malaysia	Thailand	Indonesia	Australia	Solomon Islands	Netherlands	
35	551	410	5	5	194	1	

### Consolidated employee breakdown (March 31, 2011)

(people)

	Aged under 30		Aged 30-49		Aged 50+		Total
	Male	Female	Male	Female	Male	Female	
Managers	30	13	742	54	380	9	1,228
Regular employees	1,648	902	3,526	1,039	686	62	7,863
<b>Subtotal</b>	<b>1,678</b>	<b>915</b>	<b>4,268</b>	<b>1,093</b>	<b>1,066</b>	<b>71</b>	<b>9,091</b>

\* Full-time officers of Sumitomo Metal Mining Co., Ltd.: All male, aged 50+

comprising human resources who stand out as individuals and who can make a contribution toward attaining those aims.

### Work Environments Favorable to Women

SMM implements measures for expanding employment of and opportunities for women so they need not quit their jobs due to marriage or childbirth and to allow them to stay with the company for the long term.

We are actively seeking to recruit women to work in management. In FY2010, two of the company's 28 new management track employees were women. All newly hired women filled administrative positions.

After hiring, we try to get a grasp of employment and working conditions, for example by analyzing indices such as employee turnover and numbers of employees taking advantage of child-care leave provisions. The information is used to determine what measures to implement next.

The development and administration of a fair human resources system means there is no gender disparity in terms of base salaries, for example, in the SMM Group.

### Working with the Disabled

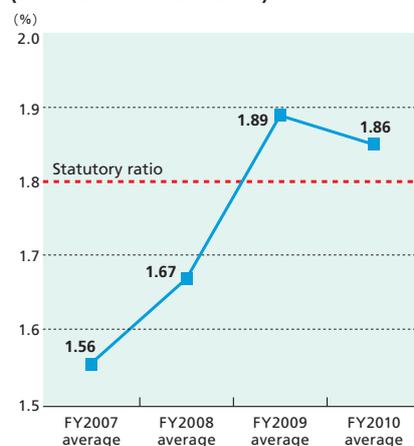
SMM has been implementing an action plan with the aim of reaching the statutory disabled employee ratio target.

We currently carry out ongoing initiatives within regular recruitment activity, including company presentations and Web-based recruitment.

As a result of these continual efforts, SMM's average disabled employee ratio for FY2010 was 1.86%, remaining above the statutory requirement in Japan.

We will press ahead with activities assisting the creation of environments where disabled employees can work alongside other employees. These include expanding the scope of placement, establishing infrastructure, and finding new places where disabled people can work.

### Disabled employee ratio transition (SMM non-consolidated)



### Support for Veteran Employees

SMM has overhauled its re-employment system in response to revisions (effective April 2006) to Japan's Act on Stabilization of Employment of Elderly Persons. Nearly 70% of SMM and affiliated company employees in Japan are rehired after reaching the mandatory retirement age due to the introduction of the re-employment system and other methods for utilizing elderly human resources.

Efforts in utilization of elderly human resources will be continued.

### Initiatives Relating to Locally-Hired Employees

In the SMM Group, we clarify recruitment processes for each overseas facility, while adhering strictly to laws and ordinances of respective regions. Fairness in job appraisal, including promotions, is also ensured.

Actual conditions are periodically confirmed through the implementation of Group-wide questionnaires.

### Initiatives for Enhancing Work-Life Balance

A satisfying lifestyle leads to satisfaction at work, too. Based on this belief, SMM is making efforts to enhance the work-life balance of employees.

### Numbers of locally-hired senior managers (general managers and above)

Company (country/region)	No.
Sumitomo Metal Mining Pogo LLC (U.S.)	1
Coral Bay Nickel Corporation (Philippines)	5
SMM Philippine Holdings (Philippines)	4
Taganito HPAL Nickel Corporation (Philippines)	0
Sumitomo Metal Mining Asia Pacific Pte. Ltd. (Singapore)	2
M-SMM Electronics SDN. BHD. (Malaysia)	1
Malaysian Electronics Materials SDN. BHD. (Malaysia)	3
Sumiko Electronics Taiwan Co., Ltd. (Taiwan)	5
Sumitomo Metal Mining Electronics Materials (Shanghai) Co., Ltd. (China)	3
SMM KOREA Co., Ltd. (South Korea)	1
Shanghai Sumiko Electronic Paste Co., Ltd. (China)	2
Sumiko Electronics Suzhou Co., Ltd. (China)	1

(March 31, 2011)

Efforts include strengthening, and promoting the use of, various systems. In addition to restricting long working hours and encouraging employees to take paid leave, we have enhanced the reduced working hour system available during child care and established a new return-to-work system.

We are also directing energy into enhancing the child-care leave system, the reduced working hour system, elderly and nursing care systems, and our response to the Japanese Law for Measures to Support the Development of the Next Generation.

In advancing these efforts, we make full use of labor-management councils for surveying current conditions and drafting specific provisions.

## Relations with Employees

### Employee turnover (March 31, 2011)

Country/region		Aged under 30		Aged 30-49		Aged 50+	
		Male	Female	Male	Female	Male	Female
Japan	Departures	13	20	79	23	64	11
	Total employees	723	236	2,883	402	962	55
	Turnover (%)	1.8	8.5	2.7	5.7	6.7	20.0
United States	Departures	24	4	30	3	11	2
	Total employees	43	1	166	12	77	7
	Turnover (%)	55.8	400.0	18.1	25.0	14.3	28.6
South Korea	Departures	0	0	0	1	0	0
	Total employees	0	0	3	4	0	0
	Turnover (%)	0	0	0	25.0	0	0
Peru	Departures	0	0	0	0	0	0
	Total employees	0	1	3	1	0	0
	Turnover (%)	0	0	0	0	0	0
Chile	Departures	0	0	0	0	0	0
	Total employees	0	0	12	2	0	0
	Turnover (%)	0	0	0	0	0	0
China	Departures	186	181	30	54	0	0
	Total employees	336	248	196	146	3	0
	Turnover (%)	55.4	73.0	15.3	37.0	0	0
Philippines	Departures	29	9	16	4	0	0
	Total employees	200	72	239	31	10	2
	Turnover (%)	14.5	12.5	6.7	12.9	0	0
Taiwan	Departures	68	43	79	46	8	8
	Total employees	128	112	456	271	9	4
	Turnover (%)	53.1	38.4	17.3	17.0	88.9	200.0
Singapore	Departures	0	1	0	0	0	0
	Total employees	1	2	15	12	2	1
	Turnover (%)	0	50.0	0	0	0	0
Malaysia	Departures	157	98	28	28	0	1
	Total employees	141	119	162	123	0	1
	Turnover (%)	111.3	82.4	17.3	22.8	0	100.0
Indonesia	Departures	0	0	1	1	0	0
	Total employees	0	0	2	1	2	0
	Turnover (%)	0	0	50.0	100.0	0	0
Thailand	Departures	94	90	17	13	0	0
	Total employees	104	122	98	85	0	0
	Turnover (%)	90.4	73.8	17.3	15.3	0	0
Australia	Departures	0	0	0	0	0	0
	Total employees	2	1	0	0	0	0
	Turnover (%)	0	0	0	0	0	0
Solomon Islands	Departures	0	0	0	1	0	0
	Total employees	0	1	33	3	1	1
	Turnover (%)	0	0	0	33.3	0	0

Figures exclude officers and temporary employees

## Human Resources Development

### Basic Approach

The SMM Group undertakes human resources development in line with the following basic approach, as stipulated in our human resources development regulations.

#### Basic Approach to Human Resources Development

- 1 Actively support the motivation and ambitions of employees.
- 2 Tailor activity to match the advancement of each individual employee.
- 3 Carry out activity in a systematic and organized manner on an ongoing basis with a view to the long term.
- 4 Organically link activity to human resources management systems.
- 5 Adapt flexibly to diverse management needs.

### Human Resources Development Program

In order to realize the growth strategy put forward in its 3-year business plan, the SMM Group has defined the human resources it is looking for—human resources who see opportunity in change and who perceive issues correctly and push forward with determination toward finding solutions.

We have a program for developing such human resources. It is structured around three areas—on-the-job training (OJT), which is the primary area, self-development and off-the-job training (OFF-JT).

### Human Resources Development Initiatives

Human resources development initiatives we focus on in particular are:

- (1) International employee development; and
- (2) Next-generation senior management development.

We also intend to introduce new programs and review existing training programs as required.

#### International employee development

In the mineral resources business, even further progress is required in the development of human resources who will go out and acquire overseas mines for the company and carry out operations under

their own initiative. In the materials business, there is a need, given anticipated expansion in emerging markets, to develop human resources who can respond flexibly to different circumstances and succeed in capturing new markets.

As part of these efforts, SMM has been implementing a unique initiative since 2006 for all new management track employees in the form of short-term overseas training involving participation in English learning programs run by overseas universities or language schools. In FY2010, 29 employees partook in programs in the United States, the United Kingdom and Canada. The objectives go beyond simply improving English language skills; the training has been very successful in helping employees acquire

confidence in living overseas and learn to support themselves.

**Next-generation senior management development**

The focus of training in the past has been general bottom-up training, but from FY2008 we have been strengthening programs for the training of next-generation senior management.

This training is for general manager- and section manager-level personnel likely to take a senior management role within the company in the future. The program also involves lectures by current officers, giving those officers an opportunity to recount their experiences and pass down their ideas on management.



Employee training (manufacturing)

**SMM Strategy Planning Training Center**

The SMM Strategy Planning Training Center was completed in September 2010 after around half a year renovating an existing training facility purchased in Susono City, Shizuoka Prefecture. The concept of the center is that employees “go in with a problem, and come out with a solution.” The center is set in a natural environment, surrounded by greenery and with an outlook toward Mount Fuji nearby. Besides conference rooms of varying size and a lecture hall, accommodation is available for just over 70 people. The center is used for employee training and debriefings, as well as for officer training retreats and divisional strategy conferences.

**Total annual hours of education**

(hours)

	Officers	General managers	Section managers	Regular employees	Other	Total
SMM (non-consolidated)	246	2,238	6,791	22,942	303	32,520
Consolidated subsidiaries in Japan	1,011	3,225	4,412	20,229	2,265	31,142
Overseas consolidated subsidiaries	126	484	7,193	149,813	33,828	191,444

\* Figures are limited to education/training organized by personnel and general affairs divisions

**Human resources development program (SMM employees)**

	OJT	Self-development	OFF-JT					
	OJT program	Self-development assistance	Executive trainee education	Rank-based training	Specialized education	Outside placement	International training	Other
<b>Officers</b>								
<b>General managers</b>		Company-wide correspondence education Fee assistance for English proficiency tests, etc.		Newly promoted general manager training				
<b>Section managers</b>				Newly promoted section manager training		Management training		
<b>E-class</b>				Newly promoted E-class employee training		Brush-up training		
<b>S-class</b>	Introductory OJT for new employees				Prospective employee education	Outside seminars/workshops	Study in Japan	
<b>F-class/J-class</b>			3-year new employee training program •Introductory training •Secondary training •Short-term overseas training		New employee supervisor training		Training in Japan	
							Pre-departure language training	
							Overseas training •Global course •Trainee course •Short-term study/secondment course	
							Compliance seminars	
							Human rights seminars	

### Creating Better Work Environments

#### Protection of Human Rights

The SMM Group has set forth a policy on human rights aligned with the SMM Group Corporate Philosophy and the SMM Group Code of Conduct. In determining the policy, opinions were sought both from within the Group, as well as from outside experts.

The policy prescribes compliance not only with domestic laws and ordinances relating to human rights, but also with various international standards. Furthermore, we plan to appeal to outside

parties with whom the SMM Group has a relationship to prevent human rights problems arising. There were no reports of discrimination encroaching on human rights during FY2010.

We now plan to push ahead with education of employees throughout the SMM Group.

#### Prevention of child labor and forced labor

We gain knowledge of current conditions through questionnaires sent out to group companies in Japan and overseas. No reports of child labor or forced labor were received during FY2010.

#### Human rights seminars

Human rights seminars are held regularly with primary objectives being to deepen awareness of potential human rights issues in the workplace and to prevent them from occurring. These seminars are held mainly for officers and managers at Head Office divisions, while seminars at business divisions and district divisions target a broader range of employees.

We will be looking to enhance human rights education further having established the SMM Group Policy on Human Rights.

## SMM Group Policy on Human Rights

The SMM Group's policy on human rights, in accordance with the SMM Group Corporate Philosophy and the SMM Group Code of Conduct, has been established as follows.

1. The SMM Group will comply with domestic laws and international standards relating to human rights and encourage persons within the Group, as well as outside parties over which the Group has influence, to work toward the realization of a society without human rights infringements.
2. The SMM Group will not allow harassment or other incidents of a discriminatory nature within the Group and will make efforts to prevent such incidents from occurring among outside parties over which the Group has influence.
3. The SMM Group will not engage in child labor or forced labor and will make efforts to prevent child labor or forced labor from occurring among outside parties over which the Group has influence.
4. The SMM Group will show other considerations to human rights in addition to items 1-3 above within the Group and in relationships with outside parties over which the Group has influence.
5. The SMM Group will establish appropriate measures and procedures for responding to human rights problems if they should occur.
6. The SMM Group will identify and stay aware of the current and changing state of human rights in the world, as well as the impact of corporations in the area of human rights, and carry out awareness-raising activities and other necessary measures on an ongoing basis.



Newly promoted section manager training

#### Preventing sexual harassment

To prevent sexual harassment, each business facility has a dedicated consultation office and a designated sexual harassment prevention promotion officer. No incidents falling under the category of sexual harassment were reported during FY2010.



New employee training

## Labor-Management Relations

Workers' unions formed at SMM branch offices and facilities of SMM Group companies in Japan carry out activity under the umbrella of the Federation of Sumitomo Metal Mining Workers Union (Sumikoren). In principle, all regular employees join workers' unions in accordance with union shop agreements. Overseas, six consolidated subsidiaries have workers' unions. As of March 31, 2011, around 32% of employees belonged to workers' unions at overseas consolidated subsidiaries. In order to build up healthy labor-management relations based on mutual trust, in which company and union mutually respect the other party's position, labor-management council meetings, or labor-management discussions, are held at least once a month with unions at each branch or group company. The Central Labor-Management Conference, a meeting between SMM management and executives of Sumikoren unions, is held once a year around March.

We also implement questionnaires to ascertain conditions relating to the establishment of workers' unions overseas. In addition, we visit overseas business facilities in order to observe the labor-management situation in those locations first-hand and to exchange information.

Various committees comprising members from labor and management are set up to tackle matters deemed important to both sides so that the views of both labor and management can be reflected in revisions to, or the additional formulation of, a wide range of measures. Considerations by management include providing sufficient advance notice in the

case of business reforms that will have a significant impact on employees. No plant closures of a week or more due to strikes or other action were reported during FY2010 within the entire SMM Group, and there were no serious infringements upon freedom of association.

## Communicating with Employees

### Employee awareness survey

One initiative relating to the Six Key CSR Areas, headed by the Communication Subcommittee, was the implementation in March 2010 of an employee awareness survey targeting all employees (including limited-term and non-regular employees who had worked for at least a year at the time of the survey) at workplaces under SMM's direct control. During FY2010, survey results were tabulated and analyzed, and feedback was provided to employees.

An outside research company was employed to carry out the survey to ensure fairness and objectivity. The survey itself consisted of 113 questions, with each response being an evaluation on a scale of five. The participation ratio was 94.6%.

Results of the survey were tabulated and analyzed in three areas—employees' image of SMM (strengths and weaknesses), SMM's corporate culture, and employee motivation and optimism. This revealed a picture of the average employee, who is proud of the company's traditions from over 400 years and technical prowess and acknowledges the internationalization of business; who is meanwhile aware of the issues relating to new product development and perceives the importance of human resources development; and who is highly motivated, believing SMM to be a good company and good workplace overall, despite various issues.

Executives and the Communication Subcommittee discussed these findings and laid out what the company as a whole, supervisors in workplaces, and individual members of the workplace have

to do in order to make SMM an even better company. This was included in feedback to employees in addition to explanations of results for each business division in terms of the three areas analyzed.

Individual business divisions will now engage in further deliberations that will be kneaded into an action plan for formulating and implementing new measures and making improvements. Subsequent employee awareness surveys will be implemented once every three years.

### Comment by a Female Employee Returning from Child-Care Leave

I took maternity leave and child-care leave and have now returned to the job I was doing before. Until my child turns one, I will be leaving work 30 minutes early, using up time allowed for child care. Because of that, I have had to pass on small tasks to others, reducing the amount of work I do overall.

My time is limited and so I ask for meetings to be held during the morning where possible and rearrange priorities so that I can do my job efficiently.

In order to increase the number of female employees, I think it's important that they can continue working. In my case, too, continuing work is a major issue. I think there must be many women who really want to keep working but can't imagine how it can be done.

It would be nice to have an opportunity to think about how to keep working before giving birth.



**Namiko Koyama**  
Legal & General  
Affairs Dept.

### Matters discussed with unions (FY2010) include:

- Business conditions overview
- Monthly performance figures
- Plans relating to business restructuring

## Occupational Health and Safety

### Basic Approach

SMM engages in a wide range of activities in line with the CSR Policy, which states, "Accordinging safety the highest priority, SMM shall provide safe, comfortable working environments and seek to eliminate occupational accidents."

The CSR Vision for 2020 includes, "A company that accords safety the highest priority and provides comfortable working environments," stipulating the following four specific targets.

### Safety

- No occupational accidents throughout the SMM Group (including manufacturing partners)

### Physical Health

- Zero incidence of occupational disease
- Create workplaces where protective equipment (earplugs/masks) is unnecessary

### Mental Health

- A vibrant company whose workforce is physically and mentally healthy

Safety-related activities are advanced under a basic policy to "nurture a safety culture and ensure thorough safety management at all business sites and group companies" in order to ensure safety and to realize the CSR Policy and CSR Vision for 2020.

To raise the effectiveness of these measures, we are working to strengthen safety management at the divisional level, focusing particularly on specified "top-priority workplaces," where statistically many accidents occur.

Health-related activities include



An annual meeting of health, safety and environmental personnel. The 2010 meeting was held at the SMM Strategy Planning Training Center.

ascertaining the situation in regard to dust, lead, noise and specified chemicals within work environments, making improvements to those environments where necessary, and working to enhance occupational health management.

### Occupational Health and Safety Management Frameworks

The executive officer with jurisdiction over the Safety & Environment Control Department, who takes responsibility for matters relating to health, safety and the environment, coordinates health and safety management for the SMM Group.

The general manager of each workplace is appointed health and safety manager for that workplace, as provided for under the Japanese Industrial Safety and Health Act. Health and safety management is advanced within the organization according to instructions given by the general manager.

Constructive discussion on ways to improve health and safety in the workplace takes place during meetings of occupational health and safety committees comprising representatives from both labor and management.

### Health and Safety Activities in the Workplace

Each workplace carries out initiatives relating to health and safety based on annual targets for the SMM Group set for each of those areas.

Safety-related activities during 2010 were pursued under the following themes.

- (1) Implementation of safety audits by general managers of workplaces
- (2) Implementation of hazard simulation training at the Oji-kan facility
- (3) Strengthening of education for less-experienced employees<sup>1</sup>
- (4) Implementation of rank-based education
  - Plant general managers and group company presidents: Education for top management
  - Managers and supervisors: Work observations
- (5) Minimizing risk through risk assessments

Other priority safety initiatives implemented by individual workplaces,

with top management leading by example, include safety evaluations by top management, learning from close-call events, and hazard prediction training. Safety activities are advanced by employees of the Group together with manufacturing partners.

Health-related activities during 2010 were pursued under the following themes.

- (1) Steady implementation of work environment improvements
- (2) Protective equipment usage management and upkeep
- (3) Enhanced awareness of, and provision of adequate information on, the dangers and hazards of chemical substances
- (4) Management of chemical substances for which regulations have been tightened
- (5) Care as part of health management (e.g. health guidance for employees showing signs of conditions)
- (6) Promotion of the four cares relating to mental health

As an initiative relating to occupational illnesses, dust, lead, noise, specified chemicals and other parameters are measured on a regular basis each year and controls are in place for each parameter.

A labor-management agreement pertaining to dust, computer-related illness, lead and noise sets forth procedures for preventing illness and taking action when illnesses occurs. And in December 2010, stricter regulations were placed on indium tin oxides (ITO) after a revision to guidelines. Work environments will be improved and health



Safety education for top management. Lecturer Noboru Furusawa (former senior manager for health and safety promotion at Toyota Motor Corporation) is an expert on safety and support for human resources development.

examinations implemented in accordance with the new guidelines.

1. **Less-experienced employees:** Employees with less than five years' experience

### Mental Health Care

Initiatives relating to mental health care for employees include mental health care training by specialized institutions and health-level self checks. We have also enabled health consultations at any time via telephone or website to provide mental health care for employees and their families.

Self-care initiatives were continued in FY2010. Practical training, principally involving role playing, was implemented for managers and supervisors to enhance care of employees within the organization, while basic courses were provided for regular employees. A "return to work trial" system was also implemented to help employees settle back into work life. We are also nurturing in-house mental health care specialists by having human resources personnel obtain industrial counselor qualifications.

In FY2011, we will continue to improve upon the four cares—care provided by the organization, self-care, care provided by health staff, and care provided by outside institutions.

### Incidence of Occupational Accidents

The total number of accidents at workplaces in Japan had remained around 30 accidents since 2006, but the figure fell to 14 in 2009, our best safety performance ever. In 2010, however, the figure increased to 19. There were 17 accidents at overseas workplaces. No fatal accidents occurred at workplaces in Japan or overseas. Note that this data is based on the calendar year, January to December 2010. No occupational illnesses occurred at workplaces in Japan or overseas.

### Activities at the Oji-kan Facility

The Oji-kan, the SMM Group's experience-based training facility, opened in October 2009 and commenced hazard simulation courses for SMM Group employees in January 2010. Courses for employees of manufacturing partners in the Niihama district commenced in April 2010.



Hazard simulation training (picture: entanglement simulation) at the Oji-kan facility

Participants have even come from Coral Bay Nickel Corporation, a group company in the Philippines. As of March 31, 2011, 1,769 SMM Group employees have participated in hazard simulation training, and 837 manufacturing partner employees have undergone training at the facility since courses began.

Tours of the Oji-kan facility are also provided to other corporations and outside organizations. More than 300 people from over 40 such corporations and organizations have visited the facility since its establishment.

### Issues and Targets

Outstanding safety issues are the fact that less-experienced employees were involved in around 50% of all accidents occurring during 2010, and the fact that around 60% of accidents in 2010 occurred at top-priority workplaces, despite these being improvements. Many accidents were accompanied by unsafe activities which have become difficult to discover using existing 3S<sup>2</sup>-oriented patrols.

In 2011, therefore, we will endeavor to reduce the number of accidents involving less-experienced employees by enhancing work procedure education and education for less-experienced employees at each workplace, including re-education at suitable milestones, and by improving their sensitivity to danger through hazard simulation training at the Oji-kan facility. At top-priority workplaces, we will strengthen guidance with division general managers and the General Manager of the Safety & Environment Control Department conducting routine patrols to check that instructions from top management at each workplace have reached the front line of operations and

identify areas where safety activities are insufficient. The effectiveness of safety activities will also be improved through safety audits by top management at each workplace and implementation of the PDCA (Plan–Do–Check–Act) cycle, in particular C and A. In terms of safety education, we will implement safety training and work observation training intended to enhance the capabilities of managers and supervisors, who are particularly crucial to safety in front-line operations. Hazard simulation training for developing hazard prediction skills will also be implemented at the Oji-kan facility on an ongoing basis for the entire SMM Group.

In the area of health, we will enhance mental health education for regular employees, managers and supervisors, as well as work to identify, and take necessary action on, dangers and hazards of chemicals and other substances while following legislative developments. Health management will continue to be advanced through implementation of health guidance, consultation and education by industrial physicians based on health examination results.

2. **3Ss:** *Seiri* (sorting), *Seiton* (setting in order) and *Seiso* (sweeping and scrubbing)

### Data on occupational accidents in Japan

Year		SMM	Group companies	Total
2010	All accidents	8	11	19
	Lost time accidents	2	3	5
	Working days lost	98	27	125
2009	All accidents	5	9	14
	Lost time accidents	3	1	4
	Working days lost	453	1	454
2008	All accidents	12	16	28
	Lost time accidents	2	4	6
	Working days lost	12	12	24
2007	All accidents	11	17	28
	Lost time accidents	2	3	5
	Working days lost	183	104	287
2006	All accidents	10	17	27
	Lost time accidents	3	2	5
	Working days lost	45	78	123

\* Scope: SMM, subsidiaries in Japan, Nippon Ketjen Co., Ltd., N.E. Chemcat Corporation, and the Mie District Div. of Mitsui Sumitomo Metal Mining Brass & Copper Co., Ltd.

\* No fatal accidents have occurred at SMM or a group company since 2004.

# Relations with Society

## Basic Approach

The SMM Group has long been contributing to local communities while advancing its business, not only by securing housing for employees and their families, but also by supporting a wide range of areas such as health care, education and culture. We have also shown concern for regional environments. The Group continues to incorporate consideration toward local communities into activities today in line with the SMM Group Corporate Philosophy and Management Vision, and the CSR Policy. Due deliberation is made during meetings of various kinds to ensure that decisions made within various projects do not act counter to SMM Group policy or philosophy.

## Impact on Local Economies

To achieve co-existence with the local community, business facilities where SMM Group activities have a considerable impact on the local economy contribute to the community in a variety of ways, for example through considerations in supplier selection and employment.



Housing provided by CBNC to local indigenous people

The Pogo Mine, for which operatorship was acquired in 2009, procures materials and equipment from some 185 suppliers in Alaska, and the total value of those transactions is around US\$59 million a year. Recommendations to employees that they move residence to Alaska were also made and now roughly 62% of around 300 employees live in Alaska. We have also promised ongoing financial assistance to the city of Delta Junction, the closest municipality to the mine. In 2010, we provided US\$70,000 to help fund training of the city's rescue and fire fighting teams and emergency response frameworks. An additional US\$10,000 was donated toward events to mark the city's 50th anniversary in 2010.

At Coral Bay Nickel Corporation (CBNC) in the Philippines, we will again donate

funds to schools and provide assistance for construction of nearby housing this year. The percentage of CBNC employees hired locally is 54%.

## Human Rights Considerations When Making Investments

When making investments or equity contributions, the SMM Group confirms the absence of intrinsic issues relating to human rights such as discrimination, forced labor or child labor. Projects are also screened for risks during the decision-making process using check sheets. Continued monitoring is conducted after the investment or equity contribution, for example through board meetings of the company invested in. If an issue arises, we will demand its resolution.

In FY2010, five investments required decisions by management. It was confirmed that no human rights issues existed in relation to these investments.

## Starting/Ceasing Operations

When starting up business in, or withdrawing from, a region, the SMM Group adheres to company regulations by discussing and determining in the Management Committee or similar meetings how to respond to political and economic risks, risks to humans, and other risks relating, for example, to region-specific diseases, employment, labor disputes and other labor issues, religious constraints, and border disputes. If a risk actualizes, we will clearly identify the causes and take swift action. The SMM Group requires serious matters at any business facility, subsidiary, or affiliate to be discussed.

## Mine Closure Plans

Taking into consideration the treatment procedures that must be carried out once the mining is finished, the SMM Group makes an effort to minimize the impact on the environment during the mine

### CBNC Social Development and Management Program

Coral Bay Nickel Corporation (CBNC) and Rio Tuba Nickel Mining Corporation (RTN) have jointly established Rio Tuba Nickel Foundation, Inc. through which we run a social development and management program to support the local community. Over the seven years from 2004, CBNC has contributed 375 million pesos to the fund—45% above the legal requirement. The program is renewed every five years, a process that involves discussion among representatives of RTN and CBNC, government officials, and heads of regional mining authorities and local bodies, as well as leaders of various groups, including women, elderly, youth and religions. Allocation of funds is determined through consensus by all participants.

Through the program, we deliver support

for the establishment of hospitals and schools, provision of scholarships, and provision of housing for local indigenous people and strengthening of fishing, agriculture and farming industries of indigenous communities at the commercial level. Besides the social development and management program, CBNC also runs an independent project for establishing local water supply.

These initiatives will ensure that communities are sustainable even if CBNC were to cease operations at some time in the future.

**Arturo T. Manto**  
Vice President, Environment & External Affairs  
Coral Bay Nickel Corporation



development stage. When actually closing a mine, procedures are advanced in a proper manner in keeping with the Sumitomo Business Spirit and the SMM Group Code of Conduct. At mines in which SMM has more than a 50% interest, we draw up suitable plans once closure of the mine is foreseeable. Closure formalities and management are carried out according to the laws of the country in question.

Future environmental considerations at the Hishikari Mine include shaping spoil heaps into slopes, then covering them with soil if necessary and spraying with seed to create vegetation. The costs for such activity are covered by reserves put aside for the purpose of mine pollution control in line with Japanese law. The Pogo Mine in the United States falls under Alaskan state law, which requires sites to be covered in soil and revegetated after all mine facilities have been removed. The law stipulates remedial programs required and to what extent they are required, water quality parameters to be monitored, as well as the costs required for remedial work and revegetation of the developed land.

SMM Group employees who used to work at the Besshi Copper Mine and other Japanese mines now closed have been transferred to other facilities or given assistance in finding new jobs.

### Involvement with Local Communities

Agreements are entered with communities in line with the law at the Pogo Mine and other mines and smelters or refineries in which the SMM Group has more than a 50% interest.

At the Hishikari Mine, pollution prevention meetings are held twice a year. In FY2010, budget briefings were held in April and September.

As part of the process of obtaining a permit for the Pogo Mine, "G2G consultations" were undertaken by the Alaska state government. This involved providing explanations about the project to, and gathering opinions from, communities located within a radius of

over 200km from the Pogo Mine, in particular 13 indigenous communities within the Tanana River basin. Communication with local citizens has continued on a regular basis even after the commencement of operations. During 2010, briefings on operations were provided at Stakeholder Meetings in February and October, and the Annual Agency-Public Meeting in April. A proposal by the mine to increase the frequency of Stakeholder Meetings to once a quarter in order to raise understanding of operations through proactive communication has been accepted. So far, there have been no pending issues resulting from complaints from indigenous communities in the area surrounding the Pogo Mine or other mines and smelters or refineries in which the SMM Group has more than a 50% interest.

### Examples of Communication with NGOs

The SMM Group engages in regular communication with all kinds of stakeholders at each place of business. Opinion exchange with international environmental NGO Friends of the Earth Japan (FoEJ) was continued in FY2010. We also exchanged views with FoEJ, international youth environmental NGO A SEED JAPAN (ASJ), and Amnesty International Japan regarding their joint efforts to resolve resources development issues.

The exchange commenced with a briefing from ASJ about current issues and United States regulations on conflict minerals, after which SMM responded to questions from the three organizations. Representatives of SMM's Mineral Resources Division participated in the exchange and provided an overview of SMM Group operations along with an explanation of current resources development activities and our approach to issues. We believe we were able to deepen understanding of each other's positions. SMM intends to continue this kind of communication activity.

### Response to Emergencies

Emergency drills are conducted at all business divisions in line with our risk management system.

Shisaka Smelting carries out earthquake drills, conducted under the scenario of a magnitude 7 earthquake. During the drills, a response headquarters is set up after evacuation is carried out once the shaking stops. After confirming the safety of employees, the response headquarters then surveys related facilities for damage. Because Shisaka Smelting handles hazardous items like heavy fuel oil and sulfuric acid, a spill on company premises caused by an earthquake is envisaged in order to test containment measures. Deployment of oil fences is also tested under the assumption of a release into the ocean, and fire extinguishing drills are conducted under the scenario of a fire caused by an earthquake.

Meetings are subsequently held to reflect on drills, identify outstanding issues, and review emergency response procedures in order to make continual improvements.



A roll call as part of a safety confirmation drill



Earthquake response headquarters drill

### Relocation of Local Citizens

Hishikari Mine and Pogo Mine are excavated using underground mining techniques involving the digging of drifts in the ground, which means the impact on the surface is relatively low. Even still, 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 approval and understanding of local citizens and offer alternative land. At the Hishikari Mine, we requested and carried out relocation of three households. No citizens had to be relocated for development of the Pogo Mine.

Under the nickel refining project being advanced in the Taganito district of northeastern Mindanao Island in the Philippines, aiming for a start of operations in 2013, we asked 41 households in areas to be affected by operations to relocate to make way for construction of a plant. A relocation plan was formulated and implemented in line with the World Bank's Operational Directive on Involuntary Resettlement. Relocation of all citizens was completed by November 2010 after they agreed to the terms. As well as contributing to health improvements with citizens relocating to newly constructed houses nearby, we are implementing ongoing measures to support the sustainability of citizens' lifestyles, for example through technical assistance for crop cultivation in their new places of settlement.



A ceremony in Taganito for the signing of an agreement on relocation of citizens

### Artisanal and Small-Scale Mining

As of September 2011, there were no cases of artisanal and small-scale mining (ASM) in regions where SMM operates. Nor did SMM have any programs for involvement in ASM.

### Social Contribution Activities

The SMM Group carries out a wide range of social contribution activities in Japan and overseas. Since FY2008, the Corporate Citizenship Subcommittee within the CSR Committee has been deliberating on specific social contribution measures suitable for SMM, which is aiming to become "a company respected for its social contribution," as expressed in the CSR Vision for 2020. SMM is looking to integrate social contribution activities into its business activities, which are undertaken throughout the world.

We have identified the following key areas for social contribution by the SMM Group for the period to 2020.

- (1) Continuation and expansion of current activities contributing to local communities
  - (2) Ongoing social contribution activities
  - (3) Increasing employee awareness of, and participation in social contribution activities
- To achieve this, initiatives centering on the four areas below were implemented in each location during 2010.
- (1) Support for nature and the environment
  - (2) Support for culture, education and welfare
  - (3) Maintenance and development of harmonious relationships with local communities
  - (4) Voluntary social contribution activities by employees

### Major donations in FY2010

- Additional contribution to Sumitomo Foundation funds (May)
- Donations following foot-and-mouth disease outbreak in Miyazaki Prefecture (June)
- Donation to a Japanese NPO promoting support for provision of work opportunities for past offenders (July)
- Grant to research activities of the Tokyo Center for Economic Research (July)
- Support for the Museo Amano's fund for excavating the Las Shicras archaeological site (August)
- Donation to International Institute for Mining Technology (February)
- Relief assistance for victims of flooding in Queensland, Australia (March)
- Relief assistance for victims of the Great East Japan Earthquake (March)

### Social Contributions by Individual Facilities

#### Participation in Seto Inland Sea and Uwa Sea clean-up campaign

Each year, Sumiko Logistics carries out clean-up activities in the sea around Niihama Port, Ehime Prefecture. This is in support of a clean-up of the Seto Inland Sea and Uwa Sea implemented by Japan's 6th Regional Coast Guard Headquarters from June 1 to 30, the aim being to preserve the marine environment and ensure "blue seas for future generations."

In FY2010, work vessel Hiuchi was used to collect marine litter inside the port. One flexible bulk bag\* (approx. 1m<sup>3</sup>) of litter was collected. The majority of litter consisted of items originating from the lifestyles of humans, including PET bottles, plastic/nylon items, empty cans,



Collection of marine litter using work vessel Hiuchi

and shopping bags which had flowed out of rivers during rainy weather. On Marine Day, in July 2010, Sumiko Logistics received a certificate of appreciation from the Japan Coast Guard Association in recognition of these activities.

Sumiko Logistics will continue these painstaking efforts to ensure that our precious blue seas remain for future generations.

\* **Flexible bulk bags:** Bags usually used for storing powders and grains.



Collection of marine litter from the shore

### Participation in Shonan district “no private car” commuting initiative

Nittosha participates every year in a “no private car” commuting initiative, a local environmental preservation activity. Local authorities and private businesses in the Shonan district (an area stretching from Ninomiya to Fujisawa in Kanagawa Prefecture) participate in the initiative, which aims to spread the philosophy of living in sustainable co-existence with the environment by having people who usually commute by private car switch to public transport or other commuting means, and as a result alleviate traffic congestion and curb vehicle exhaust emissions. Specifically, private car commuters participate voluntarily by opting to commute by train, bus, other public transport, bicycle, or on foot on one day during the 10-day event. In FY2010, around 2,000 people from 65 government offices and 70 places of business took part.



Commuters during the “no private car” commuting initiative

The initiative is a great opportunity for participating employees to consider environmental preservation in their own community, and commuting under their own power even helps put an end to days of low levels of exercise. Nittosha will continue participation in this initiative as a way to raise employee awareness about environmental preservation.

### Main organizations in which SMM has membership

Organization	Responsibilities of SMM officers and employees	Initiatives relating to public policy
Nippon Keidanren	Participation in Committee on Industrial Technology, Committee on Risk Management, Committee on Canada, Committee on Economic Policy, Committee on Economic Law, Committee on Environment and Safety, Committee on Oceanic Resources, Committee on International Cooperation and Committee on China	
Japan Mining Industry Association	Chairman, 1 director; participation in committees relating to planning and coordination, energy, overseas development, environmental management, customs duties, funds, supply and demand, taxation, exploration and development, mining reserves (chairman and deputy chairman), and sulfide ore and sulfuric acid	Discussing current conditions and upcoming challenges of Japan's non-ferrous metals industry and annually compiling petitions relating to public mining policy (policy strengthening and establishment) with the aim to strengthen medium to long-term business infrastructure responsive to major internal and external environmental changes; making suggestions to the government regarding the non-ferrous metals industry via the association
The Sulphuric Acid Association of Japan	1 director; participation in Operations 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)	Participation in Materials Stewardship Task Force, Health and Safety Task Force, and Environmental Stewardship and Biodiversity Task Force	<ul style="list-style-type: none"> <li>• Creation of tools and guidelines for application in social and environmental sectors and promotion of best practices</li> <li>• Creation of SAICM action plan (MMM 2020) as initiative on chemicals management</li> <li>• IUCN-ICMM dialogue (biodiversity)</li> <li>• Active involvement in EITI</li> <li>• Suggestions on methods for utilizing resources in developing society in developing nations</li> <li>• Global warming countermeasures</li> </ul>
Japan Society of Newer Metals	Directorship and participation in Bonding Wire Working Group and Target Working Group	Hearings with government in relation to policy (rare metal reserve issues, etc.)
Japan Electronics and Information Technology Industries Association (JEITA)	Participation in Electronic Components Board and Electronic Materials Committee	Studies on tasks and regulatory revisions required for Japan to make progress in electronic equipment and electronic components industries, and submission of written opinions to the government
Japan LED Association (JLEDS)	Participation in Technology and Standardization Committee	
Battery Association of Japan	Associate member	
Japan Powder Metallurgy Association (JPMA)	Directorship and participation in MIM Committee	

### Involvement with the International Community

#### ICMM Membership

The International Council on Mining and Metals (ICMM) aims to provide leadership on sustainable development initiatives for the mining and metal refining industries.

The SMM Group reflects the ICMM's 10 Principles in its CSR Policy and issues reports in line with the GRI guidelines, as is required of all member companies. As a corporate member, we also carry out a variety of initiatives, including ensuring conformance with position statements adopted for the 10 Principles.

SMM's three core businesses are mineral resources, smelting and refining, and materials. In mineral resources and smelting and refining businesses, our aim is to stand on an equal footing with non-ferrous metals industry majors (large mining and metal refining companies), and thus we are pushing ahead with mineral exploration activities overseas and bolstering investment in existing mines. Seeking greater opportunities for operating on the global stage, SMM hopes to contribute to the development of mining and metal refining industries in harmony with society. (See page 5)

#### Declaration of Support for the EITI\*

The Extractive Industries Transparency Initiative (EITI) is an organization aiming to promote social and economic development in countries which produce mineral resources by ensuring that money, such as taxes paid to governments from corporations that extract mineral resources, flows back into those countries or regions.

It is sometimes the case in resource-rich countries, where societal and economic development is often stagnant, that revenues generated by resources are not invested effectively in the country's development, leading instead to problems such as poverty, conflict and corruption.

These are global issues, and advanced nations and corporations are being called upon to play a part in resolving them. SMM agrees with the objectives of the EITI and supports its activities.

#### ICMM Position Statements

ICMM has adopted the following position statements to complement the 10 Principles. SMM follows through on these position statements.

\* The position statements below are summarized versions of statements issued by ICMM.

1. Transparency of Mineral Revenues
  - Support for the Extractive Industries Transparency Initiative (EITI)
2. Policy on Climate Change
  - Work to reduce greenhouse gas emissions
3. Mercury Risk Management
  - Carry out responsible management of mercury
4. Mineral Resources and Economic Development
  - Contribute to economic development and poverty reduction in resource-rich countries
5. Mining and Protected Areas
  - Undertake not to explore or mine in World Heritage properties
6. Mining and Indigenous Peoples
  - Respect indigenous peoples and their rights
7. Mining: Partnerships for Development
  - Enhance mining's social and economic contribution

#### The EITI 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.
10. We believe that a broadly consistent and workable approach to the disclosure of payments and revenues is required, which is simple to undertake and to use.
11. We believe that payments' disclosure in a given country should involve all extractive industry companies operating in that country.
12. In seeking solutions, we believe that all stakeholders have important and relevant contributions to make—including governments and their agencies, extractive industry companies, service companies, multilateral organisations, financial organisations, investors, and nongovernmental organisations.

\* EITI: <http://eiti.org/>

# Relations with Shareholders and Investors

## Basic Approach

SMM makes an effort to carry out fair and understandable disclosure of information required for investment to existing shareholders and parties thinking about purchasing SMM shares. Information might cover business activities, performance, financial matters, medium-to-long term visions, growth strategies, important facts, future activities, and risk. To serve as a set of guidelines for adequate engagement in IR activity, we have formulated an IR policy, setting down standards of information disclosure and disclosure methods. The policy is available for public viewing on the company website.

Corporate governance refers to the frameworks in place which give order to corporate activity for the purpose of maximizing the value of the corporation and ensuring sound business. SMM views corporate governance as one of the most important management themes. We work to build and maintain an optimal system of business administration, pursuing transparency and efficiency of management in order to continue being a company that earns the trust of shareholders and all other stakeholders, and meets their expectations.

## Investor Relations

### Communication of Issues and Targets to Institutional Investors and Securities Analysts

SMM routinely implements the following IR activities: Business Strategy Progress Briefing Session by the president to explain business strategies to institutional investors (twice yearly, after full-year and second quarter settlements of accounts); and earnings briefings via telephone for institutional investors and analysts (four times a year, for each quarterly settlement).

In addition, around 400 individual meetings with institutional investors and securities analysts were held in FY2010. We also pay visits to institutional investors to talk with personnel responsible for governance and exercising of voting rights.



Business Strategy Progress Briefing Session

### Communication with Individual Investors

SMM focuses on use of the company website as a method for communicating with individual investors. IR information was made more accessible through an upgrade of the website in May 2011. We want the website to be a place where investors can come to obtain a wide range of information, including materials used for briefings to institutional investors, CSR Reports, and Annual Reports.

We also respond to telephone inquiries from individual investors relating to business and management, which is a

valuable opportunity for communication. In the twice-yearly Report for Shareholders (Japanese only), we make a point of conveying information in a straightforward manner to promote understanding about SMM business conditions among individual investors.

## Feedback from Shareholders and Investors to Management

Opinions and requests received through communication with institutional and individual investors in Japan and overseas are regularly reported to management and applied to administration of the company.

### General Meeting of Shareholders

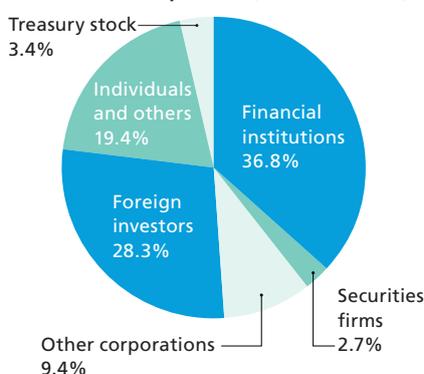
The General Meeting of Shareholders is an opportunity to engage in communication with shareholders. Efforts are being made to invigorate the meeting, for example by providing early notice of meetings, and through the use of electronic voting.

SMM aims for a general meeting that shareholders can follow easily, using methods such as incorporation of video into presentations on business performance. Notices of meetings and reports are available on the SMM website.

## Issues and Targets

By continuing to enhance IR activities, we aim to promote greater understanding of SMM's business affairs among more people. We will also work on creating a more meaningful "IR Information" section on the company website, and endeavor to create numerous opportunities for learning more about SMM through communication of necessary information via mass media.

### Shareholder composition (March 31, 2011)



# Relations with Suppliers

## Basic Approach

A large number of suppliers<sup>1</sup> support the operations of the SMM Group. They include suppliers of various ores and intermediate materials; suppliers of ancillary materials, fuel and other materials used for operations; manufacturers of machinery, equipment and plant facilities; and contractors. In the SMM Group, we believe it is important to build relationships with these suppliers based on fairness and mutual faith, enabling mutual prosperity over the long term.

The SMM Group Code of Conduct calls for group companies to fulfill their collective responsibility toward business partners by striving to be “a company demonstrating enormous technological capability and integrity while placing value on trust and with which mutual prosperity can be gained” and stipulates engagement in “free and fair transactions carried out under conditions of propriety” as the Group’s stance on purchasing activities.

1. At SMM, raw materials procurement is performed by individual business divisions while procurement of equipment and materials for operations (including ancillary materials) is performed by the Purchasing Dept.

## Supplier Selection

Suppliers are selected in line with our regulations on materials. The following criteria are taken into account.

- (1) Credit rating
- (2) Level of technology
- (3) Condition and capacity of equipment
- (4) Delivery date certainty and flexibility in abnormal circumstances
- (5) Willingness to cooperate with SMM

When engaging in business for the first time, a materials transaction notice is sent to the supplier who submits a letter of intent after confirming SMM’s policy and approach.

The Purchasing Department is in contact with around 4,000 suppliers. Basic transaction agreements are entered into with suppliers with whom transactions of a certain size are expected on an ongoing basis (354 companies as of March 2011).

Suppliers who enter a basic transaction agreement are asked to respond to a supplier survey once every three years.

Although agreements and supplier surveys do not touch upon human rights, SMM does recognize observance of human rights by suppliers as an important criterion. In FY2010, we conducted a human rights questionnaire, in line with the SMM Group Policy on Human Rights established in August, targeting 16 suppliers of parts and ancillary materials contained in SMM products that could potentially impact the supply chain—SMM, customers or consumers. Through questionnaires we confirm: (1) basic policies relating to respect for human rights; (2) human rights initiatives; and (3) frameworks for promoting human rights. Follow-up visits to suppliers are implemented where necessary in order to confirm actual conditions and conduct hearings. One supplier was visited during FY2010 and it was confirmed there were no problems with the supplier’s initiatives relating to human rights.

## Communication with Suppliers

Smooth communication with suppliers on a day-to-day basis is vital for gaining an accurate grasp of suppliers’ opinions and requests, and trends within particular industries, as well as for exchanging information relating to process improvements and new technologies. Divisions in charge of procurement engage in this kind of dialogue daily based on friendly relationships the SMM Group has built up over the years with suppliers.

## Consideration for Local Communities

Procurement is one aspect of the SMM Group’s business operations which benefits local economies. We undertake procurement in local communities according to the company’s purchasing classifications.

The Niihama district, as our main business center, has always supported our business and we have developed in tandem with the community. We contribute to local development through procurement wherever the Group operates.

The proportion of payments made to local suppliers in FY2010 was 41% (¥5.54 billion) for the Niihama district.

## Issues and Targets

Major issues facing the Purchasing Department include maintaining friendly relationships by coordinating with suppliers on CSR promotion and raising the quality of management on both sides.

In regard to human rights, in particular, we make a point of staying informed about suppliers’ initiatives in accordance with the SMM Group Policy on Human Rights. As an immediate objective to be completed over two years from FY2011, we will confirm initiatives of the 15, out of 16, suppliers we did not conduct plant visits or hearings for following the human rights questionnaire in FY2010.

## Initiatives by Divisions

### Establishing a System for Supply Chain Management

The Advanced Materials Division views maintenance and operation of a system for supply chain management as its corporate responsibility and an important part of business administration.

Society's needs change with the times and suppliers, in terms of their technical expertise and facilities, for example, may not always fit the division's requirements. And needless to say, industry trends and opinions of suppliers must be taken into account when we engage in transactions.

The Advanced Materials Division maintains ties with suppliers through ongoing, two-way communication. In regard to environmental preservation in particular, the division asks suppliers to complete surveys about chemical substance management, acquisition of environmental certification, progress on energy and resource savings, and waste reduction, and also shares environmental preservation initiatives in which it is involved.

### Initiatives Relating to Conflict Minerals

The Democratic Republic of the Congo and surrounding countries produce large amounts of elements like gold, tin and tantalum. Rebel forces and other armed groups use these resources as a major source of funds, thereby expanding and prolonging conflicts.

Besides requesting nations to ban arms exports to countries involved in conflicts, the international community is trying to stem conflict with ever stricter demands, such as asking the mineral resources industry to boycott minerals sold by armed groups.

Laws and other regulations are also being put in place. In the United States, the Dodd-Frank Wall Street Reform and Consumer Protection Act became law in

July 2010. The act defined specific minerals produced in applicable countries or regions as "conflict minerals" and obligated corporations listed on American stock exchanges to report to the Securities and Exchange Commission (SEC) on use of conflict minerals.

In the electronics industry, which uses large amounts of elements like tantalum and gold for mobile phones and PCs, major corporations have led formulation of the Electronic Industry Code of Conduct (EICC). The code asks companies, when procuring raw materials, to go beyond legal compliance and promote compliance with global standards on social responsibility relating to such areas as labor conditions and employment practices, healthy and safety, job ethics, and environmental protection.

Given the above circumstances, the SMM Group agrees with and declares support for the principles of the Extractive Industries Transparency Initiative (EITI)<sup>2</sup>, and is working to improve transparency among raw materials suppliers.

2. See page 56 for more information on the EITI.

### Risk Assessments and the 550 Rules for Safety

Sumitomo Metal Mining Engineering strengthened occupational health and safety initiatives following a fatal accident in 2007 within a manufacturing partner's operations.

The company established 550 Rules for Safety, putting in place an education framework for manufacturing partner site representatives and workers. The objective of the program, which requires full participation by employees, is to ensure that all workers are able to return home safely every day after work.

The following are factors in accidents occurring within manufacturing partners' operations.

(1) Revisions to laws or rules are not communicated well enough to

workers, and past accidents and close calls, as well as safety instructions, are not acted upon.

(2) Varying levels of safety awareness among workers of contractors stationed on company premises (approx. 2,000 workers) lead to recurrence of the same unsafe activities and conditions.

The 550 Rules are divided into general rules, healthy and safety standards, and special standards, and are reviewed annually. At SMM Engineering, supervisors who give commands at operating sites undergo revised education programs each year and are required to pass exams to confirm their understanding. To uphold a policy of not letting workers work if they don't know the rules, a program for certifying task supervisors, who are key to site safety, has been introduced to strengthen safety guidance for employees. And in February 2008, an education program was implemented for all workers.

Risk assessments (to identify the hazards and dangers of tasks) have also been introduced to minimize accident risk by making workers think about risks in advance together with manufacturing partners. Under a policy of having all manufacturing partners engage in safety measures, project safety plans are prepared and checked by outsourcers, contractors and task supervisors prior to the start of a project. Risk-based hazard prediction is also pursued on site.



Education program for task supervisors (monitors)

# Independent Assurance Report



## Independent Assurance Report

To the President & Representative Director of Sumitomo Metal Mining Co., Ltd.

### Purpose and Scope

We were engaged by Sumitomo Metal Mining Co., Ltd. (the "Company") to provide limited assurance on its CSR Report 2011 (the "Report") for the fiscal year ended March 31, 2011. The purpose of our assurance engagement was to express our conclusion, based on our assurance procedures, on whether:

- the environmental, social and economic performance indicators listed in the table below (the "Indicators") for the period from April 1, 2010 to March 31, 2011 included in the Report are prepared, in all material respects, in accordance with the Company's reporting criteria;
- the Company's self-declaration on the Global Reporting Initiative ("the GRI") application level (A+) conforms to the application level criteria stipulated by the GRI;
- the Company's policies are aligned to the International Council on Mining and Metals ("ICMM")'s 10 Sustainable Development ("SD") Principles and the applicable mandatory requirements set out in ICMM position statements as described on pages 5 and 56;
- the Company has identified and prioritized its material issues as described on page 1; and
- the Company has approached and managed its material issues as described on pages 10 to 15.

The content of the Report is the responsibility of the Company's management. Our responsibility is to carry out a limited assurance engagement and to express our conclusion based on the work performed.

Items	pages	Indicators assured
Regulatory Compliance	26	Recipients of compliance education
Strengthening Economic Ties with Stakeholders	29	Distributed economic value, Financial assistance from the government, Projected benefit obligation to be funded by pension assets and pension assets available for allocation to that obligation
Material Flows within Business Activity	31	INPUT (Raw materials, Materials, Recycled materials, Energy, Water usage), OUTPUT (Products, Emissions into the atmosphere, Emissions into water, Waste)
Initiatives for Reducing Environmental Impact	33	Volume of SOx emissions, Volume of NOx emissions, Volume of soot and dust emissions (domestic), COD and BOD, Total PRTR substance release and transfer volume
Initiatives for Effective Use of Resources	35	Recycled materials (in weight and ratio), Final disposal volumes of industrial and mining waste, Water usage (freshwater/seawater), Volume of waste (harmful/harmless)
Initiatives in Global Warming Control	37	Unit energy consumption index and CO <sub>2</sub> emissions
Environmental Considerations in Areas of Business	38	Size of production site in areas of high biodiversity value, Area of land developed and revegetated
Relations with Employees	44	Numbers of employees/officers, Number of employees/officers in each region, Consolidated employee breakdown
	45	Disabled employee ratio (SMM non-consolidated), Numbers of locally-hired senior managers
	46	Employee turnover (departures and turnover rate)
	47	Total annual hours of education
	48-49	Number of companies with workers' unions, Percentages of employees belonging to workers' unions
Relations with Society	51	Numbers of occupational accidents (all accidents, lost time accidents and working days lost) in Japan
	52	Number of investments which have undergone human rights screening
Relations with suppliers	54	Names of sites requiring relocation of households and number of households relocated
	58	Number of suppliers subjected to human rights questionnaire, Number of suppliers visited, Payments made to local suppliers

### Criteria

The Company applies its own reporting criteria as described in the Report. These are derived, among others, from the Sustainability Reporting Guidelines version 3.0 of the GRI and Environmental Reporting Guidelines of Japan's Ministry of the Environment. We used these criteria to evaluate the Indicators. For the GRI application level, we used the criteria stipulated by the GRI.

### Procedures Performed

We conducted our engagement in accordance with 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines of Sustainability Information Assurance' of J-SUS.

The limited assurance engagement on the Report consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviews with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report.
- With respect to the Indicators,
  - Reviews of the Company's reporting criteria.
  - Inquiries about the design of the systems and methods used to collect and process the Indicators.
  - Analytical reviews of the Indicators.
  - Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and also a recalculation of the Indicators.
  - Visit to Hyuga Smelting Co., Ltd. selected on the basis of a risk analysis.
  - Evaluating the overall statement in which the Indicators are expressed.
- Evaluating the Company's self-declared GRI application level against the application level criteria.
- An assessment of the alignment of the Company's policies to the ICMM's 10 SD Principles and the applicable mandatory requirements set out in ICMM position statements through documentation reviews and interviews.
- Interviews and documentation reviews of the Company's process of identifying and prioritizing its material issues.
- Interviews and documentation reviews of the Company's approach to and management of its material issues.

### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that:

- the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report;
- the Company's self-declaration on the GRI application level does not conform to the application level criteria stipulated by the GRI;
- the Company's policies are not aligned to the ICMM's 10 SD Principles and the applicable mandatory requirements set out in ICMM position statements as described on pages 5 and 56;
- the Company has not identified and prioritized its material issues as described on page 1; and
- the Company has not approached and managed its material issues as described on pages 10 to 15.

We have no conflict of interest relationships with the Company that are specified in the Code of Ethics of J-SUS. We conducted our engagement with a team with expertise in environmental and social aspects as well as assurance engagements.

*KPMG AZSA Sustainability Co., Ltd.*

KPMG AZSA Sustainability Co., Ltd.  
Tokyo, Japan  
October 20, 2011



As a testament to the reliability of the sustainability information in this report SMM is authorized to attach the following mark, which indicates that the report meets the standards for sustainability report assurance and registration established by the Japanese Association of Assurance Organizations for Sustainability Information (<http://j-sus.org/>).

# Third-Party Opinion

This year's report is evaluated by Mr. Makoto Teranaka, a visiting professor at Tokyo Keizai University and expert on human rights issues who helped formulate the SMM Group Policy on Human Rights.



**Makoto Teranaka**  
Visiting Professor  
Tokyo Keizai University

In June 2011, the United Nations adopted guiding principles for its "Protect, Respect and Remedy" framework for business and human rights. This is an extremely significant step in that it provides a format for businesses and human rights. Corporations around the world are just beginning to review their human rights policies, but we have seen SMM anticipate this trend in its endeavors over the last few years. I find this very reassuring.

Within the Six Key CSR Areas of the SMM Group's CSR Policy, I think special mention must be given to the great progress achieved in establishing the SMM Group Policy on Human Rights. The policy clearly states that the SMM Group will encourage outside parties over which it has influence to help realize a world without human rights infringements. This directly tackles the matter of corporate influence, an important idea that emerged during formulation of the UN's guiding principles. SMM should be proud of its wonderful policy. But now the company needs to develop and implement specific measures relating to how the Group will encourage those over which it has influence to act. I am very interested to see what the action plan will be.

SMM's participation in the International Council on Mining and Metals (ICMM) appears to go beyond mere interaction

with the international community, acting as a driving force behind CSR activity in a number of areas. It is especially significant that SMM has declared support for the Extractive Industries Transparency Initiative (EITI) as in Japan very few companies have done so. The EITI seeks to ensure transparency in the management of supply chains that involve extraction of minerals, but it also incorporates human rights. The stance of taking positive action on poverty, conflict and other issues afflicting the modern world is highly admirable. Nevertheless, the EITI is effective only to a certain extent, and it is NGOs that fill that gap. I therefore sense potential in SMM's decision to start consulting with NGOs trying to tackle the conflict minerals issue. The importance of communication with NGOs was stressed in the Stakeholder Dialogue, too, and I am certain that efforts relating to the EITI will be substantiated through such consultation with NGOs.

Another part where SMM's stance on human rights clearly comes through, and which I was greatly impressed with, was the description of how human rights considerations are incorporated into investment decisions and mine closure plans. However, I think the report should indicate specific procedures taken in line with the SMM Group Policy on Human

Rights during decisions on investments. Corporate responsibility is often questioned in relation to their investments, and SMM might find it wise to clarify the steps taken to point out that the company is taking considerable care.

At present, human rights and human resources development are grouped together within the Six Key CSR Areas. But because SMM tackles human rights issues in a number of areas, perhaps effort should be made to make human rights matters more visible to the reader under a single heading, establishing realistic targets that are relevant to all areas. This might also be a better way to encourage employees to treat human rights as an important issue that concerns them.

I close by bringing attention to the fact that targets for employment of female management track employees were not attained again this year. Having set a target, it is important that reasons for failing to attain it are given along with a description of action taken. I ask SMM to follow through with this.

## Reply to Third-Party Opinion



**Takahito Kusada**  
CSR Executive Officer  
Managing Executive Officer

In the Executive Message of CSR Report 2010, President Kemori said that the main focus of SMM's CSR efforts overseas was human rights and communication. In keeping with that statement, we established the SMM Group Policy on Human Rights and engaged in communication during FY2010.

I am very encouraged by Mr. Teranaka's rating the SMM Group Policy on Human Rights and related initiatives as "great progress."

We also recognize the importance of human rights initiatives. It is now vital that we entrench the policy among employees and look into, then

implement, specific measures for encouraging action by outside parties.

We will also work on ways to make our various human rights initiatives visible to readers of this report.

Employment of female management track employees is a major issue and we will examine strategies that will enable us to attain our targets.

Although there are still many issues outstanding, we will stay aware of society's needs and, through our business, press ahead with CSR activities aimed at achieving sustainable co-existence with society and the global environment.

# GRI Content Index

To show that reports are based upon the GRI Reporting Framework, SMM declares the reporting level using the GRI system of “application levels.” Application levels are classified as indicated in the diagram below.

This report is aligned with the GRI Sustainability Reporting Guidelines, Version 3.0, at an application level of A+. This declaration is covered in assurance provided by KPMG AZSA Sustainability Co., Ltd.

Report Application Level		C	C+	B	B+	A	A+
Standard Disclosures	<b>G3 Profile Disclosures</b> OUTPUT	Report on: 1.1 2.1 - 2.10 3.1 - 3.8, 3.10 - 3.12 4.1 - 4.4, 4.14 - 4.15	Report Externally Assured	Report on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5 - 4.13, 4.16 - 4.17	Report Externally Assured	Same as requirement for Level B	Report Externally Assured
	<b>G3 Management Approach Disclosures</b> OUTPUT	Not Required		Management Approach Disclosures for each Indicator Category		Management Approach Disclosures for each Indicator Category	
	<b>G3 Performance Indicators &amp; Sector Supplement Performance Indicators</b> OUTPUT	Report on a minimum of 10 Performance Indicators, including at least one from each of: social, economic, and environment.		Report on a minimum of 20 Performance Indicators, at least one from each of: economic, environment, human rights, labor, society, product responsibility.		Report on each core G3 and Sector Supplement* indicator with due regard to the Materiality Principle by either: a) reporting on the indicator or b) explaining the reason for its omission.	

\* The Mining & Metals Sector Supplement of the GRI’s G3 Guidelines is used for this report.

Item Profile	Indication	Relevant Page(s)
<b>1. Strategy and Analysis</b>		
1.1	Statement from the most senior decision maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	Executive Message (2-3)
1.2	Description of key impacts, risks, and opportunities.	Executive Message (2-3) Risk Management (27)
<b>2. Organizational Profile</b>		
2.1	Name of the organization.	Overview of Business Operations (6)
2.2	Primary brands, products, and/or services.	Overview of Business Operations (6)
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Overview of Business Operations (6-7)
2.4	Location of organization’s headquarters.	Overview of Business Operations (6)
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Overview of Business Operations (7)
2.6	Nature of ownership and legal form.	Overview of Business Operations (6)
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Overview of Business Operations (6-7)
2.8	Scale of the reporting organization, including: • Number of employees; • Net sales (for private sector organizations) or net revenues (for public sector organizations); • Total capitalization broken down in terms of debt and equity (for private sector organizations); and • Quantity of products or services provided.	Overview of Business Operations (6) Strengthening Economic Ties with Stakeholders (28-29) Material Flows within Business Activity (31)
2.9	Significant changes during the reporting period regarding size, structure, or ownership including: • The location of, or changes in operations, including facility openings, closings, and expansions; and • Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations).	NA
2.10	Awards received in the reporting period.	Examples of Social Recognition (8)
<b>3. Report Parameters</b>		
<b>Report Profile</b>		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	Period covered (1)
3.2	Date of most recent previous report (if any).	Publication date (1)
3.3	Reporting cycle (annual, biennial, etc.)	Publication date (1)
3.4	Contact point for questions regarding the report or its contents.	Enquiries (1)

Item Profile	Indication	Relevant Page(s)
<b>Report Scope and Boundary</b>		
3.5	Process for defining report content, including: <ul style="list-style-type: none"> <li>• Determining materiality;</li> <li>• Prioritizing topics within the report; and</li> <li>• Identifying stakeholders the organization expects to use the report.</li> </ul>	Editorial Policy (1) Our Stakeholders (9)
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	Boundary of the report (1)
3.7	State any specific limitations on the scope or boundary of the report.	Boundary of the report (1)
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	Boundary of the report (1)
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	Material Flows within Business Activity (31) Initiatives for Effective Use of Resources (35) Initiatives in Global Warming Control (37)
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	Initiatives for Reducing Environmental Impact (33) Initiatives for Effective Use of Resources (35) Initiatives in Global Warming Control (37)
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Boundary of the report (1)
<b>GRI Content Index</b>		
3.12	Table identifying the location of the Standard Disclosures in the report.	GRI Content Index
<b>Assurance</b>		
3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	Independent Assurance Report (60) Third-Party Opinion (61)
<b>4. Governance, Commitments, and Engagement</b>		
<b>Governance</b>		
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Corporate Governance (24-25)
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	Corporate Governance (24-25)
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	Corporate Governance (24-25)
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Corporate Governance (24-25) Relations with Employees (49) Relations with Shareholders and Investors (57)
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Corporate Governance (24-25)
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Corporate Governance (24-25)
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	Corporate Governance (24-25)
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Corporate Philosophy for a Sustainable Society (4) CSR Policy (5)
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	The 10 Principles of ICMM (5) CSR Activity Promotion Framework (8) Relations with Society (56)
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	CSR Activity Promotion Framework (8)
<b>Commitments to External Initiatives</b>		
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	The 10 Principles of ICMM (5) Risk Management (27) Environmental Considerations in Areas of Business (38-39)
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	The 10 Principles of ICMM (5) Relations with Society (56)
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>• Has positions in governance bodies;</li> <li>• Participates in projects or committees;</li> <li>• Provides substantive funding beyond routine membership dues; or</li> <li>• Views membership as strategic.</li> </ul>	The 10 Principles of ICMM (5) Relations with Society (55)
<b>Stakeholder Engagement</b>		
4.14	List of stakeholder groups engaged by the organization.	Our Stakeholders (9)
4.15	Basis for identification and selection of stakeholders with whom to engage.	Our Stakeholders (9)

Item Profile	Indication	Relevant Page(s)
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Our Stakeholders (9) Relations with Customers (42-43) Relations with Employees (49) Relations with Shareholders and Investors (57) Relations with Suppliers (58)
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	Our Stakeholders (9) Initiatives in the Six Key CSR Areas (10-15) Relations with Customers (42-43) Relations with Employees (49) Relations with Shareholders and Investors (57) Relations with Suppliers (58)

## 5. Management Approach and Performance Indicators

### Economic

		Disclosure on Management Approach	Strengthening Economic Ties with Stakeholders (28-29) Relations with Society (52)
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#### Aspect: Economic Performance

EC1	CORE	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Strengthening Economic Ties with Stakeholders (28-29)
EC2	CORE	Financial implications and other risks and opportunities for the organization's activities due to climate change.	Risk Management (27)
EC3	CORE	Coverage of the organization's defined benefit plan obligations.	Strengthening Economic Ties with Stakeholders (28-29)
EC4	CORE	Significant financial assistance received from government.	Strengthening Economic Ties with Stakeholders (28-29)

#### Aspect: Market Presence

EC5	ADD	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	—
EC6	CORE	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	Relations with Society (52) Relations with Suppliers (58)
EC7	CORE	Procedures for local hiring and proportion of senior management hired and workforce from the local community at locations of significant operation.	Relations with Employees (45) Relations with Society (52)

#### Aspect: Indirect Economic Impacts

EC8	CORE	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Relations with Society (52-53)
EC9	ADD	Understanding and describing significant indirect economic impacts, including the extent of impacts.	—

### Environmental

		Disclosure on Management Approach	Initiatives in Promotion of Environmental Management (30)
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#### Aspect: Materials

EN1	CORE	Materials used by weight or volume.	Material Flows within Business Activity (31) Initiatives for Effective Use of Resources (35)
EN2	CORE	Percentage of materials used that are recycled input materials.	Material Flows within Business Activity (31) Initiatives for Effective Use of Resources (35)

#### Aspect: Energy

EN3	CORE	Direct energy consumption by primary energy source.	Material Flows within Business Activity (31)
EN4	CORE	Indirect energy consumption by primary source.	Material Flows within Business Activity (31)
EN5	ADD	Energy saved due to conservation and efficiency improvements.	Initiatives in Global Warming Control (36-37)
EN6	ADD	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Initiatives in Creating Products with Low Environmental Impact (40-41)
EN7	ADD	Initiatives to reduce indirect energy consumption and reductions achieved.	—

#### Aspect: Water

EN8	CORE	Total water withdrawal by source.	Material Flows within Business Activity (31) Initiatives for Effective Use of Resources (35)
EN9	ADD	Water sources significantly affected by withdrawal of water.	—
EN10	ADD	Percentage and total volume of water recycled and reused.	—

Item Profile		Indication	Relevant Page(s)
<b>Aspect: Biodiversity</b>			
EN11	CORE	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Environmental Considerations in Areas of Business (38-39)
EN12	CORE	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Environmental Considerations in Areas of Business (38-39) Relations with Society (52-53)
EN13	ADD	Habitats protected or restored.	NA
EN14	ADD	Strategies, current actions, and future plans for managing impacts on biodiversity.	Environmental Considerations in Areas of Business (38-39)
EN15	ADD	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	Environmental Considerations in Areas of Business (38-39)
MM1		Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.	Environmental Considerations in Areas of Business (38-39)
MM2		The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	Environmental Considerations in Areas of Business (38-39)
<b>Aspect: Emissions, Effluents, and Waste</b>			
EN16	CORE	Total direct and indirect greenhouse gas emissions by weight.	Material Flows within Business Activity (31) Initiatives in Global Warming Control (36-37)
EN17	CORE	Other relevant indirect greenhouse gas emissions by weight.	Material Flows within Business Activity (31) Initiatives in Global Warming Control (36-37)
EN18	ADD	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Initiatives in Global Warming Control (36-37)
EN19	CORE	Emissions of ozone-depleting substances by weight.	Initiatives for Reducing Environmental Impact (33)
EN20	CORE	NO, SO, and other significant air emissions by type and weight.	Initiatives for Reducing Environmental Impact (32-33)
EN21	CORE	Total water discharge by quality and destination.	Material Flows within Business Activity (31) Initiatives for Reducing Environmental Impact (33)
EN22	CORE	Total weight of waste by type and disposal method.	Material Flows within Business Activity (31) Initiatives for Effective Use of Resources (35)
EN23	CORE	Total number and volume of significant spills.	Initiatives for Reducing Environmental Impact (32)
EN24	ADD	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	—
EN25	ADD	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	—
MM3		Total amounts of overburden, rock, tailings, and sludges and their associated risks.	Material Flows within Business Activity (31) Initiatives for Reducing Environmental Impact (32-33)
<b>Aspect: Products and Services</b>			
EN26	CORE	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Initiatives in the Six Key CSR Areas (10-11) Initiatives in Creating Products with Low Environmental Impact (40-41)
EN27	CORE	Percentage of products sold and their packaging materials that are reclaimed by category.	Initiatives for Effective Use of Resources (34-35)
<b>Aspect: Compliance</b>			
EN28	CORE	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Regulatory Compliance (26) Initiatives for Reducing Environmental Impact (32)
<b>Aspect: Transport</b>			
EN29	ADD	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	—
<b>Aspect: Overall</b>			
EN30	ADD	Total environmental protection expenditures and investments by type.	—
<b>Labor Practices and Decent Work</b>			
		Disclosure on Management Approach	Relations with Employees (44-51)
<b>Aspect: Employment</b>			
LA1	CORE	Total workforce by employment type, employment contract, and region.	Relations with Employees (44-45)

Item Profile		Indication	Relevant Page(s)
LA2	CORE	Total number and rate of employee turnover by age group, gender, and region.	Relations with Employees (46-47)
LA3	ADD	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	—
<b>Aspect: Labor/Management Relations</b>			
LA4	CORE	Percentage of employees covered by collective bargaining agreements.	Relations with Employees (49)
LA5	CORE	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.	Relations with Employees (49)
MM4		Number of strikes and lock-outs exceeding one week's duration, by country.	Relations with Employees (49)
<b>Aspect: Occupational Health and Safety</b>			
LA6	ADD	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	Relations with Employees (50-51)
LA7	CORE	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	Relations with Employees (50-51)
LA8	CORE	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Relations with Employees (50-51)
LA9	ADD	Health and safety topics covered in formal agreements with trade unions.	—
<b>Aspect: Training and Education</b>			
LA10	CORE	Average hours of training per year per employee by employee category.	Relations with Employees (47)
LA11	ADD	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Relations with Employees (45, 47)
LA12	ADD	Percentage of employees receiving regular performance and career development reviews.	—
<b>Aspect: Diversity and Equal Opportunity</b>			
LA13	CORE	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	Relations with Employees (44-45)
LA14	CORE	Ratio of basic salary of men to women by employee category.	Relations with Employees (45)
<b>Human Rights</b>			
		Disclosure on Management Approach	Relations with Employees (48) Relations with Suppliers (58-59)
<b>Aspect: Investment and Procurement Practices</b>			
HR1	CORE	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	Relations with Society (52)
HR2	CORE	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	Relations with Suppliers (58)
HR3	ADD	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Relations with Employees (48)
<b>Aspect: Non-Discrimination</b>			
HR4	CORE	Total number of incidents of discrimination and actions taken.	Relations with Employees (48-49)
<b>Aspect: Freedom of Association and Collective Bargaining</b>			
HR5	CORE	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	Relations with Employees (49)
<b>Aspect: Child Labor</b>			
HR6	CORE	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.	Relations with Employees (48) Relations with Suppliers (58)
<b>Aspect: Forced and Compulsory Labor</b>			
HR7	CORE	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.	Relations with Employees (48) Relations with Suppliers (58)
<b>Aspect: Security Practices</b>			
HR8	ADD	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	—
<b>Aspect: Indigenous Rights</b>			
HR9	ADD	Total number of incidents of violations involving rights of indigenous people and actions taken.	—
MM5		Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities.	Relations with Society (53)
<b>Society</b>			
		Disclosure on Management Approach	Regulatory Compliance (26) Relations with Society (52)

Item Profile		Indication	Relevant Page(s)
<b>Aspect: Community</b>			
SO1	CORE	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	Relations with Society (52-53)
MM6		Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.	Relations with Society (53)
MM7		The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes.	Relations with Society (53)
<b>Aspect: Corruption</b>			
SO2	CORE	Percentage and total number of business units analyzed for risks related to corruption.	Risk Management (27)
SO3	CORE	Percentage of employees trained in organization's anti-corruption policies and procedures.	Regulatory Compliance (26)
SO4	CORE	Actions taken in response to incidents of corruption.	Regulatory Compliance (26)
<b>Aspect: Public Policy</b>			
SO5	CORE	Public policy positions and participation in public policy development and lobbying.	Relations with Society (55)
SO6	ADD	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	—
<b>Aspect: Anti-Competitive Behavior</b>			
SO7	ADD	Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.	Regulatory Compliance (26)
<b>Aspect: Compliance</b>			
SO8	CORE	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Regulatory Compliance (26)
<b>Aspect: Resettlement</b>			
MM8		Number (and percentage) of company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks.	Relations with Society (54)
MM9		Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	Relations with Society (54)
<b>Aspect: Closure Planning</b>			
MM10		Number and percentage of operations with closure plans.	Relations with Society (52-53)
<b>Product Responsibility</b>			
		Disclosure on Management Approach	Relations with Customers (42-43)
<b>Aspect: Customer Health and Safety</b>			
PR1	CORE	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Relations with Customers (42-43)
PR2	ADD	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	Regulatory Compliance (26) Relations with Customers (42-43)
<b>Aspect: Product and Service Labeling</b>			
PR3	CORE	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	Relations with Customers (42-43)
PR4	ADD	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	Relations with Customers (42-43)
PR5	ADD	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	—
<b>Aspect: Marketing Communications</b>			
PR6	CORE	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Relations with Customers (43)
PR7	ADD	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	Relations with Customers (42-43)
<b>Aspect: Customer Privacy</b>			
PR8	ADD	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	—
<b>Aspect: Compliance</b>			
PR9	CORE	Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services.	Relations with Customers (42-43)
<b>Aspect: Materials Stewardship</b>			
MM11		Programs and progress relating to materials stewardship.	Initiatives in the Six Key CSR Areas (10) Initiatives in Creating Products with Low Environmental Impact (40-41) Relations with Customers (43)



 SUMITOMO METAL MINING CO., LTD.

Head Office: 11-3, Shimbashi 5-chome, Minato-ku, Tokyo 105-8716, Japan  
 Tel: +81-3-3436-7705  
 Fax: +81-3-3434-2215  
 Website: <http://www.smm.co.jp/E/>



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