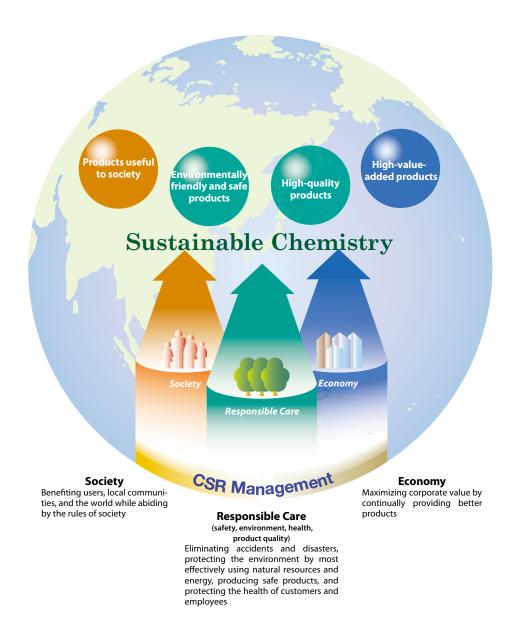
# SUMITOMO CHEMICAL CSR REPORT 2011



# Sumitomo Chemical Contributes to the Sustainable Development of Society through "Sustainable Chemistry" Built on its CSR-Based Management

"Sustainable Chemistry" represents the concept of continuously providing useful products and services in an environmentally and socially friendly manner by exploiting the full potential of chemistry. Sumitomo Chemical will practice "Sustainable Chemistry" built on its CSR-based management to achieve a balance among the three areas of "economy," "responsible care (RC)," and "society" in all aspect of its business.



#### **Editorial Policy**

We have created this report to help our stakeholders improve their understanding of Sumitomo Chemical's approach to Corporate Social Responsibility (CSR), including measures taken by the Company to fulfill such responsibilities.

In preparing the report, we referred to the Global Reporting Initiative's (GRI) "Sustainability Reporting Guidelines" (Version 3.1), the Japanese Ministry of the Environment's "Environmental Reporting Guidelines" (2007 edition) and "Environmental Accounting Guidelines" (2005 edition), and the ISO 26000 international standard on Social Responsibility (SR). We also considered the replies we received (internal and external) to the Company to questionnaire surveys on our past CSR reports and CSR-related information previously made available in the media. In reference to these materials and internal discussions, we have included information deemed important for both society and Sumitomo Chemical in this report. For the GRI Content Index, please see pages 74 to 76. Assurance is provided on the indicators labeled with a star (  $\bigstar$  ) mark by KPMG AZSA Sustainability Co., Ltd.

For detailed numerical data, we have prepared a separate booklet titled "CSR Report 2011 DATA BOOK" for easy reference.

#### **Boundary of this report**

### - Environmental performance (excluding environmental accounting and environmental efficiency)

The environmental performance data included in this report cover Sumitomo Chemical Group companies that have production divisions as well as sales above a minimum level, or whose environmental impact is deemed large. Specifically, Sumitomo Chemical (Parent Company) and 16 Group companies in Japan. Environmental performance data including the data of the 11 Group companies overseas\* are also available in the "CSR Report 2011 DATA BOOK."

\*Sumitomo Electronic Materials (Wuxi) Co., Ltd. and Sumipex (Thailand) Co., Ltd. have been newly included in the scope of reporting.

#### - Environmental accounting

The environmental accounting data included in this report cover Sumitomo Chemical Group companies that have production divisions and sales above a minimum level. Included companies are Sumitomo Chemical (Parent Company) and 18 Group companies (12 domestic, six overseas\*\*).

\*\*Sumika Electronic Materials Poland SP. Zo.o. has been newly included in the scope of reporting.

#### - Environmental efficiency

The environmental efficiency data included in this report covers Sumitomo Chemical Group companies with production divisions, namely Sumitomo Chemical and 10 domestic Group companies.

In this report, "Sumitomo Chemical" and "Sumitomo Chemical Group" are distinguished as follows.

Sumitomo Chemical: Sumitomo Chemical Co., Ltd.

Sumitomo Chemical Group: Sumitomo Chemical and Group companies (When "Group companies" are referred to, this does not include Sumitomo Chemical. The applicable scope of "Group companies" is indicated as necessary.)

For more details of standards for calculating not described in this report, please refer to the following website:

http://www.sumitomo-chem.co.jp/english/csr/report/

Period covered by this report: April 1, 2010 – March 31, 2011 (with specific exceptions outside this time frame)

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Hiromasa Yonekura, Chairman

Masakazu Tokura, President

# Contributing to the Sustainable Development of Society with the Power of Chemistry

The Great East Japan Earthquake that struck on March 11 caused considerable widespread damage in Japan, particularly in the Tohoku region. As the country faces its most serious crisis since the end of the Second World War, Japanese citizens must work together now to help the affected areas recover from the disaster as soon as possible and to build a robust, vibrant new Japan.

"Our business must benefit society, not just our interests." This is a principle of the Sumitomo family's business philosophy, which forms the core of Sumitomo Chemical's corporate values. Sumitomo Chemical's history dates back to 1913, when the House of Sumitomo established a fertilizer manufacturing plant to solve an environmental problem and help increase agricultural productivity by producing fertilizers using harmful emissions from copper smelting operations. The Company, thus created, has in its "corporate DNA" the conviction that the essence of corporate social responsibility (CSR) is to contribute to the sustainable development of society through business activities.

Since the March 11 earthquake and tsunami, Sumitomo Chemical has been implementing various initiatives to support the affected areas, such as financial contributions, donations of relief supplies, and bazaars to sell agricultural products, seafood, and processed food made in the disaster-stricken Tohoku and Kanto regions. Through these support efforts and our global business operations, we at the Sumitomo Chemical Group will strive to contribute to Japan's recovery from the disaster as well as to the strong and sustainable growth of the Japanese economy.

Responsible Care (RC) – a commitment to ensure safety, protect the environment and human health, and maintain high product quality throughout the life cycles of our products, from development to manufacturing and sale to use and disposal - is a central pillar of our CSR activities. In order to promote product safety, we have been stepping up efforts to gather safety information on chemical substances and to achieve more effective management of the information. In addition, we have been working to assess and manage the risks of our products throughout their life cycles, from production to disposal, capitalizing on the wealth of knowledge we have accumulated on safety assessment and utilizing the most advanced scientific technologies in the field. At the same time, we are committed to addressing the pressing global problems related to resources, energy and the environment, with a particular focus on the issue of climate change. We are working to reduce our environmental footprint by improving our manufacturing processes and developing innovative new products, with the goals of achieving the world's highest energy efficiency in the production of our major products and developing processes and products that help reduce CO<sub>2</sub> emissions. In order to quantify the effects of these initiatives, we have formulated internal guidelines to calculate the amount of CO2 emission reductions resulting from the use of our products based on the life cycle assessment (LCA), a method for assessing the environmental impact of a product throughout its life cycle. Moreover, we have built a system for monitoring the amount of our own CO2 emissions on a monthly basis, which enables more effective emissions management. Through these measures, Sumitomo Chemical will continue to help promote more efficient and effective solutions to global warming.

As part of its CSR activities, Sumitomo Chemical has been implementing various social action projects, the centerpiece of which is the effort to support Africa by working on the prevention of malaria. Malaria is an infectious disease transmitted by Anopheles mosquitoes and is one of the major factors that hinder Africa's development. In the Millennium Development Goals (MDGs), the United Nations defines malaria control as one of the most pressing challenges facing human society.

The OLYSET<sup>™</sup> Net, a special insecticidal mosquito net developed by Sumitomo Chemical, is attracting attention from the international community as a highly effective means to control malaria. According to a survey conducted by Millennium Promise, a U.S.-based NPO working on malarial control, malaria infection rates substantially decreased in the village of Sauri in Kenya as a result of using the OLYSET<sup>™</sup> Net. At present, Sumitomo Chemical has production facilities for the OLY-SET<sup>™</sup> Net in Tanzania, Vietnam, and China, with a total annual capacity of 60 million nets. In our operations in Tanzania, we are cooperating with a local mosquito net manufacturer and employing approximately 7,000 people, thereby contributing to the development of the local economy.

Sumitomo Chemical has also been donating the OLYSET<sup>™</sup> Net to African countries as well as to countries across the world affected by natural disasters, such as earthquakes and tsunamis, by partnering with Millennium Promise and other NGOs and international organizations. In addition, we have been supporting education in Africa by donating a portion of the revenues from our OLYSET<sup>™</sup> Net business to help NGOs construct schools and other related facilities in the region. We will continue our efforts on various fronts to support the sustainable development of Africa.

Since 2005, Sumitomo Chemical has been participating in the United Nations Global Compact, an initiative for businesses to contribute directly to solving global issues based on ten defined principles for corporate behavior in the areas of human rights, labor standards, the environment, and anticorruption. In January 2011, the United Nations launched a new framework called "UN Global Compact LEAD" to put into action the vision developed in the UN Global Compact, and Sumitomo Chemical became one of its 54 initial corporate members. We will continue to work closely together with the international community to address global problems.

The United Nations celebrates the International Year of Chemistry in 2011 (IYC2011), which falls on the 100th anniversary of Marie Curie winning the Nobel Prize in Chemistry. Under the theme of "Chemistry – our life, our future," various commemorations will be held across the world to increase the public's understanding of chemistry, promote interest in chemistry on the part of young people, and express hope for the further development of chemistry. Chemistry is a creative science, and it will play an increasingly important role as a driving force for innovation.

Sumitomo Chemical has been pursuing "Creative Hybrid Chemistry," a commitment and strategy to develop new technologies and products by combining, across disciplines, a variety of outstanding technologies and expertise in a broad range of fields that it has accumulated as a diversified chemical company. By taking full advantage of the creative power of chemistry and sustaining technological innovation, we will continue working to contribute to bettering the lives of people across the world and meeting pressing global challenges, such as issues relating to energy resources, climate change, and the building of a low carbon society. We will also remain firmly committed to promoting CSR activities as a member of the international community in close cooperation with our customers, business partners, shareholders, employees, local communities, international organizations, such as the United Nations, and NGOs. We would greatly appreciate your continued support and cooperation.

> Hiromasa Yonekura Chairman of Sumitomo Chemical Co., Ltd.

米倉弘昌

Masakazu Tokura President of Sumitomo Chemical Co., Ltd.

十倉雅和

# Sumitomo Chemical's Business Operations and Global Bases

Sumitomo Chemical is conducting business across a range of fields on a global scale with more than 100 Group companies.

#### GRI 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9

Since its foundation in 1913, Sumitomo Chemical has been contributing to the sustainable development of society through a variety of business operations, based on a philosophy of providing benefits widely throughout society instead of merely pursuing profit. At present, the Company is conducting business globally with more than 100 Group companies in five fields: basic chemicals, petrochemicals & plastics, IT-related chemicals, health & crop sciences, and pharmaceuticals.

To continue to receive the approval of its wide range of stakeholders, Sumitomo Chemical will use its advanced technologies to create new products that reflect the changing times, contribute to improving people's lives, and help the international community resolve global problems involving resources, energy, food, and the environment.

#### **Business Sectors**

#### **Basic Chemicals Sector**

Inorganic chemicals, raw materials for synthetic fibers, organic chemicals, methyl methacrylate (MMA), alumina product, aluminum, rubber chemicals, polymer additives, etc.



Alumina powder and products made from alumina

#### **Petrochemicals & Plastics Sector**

Petrochemical products, synthetic resins, synthetic rubber, synthetic resin processed products, etc.



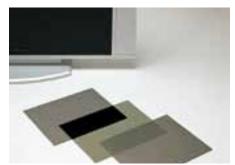
Containers and wrapping films made from polyethylene

#### Company Profile

Name Head Office	Sumitomo Chemical G (Tokyo) Tokyo Sumitomo Twin 27-1, Shinkawa 2-chor 104-8260, Japan (Osaka) Sumitomo Building 5-	n Building (East) ne, Chuo-ku, Tokyo
Founding Start of business operations Incorporation Capital Consolidated net sales Number of consolidated subsidiaries Number of employees	4-chome, Chuo-ku, O September 22, 1913 October 4, 1915 June 1, 1925 89,699 million yen 1,982.4 billion yen 181 29.382	(As of March 31, 2011)

#### IT-related Chemicals Sector

Optical products, color filters, semiconductor processing materials, electronic materials, compound semiconductor materials, battery materials, etc.



Polarizing film indispensable for LCD TVs

#### **Health & Crop Sciences Sector**

Agricultural chemicals, fertilizers, agricultural materials, household and public hygiene insecticides, materials for the prevention of tropical infections, feed additives, active pharmaceutical ingredients and intermediates, etc.



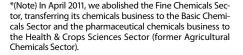
Agricultural insecticides for various crops

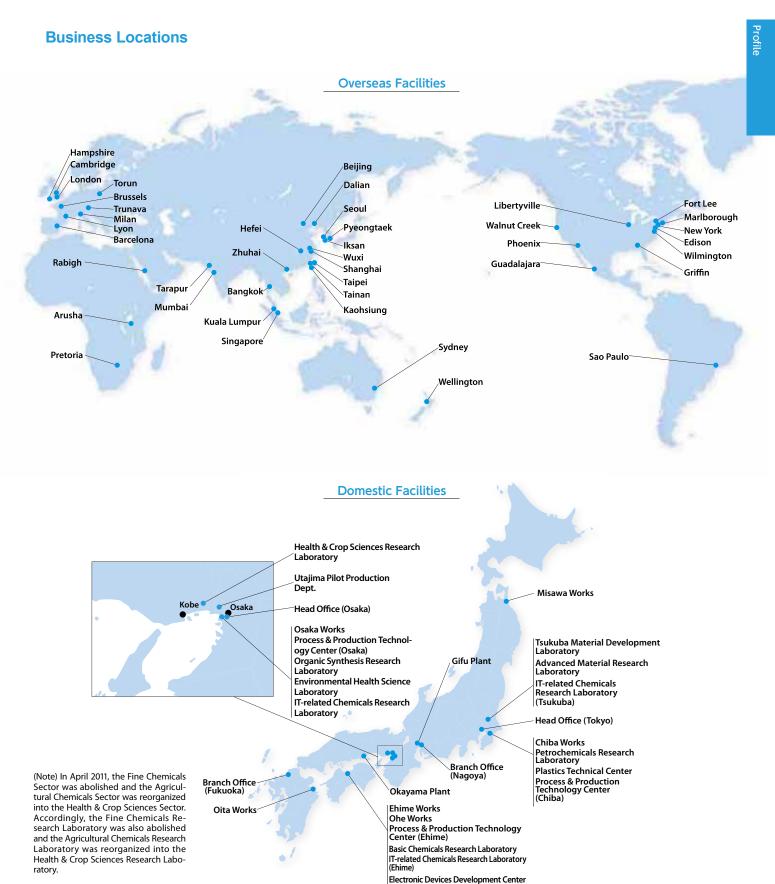
#### Pharmaceuticals Sector

Ethical pharmaceuticals, diagnostic radiopharmaceuticals, etc.



Pharmaceuticals manufactured by Dainippon Sumitomo Pharma Co., Ltd.





# Sumitomo Chemical's Corporate Philosophy

Sumitomo Chemical traces it's lineage to the original House of Sumitomo, a business with a history spanning nearly four centuries. The fundamental principles of the House of Sumitomo have been upheld from its founding to present day.

#### **GRI** 4.8

Sumitomo Chemical's corporate philosophy is based on the House of Sumitomo's Business Principles and is composed of the Business Philosophy, which outlines the fundamental ethos, missions, and values of the Company. The Corporate Slogan and Statement are intended to help instill "pride and commitment" among employees while the Sumitomo Chemical Charter for Business Conduct, provides the basis for the Company's compliance system.

#### The Sumitomo Spirit

#### Sumitomo's Business Principles

#### Pledge 1

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

#### Pledge 2

Sumitomo's business interest must always be in harmony with public interest; Sumitomo shall adapt to good times and bad times but will not pursue immoral business.

Since the start of business by the House of Sumitomo in the 17th century, Sumitomo's Business Principles have been upheld over the generations for 400 years. Sumitomo Chemical's corporate philosophy is based on these Business Principles.

The first pledge in the Business Principles, advocating integrity and sound management, reflects the importance of maintaining the trust of the Company's business partners and of society as a whole. The second pledge calls for refraining from the pursuit of easy gains—conducting thorough investigations and giving serious thought to business decisions so as not to be blinded by the prospect of immediate gains.

While not expressly stated, another traditional concept applies: harmony between the individual, the nation, and society. Sumitomo manifests this concept by seeking to benefit not only its own business, but also both the nation and society, and by the Company's emphasis on maintaining harmony between its interests and those of the public. To this day, these principles are strictly applied throughout various Sumitomo Group companies, including Sumitomo Chemical.

#### Sumitomo Chemical's Business Philosophy

- 1. We commit ourselves to creating new value by building on innovation.
- 2. We work to contribute to society through our business activities.
- 3. We develop a vibrant corporate culture and continue to be a company that society can trust.

In recent years, as the Sumitomo Chemical Group progressively globalizes its business, the Group has become diversified in terms of culture and values. With this diverse profile, it is important for all employees to share the Group's business philosophy and increase their awareness as members of the Group. To meet this requirement, on January 1, 2009, we formulated Sumitomo Chemical's Business Philosophy to outline the Company's fundamental ethos, missions, and values based on Sumitomo's Business Principles.

Our Business Philosophy is composed of the above three items, which have the following meanings:

The first states the Company's fundamental ethos, which encompasses not only the achievement of concrete goals, such as economic profit, but also the more abstract vision of the ideal company we aim to be.

The second states our mission or the Company's raison d'être. This expresses our role in society, which is to provide society with useful things as a member of that society. This gives meaning to our existence as a company.

The third states our values. This expresses our way of thinking in setting out to realize our mission and raison d'être, and the drive and attitude with which we approach them.

All Sumitomo Chemical Group employees share our Business Philosophy toward further globalization of the Group.

#### **Corporate Statement and Slogan**

#### **Corporate Statement**

Sumitomo Chemical started business in 1913 as a producer of fertilizers from sulfur dioxide gas emitted by copper smelters. This business, which solved the environmental problem of air pollution while meeting the social demand for more agricultural production, embodied the business philosophy of the Sumitomo family handed down from the 17th century.

"Our business must benefit society, not just our interests." Throughout our history of almost a century, we at Sumitomo Chemical have lived by this credo. We have worked to build better lives by developing various businesses that meet people's evolving needs. At the same time, we have continuously delivered technological innovation while paying special attention to product quality, safety, and the environment.

Looking to the future, we will create new value beyond the boundaries of chemistry by combining a variety of ideas, views, and technologies. We will also continue to take up the challenges facing the globe, from meeting basic needs, to protecting the environment, to addressing the issues of adequate supplies of food, energy, and other resources.

In this endeavor, each of us at Sumitomo Chemical will work together to enhance our capabilities, explore new possibilities every day, and overcome the challenges lying ahead with enthusiasm and a strong sense of mission.

Sumitomo Chemical will seek to continue to build trust and bring joy to people across the world through constant innovation.

#### Corporate Slogan

#### Creative Hybrid Chemistry For a Better Tomorrow

Sumitomo Chemical formulated its Corporate Statement in March 2008 after a project team comprising members from across the company held lengthy discussions on the important theme of "pride and commitment" to be constantly shared by employees. The Corporate Slogan summarizes the statement in one phrase.

#### **Sumitomo Chemical Charter for Business Conduct**

- 1. We will respect Sumitomo's business philosophy and act as highly esteemed good citizens.
- 2. We will observe laws and regulations, both at home and abroad, and will carry out activities in accordance with our corporate rules.
- 3. We will develop and supply useful and safe products and technologies that will contribute significantly to the progress of society.
- We will engage in voluntary and active initiatives to achieve zero-accident and zero-injury operations and preserve the global environment.
- 5. We will conduct business transactions based on fair and free competition.
- We will endeavor to make our workplaces sound and energetic.
- Every one of us will strive to become a professional and achieve advanced skills and expertise in our field of responsibility.
- We will actively communicate with our various stakeholders, including shareholders, customers, and local communities.
- 9. As a corporate member of an international society, we will respect the culture and customs of every region of the world and contribute to the development of those regions.
- 10. We will strive for the continued development of our Company through business activities conducted in accordance with the guiding principles described herein.

The Sumitomo Chemical Charter for Business Conduct provides the basis for Sumitomo Chemical's compliance system. (For compliance, see page 20.)

#### TOPIC

#### Statement Book

The Statement Book takes a closer look at Sumitomo's Business Principles, Sumitomo Chemical's Business Philosophy, and the Corporate Slogan and Statement. In fiscal 2010, we created a DVD version of this book as a tool to communicate the ideas described in

the documents in an easy-to-understand manner. We use both the book and the DVD in training sessions for employees and whenever useful.

To share such ideas across the Sumitomo Chemical Group, both within and outside Japan, we have also created English, Korean, and simplified and traditional Chinese versions of the book and the DVD.



# **Toward the Achievement of Sustainable Chemistry**

Sumitomo Chemical will contribute to the sustainable development of society based on its proven technologies.

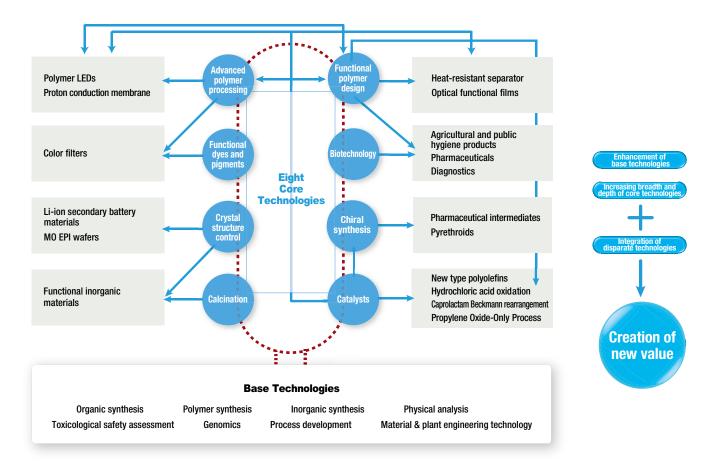
The chemical industry delivers a variety of products related to the basic necessities of food, clothing, and housing, and supplies materials to a wide spectrum of industries. Our industry has also been contributing to the development of various other business areas and society through technological innovation. At present, we are facing a range of global challenges, especially with regard to energy, resources, and the environment, and the chemical industry is expected to play an even greater role in meeting these challenges. Sumitomo Chemical, as a member of the chemical industry, has defined its corporate missions as the achievement of Sustainable Chemistry. To fulfill this mission, we are providing useful, high-quality and high-value-added products to society while giving due consideration to safety and the environment.

#### **Creative Hybrid Chemistry**

In order to practice Sustainable Chemistry, it is necessary to have scientifically proven technologies. Sumitomo Chemical is pursuing Creative Hybrid Chemistry, which links and combines technologies, know-how, and the ideas and different perspectives of individuals both inside and outside the company to create new value beyond existing frameworks.

Sumitomo Chemical has accumulated a wide array of skills and competencies in a variety of "base technologies" such as organic synthesis, inorganic synthesis, polymer synthesis, physical analysis, toxicological safety assessment, genomic development, process development, materials and plant engineering technology, and others through extensive research activities over many years. Additionally, through the development of various products, we have expanded our "core technologies," namely, advanced polymer processing, functional dyes and pigments, crystal structure control, calcination, functional polymer design, biotechnology, chiral synthesis, and catalysts.

Sumitomo Chemical combines these "base technologies" and "core technologies" in diverse ways to develop greater breadth and depth in its own unique technologies. Furthermore, the Company promotes industry-government-university collaboration through joint projects with the New Energy and Industrial Technology Development Organization (NEDO), the Japan Agency for Marine-Earth Science and Technology, the Japan Synchrotron Radiation Research Institute, the University of Tokyo, and Tokyo Institute of Technology. This collaboration is driving the development of innovative new technologies and products. We will foster measures for Creative Hybrid Chemistry to achieve Sustainable Chemistry on a global scale.



# **Green Processes and Clean Products**

Profile

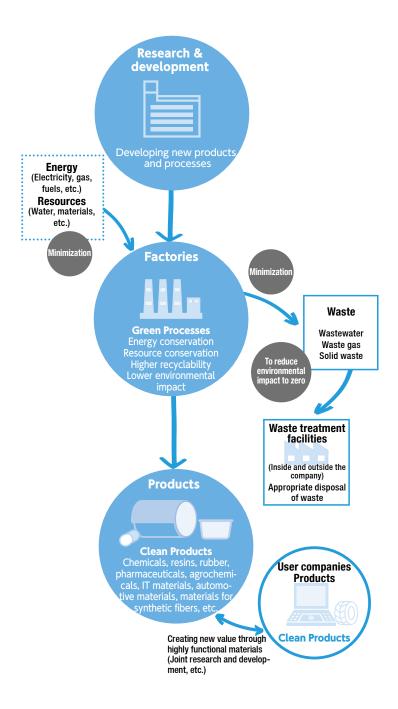
CSR Report 2011

Sumitomo Chemical is committed to developing environment-friendly products and processes.

#### GRI EN6 EN26

#### Pursuing Manufacturing Processes with Low Environmental Impact and Safer Products of Higher Quality

We need to use energy and resources, which are in limited supply, to manufacture chemical products. In the production process, unneeded substances (byproducts) or waste may also be generated. Sumitomo Chemical is pursuing Green Processes, which minimize the environmental impact of manufacturing to the greatest extent possible, and developing Clean Products, which are safer, more environment-friendly, and of higher quality.



#### **Green Processes**

#### - EPL 3 Process for Polarizer

In the EPL 3, one of the lamination processes of optical films has been dramatically changed, and compared with the conventional method, energy consumption can be substantially reduced. Moreover the prior processing is no longer necessary basically, which leads to the reduction of environmental impact. The EPL 3 process represents a nextgeneration environment-friendly manufacturing method.



- Proprietary Propylene Oxide-Only Process (PO-Only Process)

In the propylene oxide-only process, propylene oxide can be manufactured without byproducts by recycling cumene. Furthermore, this process helps conserve energy and resources by the effective use of the heat generated by reactions, and produces less wastewater. In addition, the facilities used for the process are more compact than those used for conven-



tional processes, enabling high cost competitiveness.

#### Caprolactam (Beckmann Rearrangement) Process

In the caprolactam (Beckmann rearrangement) process, caprolactam can be manufactured without producing the byproduct ammonium sulfate. This process also allows for a significant reduction in the amount of raw materials used as well as a shortened manufacturing process. In addition, it uses a safer catalyst.



#### - Hydrochloric Acid Oxidation Process

In the hydrochloric acid oxidation process, hydrochloric acid generated as a byproduct in the manufacture of chemical products is recycled through conversion to chlorine using a catalyst and oxygen. This process is considerably more energy-efficient than conventional processes.



#### **Clean Products**

#### - LED Light "SUMILOOK™"



SUMILOOK™ used in an elementary school classroom

SUMILOOK<sup>™</sup> is an edgelight type LED light developed by Sumitomo Chemical. Compared with direct-type LED lighting equipment, it is not dazzling but is gentle to the eyes and can be made to be very thin. The LED light source does not consume much power, leading to a reduction in operating costs. The maintenance cost can also be substantially reduced because the product has a longer lifespan compared with conventional fluorescent lights. It is an environment-friendly light.

#### - Agricultural Insecticide "Pluto™ MC"



Pluto<sup>™</sup> MC is an insecticide for use only in the control of mulberry scale, a serious insect pest, on tea plants. With only one winter application to the crop, this product will provide effective longterm control of mulberry scale. This enables tea growers to reduce the frequency of insecticide spraying and eliminates the need for spraying during the busy summer season. Furthermore, this product has little adverse impact on natural enemies of this pest, such as parasitic wasps, making it also suitable for integrated pest management (IPM).

#### - Polylactic Acid-Based Eco-Friendly Plastic



 Areas in which our polylactic plastic is presently used
 Areas in which our polylactic plastic is expected to be used

The polylactic acid-based plastic developed by Sumitomo Chemical is the world's first ecofriendly plastic to find applications in automobile parts. The eco-friendly plastic, a polymer alloy of polypropylene with 25% or more of plant-based polylactic acid, has sufficient rigidity, impact resistance strength, and heat resistance for use in automobile interiors. By using this plastic, total lifecycle CO2 emissions can be reduced by approximately 10% compared with conventional polypropylene.

#### Sumifix<sup>™</sup> HF (Environmentally Friendly Reactive Dye)



With its high level of affinity for fibers and good dyeing reactivity, Sumifix™ HF enables us to achieve high fixation rates with less inorganic salt and to significantly reduce the impact of discharged wastewater on the environment. In addition, on a molecular basis, the unfixed dyes of Sumifix™ HF are designed so that their function is reduced after dyeing, shortening the washing process and reducing energy consumption.

#### - Super Engineering Plastics



Super engineering plastics are plastics with considerably higher thermostability than typical en-gineering plastics. Sumitomo Chemical's super engineering plastics, Sumika Super™ LCP and Sumika Excel™ PES, are used in various fields-from electronics and electrical parts to automobiles and aircraft. Sumitomo Chemical's super engineering plastics, free from flame retardants, have cleared top-level fire-retardant standards. They have also been evaluated as an excellent material in terms of environmental protection, because they can also be used for leadfree soldering.

#### - Materials for the Manufacture of LEDs



The use of light-emitting diodes (LEDs) is highly effective for CO<sub>2</sub> emissions reduction, and therefore demand for LEDs for use in TVs and long-life lights has been rapidly expanding. Sumitomo Chemical supplies the materials indispensable for the manufacture of LEDs. These include high purity alumina for the sapphire substrates of LED elements, metalorganics for semiconductor thin film formation, and aluminum hydroxide and alumina powder, which are used to disperse the heat released from the light-emitting components.

## Three-Year Corporate Business Plan for Fiscal 2010 to 2012

Sumitomo Chemical is now implementing the Three-Year Corporate Business Plan for fiscal 2010 to 2012.

#### **GRI** 1.2

In formulating the Corporate Business Plan, the Company first conceived its Corporate Vision based on analysis of the long-range prospects for the global economy and business environment in conjunction with its business portfolio. We regard this new Corporate Business Plan as the first step toward achieving our Corporate Vision, and are now implementing a variety of measures under the plan.

#### Long-term market forecast

Areas with high growth potential ⇒ Life Sciences Information & Communication Technology (ICT)

#### **Corporate Vision**

- I. Achieve sustainable strong growth as a stronger, more innovative global company
- II. Contribute to sustainable development of the global community
- III. Continuously enhance the value of the company

#### Three Strategies to Realize the Corporate Vision

#### **Technology Strategy**

- 1. Focus R&D resources on the three high-growth areas
- 2. Continue Creative Hybrid Chemistry
- 3. Pursue Green Sustainable Chemistry
- 4. Accelerate R&D in downstream applications
- 5. Strengthen basic research

#### **Climate Change Strategy**

Help solve pressing global issues of resources, energy, and the environment

- 1. Achieve the world's highest level of energy efficiency
- 2. Develop products and technologies that will contribute to CO<sub>2</sub> emissions reduction
- 3. Enhance carbon management and implement proactive, effective and coordinated measures throughout the Sumitomo Chemical Group

#### **Business Portfolio Strategy**

Achieve balance among the three areas of bulk chemicals (basic chemicals and petrochemicals & plastics); life sciences (agricultural chemicals and pharmaceuticals); and ICT, battery materials and fine chemicals so that each account for 30% of sales by 2020 by inputting managerial resources intensively into the areas with high growth potential (Environment & Energy, Life Sciences, and ICT).



#### Seven Basic Initiatives to Be Implemented under the Corporate Business Plan

- Quickly maximize profits & cash from major investments
- 2. Enhance financial strength
- 3. Strengthen cost competitiveness of core & commodity businesses
- 4. Accelerate business growth

- 5. Implement climate change strategy
- 6. Strengthen global management system
- Ensure full & strict compliance; maintain safe & stable operations

#### FY2012 Performance Targets

Net sales: 2.4 trillion yen Operating income: 190 billion yen Ordinary income:\* 220 billion yen Net income: 140 billion yen

\*Including equity in earnings of affiliates of 40 billion yen Assumptions: Exchange rate: 90 yen/US\$ Naphtha: 50,000 yen/kl Crude oil: US\$85/bbl

# Achievements in Fiscal 2010 and Initiatives for Fiscal 2011

Sumitomo Chemical sets key CSR initiatives for every fiscal year, and implements a range of specific measures based on the initiatives.

#### **GRI** 4.17

	Key CSR initiatives in fiscal 2010		Item	Related stakeholder
		CSR promotion	CSR Promotion Coordinating Board	All stakeholders
General	Improve the corporate brand value through better CSR activities.	Compliance	Compliance promotion	All stakeholders
		UN Global Compact	Working group on the 10th principle (anti-corruption)	All stakeholders
		on diobal compact	LEAD	All stakeholders
Economic activities	Achieve the first-year targets of the Three-Year Corporate Business Plan.	Three-Year Corporate Business Plan	Three-Year Corporate Business Plan	All stakeholders
		Auditing	Auditing	All stakeholders
			Environmental management	All stakeholders
		Environmental protection	Global environmental protection	All stakeholders
Responsible	Proactively promote climate change preven- tion and energy strategies.		Establishment of a recycling-based society	All stakeholders
Care (RC) activities	Advance the level of the Sumitomo Chemi- cal Group's RC activities around the world.		Protection of the living environment and prevention of damage to health	All stakeholders
		Safety	Occupational health and safety	All stakeholders
			Industrial safety and disaster prevention	All stakeholders
			Chemical safety	All stakeholders
		Quality assurance	Quality assurance	All stakeholders
		Hand in hand with customers	Measures to increase customer satisfaction	Customers
	Continue to engage in social activities integrated with business activities. Deepen communication with internal and external stakeholders.	Hand in hand with business partners	Responsible procurement	Business partners
		Hand in hand with local communities and society	Social contribution activities at each site	Local communities and society
			Communication with stakeholders	Local communities and society
			Global social contribution activities such as support to Africa	Local communities and society
Social activities			Maintaining a diverse workforce	Employees
			Promoting health management by employees	Employees
		Hand in Kernderstit	Supporting employees in conducting social contribution activities	Employees
		Hand in hand with employees	Measures for diversity and better work-life balance	Employees
			Expansion of childcare support measures	Employees
			Social contribution activities through labor-management collaboration	Employees
			Human resource development	Employees

Major achievements	Ref. page	Key CSR initiatives for fiscal 2011
Convened the CSR Promotion Coordinating Board meeting.	p.18	
Held a meeting of the Compliance Committee. Improved the compliance promotion systems of Group companies. Provided company-wide training to reeducate all employees on compliance.	p.20 p.20 p.21	Further promote the globalization of CSR activities.
Participated in the creation of a Guide for Customers and Suppliers.	p.22	Foster measures for corporate branding.
Became a member of LEAD.	p.15,22	
Final profit increased by 9.7 billion yen from the previous fiscal year, which resulted in an increase in surplus.	p.24	Implement the basic initiatives of the Three-Year Corporate Business Plan to achieve annual financial targets.
Reviewed the RC audit checklist and built a system to support RC improvements across the Group.	p.32	
Set environmental protection targets to be shared across the Group and achieved certain results. Completed the risk assessment of PRTR substances and VOCs and set new reduction targets for PRTR substances. Continued environmental impact assessments based on the JEPIX and LCA methods. Continued to evaluate the effectiveness of material flow cost accounting. Continued to implement measures for the Eco First commitment made to the Minister of the Environment.	p.40 p.41 p.41 p.41 p.56	
Reduced per-unit CO2 emissions from the use of fossil fuels by 3.2% from the previous fiscal year (a 24.1% reduction from the fiscal 1990 level). Implemented the plan to completely eliminate the use of freezers with CFC coolants, with no coolant leakage.	p.42	Foster measures for the protection of the
Reduced per-unit energy consumption by 1.0% from the previous fiscal year (an 18.3% reduction from the fiscal 1990 level). Reduced the amount of industrial waste sent to landfills by 66.2% from the previous fiscal year (a 94.4% reduction from the fiscal 1990 level). Discontinued the sea dumping of red bauxite.		Foster measures for the protection of the global environment, including anti-climate change measures, energy and environment strategies, and measures for biodiversity
Reduced the total release of PRTR substances (into the air and water) by 4.7% from the previous fiscal year (a 63.4% reduction from the fiscal 2002 level). Reduced per-unit water use by 3.2% from the previous fiscal year (a 29.6% reduction from the fiscal 1990 level).	p.44 Data Book p.9	conservation.
Employees: Frequency rate of lost-workday injuries: 0.16 Severity rate of lost-workday injuries: 0.003 Contractors/affiliate companies: Frequency rate of lost-workday injuries: 0.81 Severity rate of lost-workday injuries: 0.82	p.46	Share problems to improve the RC level of the entire Group.
One severe industrial accident took place.	p.48	
Promoted the operation of comprehensive chemical management systems (SuCCESS).	p.51	
Started application of the Group's PL/QA standards. Two Major quality problems Activity cross-Industry	p.52	
Conducted quality assurance activities, supported the commercialization of products, and responded to inquiries.	p.58	
Monitored CSR measures implemented by (mainly new) business partners by using the Supply-Chain CSR Deployment Check Sheets. Explained about responsible procurement initiatives to overseas Group companies. Exchanged information with employees in charge of responsible procurement at other companies in the same industry.	p.59	
Conducted local cleanup activities. Conducted activities to support educational programs for children, including School Science Visits. Organized and sponsored community sports events.	p.60 p.61 p.61	
Held local RC dialogues.	p.62	
Supported malaria prevention by donating Olyset™ Nets. Supported education in Africa. Continued "Sumitomo Chemical's forest" tree-planting activities.	p.63 p.63 p.64	
Reemployment: 97 of 134 retirees were reemployed. (Reemployment rate: 72.4%, up 6.5% from the previous fiscal year) Employment rate of people with disabilities: 1.96% (down 0.05% from the previous fiscal year) Number of newly employed females: 23 (down 22 from the previous fiscal year) Number of female managers: 161 (up six from the previous fiscal year)	p.66	Expand social contribution activities based business operations.
Provided new employees, employees promoted to higher grades, and managers with mental health training. Continuously implemented a rehabilitation work system. Continuously conducted health checkups and guidance for lifestyle-related diseases. Cooperated with the TABLE FOR TWO program.	p.67	Promote communication with stakeholders ir a multifaceted manner. Foster diversity and better work-life balance.
Number of employees taking volunteer leave: 29	p.67	
Established a secretariat to promote diversity. Conducted an employee awareness survey. Revised the labor agreement.	p.68	
Opened a childcare facility at the Head Office (Tokyo). Extended the childcare leave period and partially introduced paid holidays to the system.	p.69	
Implemented a Matching Gift program.	p.70	
Began Regional Manager Training. Formulated training rotation plans for 880 employees. Introduced the Mentor System.	p.71	

## Support for the Victims of the Great East Japan Earthquake and Future Measures

The Great East Japan Earthquake that took place on March 11, 2011 caused tremendous damage to the Tohoku and Kanto regions. The Sumitomo Chemical Group has been supporting the affected areas in a range of ways since the disaster. We will continue providing such support while implementing measures to deal with the shortage of electricity and to ensure the continuity of our business in the event of such a disaster.

#### **Support for the Victims**

#### Donations of money

For the relief of victims and the restoration of affected areas, Sumitomo Chemical donated 300 million yen to the Central Community Chest of Japan. The Company also collected donations from executives and employees and donated them (about nine million yen) to the affected areas (Miyagi, Iwate, and Fukushima Prefectures) and to employees who had suffered direct damage due to the earthquake.

Group companies both within and outside Japan, including Dainippon Sumitomo Pharma Co., Ltd., Sumitomo Bakelite Co., Ltd., Nihon Medi-Physics Co., Ltd., Sumitomo Seika Chemicals Co., Ltd., Rabigh Refining and Petrochemical Company, and seven Group companies in Singapore, also donated money and goods to victims of the disaster.

#### Donation of relief goods

We donated goods in response to the needs of affected areas. For example, we donated about 4,900 blankets urgently needed in Minamisanriku Town in Miyagi Prefecture through an NGO, "World Vision Japan." Moreover, we sent masks, shampoos, toothbrush-



es and other daily necessities, cooking oil, underwear, etc. to the affected areas in cooperation with Nippon Keidanren (Japan Business Federation).

Relief goods donated by Sumitomo Chemical delivered to an affected area

#### Support for industries in affected areas

Sumitomo Chemical is implementing various measures to support the agricultural, fishery, and food industries in the Tohoku and Kanto regions that are suffering serious damage directly from the Great East Japan Earthquake or indirectly due to public concern caused by the accidents at the nuclear power plant.

For example, in the cafeterias, meals made using ingredients produced in the Tohoku and Kanto regions are served and a portion of sales receipts from these meals along with a matched contribution by the Company has been donated to affected areas.

In addition, Sumitomo Chemical held a fair to sell agricultural, marine food, and processed food from the Tohoku and Kanto regions to employees within the premises of the Head Office in Tokyo. In cooperation



with three neighboring companies, larger fairs,were also held to support for the industries in the affected areas, which was also open to the local residents . We will hold similar fairs at other sites in the future.

Food fair held to support affected areas

#### Dispatch of employees and support against insect pests

Sumitomo Chemical sent employees who had volunteered to help victims to affected areas, where they conducted support activities in response to the needs of local victims. For areas suffering damage from pests, we offered our products (insecticides and insecticidal nets) and installed the nets, as necessary.

We will continue these activities in response to the needs of victims.

#### Saving Electricity to Cope with Power Shortages in the Summer

To cope with power shortages in the summertime, we are proactively implementing measures to save electricity both as a consumer and a producer of electricity.

As a consumer, we are implementing measures such as operating air conditioners in a more efficient manner, switching off unnecessary lighting, and promoting so-called cool biz (more casual business attire). We have also shifted some of our manufacturing operations to nighttimes and weekends, in order to reduce our peaktime electricity consumption while maintaining production levels.

As a producer, our sites equipped with in-house power generators are now using these generators, while those without them have begun leasing the equipment, as necessary.

Kawasaki Biomass Power Corp., which was established and led by Sumitomo Joint Electric Power Co., Ltd. (a subsidiary of Sumitomo Chemical), began producing electricity from biomass using waste building materials, and at present this company supplies CO<sub>2</sub>-free clean energy to The Tokyo Electric Power Co., Inc. Measures against Earthquakes and Other Disasters

In the event of a large disaster, such as an earthquake, companies must ensure the safety of local residents, employees, and other stakeholders. They are also expected to prevent secondary damage and minimize the impact of such disasters on their business as their corporate responsibilities and also as a precondition for their survival. Based on this recognition, Sumitomo Chemical has set out its basic policies on risk and crisis management, and has been implementing the following measures to minimize risks and mitigate damage in the event of such a contingency, while giving first priority to the safety of people, the environment, and society.

At our manufacturing works and research laboratories where hazardous substances and high-pressure gases are used, safety measures that are stricter than those stipulated by law are implemented voluntarily to help ensure stable and safe operations.

Specifically at our work sites, plants are designed to stop operations by remote control if an earthquake of a predetermined level occurs, and measures are taken to prevent the leakage of hazardous substances even in the event of a large-scale disaster. Moreover, the seismic resistance of tanks and plants has been improved in a planned manner. Emergency regulations, procedures, manuals, and fire prevention/ extinguisher equipment are prepared and available to combat against emergencies. Furthermore, sites regularly conduct emergency drills jointly with local fire departments and nearby companies.

The disaster in March has made us reassess the importance of our supply chains. In response, Sumitomo Chemical has set Business Continuity Plan (BCP) to ensure business continuity and fast recovery, in addition to shifting towards a diversification of suppliers to ensure the continued supply of goods or substitutes to the Company in the event of an emergency. We are also securing alternative transportation routes so that we can deliver our products to customers even in the event of disaster.

Sumitomo Chemical has been implementing a range of measures in preparations against large-scale disasters. We will review these measures based on our experience in the Great East Japan Earthquake and subsequent tsunami, and build a more robust system to ensure safety and the stable supply of our products.

# **Topics of Activities**

In this section, we will introduce topics among our social and Responsible Care activities conducted by Sumitomo Chemical.

#### Joining the UN Global Compact LEAD

Sumitomo Chemical has become a member of the UN Global Compact LEAD launched in January 2011.

Under the leadership of the UN Secretary-General Ban Ki-moon, the Global Compact LEAD is a new platform for corporate sustainability leadership, composed of companies to stepping up and reaching new levels of performance and impact in order for the world to meet today's social, environmental and economic challenges.

The UN Global Compact is the world's largest corporate responisibility initiative with more than 8,900 signatories in over 135 countries. The Global Compact LEAD is represented by 56 companies around the world and three companies including Sumitomo Chemical currently represent Japan.



#### Agreement with the Chongqing People's Government

Sumitomo Chemical concluded an agreement with the Chongqing People's Government, China about two local awards to be granted by the Company.

After the press conference on the agreement, attended by CPC Chongqing Committee Secretary Bo Xilai, a signing ceremony was held with the participation of all those concerned, including Vice Mayor Liu of Chongqing, Deputy Secretary General Ai Yang of the local government, and Chairman Hiromasa Yonekura and Senior Managing Executive Officer Yoshimasa Takao of Sumitomo Chemical.

Based on the agreement, Sumitomo Chemical will present a youth award for the protection of the environment in Chongqing, which includes incentive funds to foster research on local environmental protection and support for the establishment of roundtable discussion meetings on environmental protection, as well as for the creation of factory tours at the sites of leading Japanese companies, including Sumitomo Chemical.

The Company will also give a scholarship award to help develop human resources which will contribute to deepening exchanges between Chongqing and Japan. The scholarship will be awarded to worthy candidates from local government and major universities in Chongqing, such as Chongqing University, who will become leaders of exchanges between Japan and China.

Through these two local awards, we will support the sustainable economic development of Chongqing and enhance bilateral relations



between Japan and China to contribute to the further development of the two countries and international society.

Signing ceremony (Left) Deputy Secretary General Ai Yang of the Chongqing People's Government (Right) Senior Managing Executive Officer Yoshimasa Takao of Sumitomo Chemical

#### Introducing Sumitomo Chemical's Next Generation Technologies at the Japan-China Green Expo 2011

Sumitomo Chemical participated in the Japan-China Green Expo 2011, which was held in Beijing, China, from June 1 to 3, 2011.

The Japan-China Green Expo 2011 was organized by an NPO established by Nippon Keidanren and the China Council for the Promotion of International Trade as their first joint international environmental fair, and both Japanese and Chinese companies and research institutes participated in the event. Sumitomo Chemical introduced a range of its products and technologies that contributes to the environment and society, dividing them into four categories (life, automobiles, food, and CSR), through a main show held using new imaging techniques and also through display panels. In the exhibition, 65 companies participated from Japan and 27 from China, and a total of 20,230 people visited the three-day fair.



Sumitomo Chemical's booth in the Japan-China Green Expo 2011

#### Becoming a Winner at the 2010 Agrow Awards

The award ceremony for the 2010 Agrow Awards was held in London on November 2, 2010, and Sumitomo Chemical received an award in the Best Innovation in Non-Crop category for its insecticidal mosquito net Olyset<sup>™</sup> Net, thereby becoming the first Japanese company to receive an Agrow award.

These awards are organized by Agrow, a provider of news and market research dedicated to the crop protection industry. There are 13 categories in the Agrow Awards and in the Best Innovation in Non-Crop category in which Olyset<sup>™</sup> Net became a winner, technologies for chemicals used in fields other than agriculture, such as those for household pest control and disease vector control, were judged.

Award ceremony for the 2010 Agrow Awards



#### Implementation of Loans utilizing "the Supporting Fund for Environmentally Friendly Corporations"

In November 2010, Sumitomo Chemical became the first diversified chemical company to receive a loan from Sumitomo Mitsui Banking Corporation as an environment-friendly company. In this loan program, companies undergo detailed evaluation and diagnosis in terms of environmental friendliness according to a unique evaluation method jointly developed by the bank and The Japan Research Institute, Ltd.

Sumitomo Chemical was judged to conduct its business in a very environmentally aware manner by implementing highly advanced environmental measures and was awarded a loan from the fund. Sumitomo Chemical will further enhance and develop its environmentally sustainable management through the proactive and effective use of the loan program.

#### News release issued by Sumitomo Mitsui Banking Corporation on the Ioan to Sumitomo Chemical (November 30, 2010)

	平成22年11月30日
各 位	株式会社 三井住友銀行
住友化学株式会社に「環境配慮企業支援フ	<u>ァンド」を活用した融資を実施</u>
株式会社三井住友銀行(頭取:奥 正之)は、日 めの資金供給」の趣旨に則り組成した「環境配慮企 株式会社(代表取締役社長:廣瀬 博)に対し、融	E業支援ファンド」を活用し、住友化学
三井住友銀行では、地球環境の維持向上につなか う一環として、2008年より「SMBC環境配慮評価 行と株式会社日本総合研究所(代表取締役社長: に基づき企業の環境配慮状況を評価・診断すること に対して積極的支援をして参りました。	西融資」に取り組んでおり、三井住友銀 木本 泰行)の作成した独自の評価基準
「環境配慮企業支援ファンド」は、従来の「S1 日本銀行の「成長基盤強化を支援するための資金供 慮経営への支援、並びに日本経済の成長基盤強化~ 目的に組成したものです。	は給」を活用することで、企業の環境配
今回対象となった住友化学株式会社は、環境省の て総合化学会社では初めての「エコ・ファースト金 に積極的に貢献されています。今回の環境配慮状況 取組と成果の状況」「環境負荷の把握の状況」「環 準であると判断され、企業経営において大変優れた 価となりました。	業」として認定され、持続可能な社会 記の調査においても、「環境保全対策の 環境マネジメント」の面で非常に高い水
特に、①国内全事業所および国内外のグループ? 上の最も重要な柱のひとつとしてグローバル展開 の構築を働きかけられている点、②化学物質の安全 れ、「エコ・ファーストの約束」として、2016 年度 いる全製品の安全性に関する再評価に務め、2020 年 とされている点などが高く評価されました。	とされ、協力会社等にも PDCA サイクル 生性評価を環境対策の核心に位置づけら までに、年間1トン以上製造/販売して
なお、今回の住友化学株式会社に行った「環境面 化学業界では初となります。	己慮企業支援ファンド」の活用は、総合

三井住友銀行では、日本銀行の「成長基盤強化を支援するため資金供給」の趣旨を踏ま え、当行のノウハウ及び情報提供力を十分に発揮できる『環境』・『中国』等の分野を中心 に、引き続き企業の活動を支援して参ります。

※エコ・ファースト制度・・・環境保全に関する業界のトップランナー企業の環境保全行動を更に促進し ていくため、 企業が環境大臣に対して京都議定書の目標達成に向けた地球温暖化対策など、自らの 取り組みを約束する制度

以上

# Standardizing and Systematizing Operations for Environment and Chemicals Management

In an effort to increase the public awareness on Responsible Care activities and to enhance such activities, Sumitomo Chemical is accelerating the standardization and systematization of its management activities in the fields of energy, environmental protection, and potential risk of chemicals.

With regards to important management operations, the work volume for which is large and includes much routine paperwork, we aim to increase efficiency and promote "visualization" to save labor, thereby reducing the workload of employees in charge and enabling them to spend more time in more substantial work such as data analysis, evaluation, and implementation of necessary measures. This should eventually lead to improvements in the quality of our overall management. We also aim to strengthen our compliance system by reviewing various in-house rules in response to the frequent revision of laws and regulations.

We are also explaining these measures in detail to Group companies and sharing information with them, as appropriate.

We will continue promoting the standardization and systematization of related management operations. (For details see page 40.)

Progress of standardization and systematization of management operations

Field	Description	Start of implementation
Energy (CO <sub>2</sub> emissions)	-Build a tabulation system for energy use and CO2 emissions	Second hali of 2010
	-Formulate guidelines to calculate contributions made to reducing greenhouse gas emissions by the use of Sumitomo Chemical products	Second half of 2010
	-Standardize LCA (including CFP) calculation methods for products	First half of 2011
	-Revise the company-wide greenhouse gas data tabulation system	Second hal of 2013 (planned)
Environmen- tal protection	-Revise the company-wide PRTR data tabulation system (Adding a VOC data calculation function)	First half of 2011
	-Newly introduce on-site waste management systems (Using ASP* application software)	First half of 2011
	-Promote the company-wide creation of electronic manifests based on the Waste Management and Public Cleansing Act of Japan (Aiming to increase the digitization rate to 70% as a whole)	First half of 2008
Chemical substances	-Upgrade the comprehensive chemical management systems (SuCCESS)	First half of 2012

\*Application Service Provider

# Governance



Sumitomo Chemical is further strengthening its CSR promotion system, corporate governance, and compliance-oriented management to continue to fulfill its corporate social responsibilities and maintain the trust of society.

Moreover, acknowledging the importance of fostering international cooperation to further promote our CSR activities, we are proactively participating in the UN Global Compact.

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#### CSR Report 2011

Governance

Foundation of CSR-based Management

Sumitomo Chemical, as a corporate citizen, will further enhance the foundation of its CSR-based management to gain the greater trust of people worldwide.

### **CSR Policy and Promotion System**

#### GRI 3.5 4.8 4.14 4.15 4.16

Sumitomo Chemical is fostering CSR activities through the concerted efforts of employees based on its Basic CSR Policy and under the CSR promotion system led by the CSR Promotion Coordinating Board and the CSR Office.

#### Sumitomo Chemical's Business Philosophy

Sumitomo Chemical established its Basic CSR Policy in November 2004 based on Sumitomo's Business Principles and the Sumitomo Chemical Charter for Business Conduct. Under this Policy, specific goals are set and CSR activities are implemented to achieve them.

#### Basic CSR Policy

By continuously creating and providing useful new technologies and products that have never before existed, Sumitomo Chemical will build corporate value while contributing to both the solution of problems facing our environment and society, and the enrichment of people's lives.

In order to accomplish this, the Company will work to achieve a balance of profitable business operations, the preservation of the environment, safety, health, product quality and social activity. We will also pursue and promote our CSR activities with consideration for the interests of all our stakeholders, including our stockholders, employees, business partners, and the local residents of all regions in which we conduct business. Through our endeavors in these areas, we hope to play a significant role in building a sustainable society, while continuing to grow in order to realize our goal of becoming a truly global chemical company in the 21st century.

#### Stakeholders of Sumitomo Chemical

Stakeholder	Sumitomo Chemical's Approach
Shareholders and investors	Payment of dividends and appropriate information disclosure
Employees	Use and development of diverse human resources and maintenance of good labor-management relations
Customers	Quality management and responses to customers
Business partners	Fair, equitable, and transparent trading
Local communities and society	Social contribution and risk communication

Sumitomo Chemical is conducting CSR activities in consideration of the interests of all its stakeholders. With the approaches outlined above, we are disclosing information and fostering bilateral diologues.

#### **CSR Promotion System**

In January 2010, we established the CSR Department as an organization dedicated to developing measures to foster CSR activities. Subsequently, in June 2011, we reorganized the CSR Department into the CSR Office to build a more dynamic and flexible CSR promotion system.

Sumitomo Chemical has also established a company-wide CSR Promotion Coordinating Board to promote CSR activities. The Board, consisting of members from each Business Sector, Works, and other sites, communicates and coordinates CSR-related activities and compiles company-wide CSR implementation plans. The CSR Office serves as the Board's secretariat.

At the meeting of the CSR Promotion Coordinating Board held in May 2011, the results of activities conducted in fiscal 2010 were reported. Based on the Basic CSR Policy, the participants also agreed on the priority tasks to be performed in fiscal 2011. Each Business Sector, Research Laboratory, Works, and other sites set specific targets in line with the priority tasks, and are implementing their CSR activities accordingly.

Every year these activities are reported in the CSR Report.

#### **CSR Promotion Coordinating Board Organization**



торіс

# Sumitomo Chemical's CSR is the Foundation of the Company

Sumitomo Chemical's business dates back to 1913, when the Company was founded to solve the problem of sulfur dioxide emissions from smelting operations at the Besshi Copper Mine in the Shikoku region of Japan. The Company started its business by manufacturing calcium superphosphate from the emitted sulfur dioxide to supply fertilizers to help increase the yield of agricultural products. Sumitomo Chemical thus got its start as a company committed to overcoming the environmental problems caused by exhaust gas from the copper mines and to contributing to the development of agriculture by providing farmers with fertilizers available at reasonable prices.

Since then, the Company has been conducting its business not only to make profits but also to contribute to society through its business operations.

Due to a series of corporate scandals in the 1990s, people are now paying more attention to corporate governance, and companies are increasingly expected to fulfill their CSR in the face of global environmental problems and the widening of gaps amid economic globalization. In response, Sumitomo Chemical has formulated its CSR policies for safety, the environment, quality, risk management, and corporate behavior, and is implementing measures based on these policies.

### **Corporate Governance**

#### GRI 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.9 4.10 4.11

Sumitomo Chemical regards serving the interests of its various stakeholders amid changing social and economic conditions as the very foundation of corporate governance, and has endeavored to improve its approaches to this end. We will continue to implement measures to expedite important decision-making, more clearly define responsibilities in the execution of our business, enhance and strengthen the compliance system and internal control, and promote the timely disclosure of information.

#### **Management Structure**

Sumitomo Chemical has a board of corporate auditors and has also introduced an executive officer system to expedite important decision-making and more clearly define responsibilities in the execution of its business. The company's management structure currently consists of nine directors and 31 executive officers (including 8 executive officers serving in a dual capacity as directors). The Board of Directors ensures that important management decisions are appropriately made in accordance with laws and regulations, the Articles of Incorporation, and the regulations concerning the Board, and also monitors and supervises the performance of the directors. The executive officers are responsible for ensuring that business operations are carried out in accordance with the Board's strategic management planning. Compensation of directors is determined according to their respective responsibilities in formulating the Company's management policies and specific measures and in proportion to the business performance of the Company.

There are five corporate auditors, the majority (three) of whom are from outside the Company to strengthen the auditing function by incorporating outsiders' opinions about the soundness and efficiency of the management of the Company into its business operations.

Also, to ensure the objectiveness and neutrality of the management system, we have established in-house rules for the adoption of external experts' opinions about specific management issues, and have founded advisory groups concerning the nomination and compensation of officers.

#### **Internal Control**

We recognize the continuous development and enhancement of our internal control system as a necessary process in maintaining a sound organization, and believe this system should be actively utilized for the achievement of business objectives.

Based on the Basic Policy for Enhancement of Internal Control established in 2006 (and revised in March 2011), we have strengthened the internal control system to conduct appropriate business operations throughout the Sumitomo Chemical Group, and have also formed the Internal Control Committee to inspect and maintain the system in response to changing circumstances. This committee is organized by the Internal Control & Audit Department, which proposes and promotes various measures for improving the internal control system and monitors their implementation.

#### **Internal Auditing**

The Internal Control & Audit Department also conducts internal auditing for the followings in the execution of business duties by executives and employees of the Sumitomo Chemical Group: (1) effective and efficient operations; (2) reliability of financial reporting; (3) design, operation, and effective functioning of internal controls concerning compliance with relevant laws and statutes in all business activities; and (4) proper and appropriate execution of business duties. In addition, the Internal Audit Coordination Board has been established to improve the effectiveness and efficiency of internal audits throughout Sumitomo Chemical and all Group companies.

#### **Risk Management System**

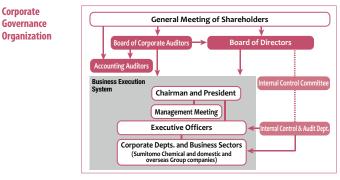
Sumitomo Chemical formulates in-house rules to promptly detect risks and prevent their materialization, and also to make appropriate responses in case of risk materialization. The Internal Control Committee formulates the basic policies concerning the entire Group's risk management for each fiscal year, and the Risk Crisis Management Committee makes prompt responses in the event that a significant risk is realized.

#### Information Disclosure System

Sumitomo Chemical is committed to providing its various stakeholders, including shareholders, business partners, and local communities, with information in a prompt, accurate, and fair manner. Our Corporate Communications Department, established exclusively to engage in investor relations (IR) and public relations (PR) activities, promotes timely and appropriate information disclosure and dialogue with society.

In addition, we endeavor to build stronger relationships of trust with society and capital markets by publishing reports in accordance with the rules stipulated by the securities exchanges in Japan, including a corporate governance report that describes the Company's corporate governance philosophy and system, and a report indicating the status of independent auditors who are unlikely to have conflicts of interest with general shareholders.

These documents are available on the websites of the Tokyo Stock Exchange and Osaka Securities Exchange where Sumitomo Chemical is listed.



### Compliance

Ensuring compliance is the cornerstone of Sumitomo Chemical Group's corporate management.

GRI 4.9 4.11 SO2 SO3

#### **Compliance-Based Management Policy**

The Sumitomo Chemical Group companies conduct compliancebased management with the strong belief that compliance should constitute the mainstay of corporate management and that we must not violate ethics or the rules of society in any aspect of operations. We regard it as our social responsibility to promote compliancebased management, and in order to fulfill such a responsibility we have formulated the Sumitomo Chemical Charter for Business Conduct (see page 7) as our basic principles on our business activities. Based on this charter, we are operating a compliance system to promote compliance-based management across the Group.

# Operation of the Compliance System by an Independent Organization

Sumitomo Chemical has established a Compliance Committee, chaired by a director (senior managing executive officer), as an organization independent of the Company's business operating units so that the Group as a whole can implement compliance-based management from an impartial and objective viewpoint. The Compliance Committee supervises and investigates the activities of Sumitomo Chemical and its Group companies for their proper legal and ethical

#### Compliance Committee Organization





Meeting of the Compliance Committee (held in April 2011)

compliance and advises on improvement as necessary. The Committee also plans and provides compliance education programs for directors, officers and employees of Sumitomo Chemical Group companies to help enhance compliance-based management of the Sumitomo Chemical Group. In order to implement these functions, a Secretariat Office for the Committee, composed of members from various departments of Sumitomo Chemical, engages in day-to-day compliance activities.

Likewise, the Group companies have established their own compliance systems, in principle, equivalent to that of Sumitomo Chemical in order to help their own compliance-based management to be constructed, improved and reinforced.

# Guidelines for Business Conduct Common to the Entire Group

Each of the Sumitomo Chemical Group companies in Japan adopts a Business Conduct Manual (written in Japanese), while those overseas have a Code of Ethics or documents of the same nature (in English or other local languages), each of which Group companies has made it sure that all directors, officers, and employees of the Group companies comply with these documents as shared guidelines for business conduct.

We regularly review and update the Business Conduct Manual and the Code of Ethics to properly reflect the latest changes in relevant laws and regulations as well as constant developments in the socioeconomic environment and specific business operations of each Group company. In particular, in light of the peculiar importance for overseas Group companies to constantly monitor changes in society's requirements, including changes in local legal systems, we have entered into arrangements with local outside experts to enable overseas Group companies to receive support from those experts, so that their Code of Ethics are reviewed and revised in a timely and thorough manner.

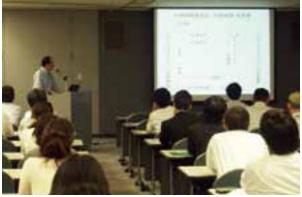
ΤΟΡΙΟ

#### Initiatives for the Establishment and Operation of Compliance Systems in Group Companies

Sumitomo Chemical's Compliance Committee assessed whether domestic and overseas Group companies have built and operated their compliance systems in conformity with the criteria provided by Sumitomo Chemical. As a result, it was confirmed that practically all Group companies have been operating compliance systems in conformity with the criteria of Sumitomo Chemical. In fiscal 2011, Sumitomo Chemical will continue supporting Group companies for furthering effective operation of their compliance systems. The Company will encourage the sharing of knowledge and experience relating to their compliance management among Group companies to further strengthen the operation of compliance systems not only on an individual company level but also on regional and global levels.

#### Daily Efforts in the Workplace to Prevent or Correct Illegal or Unethical Conduct

We consider it fundamental to our compliance-based management to have in place and maintain mechanisms for effectively preventing or promptly correcting any illegal or unethical conduct in dayto-day business operations. Accordingly, the Sumitomo Chemical Group is implementing measures to ensure observance at its workplaces of such compliance items, as antitrust laws, environmental regulations, and product safety rules. In addition, we conduct a wide range of compliance education seminars to increase the compliance awareness of directors, officers and employees and deepen their understanding of specific compliance issues. For example, we are now providing all employees of Sumitomo Chemical with compliance education in light of social trends and the revision of laws. All business sites of the Company will complete this training and education within fiscal 2011. We are also continuously and proactively providing employees with education on the basics of compliance according to their job grades, years of employment, and other conditions, education on individual compliance issues, internal education held by inviting external lecturers and external education.



Compliance education held on a company-wide basis

We are also devising measures to share information about changes in laws and regulations to improve daily operations among Group companies. For example, Sumitomo Chemical operates an electronic system by which information on the revision of Japanese laws and other developments related to compliance issues are disseminated to the companies automatically via the Internet.

#### Other Efforts to Ensure Compliance

To supplement the daily initiatives as mentioned above and to effectively prevent illegal and unethical acts and bring about selfcleansing effects against such acts, we are implementing the following measures.

#### **Compliance Auditing System**

The Internal Control & Audit Department at Sumitomo Chemical specializes in internal audits and monitors the compliance activities of Sumitomo Chemical and its Group companies in Japan and abroad on a regular basis. It checks the appropriateness of the compliance initiatives undertaken by the companies and points out mat-

ters that need improvement. *Speak-Up System* 

At Sumitomo Chemical, if directors, officers or employees detect illegal or unethical conduct inside or outside their workplaces within Sumitomo Chemical, they are required to promptly report such conduct to their supervisors or compliance managers. All Sumitomo Chemical Group companies, excluding those in France and other countries where the obligation to use whistle-blowing system or anonymous reporting is prohibited by law, have adopted their Speak-Up Systems, under which an employee<sup>\*1</sup> who has found any illegal or unethical conduct and believes it cannot be resolved promptly via the ordinary business reporting route may report such conduct directly to the Compliance Committee or designated external lawyers. The Committee or designated external lawyers serve as contacts for this reporting system, and employees may report to either the Committee or the designated external lawyer.\*2 All information provided in the reporting is kept strictly confidential, and the informant incurs no risk of unfair treatment, such as dismissal, transfer, or discrimination, for reporting such conduct. The Speak-Up System has been in operation for several years now, and cases actually reported at Sumitomo Chemical or Sumitomo Chemical Group companies under this system have been handled in good faith and promptly according to the procedures of the system. We will continue steadily implementing various measures for effective management of this reporting system.

- \*1. In the event of any violation of compliance, this system is available also to those people who are involved in any manner in the activities of the Company, such as the families of the Company's employees, officers, and board members as well as the Group companies and business partners.
- \*2. Not all Group companies currently employ external lawyers to serve as contacts for reporting.

#### ΤΟΡΙΟ

#### Survey on Employee Compliance Awareness Conducted at Domestic Group Companies

Sumitomo Chemical conducted a survey on employee compliance awareness in January 2010, in order to raise awareness of compliance among employees and with the aim of looking into any potential risks of noncompliance. Following this survey, we decided to conduct similar ones for the Group companies after fiscal year 2010. In fiscal year 2010, the survey was conducted not only at the Company but also at eight major domestic Group companies that have a relatively large number of employees. We will compare the survey results with the results of the survey conducted at Sumitomo Chemical and promote and enhance the compliance-based management of Group companies in consideration of the level of compliance awareness and matters to be tackled with at each Group company. In fiscal year 2011, the survey will also be conducted at other Group companies than the above eight major domestic Group companies.

#### CSR Report 2011 Governance

# **UN Global Compact**

Sumitomo Chemical is participating in the creation of a global framework for sustainable development.

#### GRI 4.9 4.11 4.12 4.13 SO5

In January 2005, Sumitomo Chemical became the first Japanese chemical company to announce its participation in the UN Global Compact\* advocated by then UN Secretary-General Kofi Annan. Since then, we have been further promoting our CSR activities in compliance with the ten principles of the Global Compact, while networking with the United Nations and other institutions, and reporting on the status of our efforts in our CSR Report.

#### **Contributing to Society through Our Business**

Sumitomo Chemical is committed to contributing to the sustainable development of society as the core of its CSR and believes it crucial to comply with international norms and cooperate with international organizations, NGOs, and other companies in meeting the challenges faced by society. The Global Compact initiative is fully consistent with the Company's conceptions.

Sumitomo Chemical conducts all its business activities with due consideration for the principles of the Global Compact regarding human rights, labor, the environment, and anti-corruption.

#### **\*UN Global Compact**

The UN Global Compact is a United Nations initiative in which businesses demonstrate responsible and creative leadership and voluntarily participate in efforts to establish a worldwide framework that enables them to act as good corporate citizens and achieve sustainable growth.

#### Initiative Taken by the Global Compact Working Group on the 10th Principle (Anti-Corruption)

In December 2008, Sumitomo Chemical became the first Japanese company to participate in the Global Compact Working Group on the 10th Principle (Anti-Corruption). This working group, which comprises companies, NGOs, and others with divergent interests, discusses companies' needs and their efforts in combating corruption. As a member of the sub-working group on supply chains, whose duty was to prepare a Guide for Customers and Suppliers, Sumitomo Chemical prepared parts of the draft. This guide was completed and announced at the Global Compact Leaders Summit held on June 24 and 25, 2010.

As a member of the global community, Sumitomo Chemical will continue to address the global challenge of anti-corruption in cooperation with other organizations.

#### **UN Global Compact LEAD**

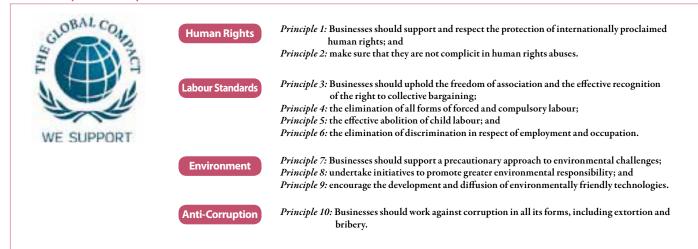
On January 28, 2011, under the leadership of the UN Secretary General Ban Ki-moon, the Global Compact LEAD was launched as a new framework to proactively tackle various problems faced by humankind.

The Global Compact has more than 8,900 signatories from over 135 countries, and the Global Compact LEAD was launched with 54 companies that had made great contributions to the Global Compact. Sumitomo Chemical joined LEAD in January 2011 as one of its initial members. At present, 56 companies, including three Japanese companies, are participating in LEAD.

As a member of the international community, Sumitomo Chemical will continue to make efforts to resolve global problems in cooperation with other organizations.



#### The Global Compact's Ten Principles



# **Economic Activities**



Sumitomo Chemical will continue to supply useful, innovative and groundbreaking products worldwide, thereby contributing to the development of society and industries. At the same time, the Company is maximizing its corporate value through enhancing the profitability of its business operations. In the trend of globalization, we will speedily expand our businesses both in Japan and overseas as a global enterprise.

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#### CSR Report 2011 Economic Activities

# **Business Performance**

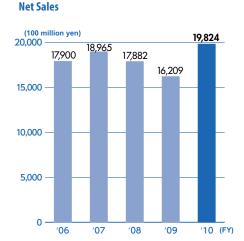
Sumitomo Chemical is striving to increase its corporate value on a continual basis by globally expanding its business and ensuring higher profitability.

#### GRI 2.8 EC1

#### **Overview of Consolidated Business Results**

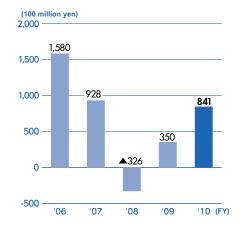
In fiscal 2010, the business environment surrounding the Sumitomo Chemical Group showed a moderate improvement. Specifically, against a backdrop of growth in emerging economies, the shipment of IT-related products increased and trading conditions concerning basic chemicals and petrochemicals-related products improved. Direct damage to equipment from the Great East Japan Earthquake was minor, but the shipment and production of some of our products decreased or were suspended, and some inventories were lost.

Under these circumstances, we made a concerted effort to improve our business performance by modifying sales prices, expanding sales quantities, and cost savings through drastic rationalization. As a result, in fiscal 2010, net sales increased to 1.98 trillion yen, up 361.5 billion yen from the previous fiscal year, and operating income, ordinary income, and net income stood at 88.0 billion yen, 84.1 billion yen, and 24.4 billion yen, respectively. In fiscal 2010, due to further globalization of its business, the Sumitomo Chemical Group's overseas sales ratio reached a record high of 53.3%.

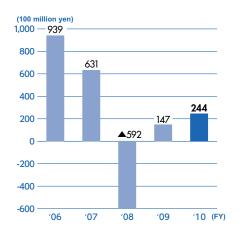


(100 million yen) 1,500 1,396 1,200 1,024 880 900 600 515 300 21 0 '06 **'07 '08 '09** '10 (FY)

#### **Ordinary Income**

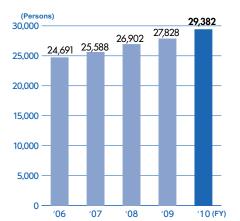


#### Net Income

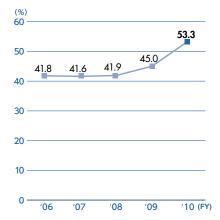


#### **Number of Employees**

**Operating Income** 



#### **Overseas Sales Ratios**



#### CSR Report 2011 Economic Activities

# **Relations with Stakeholders**

Sumitomo Chemical believes it is one of its social responsibilities to appropriately distribute the profit made through its business operations to its stakeholders.

#### GRI 3.9 EC1

#### Distribution of Economic Value to Stakeholders **★**

In fiscal 2010, the Company distributed the following added value to its major stakeholders, which we have estimated by classifying the profits and costs posted in the financial statements by stakeholder, with reference to the GRI guidelines and other materials.

Stakeholder	Amount (Unit: million yen)	Calculation basis
Shareholders	14,868	Dividends
Society*	667	Donations
Environment	37,400	Environmental protection costs
Employees*	75,043	Labor costs Salaries and allowances, reserve for bonuses, and allowance for retirement in the selling, general administrative and research expenses
Creditors	7,763	Interests paid
National and local governments	34,846	Corporate, inhabitant, and business taxes

\*For the distribution of value to society and employees, the amounts are shown on an unconsolidated basis.

#### **Donations**

Sumitomo Chemical regards it as one of its important social responsibilities to make donations, and has been making specific donations by comprehensively examining factors such as social importance, need of continuity, and urgency.

In areas affected by the Great East Japan Earthquake, we donated money to victims in fiscal 2010. (Also, since the start of fiscal 2011, we have continued to donate money collected from employees, supply relief goods, and donate a part of sales from meals served at cafeterias. For details, see page 14.) We have also continued to donate Olyset<sup>™</sup> Nets as an effective means to control malaria.

In fiscal 2010, we made a total of 427 donations, which amounted to 667.73 million yen.

Major donations made in fiscal 2010	
(Unit: mill	ion yen)
To support victims of the Great East Japan Earthquake	
(including donation of funds towards volunteer activities)	300
To supply Olyset <sup>™</sup> Nets to the Southern African Development Community	37
To sponsor the Japanese Pavilion in the Expo 2010 Shanghai China	25
To give financial incentive for studies and research at the Peking	
University Law School	16
To support victims of mudslides in Zhugqu County in Gansu Province, China	13
To support the construction of schools in Malawi	12
To support victims of an earthquake in Qinghai Province	10
To support the construction of schools in Mali	9
To support the construction of schools in Ghana	9

#### Donations made in fiscal 2010 ★

(Un	it: cases)
Item	
Local community activities	134
Sports	24
Social welfare	18
Health and medicine	3
Academic study and research	15
Education and social education	19
Culture and art	14
Environment	9
Preservation of historic sites and traditional culture	6
International exchange and cooperation	39
Support to areas devastated by disasters	8
Support for the creation of disaster-resistant communities	1
Building the foundation of NPOs	2
Politics and economy	103
Others	32
Total	427

Total amount: 667.73 million yen

# **Business Projects Implemented in Fiscal 2010**

Sumitomo Chemical is implementing a range of business projects both in Japan and abroad. The following describes the major projects implemented by the Company in fiscal 2010.

#### GRI 2.2 2.9

#### Expanding Methyl Methacrylate Polymer Production Capacity in Singapore

Sumitomo Chemical is expanding its methyl methacrylate polymer (PMMA) production capacity in Singapore by constructing a new plant with an annual production capacity of 50,000 tons. This plant is slated to start commercial operation in the third quarter of 2012. With the addition of this new plant to the existing facilities in Singapore, the Company's annual PMMA production capacity in the country will increase to 150,000 tons. This, along with the Sumitomo Chemical Group's two other PMMA production bases in Japan and South Korea, will increase the Group's total PMMA production capacity to 318,000 tons per year, making the Group the world's largest producer of PMMA.

In recent years, demand for PMMA has been rising steeply for use in light guide plates, a component of LCD televisions equipped with LED backlights. As LCD televisions become thinner and more energy-efficient, the light source for LCD televisions is rapidly shifting from conventional cold-cathode tubes to LEDs, and with this shift, PMMA light guide plates are being increasingly adopted to disperse light evenly over the entire screen. Moreover, demand for PMMA is expected to grow also for conventional applications in automobiles, home electric appliances, and miscellaneous goods. In order to meet this increasing demand, Sumitomo Chemical has decided to construct a new plant.

Sumitomo Chemical will continue to further strengthen and expand its PMMA business in its efforts to meet the rapidly growing demand for PMMA as the world's largest manufacturer of the product.

#### Constructing a New S-SBR Manufacturing Plant in Singapore

Sumitomo Chemical is constructing a new solution styrenebutadiene rubber (S-SBR) plant in Singapore. The plant will have a production capacity of 40,000 tons per year and will start commercial operation in the fourth quarter of 2013.

Demand for S-SBR is rapidly increasing as a raw material for high-performance fuel-efficient tires, as regulations on automobile fuel consumption are becoming stricter across the world to combat global warming. In Asia, particularly in China, India, and Thailand, many tire manufacturers are planning capacity expansions, and in

response, suppliers of S-SBR are expected to increase their supply capacity in the near future.

Sumitomo Chemical has decided to construct a new plant in Singapore because of its geographical advantage in supplying S-SBR to the grow-



Demand for S-SBR is rapidly growing as a material for high-performance, fuel-efficient tires.

ing Asian markets, the need to procure butadiene—used as raw material and which is likely to be in tight supply—in a stable manner, and also because of the merits derived from cooperation with existing local businesses in the Sumitomo Chemical Group.

Sumitomo Chemical's S-SBR is highly appreciated by users in the tire manufacturing industry both in Japan and abroad as a fuelefficient tire material with outstanding abrasion resistance. The new plant in Singapore, in tandem with the existing plant in Japan, will drive the further global expansion of the Company's S-SBR business.

# Establishing a Joint Venture with Samsung LED for the Sapphire Substrate Business

Sumitomo Chemical and Samsung LED of South Korea have established a joint venture in South Korea for the R&D, manufacture, and sale of sapphire substrates for LEDs. This joint venture will first engage in the LED sapphire substrate business, aiming to eventually become a comprehensive provider of LED-related materials.

LEDs are manufactured by slicing sapphire ingots into thin sheets. These sheets are processed into sapphire substrates, which are then coated with a luminescent layer. LEDs are used in a wide range of fields as they are highly energy-efficient and give only low environmental impact while exhibiting outstanding luminescent efficiency and color rendition. The LED market is expected to further expand, mainly in applications for LCD television backlights, interior lighting, and automobiles, and demand for sapphire substrates and related materials will increase accordingly in the future.

Sumitomo Chemical is a provider of high-purity alumina used as a raw material for sapphire substrates and liquid crystal polymer used in materials for LED packages, and to start the commercial production of sapphire substrates as early as possible, the Company has been working to build a robust production system for the substrates across the entire Sumitomo Chemical Group.

At the same time, Samsung LED regards the LED business, which shows promise for future growth, as one of its core businesses, and plans to make strategic investments in the business.

By cooperating to create synergies in technological development, marketing, and other areas, the two companies will enhance their competitiveness and expand their business in the LED market, which is expected to continue substantial growth.



#### Releasing New Agricultural Chemicals to Contribute to Domestic Agricultural Production

On March 8, 2011, Sumitomo Chemical began selling the Zeta One<sup>™</sup> and Mega Zeta<sup>™</sup>, new herbicides for paddy rice, which were registered as agricultural chemicals in Japan on December 13, 2010.

The new products, which contain propyrisulfuron (generic name)—an ingredient newly developed by Sumitomo Chemical, are herbicides for one-shot application in the initial to middle period of rice culture in paddy fields. Propyrisulfuron is highly effective in controlling a range of annual and perennial weeds, including Echinochloa crus-galli (barnyard grass). The herbicides are also very effective for eliminating Eleocharis kuroguwai Ohwi, Sagittaria trifolia, and other weeds that are very difficult to remove.

The Zeta One<sup>™</sup> and Mega Zeta<sup>™</sup> contain one to two active ingredients (while mainstream products in the market may contain three to four active ingredients) and are therefore more suitable for specially cultivated rice<sup>\*1</sup>, for which demand has been recently increasing. Moreover, the products are available in three forms (onekilogram granules, flowable<sup>\*2</sup>, and jumbo<sup>\*3</sup>).

Sumitomo Chemical has enhanced the product lineup through the release of the aforementioned products. To make even more contributions to the prevention and removal of weeds in paddy rice fields, we are actively continuing to develop and diffuse products that contain propyrisulfuron.

#### \*1. Specially cultivated rice

Rice cultivated by reducing the use of pesticides and the nitrogen content of chemical fertilizers to at least half that of ordinary levels.

#### \*2. Flowable

In flowable herbicides, active ingredients that are not readily soluble in water are processed into very fine particles and suspended in water mixed with emulsifiers. \*3. Jumbo

Formulation packaged in a water-soluble film.



# Fostering the Global Expansion of Business by Acquiring Shares in Nufarm, Australia

Sumitomo Chemical acquired 20% of the total issued shares in Nufarm, an Australian manufacturer of crop protection products, in April 2004, and has subsequently increased its stake in the company to 23%. By enhancing our partnership with Nufarm through

the acquisition of these shares, we are creating more synergetic effects to promote the sales of our agricultural chemical products in the world market.

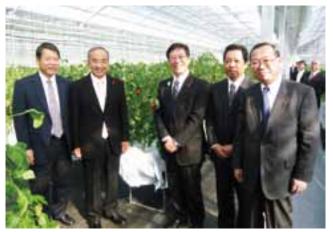
Sumitomo Chemical has been expanding its business in the field of life science, regarding this field—which includes agricultural chemicals—as one of its core business segments. In the future, efficient production of agricultural products will become more important as the world population increases and demand for biofuels expands. Accordingly, it is expected that demand for agricultural chemicals will further increase, not only in the United States and Europe but also in Central and South American countries and in Asia.

Sumitomo Chemical expects that its comprehensive business and capital investment in Nufarm will help the Company respond to an increase in demand for agricultural chemicals, contributing to the stable production of agricultural products across the world. This will in turn help the Company strengthen and enhance its agricultural chemicals business.

# Cultivation Facilities Completed at Sumika Farm Oita

On November 12, 2010, Sumitomo Chemical held a ribbon-cutting ceremony for the cultivation and shipment facilities of Sumika Farm Oita, including a greenhouse. Governor Hirose of Oita Prefecture and Mayor Hashimoto of Bungo-Ono City attended the ceremony. At the newly completed greenhouse, three high-quality tomato varieties are grown, including high-density tomatoes cultivated using the new tomato growing system with low-node order pinching and high-density planting. These tomatoes have been sold in the Kanto and Kansai regions since December 2010.

Sumitomo Chemical will continue to establish and manage agricultural corporations with a view to accumulating various agricultural technologies, including cultivation technologies and know-how in farm management. We will use the technologies thus gained to contribute to the revitalization of local agriculture across Japan, in cooperation with agricultural producers, production associations, local governments, and other interested parties.



Governor Hirose of Oita Prefecture (second from left) and Mayor Hashimoto of Bungo-Ono City (center) in the new greenhouse.

# Contribution through the Olyset<sup>™</sup> Net Business

The Olyset<sup>™</sup> Net, an insecticidal mosquito net that helps prevent the spread of malaria, symbolizes the CSR initiative of Sumitomo Chemical, which is committed to business activities that contribute to the creation of a prosperous society.

#### GRI 2.2 EC9

# Product Developed through Creative Hybrid Chemistry

Every year, 300 million people around the world develop malaria and 0.8 million people die from the disease. People living in Africa account for 90% of these deaths, and most of the victims are children under the age of five living in the Sub-Saharan region. Infectious diseases, such as malaria, prevent people from working or attending school and also incur high costs for medical treatment, often forcing them into a vicious circle of poverty from which it is difficult to escape.

Malaria is an infectious disease transmitted by mosquitoes, and protecting people from mosquitoes represents the most effective method of preventing contraction of the disease. Sumitomo Chemical developed the Olyset<sup>™</sup> Net, which is a highly durable net made from polyethylene resin-based fibers containing insecticide, using expertise gained through the development and production of resin and active ingredients for household insecticides. Sumitomo Chemical developed this product through Creative Hybrid Chemistry by combining its proprietary technologies from different fields. (For details see page 8.)

#### Features of the Olyset<sup>™</sup> Net

- -Because the net is made from polyethylene resin-based fibers containing insecticide that is gradually released onto the surface, it retains its insecticidal efficacy for more than five years—even with repeated washing.
- -Because it is designed to be used in the hot climate of Africa, the mesh is larger than that of an ordinary mosquito net in order to improve air circulation.



Expanding Production Capacity in Line with WHO Policy

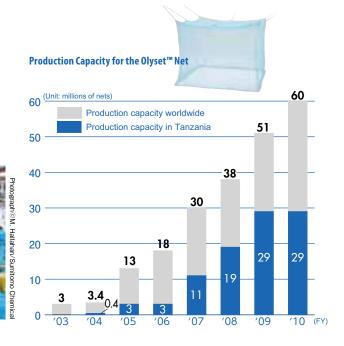
In 2001, the World Health Organization (WHO) endorsed the use of the Olyset<sup>™</sup> Net as a "long-lasting insecticidal net." The Olyset<sup>™</sup> Net has been contributing to malaria control in Africa and across the world. Results from a limited regional trial indicated that the use of the net contributed to an impressive decline in the local rate of malarial infection.

In 2008, the WHO, promoting the policy of "universal coverage," enlarged its pool of candidates for malaria control, which had previously been limited to pregnant women and infants. Under this policy, the organization aims to distribute one long-lasting insecticidal net per two people in malaria-prone areas. It is estimated that fulfilling this aim will require 350 million nets. To meet the demand, Sumitomo Chemical has increased the total Olyset<sup>™</sup> Net production capacity of its production bases in three countries to 60 million nets per year (29 million nets in Tanzania, 19 million in Vietnam and 12 million in China).

#### Creating Employment through Local Production in Africa

In 2003, Sumitomo Chemical provided its Olyset<sup>™</sup> Net manufacturing technology free of licensing fees to A to Z Textile Mills Limited, a Tanzanian mosquito net manufacturer. Subsequently, in 2007, the Company established Vector Health International Limited, a joint venture with A to Z Textile Mills and opened a new factory. The Olyset<sup>™</sup> Net business has provided approximately 7,000 people with jobs in Tanzania, thereby contributing to local employment and economic development.

Sumitomo Chemical will continue to contribute to the sustainable development of society through its business operations.



Olyset<sup>™</sup> Net manufacturing factory in Tanzania

# **Responsible Care Activities**

In its efforts to realize Sustainable Chemistry, Sumitomo Chemical is promoting Responsible Care (RC) activities based on its Corporate Policy on Safety, the Environment and Product Quality and on the fundamental principle of "Making Safety the First Priority." We will continue to conduct RC activities proactively and systematically to ensure zeroaccident and zero-injury operations, protect the global environment, ensure the safety of chemicals based on their risk assessment, convey information through our supply chain, and promote communication with society.

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CSR Report 2011 Responsible Care Activities

# Promoting RC Activities Together with Group Companies

The Sumitomo Chemical Group is making a concerted effort to encourage and enhance Responsible Care activities on a global scale.

GRI 4.8 4.9

# Corporate Policy on Safety, the Environment and Product Quality

Sumitomo Chemical has set forth safety, the environment, and product quality as top priorities for all phases of its business activities in its Corporate Policy on Safety, the Environment and Product Quality. This policy has been communicated to all employees of Sumitomo Chemical and its Group companies to ensure that each and every employee is fully aware of it.

#### **Policy on Responsible Care Activities**

Sumitomo Chemical has summarized its key Responsible Care initiatives in its Policy on Responsible Care Activities, which is incorporated into the specific activity targets and plans formulated annually by the Company and each workplace.

Revised: November 1, 2005 (Established April 1, 1994)

#### Corporate Policy on Safety, the Environment and Product Quality

In conformity with Sumitomo's Business Principles, our Company fulfills its responsibility to develop, manufacture and supply a variety of products that satisfy the fundamental necessities of human life and contribute to the growth of society. Under the concept of "Making Safety the First Priority," which is fundamental to all the Company's operations, Sumitomo Chemical has based management of its activities on the principles of (i) maintaining zero-accident and zero-injury operations, (ii) ensuring customer satisfaction, and (iii) promoting mutual prosperity with society.

Paying due respect to these principles, our Company is determined to conduct all activities, including production, R&D, marketing & sales and logistics, in accordance with the following policy related to safety, the environment and product quality.

- Maintain zero-accident and zero-injury operations and the safety of neighboring communities and our employees.
- Ascertain the safety of raw materials, intermediates and products, and prevent our employees, distributors, customers and consumers from being exposed to any possible hazard.
- Supply high-quality products and services that satisfy customers' needs and ensure safety in their use.
- Assess and reduce our environmental impact at all operational stages, from product development to disposal, and undertake all practical environmental protection measures.

All sections and employees of our Company shall be made fully aware of the significance of this policy, and shall constantly strive to improve operational performance, while at the same time abiding by all relevant laws, regulations and standards.

Masakazu Tokura President Sumitomo Chemical Company, Limited



#### **Organization for Responsible Care Activities**

Sumitomo Chemical has its Responsible Care (RC) Committee to foster Responsible Care from a long-term view both comprehensively and efficiently. This committee is chaired by the executive officer in charge of Responsible Care and comprises executive officers supervising the four business sectors of the Company, executive officers in charge of the corporate departments (the General Affairs, Legal, Corporate Communications and Logistics Departments, the Responsible Care Office, etc.), and heads of the Works.

#### **Policy on Responsible Care Activities**

Revised: March 2, 2006 (Established: January 1995) Responsible Care Committee

In accordance with the Corporate Policy on Safety, the Environment and Product Quality, Sumitomo Chemical will strive to promote Responsible Care activities in developing its business, and will also do its utmost to achieve sustainable development and earn the trust of society.

- We will achieve our zero-accident, zero-disaster targets to ensure stable operations.
- 2. We will conduct risk management throughout the life cycle of our products, throughout the stages of development, manufacturing, transport and disposal, and strive to conserve the environment, and ensure the safety and health of our employees as well as that of the local community.
- We will comply with all domestic and international laws and standards relating to safety and the environment, and strive to meet even stricter targets than those legally required.
- 4. We will promote both risk reduction and accident prevention from the perspectives of product safety and quality.
- 5. We will promote energy and resource conservation and seek to reduce our environmental impact.
- 6. We will implement the requisite education and training for our employees relating to safety, the environment and product quality, and will promote effective Responsible Care activities.
- 7. We will be mindful of the interests of both local residents and regulatory authorities in connection to safety, the environment and product quality, and will fulfill our responsibility to provide related information through dialogue.
- 8. We will evaluate the content of our activities and seek to implement improvements through Responsible Care audits pertaining to occupational health and safety, security and disaster prevention, environmental protection, chemical safety, product safety and quality assurance.
- We will support the Responsible Care activities of Group companies, contractors and other business partners, including located overseas.

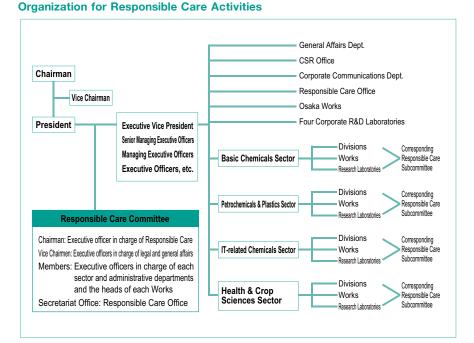
# Implementing the Sumitomo Chemical Group's Corporate Business Plan for Responsible Care

Sumitomo Chemical has formulated a medium-term plan for Responsible Care activities (for fiscal 2010 to 2012) for the entire Sumitomo Chemical Group, covering the fields of occupational safety and health, industrial safety and disaster prevention, environmental protection, chemical safety, product safety, and quality assurance. We are implementing this plan, aiming to achieve the targets it sets forth.

#### Applying the Sumitomo Chemical Group Responsible Care Activity Standards

As part of measures to enhance internal control and foster efficiency in Group management, Sumitomo Chemical has formulated the Sumitomo Chemical Group Responsible Care Activity Standards and is fostering the application of the standards by both domestic and overseas Group companies. These standards set out the Group's policies, measures, procedures, and other basic requirements for each RC activity area.

#### TOPIC

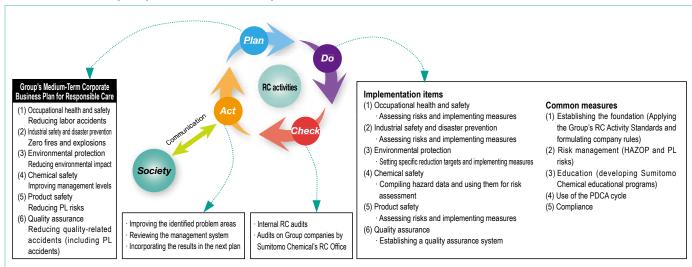


#### Holding Twice-Yearly RC Meetings in Japan

Sumitomo Chemical holds a twice-yearly meeting for domestic Group companies to exchange information about RC at its head office in Osaka, in April and November. These meetings have been held for more than 20 years. In each of the meetings held in fiscal 2010, 100 or more employees in charge of RC participated. During discussions, both Sumitomo Chemical and Group companies reported their RC-related challenges and topics, and participants proactively exchanged opinions with each other.



(Note) The fifth RC Global Meeting (annual meeting held with the participation of overseas Group companies at the head office in Tokyo) slated for the end of March 2011 was postponed until autumn 2011 due to the Great East Japan Earthquake.



#### Sumitomo Chemical Group's Corporate Business Plan for Responsible Care

# **Responsible Care (RC) Audits**

CSR Report 2011 Responsible Care Activities

We examine the results of our Responsible Care activities for a range of items to increase the effectiveness of the activities.

#### GRI 4.11

#### **Responsible Care Auditing Framework and Overview**

Sumitomo Chemical conducts RC audits to objectively evaluate whether RC activities are being conducted appropriately and whether the PDCA cycle is being executed properly.

Sumitomo Chemical's Works and Research Laboratories are subject to the following two types of RC audits:

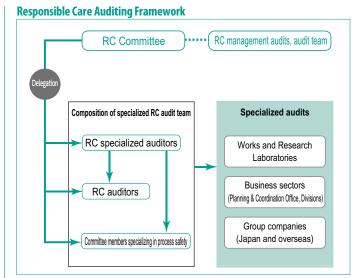
(1) Specialized audits, in which a checklist is created and specialists then conduct audits on RC systems and their operation; and

(2) Management audits involving Responsible Care Committee members led by the executive officer in charge of Responsible Care.

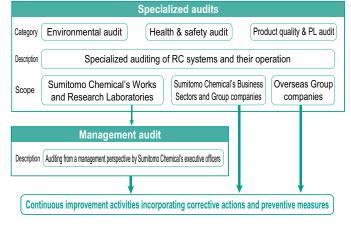
Specialized audits are also conducted for each of Sumitomo Chemical's business sectors as well as Group companies in Japan and overseas.

#### **Fiscal 2010 Responsible Care Audit Results**

Responsible Care specialized audits and management audits were conducted at the Ehime, Chiba, Osaka, Oita, Misawa, and Ohe Works and at the Health & Crop Sciences Research Laboratory (Takarazuka). In addition, a total of 43 audits were conducted on our business sectors and domestic and overseas Group companies. The results turned up no major issues of noncompliance with laws and regulations.



#### **Responsible Care Auditing Flow (Overview)**





#### Hiroshi Nishida

General Quality Assurance Department, Nihon Medi-Physics Co., Ltd.

#### Striving to Enhance Safety Management

We underwent RC audits at our major manufacturing facilities in Chiba and Hyogo. Based on a range of opinions given to us through the audits on our RC activities covering the environment, safety, and quality, we have been making specific improvements in a steady manner, such as revising the procedures for non-routine and ad-hoc work, aiming to improve the entire level of our RC activities.

Unfortunately, however, we have suffered a series of labor accidents at our non-manufacturing sites over the past two years. In response, we have introduced to the head office and sales department safety patrols and the reporting of incidents that could have resulted in serious injuries. Moreover, we have started to provide new employees with education on workplace safety and expanded the target of the Occupational Health and Safety Committee activities to include all branches and sales offices for the enhancement and improvement of safety management. Also, considering the gravity of an incident involving a vehicle owned by the company that resulted in a labor accident, we are earnestly implementing measures to prevent accidents involving the company's vehicles.

Giving first priority to safety as our basic corporate philosophy, we are improving the safety awareness of employees across the company and fostering RC activities with the participation of all. We have thus

begun conducting RC activities on a company-wide basis, recognizing the necessity of implementing RC measures more widely on a regular basis.



Head office of Nihon Medi-Physics

# **Group Company Initiatives**

CSR Report 2011 Responsible Care Activities

Group companies are implementing a wide range of Responsible Care activities.

### **Initiatives Taken by Domestic Group Companies**

#### Making Effective Use of Logging Residues as Biomass Fuel Sumitomo Joint Electric Power

Sumitomo Joint Electric Power Co., Ltd. has been making effective use of waste wood, such as wood shavings from sawmills, as biomass fuel for boilers since fiscal 2005, thereby reducing the use of coal at its thermal power generation plants to curb CO<sub>2</sub> emissions.

In recent years, demand for wood biomass has been expanding and it is becoming difficult to procure wood for use as biomass fuel. In response, the company began implementing measures to make effective use of logging residues, such as woodland thinning left unused in forests. In July 2010 we started to use biomass fuel made from logging residues, which were crushed for the purpose by one of our Group companies. By using logging residues, we can increase the total use of wood biomass and reduce CO<sub>2</sub> emissions while contributing to preventing forest deterioration and promoting woodland protection.



Inputting logging residues into a crushing machine (Niihama-Nishi thermal power plant)



Transporting the crushed logging residues (Niihama-Nishi thermal power plant)

There are some concerns about increasing the use of wood biomass fuel because the amount of heat generated by the biomass fuel differs from the heat value of coal and the use of the fuel might affect the operation and maintenance of boilers. Due to this, wood biomass fuel currently accounts for only a few percent of total fuel combustion. However, we will strive to increase the use of biomass fuel as much as possible in our continuous efforts to reduce global warming and preserve the environment.



Naohisa Iwasaki General Affairs and Environment Department Sumitomo Joint Electric Power Co, Ltd.

#### Providing Customers with Even Better Support in Their RC Activities Sumika Chemical Analysis Service

In 1972, a part of Sumitomo Chemical's Analysis Division became independent and formed Sumika Chemical Analysis Service, Ltd. This company meets the needs for analysis and evaluation technologies in all industrial fields, including the environmental, electronic, pharmaceutical, engineering support, and chemical safety fields, as the largest comprehensive analysis service company and offering advanced technologies and expertise.

In addition to providing customers with a broad range of analysis and evaluation services to ensure the quality and safety of products, including measuring the concentrations of hazardous substances in food and testing the stability of pharmaceuticals, we also support customers in their RC activities.



Sumika Chemical Analysis Service's Ehime Laboratory

We support customers' RC activities specifically through (1) analytical services related to environmental protection (analyzing wastewater and exhaust gas from factories, measuring data about work environments, analyzing traces of PCBs contained in insulating oil, and conducting surveys on room environments in relation to sick house syndrome, and also surveys on soil contamination); (2) risk assessment services related to industrial safety (tests related to the Fire Service Act of Japan, dust explosion and gas explosion tests, etc.); and (3) services for chemical safety, such as filing applications on behalf of customers for registration to comply with regulations on chemicals (REACH, TSCA, and the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. of Japan) both in Japan and abroad. We have bases not only in Japan but also in China (Shanghai), Singapore, and Europe (Belgium) to provide services on a global scale.

To provide customers with even better business/RC activity support services, we are striving to improve our operations in a strict manner, receiving advice from Sumitomo Chemical.



Satoshi Ebisu General Manager of the Technology Office Sumika Chemical Analysis Service, Ltd.

CSR Report 2011 Responsible Care Activities

#### Initiatives Taken by Overseas Group Companies

#### **Responsible Care Initiatives** Sumitomo Chemical Singapore

Sumitomo Chemical Singapore (SCS) was established in 1996 and is engaged in the manufacture and sale of Methyl Methacrylate monomer (MMA-m) and Methyl Methacrylate polymer (MMA-p).

The manufacturing plants of MMA-m and MMA-p are operated in the Singapore MMA & Acrylic Group (SMAG) Complex, which is situated at Jurong Island in Singapore. SMAG complex consists of manufacturing of MMA-m, MMA-p, and other Acrylic derivative chemicals. Overall complex operations are managed by SCS.

Until now, SCS boasts of the single largest production site for MMA-m and MMA-p in the business field, with an annual production of 223,000 tons of MMA-m and 100,000 tons of MMA-p. And, we are now embarked on the new expansion project of MMA-p and the annual production volume will reach 150,000 tons in 2012.

SCS certified ISO 9001 and ISO14001 in 2001 and 2006, respectively. In 2010, SCS implemented new SS506 Part 3: 2006 Occupational Safety and Health (OSH) management system particularly requirements for the chemical industry by Ministry of Manpower, Singapore.

With clear policy on Health, Safety and Environment and Quality management system established, we have achieved no Lost Time Injury (LTI) since plant startup in 1999 till now as to MMA-p plant.

In 2006, SCS committed to as a signatory of Responsible Care Company in Singapore Chemical Industry Council (SCIC). Since then, SCS has been actively conducting annual voluntary submission of Responsible Care self-evaluation and KPIs to SCIC and involving in the Responsible Care activities through Community Outreach programmes such as student (secondary, polytechnics and universities) visit to the plant, product safety awareness talk at the schools, Chemical Industry Manpower Advisory Committee (CHIMAC) HR forum, etc.,

In addition, SCS plays the contributing role in the neighboring industrial community organizations such as Sakra Owners Roundtable (SORT) and Sakra Industries Community Awareness Group (SICA), which are composed of the company members in Sakra cluster in Jurong Island, in terms of HSE related matters and sharing of best practices amongst the companies.

In SCIC Responsible Care Awards presentation 2010, SCS



SCIC Responsible Care Awards ceremony. Katsuhisa Dehara, General Manager of the plant, is fifth from left.

received four Responsible Care Achievement Awards in the areas of Process Safety code, Employee Health and Safety code, Pollution Prevention code and Community Awareness and Emergency Response code. The Responsible Care awards will provide added impetus in our commitment towards sustainability and to strive for continual improvement in the fields of health, safety and environment of employees and the community.

With the Sumitomo Chemical Group Responsible Care General Standards and Guidance, SCS has established and will be implementing the rules of specific procedures for Responsible Care this year.

SCS will continue not only to achieve the specific targets of Sumitomo Chemical Group Medium Term plan on Responsible Care but also to be active with Responsible Care activities through Community Outreach programmes with industrial players with the view of improving health, safety and environment and product stewardship performance in the chemical industry.



**Thet Naing** Sumitomo Chemical Singapore Deputy Manager, Health, Safety & Environment

#### As a Responsible Corporate Citizen The Polyolefin Company (Singapore)

The Polyolefin Company (Singapore) Pte. Ltd., or TPC, is the first polyethylene & polypropylene manufacturer in South East Asia and one of the largest polyolefin producers in the region, with an annual output of more than 800,000 tons. TPC is located on Jurong Island, which is designated as world-class chemical hub. TPC became one of the first 50 companies in Singapore to pledge themselves as Responsible Care signatories, initiated by the Singapore Chemical Industry Council (SCIC) on October 15, 1999. With that, we are committed to implementing RC activities in our plant and to promoting RC among chemical companies in Singapore, as well as for our customers, suppliers, contractors and community.

Over the years, TPC has made significant progress in the reduction of materials consumption, including energy and water, and waste generation and disposal to landfill. TPC has implemented and continuously enhanced its health, safety & environment (HSE) management system to secure the occupational safety and health of not only its employees but also of its business associates, including contractors and all other service providers. The HSE management system was certified to meet the internationally recognized OHSAS 18001: 2007 and Singapore Standard SS 506 Part 3 in May 2010.

We actively engage with the government agencies in the development of regulations and standards to safeguard the community, workplace, and the environment. TPC supports community awareness and outreach programs organized by SCIC, such as the annual Jurong Island Open Day, and plant visits, when students from tertiary institutions are invited to visit our workplace, enjoy firsthand experience of the petrochemical industry, and interact with our engineers.

TPC also participates in the Process & Engineering Committee led by the SCIC, with the objective of effectively promoting members' interest by addressing concerns and capacity building on process engineering, process safety, and other technical issues.

TPC has renewed its commitment to the RC initiatives in 2010 and was honored to be presented with the Responsible Care Achievement Award in Process Safety, Community Awareness & Emergency Response and Product Stewardship, and the Gold Award for Pollution Prevention by the SCIC in April 2011. With this recognition, TPC strives to discharge corporate social responsibility and will continue its efforts in RC activities and contribute positively as a responsible corporate citizen to the wellbeing of all stakeholders.

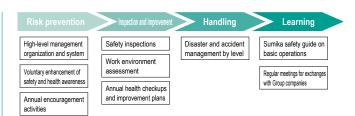


TPC members participating in the SCIC Annual Dinner (April 2011) (Managing Director Hajime Sadatoshi of TPC is front row, second from right.)

#### Ensuring Occupational Safety and Health as the Basis for the Company's Sustainable Development Sumika Technology (Taiwan)

Since its foundation in April 2001, Sumika Technology Co., Ltd. has been fostering technological innovations to increase its corporate value and contribute to the development of society, while providing the LCD industry with polarizing plates, color filters, aluminum targets, and other components. For the company's sustainable development, we are conducting CSR activities in consideration of the concerns of all our stakeholders, including shareholders, employees, business partners, and local communities. We aim to retain a good balance between the following three types of activities: economic activities; RC activities for the environment, safety, and quality assurance; and social activities. The specific CSR initiatives taken by the company are introduced in its CSR report, which has been published annually since 2009.

Sumika Technology believes that employees should play a core role in its CSR activities and accordingly gives due consideration to employees, in particular by conducting safety promotion activities focusing on occupational safety and health in its RC activities. Our safety promotion activities are composed of the following four stages: "risk prevention," "inspection and improvement," "handling,"



and "learning." At each stage we formulate specific action plans through detailed discussions and then implement them.

- In fiscal 2010 we conducted the following activities:
- Educated employees on occupational safety and health and environmental protection to increase their awareness of basic RC ideas.
- Enhanced management in response to changes in manufacturing processes. After listing up all possible risks, devised countermeasures and incorporated them into the work manual. Educated employees to further increase their risk awareness.
- Improved employees' safety awareness by announcing cases of lost-workday injuries reported by safety managers at the entrance and exit of the facilities.
- Fostered improvement proposal activities for safety, such as reviewing the work environment and workflow and improving equipment.
- Announced the results of safety patrols conducted by senior managers, departmental managers and employees in charge of safety via the intranet, including problems and proposed countermeasures. Encouraged employees to learn through case studies, and implemented relevant measures speedily across the board.

Moreover, we provide employees commuting to the company by motorbike with support for the inspection and maintenance of their bikes, as well as risk prevention and riding skills training. In addition, we are implementing measures to eliminate danger zones on the routes taken by employees in negotiation with the related authorities.

In recognition of these CSR activities, we received awards from external organizations in 2010, including a workplace health certification from the Bureau of Health Promotion, Department of Health, Executive Yuan, R.O.C. (Taiwan), a corporate contribution award from the Council of Labor Affairs, Executive Yuan, and a sustainable development award from the Executive Yuan.



Han-Jung Chen Vice President, Administration Headquarters Sumika Technology Co., Ltd.

## CSR Report 2011 Responsible Care Activities

# **Major Targets and Results**

GRI EN5 EN18 LA7 PR2

		Ca	ategory	Target	Measures Taken	Object
	Sustai	nable envi	ronmental management	Promotion of sustainable environmental management	Making economic activities and environmental protection compatible	Non-consolidated/Group
		Global er	nvironmental protection	Prevention of global warming	Reduction in CO <sub>2</sub> emissions	Non-consolidated
						Group
				Prevention of ozone layer depletion	Reduction of CFC emissions	Non-consolidated/Group
E		-	tablishment of a cycling-based society	Energy savings	Improvement in unit energy consumption	Non-consolidated
ectio						Group
l Prote				Waste reduction	Reduction in the amount of generated waste; promotion of recycling	Non-consolidated
ental						Group
ume.				Reduction in waster use	Improvement in unit water usage	Non-consolidated
Environmental Protection			Preservation of the living environment and prevention of	Appropriate chemical substances management Proper handling of PRTR substances	Promotion of risk management according to the environmental risk	Non-consolidated
			health hazards			Group
				Reduction in VOC emissions	Reduction in VOC emissions	Non-consolidated
				Prevention of soil and groundwater contamination	Promotion of soil and groundwater contamination risk management	Non-consolidated/Group
				PCB countermeasures	Proper storage and disposal of PCB waste	Non-consolidated/Group
				Prevention of accidents causing environmental contamination	Reduction of environmental risks involving operating activities	Non-consolidated
	Promot	ion of occu	pational health and safety	Prevention of occupational accidents	Elimination of accidents resulting in lost workdays for employees of Sumitomo Chemical and contractors/affiliate companies Use of Occupational Safety and Health Management System (OSHMS) to reduce potential occupational safety risks	Non-consolidated
					Prevention of problems caused by human factors	
	Promot	ion of disa	ster prevention activities	Prevention of major accidents	Reduction of process-related risks	Non-consolidated
Safety	Promot	ion of cher	nical safety management	Ensuring chemical safety	Enrichment of safety information and proper management of chemical substances	Non-consolidated
	Promo	tion of safe	ety activities in logistics	Ensuring safety, environmental protection, and maintaining product quality during logistics operations	Reducing risk of occupational accidents and injury in logistics; Promotion of a transport system that exerts less impact on the environment; Promotion of measures to prevent quality irregularities in logistics	Non-consolidated
Auditing	Respo	nsible Ca	rovement of re activities f corporate governance	Use of audits to evaluate and improve Responsible Care activities Strengthening of compliance	Promotion of integrated Responsible Care activities and Responsible Care audits throughout the Group Determination of priority areas for auditing: zero accidents, measures to strengthen compliance	Non-consolidated/Group
Quality Assurance	Promo	tion of qua	lity assurance activities	Prevention of quality problems (including PL problems)	Further improvement of quality awareness; Enhancement of the quality assurance system in consideration of product features; Improvement of the entire Group's quality assurance system; Enhancement of quality management at outsourcing companies	Non-consolidated/Group

# Sumitomo Chemical CSR Report 2011

● = Target achieved or satisfactory progress ◆ = Almost achieved ■ = To be achieved

Target	Performance in Fiscal 2010	Assurance	Achievemer Status
<ul> <li>Promote measures to fulfill the commitments made under the Ministry of the Environment's Eco-First program</li> <li>Formulate medium- to long-term emission reduction targets for PRTR substances and VOCs based on risk assessments</li> </ul>	<ul> <li>Achieved definite results for each of the items (Reviewed some of the commitments in consultation with the Ministry of the Environment)</li> <li>Completed the risk assessment work and set new PRTR targets</li> </ul>		
• Neet the common environmental protection and management targets	Achieved certain results across all items and launched measures to attain the new targets	*	
<ul> <li>Examine the use of environmental efficiency evaluation methods</li> <li>Examine the use of environmental accounting methods</li> </ul>	Continued studying environmental impact assessment based on JEPIX and LCA methods     Continued evaluating the effectiveness of the material flow cost accounting (MFCA) method		
Reduce unit CO $_2$ emissions from fossil fuels for captive consumption by 20% relative to fiscal 1990 levels by fiscal 2015	Improved unit CO $_{2}$ emissions by 24.1% relative to fiscal 1990 (by 3.2% from the previous fiscal year	*	
Reduce unit CO $_{2}$ emissions by 6% relative to fiscal 2002 by fiscal 2010	Improved unit CO $_2$ emissions by 6.4% relative to fiscal 2002 (by 3.4% from the previous fiscal year)	*	
Eliminate the use of refrigeration units that use specified CFCs as coolants by fiscal 2025	Promoted systematic replacement of refrigeration units     No coolant leakages occurred.	*	
Reduce unit energy consumption by 25% relative to fiscal 1990 by fiscal 2015	Improved unit energy consumption by 18.3% relative to fiscal 1990 (by 1.3% from the previous fiscal year)	*	
Reduce unit energy consumption by 9.5% relative to fiscal 2002 by fiscal 2010	Improved unit energy consumption by 7.5% relative to fiscal 2002 (by 0.5% from the previous fiscal year)	*	
<ul> <li>Reduce volume of waste disposed of in landfill by 90% relative to fiscal 1990 level by fiscal 2010</li> <li>Stop the disposal of red bauxite through sea dumping by fiscal 2015</li> </ul>	<ul> <li>Landfill disposal: Reduced the volume of waste disposed of in landfill by 94.4% relative to fiscal 1990 (66.2% reduction from the previous fiscal year)</li> <li>Sea dumping: Stopped sea dumping in March 2011</li> </ul>	*	
Reduce volume of waste disposed of in landfill by 48.9% relative to fiscal 2002 levels by fiscal 2010	Reduced the volume of waste disposed of in landfill by 68.2% relative to fiscal 2002 (down 4.2% from the previous fiscal year level)	*	
Reduce unit water usage by 25% relative to fiscal 1990 levels by fiscal 2010	Improved unit water usage by 29.6% relative to fiscal 1990 (by 3.2% from the previous fiscal year level)	*	
Reduce total emissions (into the air and water) of substances subject to the PRTR Act by 50% relative to fiscal 2002 levels by fiscal 2010	Reduced total emissions by $63.4\%$ relative to fiscal 2002 (down $4.7\%$ from the previous fiscal year level)	*	
Reduce total emissions (into the air and water) of substances subject to the PRTR Act by 60% relative to fiscal 2002 levels by fiscal 2010	Reduced total emissions by 73.6% relative to fiscal 2002 (down 49.4% from the previous fiscal year level)	*	•
Reduce VOC emissions by 30% relative to fiscal 2000 levels by fiscal 2010	Reduced VOC emissions by 44.1% relative to fiscal 2000 (down 34.3% from the previous fiscal year level)	*	
Keep hazardous materials strictly within Company premises and conduct the required inspections and improvements. Company premises to be kept under continuous monitoring/supervision.	Soil contamination survey, evaluations, and required remediation currently near completion     Monitoring of groundwater near boundaries has confirmed that levels of hazardous     materials are below those stipulated by environmental standards.     Continued monitoring of groundwater		•
Promote appropriate storage and recovery of PCB waste and complete PCB waste treatment by March 2014	Some factories completed PCB waste treatment, and those that had yet to complete it continued the strict recovery and appropriate storage of PCB waste		
Completely eliminate accidents and major problems	Achieved the target of zero accidents and major problems		
<ul> <li>Frequency rate of lost-workday injuries: &lt;=0.1</li> <li>Severity rate of lost-workday injuries: &lt;=0.01</li> </ul>	There were two accidents resulting in lost workdays at Sumitomo Chemical and nine in total at its contractors/affiliate companies, and thus the targets were not achieved		
<ul> <li>Frequency rate of lost-workday injuries = (number of lost-workday injuries/ man-hours) x 1,000,000</li> <li>Severity rate of lost-workday injuries = (number of lost-workdays/man-hours) x 1,000</li> </ul>	Sumitomo Chemical: Frequency rate of lost-workday injuries: 0.16; severity rate of lost- workday injuries: 0.003     Contractors/affiliate companies: Frequency rate of lost-workday injuries: 0.81; severity rate of lost-workday injuries: 0.82	*	
<ul> <li>Eliminate major accidents</li> <li>Give no impact outside the premises</li> </ul>	Occurrence of one serious industrial accident (tank rupture)     Continued to conduct process risk assessment and implement safety measures		
Conduct various studies and risk assessments and enrich safety information related to Responsible Care for chemical products	Carried out the risk assessments of effects of exhaust gas and wastewater on human health and the environment; the risk assessments of chemicals handled at workplace for occupational health and safety; and the risk assessments of newly developed chemicals for consumer safety, and improved the levels of risk assessment.		
Promote advanced approach for chemicals management	Promoted voluntary programs to compile existing findings and information and fostered the operation of comprehensive chemical management systems (SuCCESS) to manage the safety information properly, and make more effective use of it		•
Achieve zero accidents resulting in lost workdays at partner logistics companies     Reduce annual unit energy consumption by 1%     Achieve the management target for logistics quality irregularities (Reduce major incidents to six or fewer)	There were two lost-workday accidents at partner logistics companies, and thus the target was not achieved.     Unit energy consumption increased by 3.8% relative to the previous fiscal year, and thus the target was not achieved.     The number of logistics quality irregularities was below the target level (two major incidents), and thus the target was achieved.	*	
<ul> <li>Enhance global Responsible Care audits</li> <li>Expand support to Responsible Care improvements</li> </ul>	Reviewed the Responsible Care audit checklist, improved the risk detection level, and built a system to support RC improvements across the Group based on the Group RC Activity Standards		
Achieve zero major quality problems	There were two major quality problems; Educated employees on the quality risk assessment method; Expanded internal audits on quality; Started application of the Group RC Activity Standards; Set the management policy for procured materials(After describing "achieved zero major quality problems in fiscal 2009" in the CSR Report 2010, we had two such problems.)	*	

# Environmental Performance of the Sumitomo Chemical Group **\***

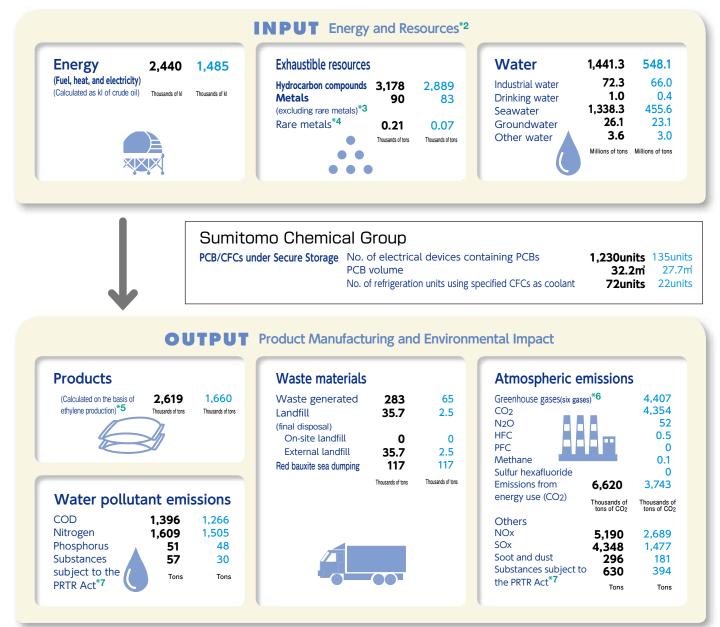
Responsible Care Activities Sumitomo Chemical collects and totals the Group's environmental data, including data on its energy and resource with the air and water). We also introduced environmental accounting for the Group and continuously publicize the results.

GRI 2.8 3.7 3.9 EN1 EN3 EN4 EN8 EN16 EN18 EN19 EN20 EN21 EN22 EN30

## Primary Environmental Performance (Fiscal 2010)

CSR Report 2011

Letters in black: Sumitomo Chemical Group\*1 Letters in blue: Sumitomo Chemical



- \*1. Sumitomo Chemical and the following 16 domestic Group companies: Dainippon Sumitomo Pharma Co., Ltd., Koei Chemical Co., Ltd., Taoka Chemical Co., Ltd., Sumitomo Joint Electric Power Co., Ltd., Sumika Color Co., Ltd., Nihon Medi-Physics Co., Ltd., Nippon A&L Inc., Thermo Co., Ltd., SanTerra Co., Ltd., Sumika Kakoushi Co., Ltd., Asahi Chemical Co., Ltd., Shinto Paint Co., Ltd., Sumika Styron Polycarbonate Ltd. (former Sumitomo Dow Ltd.), Sumika Bayer Urethane Co., Ltd., Nihon Oxirane Co., Ltd., and Sumika Agrotech Co., Ltd.
- \*2. See page 21 of the DATA BOOK for performance data on energy consumption, CO2 emissions, water usage, and landfill disposal amounts for major overseas Group companies.
- \*3. Calculations include the following 12 metals: iron, gold, silver, copper, zinc, aluminum, lead, platinum, titanium, palladium, gallium, and lithium.
- \*4. Calculations include the following seven rare metals: nickel, chromium, tungsten, cobalt, molybdenum, manganese, and vanadium.
- \*5. Certain assumptions were made in calculations due to the difficulty of obtaining weight-based figures for some products.
- \*6. The method used for calculating CO<sub>2</sub> emissions (i.e. CO<sub>2</sub> emission coefficient, types of greenhouse gases targeted for calculation, and emission sources) has remained unchanged since the calculation of environmental performance data was started.
- \*7. Calculated based on the amount released into water/the air of each substance subject to the initial version (before revision) of the Order for Enforcement of the PRTR Act (promulgated on March 29, 2000)

## Evaluation of Environmental Protection Costs and Economic Effects through Environmental Accounting

Sumitomo Chemical continuously gathers and evaluates data on environment-related expenses, investments, and economic results in line with the Company's environmental accounting system introduced in fiscal 2000.

## Items Pertaining to Environmental Accounting

(1) Period: Fiscal 2010 (April 1, 2010 to March 31, 2011)

**Environmental Protection Cost** 

(2) Scope: Sumitomo chemical and 18 major consolidated subsidiaries (12 in Japan and six outside Japan)\*

(3) Composition (Classification): Based on Ministry of the Environment guidelines

(4) Independent assurance: Conducted by KPMG AZSA Sustainability Co., Ltd.

#### (5) Outline of the results (investment and expenses)

Investment amount increased by 4.3 billion yen compared with fiscal 2009, due to the establishment of biomass power generation facilities.

Expenses also increased by 2.3 billion yen year-on-year, because the depreciation cost and the materials and utilities costs increased following the launch of wastewater treatment facilities and the start of biomass power generation, respectively.

#### \*18 major consolidated subsidiaries:

Dainippon Sumitomo Pharma Co., Ltd.; Koei Chemical Co., Ltd.; Taoka Chemical Co., Ltd.; Sumitomo Joint Electric Power Co., Ltd.; Sumika Color Co., Ltd.; Nihon Medi-Physics Co., Ltd.; Nippon A&L Inc.; Thermo Co., Ltd.; SanTerra Co., Ltd.; Sumika Kakoushi Co., Ltd.; Nihon Oxirane Co., Ltd.; Sumika Agrotech Co, Ltd.; Dongwoo Fine-Chem Co., Ltd.; Sumitomo Chemical (Singapore) Pte. Ltd.; The Polyolefin Company (Singapore) Pte. Ltd.; Sumika Technology Co., Ltd.; Sumika Electronic Materials (Wuxi) Co., Ltd.; and Sumika Electronics Materials Poland Sp. Zo.o.

	ronmental Protect									minori yeri)
				Fisca	2009			Fisca	I 2010	
	Classification	Details of Major Initiatives	Non-con	solidated	Conso	lidated	Non-con	solidated	Consc	lidated
			Investment	Expenses	Investment	Expenses	Investment	Expenses	Investment	Expenses
Bu	siness Area Costs		52	157	66	229	20	183	109	258
Ę	Pollution Prevention Costs	Prevention of air pollution, water pollution, soil contamination, noise pollution, odors, ground subsidence, etc.	(50)	(114)	(63)	(156)	(17)	(139)	(21)	(176)
Breakdown	Global Environmental Protection Costs	Prevention of global warming and ozone layer depletion, and other measures	(0)	(0)	(1)	(3)	(0)	(0)	(82)	(10)
ш	Resource Recycling Costs	Resource and energy conservation, water conservation and rainwater usage, waste reduction/ disposal treatment, recycling, etc.	(2)	(43)	(2)	(70)	(3)	(44)	(6)	(72)
Up	stream/Downstream Costs	Green purchasing, recycling, recovery, remanufacturing and appropriate treatment of products, recycling costs associated with containers and packaging, environmentally friendly products and services, etc.	0	0	0	2	0	0	0	2
Adı	ministrative Costs	Costs associated with environmental education, environmental management systems, the monitoring and measuring of the environmental impact of business activities and products, environmental organization operations, etc.	0	6	0	11	0	6	0	11
R&	D Costs	Development of products with attention to environmental safety, research into energy-saving processes, etc.	0	63	0	63	0	63	0	64
So	cial Activity Costs	Protection of the natural environment and enhancement of its scenic beauty and greenery, support for community initiatives aimed at environmental protection, support for environmental preservation groups, environment-related paid contributions and surcharges, etc.	0	4	0	7	0	4	0	7
Env	vironmental Remediation	Environmental rehabilitation of contaminated environments and other environmental damage, reserve funds to cover environmental recovery, etc.	0	11	0	11	0	4	0	4
	Costs		52	241	66	323	20	260	109	346

(Unit: 100 million ven)

#### TOPIC

Responsible Care Activities

#### Fiscal 2009 Results consolidated Consolidated Reduced costs through 7 6 energy conservation

**Economic Effects** 

#### 15 17 Reduced costs through 12 12 5 6 resource conservation Reduced costs through 23 24 38 39 recycling activities Total 41 43 58 62

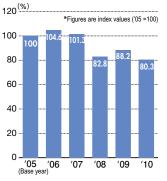
(Unit: 100 million yen)

Fiscal 2010

# Improving the Cost Efficiency of Environmental Protection

In fiscal 2009, we began implementing measures to improve the cost efficiency of our environmental protection measures by making sure that all activities were as cost effective as possible. We will implement more effective measures by analyzing and studying the breakdown of our environmental protection costs and reviewing each item to determine its importance. We calculate the cost efficiency of our environmental protection as the ratio of annual total production value to total environmental protection costs, in order better to reflect actual production activities in the calculation.

#### **Cost Efficiency of Environmental** Protection Measures



CSR Report 2011 Responsible Care Activities

# **Energy and Environmental Protection**

Sumitomo Chemical is implementing measures to improve its productivity and reduce its environmental impact to achieve an even higher level of sustainable environmental management.

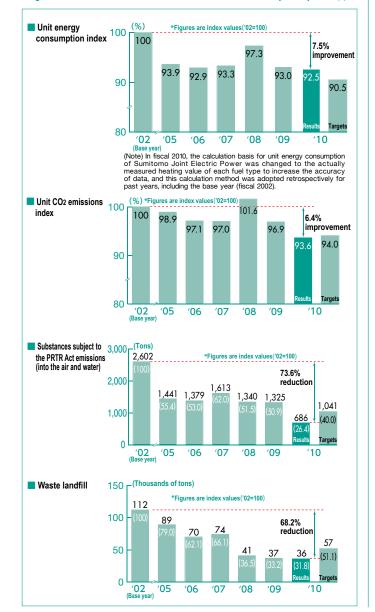
# **Promoting Sustainable Environmental Management**

#### GRI 3.9 3.10 EN5 EN18

Sumitomo Chemical aims to achieve an even higher level of sustainable environmental management by conducting a range of specific activities. These include activities to achieve the common environmental reduction targets of the Group; foster the standardization and systematization of environmental management operations; enhance risk management based on environmental risk assessment; and examining the practical use of environmental efficiency indicators and environmental accounting methods.

#### Sharing Environmental Protection Management Targets throughout the Group

Sumitomo Chemical has set out common targets for energy and environmental performance with its Group companies both within and outside Japan and is implementing specific measures to achieve the targets.



Targets and Actual Results for 16 Sumitomo Chemical Group Companies ★

We achieved meaningful results for the targets toward fiscal 2010, and have started new measures to achieve the targets for fiscal 2015. (For details, see page 18 of the DATA BOOK.)

# Fostering the Standardization and Systematization of Environmental Management Operations

For environmental management operations that entail a significant amount of regular work, we have been improving their efficiency by fostering standardization and systematization. We will reduce onsite workloads through these measures so that the responsible employees can spend more time in data analysis and evaluation, thereby sophisticating environmental management and enhancing our compliance system.

#### Examining the Standardization and Systematization of Environmental Management Operations

System introduction/change	Launch	Outline
Visualization of energy use and CO <sub>2</sub> emissions	2010/10	Data collection and disclosure on a real-time basis (colleting data from factories and analyzing them on a monthly basis)
Revision of the energy and greenhouse gas data tabulation system	2013/10 (Planned)	Data tabulation and reporting to governmental authorities in compliance with the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures
Revision of the PRTR totaling system	2011/4	Compliance with the revised Order for Enforcement of the PRTR Act Use of output files for electronic notification Addition of a VOC data tabulation function
Introduction of a waste management system	2011/4	Central management of waste disposal contracts, permissions, manifests, etc.
Promotion of the use of electronic manifests based on the Waste Management and Public Cleansing Act of Japan	2008/4	Increase of the digitization rate to 70%



Updated menu screen of the PRTR data tabulation system

## Enhancing Risk Management based on Environmental Risk Assessments

#### PRTR

Among the substances newly designated under the Japanese PRTR Act following the revision of the law in November 2008, we have completed the risk assessment work for all the substances handled by Sumitomo Chemical, spending more than two years on this project. Based on the risk assessment results, we are continuing to take a series of risk management measures.

Based on the results, we have also set a new target of "achieving a 60% emission reduction from the fiscal 2008 level by fiscal 2015."

#### VOCs

We have been systematically reducing VOC emissions by prioritizing measures against VOCs emitted in large amounts. We are also examining the use of the ozone creation potential for each VOC as a VOC emission reduction indicator. In response to the results of assessments made by The Japanese government on the relationship between VOC emissions reduction and the photochemical oxidant concentration, we will examine the necessity of implementing new measures.

#### Examining the Practical Use of Environmental Efficiency Indicators and Environmental Accounting Methods

#### Assessing the environmental impact of each Group company using JEPIX

In fiscal 2010, as in the previous fiscal year, we undertook environmental impact assessments targeting each Group company in Japan using JEPIX<sup>\*1</sup>, in order to evaluate the effectiveness of this index as a strategic management indicator, and continued with relevant analyses. The companies' total environmental impact decreased by 23% relative to fiscal 2005, when we began conducting the survey.

#### Assessing environmental impact of each product by LIME

For more practical use of LCA\*2 data (including CFP\*3 assessment specialized for CO<sub>2</sub>) both internally and externally, we use LCA software (JEMAI-Pro and MiLCA) from the Japan Environmental Management Association for Industry to undertake environmental impact assessments of our major products using the LIME method.

#### Trial Evaluation of Material Flow Cost Accounting (MFCA)\*4

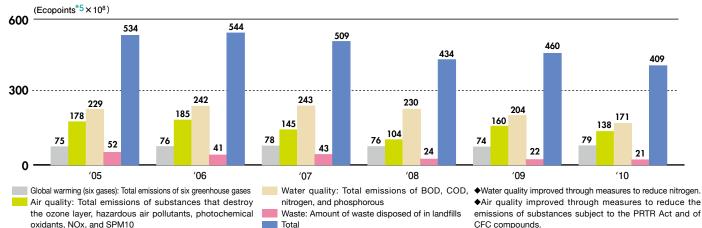
Based on the results of trial evaluations made at our manufacturing facilities for pharmaceutical intermediates, we are continuing to evaluate the effectiveness of the accounting method and standardize methods and procedures. In fiscal 2010, as in the previous fiscal year, we disclosed the relevant data and fostered information exchanges through meetings of academic societies, seminars, and contribution of articles to professional journals.

- \*1. Environmental Policy Priorities Index for Japan (JEPIX): This method, which employs a uniform single indicator called "Ecopoints" to evaluate environmental impact, is derived from the Swiss LCIA Eco Scarcity methodology. The current method evaluates the discrepancy between targets (e.g. laws and environmental policies) and actual conditions based on material flow data.
- Life Cycle Assessment (LCA): A method for evaluating the environmental impact of products and services throughout their lifecycles Carbon Foot Print (CFP): Identification of lifecycle CO<sub>2</sub> emissions from \*2
- \*3 products and services
- Material Flow Cost Accounting (MFCA): An environmental cost accounting method that identifies input costs of materials, processing, electricity, fuel, and others, and compares them with the energy and resources lost in manufacturing processes

Improving the Management of Substances Subject to the PRTR Act Based on Their Environmental Risk

No.	Description		2009							2010 1 2 3 4 5 6 7 8 9 10 11 12							2011											
INO.			5	6	7	8	9	10	11 12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7
1	Surveying production and treatment volumes																											
2	Improving company-wide totaling system program						Study	ing imp measu	provement ires								Impler		g impro Isures	overner	nt							
3	Standardizing calculation method			_																								
4	Measuring concentrations at control points																											
5	Risk assessment																											
6	Quantifying reduction by substances																											
7	Formulating specific reduction plan and schedule																											
8	Setting new targets																٥L	aunch	ning r	new ta	argets							
9	Identifying results													(									=					
10	Notifying governmental authorities																											

#### Breakdown of Aggregate Values for Environmental Impact (for the Sumitomo Chemical Group)



\*5. Ecopoints: An indicator for total environmental impact—the smaller the value, the lower the environmental impact.

# **Environmental Protection Activities**

#### GRI 3.7 3.9 4.11 EN16 EN18 EN19

Sumitomo Chemical is proactively implementing measures for the achievement of a recycling-based, low-carbon society, while making strenuous efforts to contribute to the protection of local environments and prevent health damage in the areas where it operates.

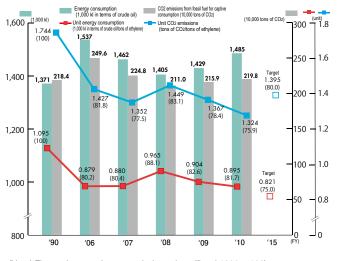
#### **Toward the Improvement of Environmental Performance**

Sumitomo Chemical regards the following as its core implementation targets: to promote anti-climate change measures and energy-environment strategies and to identify optimum mix of appropriate legal compliance measures and voluntary activities. We are implementing specific plans to achieve these targets, thereby improving our environmental performance in a tangible manner.

#### Targets and Actual Results for Energy Conservation and CO<sub>2</sub> Emissions

	Energy Conservation	CO <sub>2</sub> Emissions
Target	Improve unit energy consumption by 25% related to fiscal 1990 by fiscal 2015	Reduce unit CO <sub>2</sub> emissions from fossil fuel for captive consumption by 20% relative to fiscal 1990 by fiscal 2015
Results in Fiscal 2010	Achieved a 18.3% reduction from the fiscal 1990 level (1.0% reduction from the fiscal 2009 level)	Achieved a 24.1% reduction from the fiscal 1990 level (3.2% reduction from the fiscal 2009 level)

#### Energy Consumption, Unit Energy Consumption, CO2 Emissions from Fossil Fuel for Captive Consumption, and Corresponding Unit Emissions 🛧



(Note) Figures in parentheses are index values (fiscal 1990 = 100)

#### **Promoting Anti-Climate Change Measures** and Energy-Environment Strategies

We aim to achieve the world's highest level of energy efficiency in the manufacturing process of our major products, and are achieving definite results by improving our operation methods and the efficiency of our facilities and equipment while rationalizing processes.

Also, for the proactive development of processes and products that contribute to CO2 emissions reduction, we are making maximum use of our advanced technologies through Creative Hybrid Chemistry (for details see page 8) to develop and commercialize a series of Green Processes and Clean Products. For CO<sub>2</sub> emission sources, we are also examining and implementing systematic and proactive measures.

#### Volume of CO<sub>2</sub> Emissions by Source ★

	_		(1,000 tons of CO2)				
FY	Total	Energy	Origin	Environmenta	I Treatment	Process	
F1	Emissions	Fossil Fuel Consumption	Purchased Electricity/Steam	Incineration	Effluent	FIUCESS	
1990	3,687	2,184	1,038	282	22	161	
2006	4,794	2,496	1,599	299	29	371	
2007	4,711	2,248	1,769	282	27	385	
2008	4,351	2,110	1,655	218	22	346	
2009	4,364	2,159	1,628	200	18	359	
2010	4,354	2,198	1,545	210	19	382	

(Note) Figures do not include emissions from fuel consumed for electricity or steam sold outside the Company.

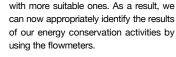
TOPIC

# Identifying the Use of Steam etc.

The Oita Works manufactures more than one product within a single plant, and the amount of steam and electricity used in the manufacturing process differs by product. We have installed flowmeters to indentify the usage amount for all products at the entrance of each plant. There were, however, some cases in which we were not able to identify the amount of steam for a new product to be manufactured or an existing product for which the production quantity had been increased due to the limited capacity of the flowmeters. To deal with this problem, we inspected all the flowmeters to replace the ones that did not have sufficient capacity

3.1

Oita Works



Indicator of a flowmeter installed at

Akio Kudo Production Planning Department Oita Works

# Calculating Energy Consumption and Greenhouse Gas Emissions Based on the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures

All 34 sites of Sumitomo Chemical need to report their energy consumption and greenhouse gas emissions to governmental authorities under the law. In fiscal 2010, total energy use by the sites came to 1,321,000 kiloliters in crude oil equivalent, down 1.4% from the previous fiscal year, and their CO2 emissions from the use of energy totaled 3,414,000 tons, down 4.0% year-on-year. Energy Consumption and Greenhouse Gas Emissions of All

Sumitomo	Chemical	Sites	Calculated	in	Compliance	with	the	Law 🖌	(
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	Fiscal 2009	Fiscal 2010
Energy consumption (1,000 kl in terms of crude oil)	1,340	1,321
Greenhouse gas emissions (1,000 tons)		
CO2 emissions from energy use	3,556	3,414
CO <sub>2</sub> emissions from energy use (adjusted)*	3,517	3,408
$CO_2$ emissions from other than energy use	31	29
CO2 emissions from the use of waste as fuel	75	80
Methane (CO <sub>2</sub> equivalent)	_	_
N <sub>2</sub> O (CO <sub>2</sub> equivalent)	58	49
HFC (CO2 equivalent)	_	_
PFC (CO <sub>2</sub> equivalent)	-	_
SF6 (CO2 equivalent)	_	_

(Note) The "-"mark indicates that reporting is not mandated under the law.

CO<sub>2</sub> emissions from energy use (adjusted): CO<sub>2</sub> emissions from energy use from which emissions reduced by the use of carbon credits, such as those obtained through the Kyoto mechanism and those obtained within Japan, are deducted.



#### No. 2 Manufacturing Section Misawa Works Katsuya Fujita Increasing Energy Efficiency by Replacing Boilers

At the Misawa Works, one waste-heat boiler (using heat wasted from gas turbines) and 13 once-through boilers were used to generate the necessary steam. Last year, however, we removed 12 out of the 13 once-through boilers (with a total steam generation capacity of 20 tons/ year), which had been installed 13 years earlier and were becoming decrepit. In place of them we installed five new boilers (with total steam



generation capacity of 20.1 tons/year).

The Works have both batch and continuous plants, and demand for steam varies substantially by the hour. The generation of steam by old once-through boilers, however, could be controlled in only three stages (0%, 50% and 100%), and thus

excessive amounts of steam were sometimes generated. To resolve this problem, we replaced them with inverter-type boilers, which generated steam only to the necessary amount. As a result, the total boiler efficiency<sup>\*</sup> was improved by about 6%, increasing energy efficiency by about 220 kiloliters in crude oil equivalent (equivalent to 1.6% of the Works' annual energy use) while also reducing steam loss.

\* Total boiler efficiency: Ratio of the total fuel heating value of boilers to the value of heat absorbed by steam.



VOICE

Yasutaka Ishibashi Engineering Section, Manufacturing Department Gifu Plant

## Increasing Energy Efficiency of Combustion Air Blower

At the Gifu Plant, combustion air was supplied to the wastewater treatment facility (submerged combustion furnace) by a large blower (75 kW) and the combustion air volume was controlled by a damper. To increase energy efficiency by improving the air volume control, we introduced an inverter to control the rotational speed of the blower motor. After checking the operational conditions of the furnace and the actual operation and controllability of the combustion air blower, we decreased the use of power by the motor and inverter to 55 kW, thereby achieving a 30% increase in energy efficiency. We will continue to make steady efforts for energy conservation.



Moritoshi Niino No. 2 Tank Yard Section, No. 4 Manufacturing Department Chiba Works

Building a C4-fraction Pipeline in Cooperation with Fuji Oil

C4 fractions, raw materials used at ethylene plants for thermal decomposition, were previously transported by ship from Fuji Oil Co., Ltd. (in Sodegaura) to our facility (in Anesaki). As part of an industrial complex cooperation project supported by the Japanese Ministry of Economy, Trade and Industry, Fuji Oil and neighboring Sumitomo Chemical's facility in Sodegaura were connected by a pipeline that was then used in conjunction with the existing one connecting our facilities in Sodegaura and Anesaki. This has contributed to the rationalization of operating equipment at the ethylene plant and Fuji Oil and to the stabilization of production. CO2 emissions by marine vessels were also reduced by 300 tons a year.

We will continue to implement rationalization measures in cooperation with neighboring companies, including measures to protect the global environment.



#### CSR Report 2011 Responsible Care Activities

# Optimum Mix of Appropriate Legal Compliance Measures and Voluntary Activities

GRI 3.9 4.11 EN14 EN20 EN22

We will combine legal compliance measures and voluntary activities in an optimal manner to reduce our environmental impacts.

## Outline

For pollutants released into the environment, such as exhaust gases, wastewater, and solid waste, we are actively promoting multifaceted measures and strengthening management by widely adopting the concept of risk management, in addition to complying with legal standards and meeting the criteria agreed with local governments.

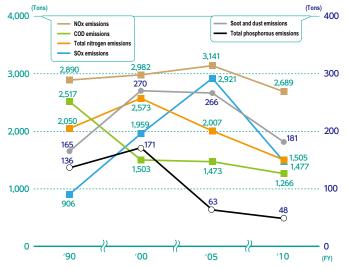
In addition, we are continually deepening communications with people living in the neighborhoods around our facilities by proactively listening to their opinions. Through these measures we aim to further improve our environmental performance based on even better relations of trust with local communities.

#### **Trends and Topics of Major Environmental Performance Items**

#### Prevention of air and water pollution

We are endeavoring to reduce emissions of SOx, NOx, and soot and dust into the air, and of COD, nitrogen, and phosphorous into water bodies. Moreover, we are fostering the effective use of water (to improve unit water use). (For details, see page 4 of the DATA BOOK.)

Major Environmental Impact Indicators for Air and Water Pollution Prevention ★

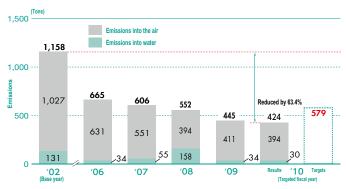


Substances Subject to the PRTR Act and VOCs

PRTR: We achieved our initial target of reducing total emissions by 50% from fiscal 2002 levels in fiscal 2010 through drastic risk management based on our risk assessment results. We will continue to make efforts to achieve the new target. (For details, see page 9 of the DATA BOOK.)

VOCs: We achieved our initial target of reducing emissions by 30% from fiscal 2000 levels in fiscal 2010 by implementing systematic emissions reduction measures. We will continue our

#### Emissions of Substances Subject to the PRTR Act ★

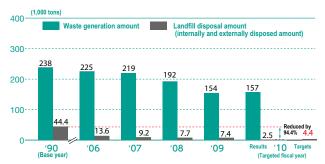


efforts to maintain the equivalent emission levels. (For details, see page 14 of the DATA  $\ensuremath{\mathsf{BOOK.}}\xspace$ 

#### Waste

Landfill disposal: We achieved our initial target of reducing landfill disposal amount by 90% from fiscal 1990 levels by fiscal 2010 by restraining waste generation and fostering the reuse and recycling of waste. We will continue our efforts to achieve the new target figures. (For details, see page 15 of the DATA BOOK.)

#### Waste Generation and Landfill Disposal Amount ★



Disclosing information about the maintenance and management of waste disposal facilities: In response to the revision of the Order for Enforcement of the Waste Management and Public Cleansing Act of Japan, Sumitomo Chemical began disclosing information about its waste treatment facilities (incinerators and landfills) on its Web site pages covering CSR in April 2011.

PCB waste: We have completed the treatment of waste containing PCBs at high concentrations by commissioning the treatment to JESCO<sup>\*</sup> at all our sites, excluding some factories. We aim to complete the treatment at all facilities by March 2014, earlier than the legal deadline. Also, for waste containing PCB at low concentrations, we are continuing surveys and studies for early treatment and disposal

\*Japan Environmental Safety Corporation (JESCO): A company that under supervision of The Japanese government treats PCB waste at its five treatment facilities located across Japan; commissioned by companies storing PCB waste.

Halting Sea Dumping of Red Bauxite: Red bauxite is the residue of natural bauxite from which aluminum hydroxide, the raw material for alumina products, is extracted. This substance is composed of insoluble mineral constituents and saltwater. Sumitomo Chemical has been safely disposing of red bauxite in the sea in accordance with the relevant Japanese laws. In addition, the Company formulated a policy to switch to the use of imported aluminum hydroxide, which generates no red bauxite, with a view to stopping the dumping of red bauxite in the sea as early as possible, while continuing its alumina products business. In May 2010, we completed the shift with the understanding of our major customers. Subsequently, in March 2011, after finishing the treatment of red bauxite remaining at our facilities, we completely stopped sea dumping of the substance. Also, in fiscal 2010 we made effective use of approximately 400 tons of red bauxite as materials for use in cement in cooperation with cement companies. Soil and groundwater contamination

We have continued surveys and evaluations of soil contamination as well as remediation work on our land. We have also monitored groundwater close to our boundaries to confirm that levels of hazardous materials are below those stipulated by environmental standards.

#### Specified CFCs

We are continuing the replacement of refrigerators using specified CFCs as coolants with those using alternative coolants, aiming to complete the replacement by 2025. (For details, see page 14 of the DATA BOOK.)

#### **Biodiversity**

We plan to publish Sumitomo Chemical's action guidelines on biodiversity within fiscal 2011 to outline the Company's basic ideas and policies for biodiversity conservation. In the future we will foster specific biodiversity conservation measures based on the guidelines.



Rihei Kobayashi

No. 2 Manufacturing Section Misawa Works

Stabilizing Wastewater Treatment (Improving the aeration piping of the activated sludge aeration tank)

At the Misawa Works, we treated most of wastewater from the facilities by the activated sludge treatment method, but due to an increase in the amount of wastewater containing nitrogen, it was becoming difficult to continue this wastewater treatment method in a stable manner. The treatment of wastewater containing nitrogen can be improved by ensuring the appropriate operation of the reaction tanks (removing oxygen from the anaerobic tank and supplying oxygen to the anoxic tank), but the multi-point measurement of oxygen concentrations in the tanks revealed that insufficient oxygen was being supplied to the anoxic tank due to the unsatisfactory performance of the aeration pipe.

To resolve this problem, we replaced the one-sided swirl flow-type aeration pipe with a whole-area aeration type and are now operating the tanks on a trial basis. The replacement piping appears to be effective for the stabilization of wastewater treatment for both the anaerobic and aerobic tanks.



Noboru Yamamoto Environmental Affairs Section, No. 1 Manufacturing Department Oita Works

## Measures to Reduce Odor (Covering the sedimentation tank)

At the Oita Works, we are making daily efforts to reduce the generation of odor, noise, and vibration to maintain our trusted relations with local inhabitants. In particular, regarding odors, we have been striving to identify the source to eliminate it or install deodorization equipment to treat any unpleasant odors. Despite these efforts, we faced the necessity of implementing new anti-odor measures due to changes in the products manufactured by the Works.

In response, we covered the sedimentation tank of our activated sludge treatment facility for wastewater, thereby preventing odors from leaking from the tank and achieved the anticipated improvement. We will continue stable operations of the facilities and make further improvements, as needed.



Sedimentation tank covered by white sheeting



Yoshiteru Yamashita No. 5 Manufacturing Section (Environmental Management), Manufacturing Department Osaka Works

# Painting Chimney to Blend in with the Local Environment

We are responsible for treating waste and managing wastewater. We conduct activities not only to reduce our environmental impact but also to make our facilities more acceptable to the local community by measures such as increasing green spaces and preventing white smoke

from being exhausted from the chimneys. Moreover, for the first time in 19 years, we have painted the chimney, covering its redand-white façade with a soft blue that blends in better with the local environment.

In recent years the amount of high-rise housing has been increasing in our neighborhood, and in response we are improving the landscape of our site in consideration of the view from people's homes.



CSR Report 2011 Responsible Care Activities

# Occupational Safety and Health/Industrial Safety and Disaster Prevention

Sumitomo Chemical is conducting safety activities to achieve zero-accident and zero-injury operations based on its fundamental principle of "Making Safety the First Priority," in cooperation with all its employees and all other stakeholders, including employees of Sumitomo Chemical's affiliate companies.

# **Initiatives for Occupational Safety and Health**

GRI 4.11 LA7

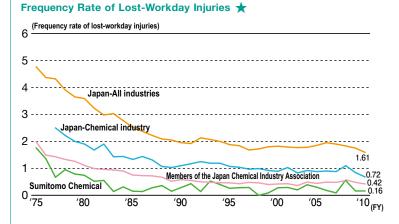
Sumitomo Chemical ensures safety by executing a PDCA cycle for its occupational safety and health management system (OSHMS).

## Safety Performances in Fiscal 2010

In Japan in fiscal 2010, two accidents resulted in lost workdays (frequency rate of lost-workday injuries: 0.16), with nine such accidents occurring at contractors (frequency rate of lost-workday injuries: 0.81). The annual average for the frequency of lost-workday injuries during the 10 years from fiscal 2001 to 2010 was 2.8.

Sumitomo Chemical has been aggressive in pursuing occupational safety and health activities to prevent labor accidents under the fundamental principle of "Making Safety the First Priority." To this end we are repeating the PDCA cycle to indentify all conspicuous and potential risks and hazards in each workplace and implementing a series of measures, including making improvements based on the results of risk assessments. As a result of these efforts, all our sites have already acquired certification for their OSHMSs. Unfortunately, however, we have not yet achieved our target of zero accidents.

In fiscal 2010, we began enhancing a culture of safety throughout the company for all employees to truly understand and practice our principle of "Making Safety the First Priority," which will help us achieve and maintain our zero-accident target.





#### Kayo Maie Technical Office Tsukuba Research Laboratory

# Experiencing the Great East Japan Earthquake

The earthquake that took place at 2:46 p.m. on March 11 was the biggest that we had ever experienced at the site. Fortunately, however, none of our members, including their families, suffered damage from the mega earthquake. Also, there was no serious damage to our facilities, which we confirmed by making a patrol of the site after the shaking stopped. No reagent bottles fell down from the shelves, and the anti-slip mats, belts, and bars effectively prevented devices from falling. The anti-seismic measures taken at the site thus proved to be very effective and we were able to resume our research

activities soon after the disaster.





#### Yasushi Komoda Ohe Works and Sumika Assembly Techno Co., Ltd.

## Safety Awareness Activities within the Ohe Works

At the Ohe Works, occupational safety and health are fostered through awareness-raising by the use of audiovisual devices. Specifically, an electronic bulletin board equipped with a navigation system is installed at the main gate, and voice recorders are installed at major crossings and staircases within the premises. The bulletin board is used to provide all those entering the site with safety information while the voice recorders are used to give oral safety messages, such as "Cross after looking both ways"; and "Hold the hand-rail when you walk up/down stairs." I believe these measures have contributed to improving the safety level of the

site substantially. Electricity generated by solar power generation is used to power the devices, which also helps increase employees' environmental awareness.

Main gate bulletin board and voice recorder



## Measures Implemented in Fiscal 2010 to Enhance a Culture of Safety

Sumitomo Chemical has been nurturing a culture of safety and mutual respect based on the principle of "Making Safety the First Priority" and encourages all its organizations (workplaces) and individuals (employees) to understand the importance of safety and voluntarily undertake necessary actions.

In fiscal 2010, we implemented the following two measures to further enhance our safety culture.

# Preventive measures taken at the head office, branches, and sales offices

During the past three years, there were three injuries suffered by employees of the head office in Tokyo: falling on an icy road, coming into contact with a car while crossing a street, and spraining a joint when involved in a car accident in a taxi (while not wearing a seatbelt). These accidents were caused by unsafe behavior and could have been prevented if the employees were more cautious, although there might have been some inevitable factors.

At the head office and other non-manufacturing sites, safety activities were not conducted so proactively as at the Works and Research Laboratories, because the risk of occupational accidents was thought to be lower. In consideration of the actual situation as explained above, however, we decided to improve the safety management systems of our head office, branches, and sales offices to prevent occupational accidents at the administration and sales departments. Moreover, we plan to create and distribute a rulebook on occupational safety and health to increase employees' safety awareness and prevent employees from getting involved in accidents at offices and outside.

Learning from a factory achieving excellent safety performance We invited a former manager of a factory that achieved no lost-



Tokushige Seki No. 3 Manufacturing Section, Kikumoto No. 1 Manufacturing Department

Ehime Works

# Fiscal 2011 Slogan for Occupational Safety and Health

#### "Increase safety awareness and sensitivity and enhance our culture of safety"

In order to achieve zero accidents, it is essential to identify risks at workplaces, for which individual employees need to increase their safety awareness and sensitivity through education and practice of 4RKY.\* We created this slogan believing that we can achieve zero accidents through mutual enlightenment and risk detection among all employees.

I wish for your safety!

\*4RKY: Four-Round Kiken Yochi (risk detection) activity

workday injuries for 20 years or more to our sites, who gave us tips on enhancing our safety culture by lecturing on his experience in building the safety management foundations for the factory.

The former manager gave lecture at 10 of our sites, including the Works and Research Laboratories, on themes covering the essential roles to be played by top executives in safety assurance.



Lecture given at the Chiba Works

The lecturer gave inspiring comments to participants based on his own experience, such as "Top executives should take action based on their own safety principles"; "The opposite of safety is not danger but unconsciousness"; and "Individuals should increase their own safety awareness and sensitivity."

Following this advice from the lecturer and also as one of the measures to communicate the corporate principle of "Making Safety the First Priority" more clearly to all employees, we designated the first Monday of each month as the Company's "safety day," on which all employees are expected to think seriously about safety.

In 2011, Japanese industry celebrates the 100th anniversary of the launch of comprehensive industrial safety activities. Commemorating this anniversary as a member of the industrial framework, Sumitomo Chemical will further foster activities to enhance its safety culture, aiming to pass down its tradition of safety commitments and activities to the next generation.



Takuro Nasu Process & Production Technology Department Ohe Works

Fiscal 2011 Poster for Occupational Safety and Health

We designed the poster to emphasize the importance of making a concerted effort to enhance our culture of safety towards the final goal of "zero accidents" across the Company.

The poster is intended to urge individual employees to understand and implement the fundamental principle of "Making Safety the First Priority" and achieve zero accidents on an individual level as the first step to achieving zero accidents across the Company.



CSR Report 2011 Responsible Care Activities

# **Industrial Safety and Disaster Prevention**

#### GRI 4.11 EN23 LA7

Sumitomo Chemical is building a robust industrial safety and disaster prevention system, making the safety of everyone the first priority.

#### Safety and Disaster Prevention Management for Preventing Accidents at Plants and Assuring Safety

The foremost mission of disaster prevention management is to prevent unforeseen plant accidents by ensuring process safety and plant integrity. Plants must also be protected against natural disasters and terrorist attacks. Stringent risk assessments are therefore conducted, in addition to continuous safety improvement and comprehensive voluntary safety management.

Unfortunately, however, we had three accidents in fiscal 2010, including a serious accident resulting in the death of a subcontractor. Two other accidents occurred at facilities dealing with hazardous chlorine and hydrochloric acid, but fortunately nobody was injured in those accidents. We apologize to neighbors of the facilities and related authorities for causing concern regarding these accidents.

Taking these accidents very seriously, we are implementing measures to prevent the reoccurrence of similar accidents on a company-wide basis. We are promoting safety management toward zero accidents and injuries, focusing on optimizing the plans and processes for work to be conducted during the shutdown maintenance period and on further clarifying safety measures and disseminating them among employees.

#### Tank Rupture at the Misawa Works

A tank was ruptured at Sumitomo Chemical's Misawa Works during its shut down maintenance period on September 24, 2010, causing the death of an employee of a contractor who was engaged in onsite welding operations. We would like to express our heartfelt sympathy to the victim's family and apologize to all those concerned for the concerns caused to them by this accident.

The accident did not cause a fire or have any impact on the surrounding environment, but taking the accident very seriously, we will implement all necessary measures to prevent accidents or injuries, including measures to ensure the safety of repair/installation work, so that we can regain the trust from local communities and other stakeholders.

# Process Safety Management from Research and Development to Plant Operation and Dismantling

In an effort to reduce environmental impact and achieve zeroaccident and zero-disaster operations, Sumitomo Chemical performs safety assessments at each stage from new chemical process R&D to plant design, construction, operation, maintenance, and dismantling.

(1) Examination of Process Safety

The Process Safety Review Committee convenes at every step, from R&D through to industrial scale production processes, to oversee a system in which the safety of each stage is thoroughly verified before moving on to the next stage. The system is in use at Sumitomo Chemical, and all Group companies are being instructed to adopt it.

(2) R&D Safety Confirmation

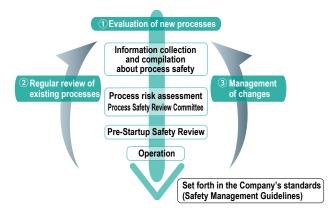
At the R&D stage, materials safety data and other related data on the chemicals to be handled are examined and assessed in detail. This data is then used to select the safest chemicals and to assess the required amounts in order to ensure that R&D will utilize only fundamentally safe chemical processes.

The construction materials for new chemical plants are also examined and evaluated to select the optimum materials with lower lifecycle costs.

(3) Plant Safety Confirmation

While plant design and construction are based on legal technical standards, processes are additionally subjected to hazard assessments in order to highlight potential dangers and incorporate, from the standpoint of self-administered management, more stringent safety precautions into the design and construction processes.

In addition, operational manuals are created and training is provided for operators. The Company also regularly conducts process hazard evaluations attended by relevant persons after the start of plant operations and when operating parameters or facilities are modified.



## Advanced Self-Administered Safety Management

Aiming to achieve advanced self-administered management, Sumitomo Chemical's Process & Production Technology Center works to improve and effectively utilize the support system and tools obtained from various sources. Its mission is to support process safety and disaster prevention management, prepare various safety and disaster prevention guidelines, and compile a database of safety information (technical information and accident reports) and risks related to the mixing of, or contact with substances.

In fiscal 2010, in order to ensure compliance with the guidelines on static electricity safety measures and on chemical process safety, which are integral parts of the disaster prevention guidelines, we held briefing sessions on the guidelines at each of our sites, while developing and examining a system to assess fire and explosion risks caused by electrostatic discharges. We are thus taking a number of initiatives towards further risk reduction.

## Reviewing Measures Based on Lessons Learned from the Great East Japan Earthquake

We will continue implementing measures against possible earthquakes while fostering risk reduction and ensuring compliance with our predefined emergency response procedures.

Moreover, in consideration of the damage caused by the unprecedented scale of the earthquake and tsunami, we are reviewing our anti-seismic measures to prepare against earthquakes that are larger than the conventionally foreseen ones.

We will also ask all Group companies to consider implementing similar voluntary anti-seismic measures so that the entire Sumitomo Chemical Group can achieve further risk reductions.

## Participation in an Emergency Drill by the Chiba Works

The Chiba Works has been participating in practical emergency drills jointly conducted by the Japan Coast Guard (Chiba) and local companies.

In fiscal 2010, in a drill based on a simulation where crude benzene had leaked into the sea in the Sodegaura I district, participants—including those from the Chiba Works—learned how to detect gas, set up a caution zone, install an oil fence, rescue victims, and report to the related authorities. They were also trained by the Japan Coast Guard staff on the skills to recover and transport the leaked chemical substances, decontaminate the sea area, and spray water to diffuse the remaining contaminants. The drill provided participants with an important opportunity to learn how to undertake responses to a marine incident.



Training on skills to spray water to diffuse remaining contaminants



Training on skills to set an oil fence

## Collective Training at the High-Pressure Gas Treatment Facility

The Oita Works belongs to a local high-pressure gas safety council in Kyushu and is designated as a member that will provide emergency support if any member of the council becomes involved in an accident during the transportation of chlorine or sulfurous acid gas.

Every February the Oita Works conducts a collective drill to ensure that it can promptly respond to a request for emergency support from the council. In the drill, support team members gather together to check and prepare the necessary materials and equipment, load the equipment onto a transportation vehicle, and drive to the front gate of the site.

In response to the retirement of baby boomers, the Works also provides younger employees with training on the handling of materials and equipment used for support work.



Driving to the front gate as a part of the drill



Putting a chlorine cylinder into a case

# **Chemical Safety Initiatives**

CSR Report 2011 Responsible Care Activities

Sumitomo Chemical is promoting product stewardship\* initiatives as a member of the chemical industry.

# Safety Management of Chemicals throughout Their Entire Life Cycles

#### GRI 4.11 4.13 PR1

Sumitomo Chemical conducts chemicals management based on risk assessments of chemicals throughout their entire lifecycles using the latest scientific knowledge and advanced technologies, and makes the results available to the public.

#### Approach to Chemical Risk Reduction to Meet Increasing Global Requirements

In August 2002, the World Summit on Sustainable Development (WSSD) was held in Johannesburg, the Republic of South Africa. The Summit proposed targets for 2020, aiming to ensure that "chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment." This led to the adoption in February 2006 of the Strategic Approach to International Chemicals Management (SAICM) in the international Conference of Chemicals Management (ICCM-1). Global initiatives towards reducing risk throughout the lifecycle of chemical substances have thereby been accelerated.

As a member of the chemical industry, Sumitomo Chemical is advancing initiatives for both regulatory compliance and voluntary measures to strengthen risk-based chemicals management in our commitment to contribute to the implementation of SAICM.

#### Environmental Health Science Laboratory Playing a Central Role in Safety Research

At Sumitomo Chemical, the Environmental Health Science Laboratory plays a central role in a diverse variety of safety assessments for various products developed by the Sumitomo Chemical Group.

The Laboratory conducts sophisticated research in diverse fields ranging from genetics to environmental and ecological science on a global scale, making use of the latest scientific knowledge and advanced technologies as well as the Company's abundant expertise in chemical safety assessment developed over many years. In addition, as the core laboratory supporting the technological aspects of RC activities for chemical safety at Sumitomo Chemical, the Laboratory provides the entire Company with safety information and the results of risk assessments in order to ensure safety and protect the environment throughout the lifecycles of chemical products. It is also implementing measures to continuously improve its risk assessment level.

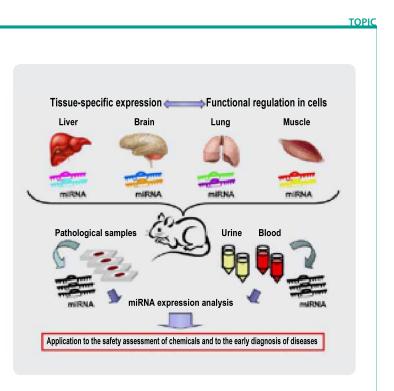
\*Product stewardship: Initiative to ensure that chemicals available in the market are safely handled and used throughout their entire lifecycles.

# Predicting Toxicity and Elucidating the Mechanism of Toxicity through MicroRNA Expression Analysis

In the dramatic progress of genome research, small RNAs, composed of about 20 nucleotides and called "microRNAs" (miRNAs), are attracting much attention, along with messenger RNAs (mRNAs) encoding proteins. It has been revealed that miRNAs regulate the expression of mRNAs or proteins and are related to embryonic development, functional regulation in cells, and to the onset of various human diseases, including cancers.

Sumitomo Chemical is working on a study of toxicity prediction and elucidating the mechanism of toxicity through miRNA analysis, focusing attention on the fact that many miRNAs are expressed in a tissuespecific manner, and that intrinsic miRNAs are highly resistant to RNA degrading enzyme (RNase) and could be extracted relatively easily from blood, urine, and stored pathological samples. Recently, it has been revealed that the blood concentration of one or more tissue-specific miRNAs changes when a tissue begins to exhibit toxicity.

Such research activities are expected to contribute to the safety assessment of various chemicals, including agricultural chemicals, and also to the early diagnosis of diseases. Sumitomo Chemical will continue proactive research in this important field.



## Effective Use of the Comprehensive Chemical Management System (SuCCESS)

With an increase in international awareness of the need for appropriate management of chemicals, it is becoming extremely important for chemical companies to collect and manage chemical safety information in order to properly respond to chemical regulations that are becoming stricter every year and ensure chemical safety based on risk assessments. In a proactive response to these trends, Sumitomo Chemical launched a program for compiling existing findings and information on the safety management of chemical products in 2005. And in order to properly manage all safety information and utilize it effectively, Sumitomo Chemical has developed a new-generation database system, the Sumitomo Chemical Comprehensive Environmental, Health & Safety Management System (SuCCESS).

At present, information about the compositions of all the products, intermediates, and materials treated by Sumitomo Chemical, as well as about the laws and regulations on chemical substances, are stored in the SuCCESS, which enables us to make prompt responses to customers' inquiries about substances contained in our products. Moreover, when any changes or additions are made to substances subject to regulation following the revision of laws, etc., we can easily check which of our products contain the substance in question, thereby ensuring legal compliance.

Also, for some of our products, we are starting to prepare GHS<sup>\*1</sup> compliant MSDSs<sup>\*2</sup> using the SuCCESS. We are scheduled to improve the function to output GHS compliant MSDSs for all products of Sumitomo Chemical and have already established the operating system. Moreover, in fiscal 2011, we will start discussing a plan to expand the scope of the SuCCESS to Group companies.

\*1 Globally Harmonized System of Classification and Labeling of Chemicals (GHS): Globally harmonized system that establishes a set of criteria for classifying and labeling chemicals according to their hazards.

\*2. Material Safety Data Sheet (MSDS): A document that describes information necessary for the safe handling of chemical products (properties, handling methods, safety measures, etc.).

#### Active Participation in Voluntary Programs in Japan and Overseas

At the ICCM-1 held in 2006, the International Council of Chemical Associations (ICCA), representing the global chemical industry, made its commitment to implementing SAICM by the launch of the Responsible Care Global Charter and the Global Product Strategy (GPS) for the management of chemicals in their entire lifecycles throughout the supply chain. As a member of the chemical industry, Sumitomo Chemical is proactively participating in these voluntary programs. The Company is also playing a core role in the committees and task forces set up by the ICCA and the Japan Chemical Industry Association to promote the GPS, thereby contributing to the achievement of the SAICM targets.

Moreover, Sumitomo Chemical has been proactively participating in and providing support to the Long-Range Research Initiatives (LRI) for research on the impact of chemicals on human health and the environment, which is fostered jointly by the Japanese, American, and European chemical industry associations under the ICCA.

#### **Careful Consideration for Animal Experiments**

In the process of developing useful chemical substances, a large variety of safety assessments are required. Some of these assessments, however, cannot be completed without conducting experiments using laboratory animals. Sumitomo Chemical advocates humane treatment of laboratory animals and applies the 3Rs of animal use and animal welfare: replacement, reduction, and refinement. Beyond the standards specified by current laws and regulations on animal care and use (welfare and management) issued by the Japanese Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, and Ministry of Agriculture, Forestry and Fisheries, we also have internal rules for conducting animal experiments and have established the Animal Welfare Committee to verify compliance with these rules and to ensure that animal experiments are conducted properly and appropriately with due consideration for animal welfare.

We regularly monitor the care and use of animals as specified in the law, as well as our internal regulations, and ask external experts, such as university professors specializing in the ethics of animal experiments, to evaluate our animal experiments for further improvement.

We have also been actively improving our system for educating those engaged in animal experiments and developing alternatives to animal experimentation.

#### ΤΟΡΙΟ

## Efforts to Develop a New Mutagenicity Testing Method (In Vivo Comet Assay)

Mutagenicity tests are conducted to predict the risks posed by chemical substances to human beings, such as carcinogenicity and the genetic disease in future generations. These tests include a range of detection tests, such as the Ames test and the chromosomal aberration test. In recent years, as a new mutagenicity test, an in vivo comet assay has been attracting much attention.

The in vivo comet assay is a single cell gel electrophoresis assay conducted using isolated cells of animals under specific conditions to detect the DNA damage of each cell. In this assay, if the DNA is damaged, the fragmented DNA shows an image like a comet. This testing method is expected to be applicable to any tissues from which cells can be isolated, including those obtained for other toxicity testing, to detect damage to the DNA of the cell with high sensitivity and in a relatively simple manner. The use of this method will help reduce the frequency of animal tests and is therefore keenly anticipated to contribute to animal welfare.

At present, international validation tests are being conducted to develop the guidelines for the testing method, in which Sumitomo Chemical is also participating, by conducting studies to establish the optimal testing method. We will continue making efforts to improve the method, while proactively introducing new mutagenicity tests to contribute to bettering the safety assessments of chemical substances.



CSR Report 2011 Responsible Care Activities

# **Quality Assurance Initiatives**

Sumitomo Chemical works to supply high-quality products and services that satisfy customers' needs and ensure safety in their use.

## **Group-Wide Initiatives**

Sumitomo Chemical has been promoting quality assurance activities throughout the Group. In fiscal 2010, 73 Group companies have begun applying Group Quality Assurance Standards and 74 Group companies Group PL Standards, in line with their business operations. To achieve successful application, these companies are creating new in-house rules as required. We will continue to conduct quality assurance activities while enhancing the integrity of activities across the Group.

#### ISO 9001 certification of Group companies

Vector Health International Ltd. (VHI) in Tanzania and Zhuhai Sumika Polymer Compounds Co., Ltd. in China newly obtained ISO 9001 certification, based on the reports made by Sumitomo Chemical Group companies in 2010.

VHI is manufacturing the Olyset<sup>™</sup> Net, a long lasting insecticidal net effective for malaria control, manufactured under Sumitomo Chemical's royalty-free license of its manufacturing technology since 2007. Various efforts, including frequent visit and instruction by Sumitomo Chemical's own technical experts, to improve the quality consciousness by local employees, and understanding and practice concerning quality assurance by local managers , have led to the company's obtainment of ISO 9001 certification.



VOICE

Hsiu Li Yang RC Department, Sumipex Techsheet Co., Ltd. Pursuing Even Higher Quality Following the Launch of Production for the Japanese Market

Sumipex Techsheet (STS) began operations in January 2009. We are manufacturing MMA cast sheets. Initially, sales to the domestic market in Taiwan accounted for 10% of total sales, with the remaining 90% occupied by exports to the United States, Australia, South Africa, the Middle East, etc.

STS has an ISO 9001-based management system to manufacture highquality products that are greatly appreciated by the market, focusing on risk management and disaster prevention.

We began manufacturing products for the Japanese market in November 2010. We need to meet higher quality requirements for products exported to Japan compared with those that have been exported to other countries, and all employees are conducting operations in a responsible manner to meet such requirements.

We will further improve the quality of our products and increase the rate of products that can pass the inspection tests while also increasing production quantities.



Sumipex Techsheet Co., Ltd.

## **Initiatives at Sumitomo Chemical**

Sumitomo Chemical is conducting quality assurance activities on a company-wide basis as well as by business sector, site, and department. In fiscal 2010, we were able to achieve steady results for all the important items from the viewpoints of "human resources," "products," "Sumitomo Chemical Group," and "purchasing and outsourcing," although the IT-related Chemicals Sector and the Agricultural Chemicals Sector (present Health & Crop Sciences Sector) faced major quality problems for photoresists and product labels, respectively. In response, we are implementing measures to prevent the reoccurrence of similar problems.



Employees of VHI proudly showing their ISO 9001 certificate

## Enhancing quality assurance activities

Acquiring certification for a Quality Management System (QMS) is evidence of appropriate quality assurance activities. Although ISO 9001 standards are the most famous and universal standards on QMSs, there are also other quality management standards.

Sumitomo Chemical became the third Japanese company to acquire FAMI-QS certification for methionine<sup>\*1</sup> in November 2010. In order to comply with the FAMI-QS standards on animal feeds, we implemented new initiatives, including efforts to understand and practice the HACCP<sup>\*2</sup> method, which is often applied to food.

As a company that provides customers with a range of products, Sumitomo Chemical will further enhance its quality assurance activities through various new approaches.

#### **Examples of Quality Management Systems**

ISO 9001	Quality management systems – Requirements
ISO/TS 16949	Quality management systems – Particular requirements for the application of ISO 9001: 2008 for automotive production and relevant service part organizations
ISO 22000	Food safety management systems – Requirements for any organization in the food chain
ISO 13485	Medical devices – Quality management systems – Require- ments for regulatory purposes
GMP	Good Manufacturing Practice; Standards for the manufactur- ing management and quality control of pharmaceuticals, etc.
FAMI-QS	European Feed Additives and Premixtures Quality System

\*1. Methionine is used as a feed additive. It is one of the essential amino acids and promotes the growth of animals.

\*2. Hazard Analysis and Critical Control Point (HACCP) is an approach to clarify both hazards and control points in manufacturing processes to ensure safety.

#### "Visualizing" quality assurance activities

The level of quality assurance activities can be "visualized" by calculating the cost of quality . Sumitomo Chemical had calculated the following cost: external failure cost (of paying to customers who suffered inconvenience); internal failure cost (of dealing with quality problems inside the Company); and the appraisal cost (of evaluating products). In fiscal 2010, we began including prevention cost, such as the cost to prevent quality problems by making changes to the processes, in order to determine the costs of quality from a broader perspective, and reviewed the scope of data collection and classification for each of the cost items.

We will efficiently enhance our quality assurance activities in reference to the collected data.

# **Cross-Industry Initiatives**

Sumitomo Chemical has been actively promoting joint activities with other companies, not only in the chemical industry but also in other industries.

# Communicating information about chemical substances contained in products

The chemical industry had been providing customers with information about chemicals in the form of JIS<sup>\*1</sup>-compliant MSDSs (see page 51). Recently, however, more detailed information has been required in some cases, and in response, Sumitomo Chemical established JAMP<sup>\*2</sup> jointly with other manufacturers of chemical substances, companies that mix and combine chemical substances or manufacture parts using those substances, and companies that assemble the parts into final products, with a view to creating and revising standardized information communication forms (i.e. MSDSplus<sup>\*3</sup> and AIS<sup>\*4</sup>). In fiscal 2010, for the further enhancement of this initiative, Sumitomo Chemical held the briefing concerning JAMP for its suppliers.

We will continue to foster the activities of JAMP through various measures.



The briefing concerning JAMP at the Sumitomo Chemical head office in Tokyo

#### \*1. Japanese Industrial Standards (JIS)

Industrial standards formulated on the basis of the Japanese Industrial Standardization Act, and one of Japan's national standards.

\*2. Joint Article Management Promotion-consortium (JAMP)

Established by companies as a rational information communication system for regulated substances contained in products.

For details, visit the JAMP website: http://www.jamp-info.com/english \*3. MSDSplus

Information communication form developed by JAMP for regulated substances contained in chemical products.

\*4. Article Information Sheet (AIS)

Information communication form developed by JAMP for regulated substances contained in products.

#### CSR Report 2011 Responsible Care Activities

# Initiatives for Ensuring Quality, Safety, and Environmental Protection in Logistics Operations

Based on the fundamental principle of giving first priority to safety in logistic operations, Sumitomo Chemical is cooperating with partner logistics companies, upholding a basic policy of ensuring safety and giving due consideration to the environment, while providing customers with high-quality logistics services.

GRI 3.9 4.11 EN17 EN18 EN29

## Initiatives for Improving Logistics Safety and Quality

**Promoting RC activities in cooperation with logistics companies** Sumitomo Chemical, which commissions all its transportation activities to partner companies, conducts the followings as its two core RC logistics activities: (1) promoting cross-organizational RC activities through "the Sumitomo Chemical Logistics Partnership Council"; and (2) providing individual instructions, such as "logistics RC audits". As part of these activities, we conduct a nationwide competition for tank truck drivers to provide participants with opportunities to learn from each other about the prevention of accidents.

At the prefectural forklift competition held in Ehime Prefecture, participants from partner logistics companies of the Ehime Works won the first, second, and third prizes.

#### Initiatives to assure quality for customers

Sumitomo Chemical is implementing IT-based measures to prevent human errors of shipping and delivery on a company-wide basis. For example, the Osaka Works has been adopting a system that utilizes QR code and IC tags to inspect shipping and manage the use of returnable containers for its semiconductor-related products since March 2010.

Semiconductor-related products are shipped to companies in the IT industry who demand high quality assurance, and the aforementioned initiative at the Works helps us highlight our commitment to quality. We will expand the initiative to other Works and logistics centers.

ΤΟΡΙΟ

# System to Prevent Shipping Errors Using QR Codes and IC Tags

The Osaka Works has introduced a system to prevent shipping errors for its semiconductor-related products and manage the use of returnable containers.



Inspection using a handy terminal



General meeting of the Sumitomo Chemical Logistics Partnership Council (May 24, 2010)



First competition for tank truck drivers (held on Sept. 25, 2010, with the participation of 13 companies providing us with transportation services)



Winners at the 24th prefectural forklift competition held in Ehime Prefecture (held on June 27, 2010, with the participation of 22 employees from 10 logistics companies)

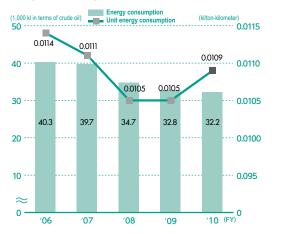
#### **Reducing the Environmental Impact of Our Logistics Operations**

Sumitomo Chemical has been actively implementing a modal shift to rail and ship transportation while increasing transportation efficiency through upsizing delivery volume. As a result, the unit energy consumption of our logistics operations has reduced annually by 1.1% on average over each of the past four years, although it increased by 3.8% year-on-year in Japan in fiscal 2010.

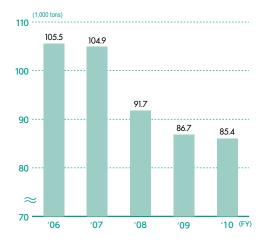
The unit energy consumption increased in fiscal 2010 because the rate of energy-efficient marine transportation decreased following discontinuance of sea dumping of red bauxite.

# Reduction of Environmental Impact in Logistic Operations (Actual Results for Fiscal 2006 to 2010)★

Energy Consumption



#### CO<sub>2</sub> Emissions



TOPIC

# Drill to Tackle the Leakage of Hazardous Substances during Transportation

In order to prevent leakages during transportation, we ensure compliance with the rules and regulations on the safety management of hazardous substances during transportation. Moreover, we have built up an emergency communication system and regularly conduct emergency drills in preparation for any occurrence of such incidents.

Also, simulating a small leakage during transportation in an ISO container from the Oita area to the Ehime area, we conduct a drill to



make the necessary reports to the related departments and prevent the spread of the leakage.

Drill to tackle the leakage of hazardous substances held on June 28, 2010, with the participation of four internal departments and five external companies

# Incidents Involving Employees of Partner Logistics Companies

In fiscal 2010, we were not able to achieve zero incidents: there were two lost-workday injuries involving employees of our partner logistics companies within the premises of our factories.

(1) At the stockyard for bauxite, an employee of a partner logistics company was operating a caterpillar excavator to move the piled-up bauxite. During this operation, the floating front part of the vehicle hit the ground and rebounded, causing the driver to hit his head against the front windshield glass. The driver, who was a starter, was unfortunately injured during his first onsite work conducted under the supervision of a manager.

(2) An employee of a partner logistics company was placing polyethylene packaging materials (in the form of a roll) onto pallets. A roll sticking out from a pallet suddenly fell on the worker, who took the weight of the roll on his chest. Following this incident, we improved related working methods and implemented necessary measures, including those to prevent objects falling from pallets.

## **Occurrence of Logistics Quality-Related Incidents**

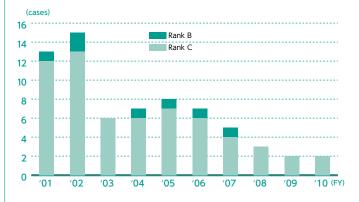
Against the target of keeping the number of major incidents to below six, we faced two incidents in fiscal 2010.

(1) Liquid leakage due to the overturning of a marine container (at a container yard in Kobe)

(2) Erroneous delivery of aluminum targets (Delivery to the wrong destination on the wrong day due to errors in the delivery slip made by the shipper)

# Occurrence of major Logistics Quality-Related Incidents during the Past 10 Years

(Note) Sumitomo Chemical classifies major incidents into Rank A, B, C in descending order of severity from the worst to least). We had no Rank A incidents during the period, and the graph shows the frequency of Rank B and C incidents.



CSR Report 2011 Responsible Care Activities

March 2010 to March 2011

# **Progress in Fulfilling Eco-First Commitments**

As a leading company in the chemical industry, Sumitomo Chemical is committed to fulfilling its Eco-First commitments to the Japanese Minister of the Environment, while ensuring legal compliance and enhancing RC activities.

GRI 4.11

FIRST

 ${igodot}$  : Very favorable  ${ig/}{igodot}$  : Generally favorable  ${ig/}{ riangle}$  : Further study needed

Management of chemical substances and promotion of risk communication	Evaluation
Reviewing the safety information on chemicals and conducting risk assessments         • Proceeding favorably as planned         • Approximately 50% of hazard assessment completed and risk assessments performed for 59 chemical substances	O
Voluntarily inspecting the safety of HPV chemicals and conducting LRI activities (1) Voluntary inspection on the safety of HPV chemicals · Conducted in cooperation with the world chemical industry; led and completed the inspection on three substances *1 (2) LRI · Participated in the LRI project implemented by the Japan Chemical Industry Association as a member of the taskforce on science and leader of the planning and management panel*2	0
<ul> <li>Halving the release of substances subject to the PRTR Act into the air and water</li> <li>Systematically reduced the amount released based on risk management</li> <li>Achieved the initial target of reducing 50% from the fiscal 2002 level (baseline year) by fiscal 2010</li> </ul>	0
<ul> <li>Enhancing information disclosure and risk communication</li> <li>Published the Sumitomo Chemical CSR Report (in Japanese and English) and also the Report on the Environment, Health and Safety by each individual Works on a regular basis</li> <li>Published local PR newsletters, made school visits, accepted student interns, and engaged in dialogues with local residents at each of our worksites</li> <li>Preventing global warming</li> </ul>	0
<ul> <li>Improving unit energy consumption and reducing unit CO<sub>2</sub> emissions at all Works</li> <li>Unit energy consumption and unit CO<sub>2</sub> emissions decreased by 18.3% and 24.1%, respectively from fiscal 1990 levels (baseline year)</li> <li>Implemented multifaceted energy conservation measures, including improved operation methods, process rationalization, improvement of facility and equipment efficiency, and efficient use of energy in cooperation with neighboring companies</li> </ul>	○*3•◎*4
Developing and making practical use of innovative energy conservation technologies to recover previously unusable low-temperature heat (130°C or below) generated by our petrochemical plants and reuse it at manufacturing plants · Participated as an advisor in a joint R&D project conducted by universities and machinery manufacturers, which was fostered by NEDO as a project to develop innovative technologies to conserve energy Test data is now being collected using a small prototype machine	0
Continuously improving unit energy consumption in our logistics division · Continuing to implement measures to increase the rate of transportation by rail and ship and to upsize transport containers	0
Reducing CO <sub>2</sub> emissions by households in cooperation with the labor union · Conducted a wide range of activities, including the creation of posters, introducing examples of energy conservation in the internal magazine, opening a CSR webpage on the intranet, and distributing our "Environmental Accounting Book"	0
Creation of a recycling-based society	
Reducing the generation of industrial waste and landfill through recycling and other means and achieving zero waste emissions         • Achieved the initial target of reducing the amount of waste sent to landfill by 90% from fiscal 1990 levels (baseline year) by fiscal 2010         • Made steady progress to achieve zero waste emissions at all our manufacturing facilities by fiscal 2015	<b>○ *5 • ○ *6</b>

\*2. Commissioned expert research into ecotoxicity (environmental toxicity), carcinogenicity, immunotoxicity, more precise risk assessment,

and neurotoxicity, and held a meeting to report the research results. \*3 . Unit energy consumption \*4. Unit

\*3. Unit energy consumption
 \*4. Unit CO<sub>2</sub> emissions
 \*5. Reducing the generation of industrial waste and landfill
 \*6. Zero waste emissions

<sup>\*1. 2-</sup>tert-butyl-5-methylphenol, 2,2'-methylene-bis-(6-tert-butyl-4-methylphenol), and resorcinol

<sup>(</sup>Note) The Japanese Ministry of the Environment reviewed the Eco-First program in October 2010. Accordingly, Sumitomo Chemical also made some changes to its Eco-First commitments in January 2011 and has been implementing measures to fulfill the revised version since April 2011. (For the full text of the Eco-First commitments, see page 24 of the DATA BOOK.)

# **Social Activities**



As a member of society, Sumitomo Chemical strives to enhance its relations with local communities, customers, business partners and employees.

We are also committed to conducting social contribution activities that are unique to Sumitomo Chemical through our business activities with a focus on covering three different areas: coexistence with local communities, continued support for sustainable society and responsible business as a global company.

Moreover, we are working toward increased information disclosure and the promotion of dialogue with multi-stakeholders.

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# Hand in Hand with Customers

The Sumitomo Chemical Group works to supply high-quality products and services that satisfy customers' needs and ensure safety in their use, thereby building and maintaining relations of trust with customers.

#### GRI 4.15 4.16

At Sumitomo Chemical, employees in charge of sales and quality assurance cooperate together to increase customer satisfaction.

#### **Measures for Higher Customer Satisfaction**

Sumitomo Chemical operates a product quality information management system to make appropriate and prompt responses to complaints and requests made by customers about the Company's products. Through this system, we ensure the incorporation of customers' opinions about our products into our quality assurance activities.

Each business sector of the Company analyses the information registered with the system and implements measures to prevent the occurrence of similar problems. Also, the Works, Research Laboratories, and sales personnel share information regarding customers' complaints and improvement requests about product quality as important data, based on which the entire organization should make responses to customers.

## **Plastics Technical Center**

The Plastic Technical Center, which is located in the Chiba area, conducts research for the application and processing of petrochemical products in response to market needs. The center supports corporate customers in commercializing resin products and new materials from various aspects.

Specifically, the center considers and proposes new resin processing technologies to manufacture lighter, stronger, and multifunctional resins, and provides information about materials and processing technologies for practical processing evaluation. Moreover, using the next-generation plastics computer aided engineering (CAE) technologies, the center designs high polymer materials and supports not only formability assessment, such as flow analysis but also product performance assessment, such as shock analysis. The center also makes proposals for highperformance resin processed products with new functions and for technologies to commercialize such products.

The environment surrounding the petrochemical industry is undergoing great changes, and customers' needs are



**Plastics Technical Center** 

also substantially and rapidly changing. In response to these changes, the Plastics Technical Center will continue to develop and propose highly value-added new processing technologies, materials, and products in a speedy manner to customers.

#### Consultation Service Provided by the Product Promotion Department of the Crop Protection Division

The Product Promotion Department of the Crop Protection Division provides customers with consultation services about Sumitomo Chemical's agricultural chemicals within Japan.

The department's consultation service members are committed to responding to customers from a customer's viewpoint, and based on the Company's compliance policy.

Customers ask the service staff questions about various issues, such as the appropriate usage of agricultural chemicals and food safety, and the members provide them with precise information in an easy-to-understand manner in compliance with related laws, including the Agricultural Chemicals Control Act of Japan. The members receive internal training on frequently asked questions (FAQs) and proactively participate in external seminars to learn how competitors and companies in other industries deal with customers, thereby sharing knowledge and increasing their job skills.

Through the consultation service, the department actively communicates with customers, and improves and develops products giving due consideration to their requests. When receiving complaints about the Company's products, the department cooperates with other departments to make prompt responses.

Moreover, the customer service members hold information exchange/study meetings with their counterparts working at other Sumitomo Group companies engaged in agriculture-related business for mutual improvement. Through these activities, the department is working to increase the credibility of the Sumitomo Chemical Agro Group as "total solution providers."



Consultation service members

# Hand in Hand with Business Partners

Sumitomo Chemical has been implementing its responsible procurement initiatives for the purchase of raw materials and packaging materials.

#### GRI 4.11 4.15 4.16

Sumitomo Chemical is committed to building sound mutual relations with business partners based on the Basic Procurement Principles. In addition to ensuring fairness, equitability, and transparency in our transactions with business partners, we are also encouraging business partners to promote their CSR activities through our responsible procurement activities.

## **Basics of Responsible Procurement**

#### Clarifying regulations within the Company

Sumitomo Chemical clearly states the following basic principle of responsible procurement in its Basic Procurement Policies (shown below):

"4. In its procurement, the Procurement Section shall give preference to those suppliers that are active in CSR initiatives, with the aim of fulfilling its corporate social responsibilities and building sound relationships with suppliers."

In addition, we clearly state our basic responsible procurement policy in the Group Business Standards of Procurement, which apply to Group companies both in Japan and overseas.

#### Means to foster Responsible Procurement

#### (1) Using the Sumitomo Chemical Supply-Chain CSR Deployment Guidebook and Check Sheets

Sumitomo Chemical has created the Sumitomo Chemical Supply-Chain CSR Deployment Guidebook, which explains CSR items to be focused on by suppliers. Sumitomo Chemical aims to help its suppliers address their issues by monitoring and providing feedback on the results of their self-evaluation using the Sumitomo Chemical Supply-Chain CSR Deployment Check Sheets and helping them promote CSR activities by repeating the PDCA cycle. (2) Web Page on Procurement Information

# Sumitomo Chemical has a CSR Procurement section in its

Procurement Information website linked from the Company homepage in order to broadly inform its stakeholders about its CSR procurement initiatives. This CSR Procurement web page allows suppliers to download the guidebook and check sheets and report the results of their self-evaluations.

Procurement Information website:

http://www.sumitomo-chem.co.jp/english/csr/society/business\_partner/ Basic Procurement Policies

- The Procurement Section shall strive to conduct procurement transactions on the basis of fair, equitable, transparent and free competition without involving personal interests or arbitrary considerations.
- The Procurement Section shall strive to select suppliers to transact with in accordance with the most appropriate and economically rational methods and shall pursue the maintenance of sound business relationships with suppliers, aiming for mutual growth and development.
- 3. The Procurement Section shall strive to provide corporate services globally throughout the entire Group.
- 4. In its procurement, the Procurement Section shall give preference to those suppliers that are active in CSR initiatives, with the aim of fulfilling its corporate social responsibilities and building sound relationships with suppliers.
- The Procurement Section shall strive always to meet quality requirements of Sumitomo Chemical's internal sections that request purchase of Goods and Services.
- In performing Procurement Operations, the highest priority shall be given to safe and stable operation in order to achieve zero-accident and zero-injury operations.
- In performing Procurement Operations, the highest consideration shall be given to customer satisfaction.
- 8. The Procurement Section shall ensure the transparency of Procurement Operations.

## **Initiatives in Fiscal 2010**

#### Monitoring

In fiscal 2010, Sumitomo Chemical monitored the implementation of CSR measures by all new suppliers and by current suppliers with manufacturing facilities located overseas, using the CSR Deployment Check Sheets.

#### Introduction to Group companies

Sumitomo Chemical held a briefing session targeting Sumitomo Chemical Shanghai and Sumitomo Chemical India to help employees of these subsidiaries in China and India to deepen their understanding of the measures taken by Sumitomo Chemical for responsible procurement and especially the CSR Deployment Guidebook and Check Sheets.

#### Exchange of responsible procurement information with competitors

Also in fiscal 2010, employees of Sumitomo Chemical in charge of responsible procurement exchanged opinions about responsible procurement ideas and systems with their counterparts working for competitors.

#### **Fiscal 2011 Targets for Responsible Procurement Initiatives**

#### **Global implementation**

In fiscal 2011, we will continue to use our responsible procurement system to monitor and provide feedback on CSR initiatives undertaken by all new suppliers and current suppliers, particularly by overseas suppliers, to further promote responsible procurement.

#### (1) Onsite survey at manufacturers

We will conduct onsite surveys on CSR initiatives taken by suppliers when we make visits to their local factories for quality audits and other purposes.

# (2) Cooperation with Sumitomo Chemical Shanghai and Sumitomo Chemical India

We will obtain the results of self-evaluation from local manufacturers in China and India and conduct onsite surveys by the use of the responsible procurement system and in cooperation with the two local subsidiaries.

#### **Deployment to Group companies**

We will check the responsible procurement measures fostered by Group companies and promote responsible procurement as the entire Group.

#### Review of the Sumitomo Chemical Supply-Chain CSR Deployment Guidebook and Check Sheets

We will review the details of the Guidebook and Check Sheets in response to social needs, including the need for biodiversity conservation.

# Hand in Hand with Local Communities and Society

Sumitomo Chemical has been strengthening measures to support its head o ce, other worksites, and Group companies to ensure employees' safety and health and protect the environment; help employees raise children who will lead the next generation; and assist in natural disaster relief, based on the three pillars of "community contribution," "future contribution," and "global contribution."

# For the Future of Local Communities and Children

#### GRI 4.15 EC8

Sumitomo Chemical conducts a variety of localized activities at its worksites for information disclosure and communication with local residents on a daily basis, and education of children who will be the next generation of leaders. We are endeavoring to help local residents deepen their understanding of our activities and to build and maintain good relations with them.

#### Organizing Tours to the Works and Research Laboratories and Providing Access to Corporate Facilities

Sumitomo Chemical's Works and Research Laboratories organize tours of their facilities as a way of educating local children, who will lead the next generation and of disclosing information to local residents and governments. The Company also provides locals with free access to its welfare facilities.

For instance, the Health & Crop Sciences Research Laboratory offered a tour of its facilities for persons concerned who were engaged in agriculture, local communities, the members of local police and schools.

This tour served as an opportunity to promote sharing and exchange of information.



Tour in the Health & Crop Sciences Research Laboratory

# **Community Beautification Activities**

Sumitomo Chemical's worksites are also conducting cleanup and beautification activities around their premises and actively participating in community cleanup events.

The Misawa Works participated in a planting activity conducted by Misawa City, and employees planted flowers in front of the main gate of the Works.



Employees planting flowers (Misawa Works)



Cleanup activity conducted around the Tsukuba Research Laboratory



Michiaki Ishiguro General Affairs Department, Ehime Works

# Aiming to Become Works Friendly to Local Residents

At the Ehime Works, we are implementing a range of measures to help local residents deepen their understanding of the Works. Since 2010 we have been organizing holiday factory tours for locals, in response to requests to organize tours to the Works and Sumitomo Chemical's history museum located next to the Works.

We publicized the information about tours through the local government's newsletters and local newspapers to invite more people to the tours. In the tour organized in 2011, as many as 700 people participated. We intend conducting more of these activities in the future.



Inviting local residents to the history museum on holidays (Ehime Works)

#### Supporting and Participating in Community Events

As part of our measures to strengthen communication with local communities, Sumitomo Chemical supports and participates in local events. For example, the Oita Works participates in the Honba Tsurusaki Dance Festival, and employees of the Osaka Works volunteer to support the table tennis championship for the disabled. The Misawa Works provides special support for the Misawa International Wheelchair Tennis Tournament, and employees of the Works also participate in the Nagashi Odori parade.

Moreover, we provide free access to our facilities during the periods of local events.





Employees of the Misawa Works participated in the Nagashi Odori parade, one of the main events of the Misawa Festival.

Employees of the Osaka Works participated in the table tennis championship for the disabled as volunteers.

## **Accepting Student Interns**

The internship program is intended to provide students with an opportunity for work experience related to their chosen subject area or future career, and to nurture their own view of occupations and work. Every year, we accept local senior high school and junior technical college students as interns at our worksites, where they deepen their understanding of what it means to work and the kind of work people do in a chemical company.

In 2010, the Okayama Plant began accepting junior high school students as interns to provide them with work experience, in addition to the internship program for senior high school students that the plant had launched in 2005. The plant provides the interns



with practical training in a way that sti mulates their intere st in chemistry while giving due considera tion to their safety.

Accepting local junior high school students as interns (Okayama Plant)

#### Conducting Special Lessons at Elementary and Junior High Schools

Sumitomo Chemical sends instructors to elementary and junior high schools for School Science Visits and Environment Education Initiatives, aiming to stimulate children's interest in science and to contribute to natural science education. Every year the instructors prepare creative programs to show children how fascinating science is, and they enjoy interacting with the students.

In addition, the Chiba Works continues to promote the Ichihara-Sodegaura Young Inventors' Club, with enthusiastic support of employees, retirees, school teachers, and local residents.



Giving a class on dyeing (Osaka Works)



Ichihara-Sodegaura Young Inventors' Club (Chiba Works)

## **Promoting Sports**

To promote the healthy development of children through sport, we also sponsor and support various sporting events.

The Oita Works has long been supporting Tsurusaki Junior Cup Soccer Tournament for children, and the 20th event was held in 2010.



Supporting a local football competition for children (Oita Works)

# **Regional Safety and Risk Communication**

#### GRI 4.11 4.16 4.17

Sumitomo Chemical actively conducts risk communication activities, clarifying problems and targets based on its company-wide policies on risk communication. In these activities, the Company gives first priority to increased information disclosure and the promotion of dialogue. To this end, each of its worksites formulates specific action plans and executes a PDCA cycle. We are also making efforts to improve the landscape and environment at our worksites in response to comments we have received.

#### Localized Information Disclosure by Worksites

TOPIC

Each worksite of the Company publishes its own environmental and safety report every year to report on its local activities in detail. The reports of the worksites complement the Company's own CSR Report.

In addition, three Works (Ehime, Osaka, and Oita) publish local newsletters for the proactive distribution of area-specific information, often delivered to citizens as newspaper inserts.

# **Engaging in a Variety of Dialogues**

Each Works engages in a variety of risk communication activities for various purposes. These include risk communication model projects carried out jointly with local governments, environment and safety support projects for domestic and overseas governments and businesses, regular meetings with local residents, and dialogues with the community based on cooperation with the chemical industry.

Moreover, the head offices (in Tokyo and Osaka) participate in a range of committee activities conducted by the national government and industrial associations as well as in industrygovernment-academia seminars and lectures to disseminate the latest information and exchange opinions. The overall aim is to help people deepen their understanding of Sumitomo Chemical and win more trust from the public.

Company-wide policy	· Promoting communication with society
Tasks	<ul> <li>Increasing information disclosure</li> <li>Promoting dialogue</li> </ul>
Specific initiatives	Proactive information disclosure through CSR reports, environmental and safety reports, and local newsletters     Broad risk communication     Cross-divisional implementation



Local newsletter published by the Osaka Works (delivered to households biannually inserted in newspapers)

# Developing "Environmental Communicators"

The Osaka Works is located in a residential neighborhood, and now several condominiums are under construction as part of urban development plans. In addition to changes in the local environment, the ideas and ways of thinking of local residents are also changing. Under these circumstances, in order to help locals understand the measures taken by the Works for the environment, it is necessary to develop "environmental communicators" who have a range of communication abilities and sufficient environmental knowledge.

In fiscal 2010, the Works launched a program to nurture employees in charge of environmental protection into "environmental communicators." These employees already had knowledge about the environment, but needed to acquire the ability to communicate the knowledge appropriately to a wide range of people, including those belonging to different age/job groups. In the environmental communicator development program, the Works had trainees (1) participate in the Special School Visits and factory tours organized by Sumitomo Chemical; (2) make presentations at dialogue meetings held in Osaka; (3) attend the training seminars on risk communication held by the Japan Chemical Industry Association; and (4) undertake exchanges with people in charge of risk communication both within and outside the Company and build an information network with them. Moreover, as the final task to be performed by trainees in the development program after acquiring basic knowledge and expertise as environmental communicators, they engaged in the ESD\* training program initiated by the Japanese Ministry of Education, Culture, Sports, Science and Technology for the promotion of science and technology. Specifically, the trainees formulated plans, undertook negotiations, and then implemented the plans for the ESD training held in January 2011. As a result, the training was very successful, and moreover, participants in the program continued to receive follow-up support from the trainees who had finished the environmental communicator development program. The development program thus achieved even greater results than expected.

All employees, not only those designated as "environmental communicators," will face communication demands in a range of situations. The Osaka Works will continue to improve the communication abilities of employees through the environmental communicator development program.



Participants in the ESD training program

Education for Sustainable Development.

# **Support to Africa**

#### GRI 4.12 EC8 EC9

Sumitomo Chemical is supporting Africa and contributing to the achievement of the Millennium Development Goals through the business operation of the Olyset™ Net, an insecticidal mosquito net that helps prevent the spread of malaria.

## Toward the Achievement of the Millennium Development Goals (MDGs)

In Africa, in particular, in the Sub-Saharan region, people are facing a range of problems, including poverty, infectious diseases, and high death rates for pregnant women and infants. In response, the United Nations has set the Millennium Development Goals\* as immediate measures to solve the problems.

Through the business of the Olyset<sup>™</sup> Net (for details, see page 28), a malaria control mosquito net developed by using its proprietary technologies, Sumitomo Chemical has been directly contributing to the MDGs, such as Goal 6 Combat HIV/AIDs, malaria and other diseases, Goal 4 Reduce child mortality, Goal 5 Improve maternal health," Goal 1 Eradicate poverty, and Goal 2 Achieve universal primary education.

#### \*Millennium Development Goals

represent the goals and action plans set by the United Nations with regard to eight issues such as poverty, education, the environment, and human rights to be urgently implemented and achieved by 2015.

## Malaria Control Initiatives and the Olyset<sup>™</sup> Net

Sumitomo Chemical's Olyset<sup>™</sup> Net is highly evaluated and recommended by the World Health Organization (WHO) as a critical means of controlling malaria. In Sauri village in Kenya, the number of people with malaria parasites is reported to have decreased from around half of the total population in 2005 to 8% in 2008.

# Creating Employment through the Local Production of the Olyset<sup>™</sup> Net

Sumitomo Chemical provided its Olyset<sup>™</sup> Net manufacturing technology free of licensing fees to a local company in Tanzania and established a joint venture with the company, which created jobs for about 7,000 people, thereby contributing to local economic development.

According to the report made by the University of London School of Oriental and African Studies in April 2011, the Olyset<sup>™</sup> Net manufacturing operation accounts for 20% of all manufacturing jobs in the Arusha region . About 70% of the workers of the Olyset<sup>™</sup> Net manufacturing factory were able to move out of financial insecurity, plan for the future and pay for their children's education.

## Donating Olyset<sup>™</sup> Nets

Sumitomo Chemical has been donating Olyset<sup>™</sup> Nets to NGOs and international organizations. In particular, in 2006 we donated about 33 ten thousand Olyset<sup>™</sup> Nets to an international NPO named Millennium Promise, which is committed to supporting the achievement of the MDGs and overseeing the Millennium Village Project\*. In 2010, we decided to donate another 40 ten thousand nets to the NPO over the period 2010 to 2011.

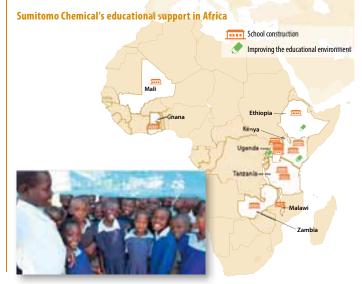
#### \*Millennium Village Project

A plan to help "eradicate extreme poverty and hunger," which is one of the MDGs, by assisting people living in about 80 villages in 10 African countries to lead self-sufficient lives. Comprehensive support is given in areas such as agriculture, health and sanitation, and education.

## **Educational Support for the Leaders of Tomorrow**

Sumitomo Chemical has been supporting education in Africa by using a portion of sales from the Olyset<sup>™</sup> Net business. In cooperation with the NGOs, "World Vision Japan" and "Plan Japan," we have supported nine projects to construct primary and secondary school buildings, as well as dormitories for teachers and school lunch facilities in the five countries of Ethiopia, Kenya, Uganda, Tanzania, and Zambia. At present we are supporting another three projects in Ghana, Mali, and Malawi. Once the construction is completed, we will continue to provide support for school fees and supplies, thereby helping the next generation of leaders get the education they need.

As a member of the international community, Sumitomo Chemical will continue to support Africa proactively toward the achievement of the MDGs.



Photograph © M. Hallahan/Sumitomo Chemical

# **International Contribution**

#### GRI EC8

The Sumitomo Chemical Group is conducting localized social contribution activities. The following shows some representative examples of these activities in various regions.

# Europe

- Hungary University scholarship program
- 🛑 Uganda
- Supporting activities to improve the educational environment and construct school buildings .
- Ethiopia
- Supporting activities to improve the educational environment Kenya
- Supporting activities to improve the educational environment and donating Olyset<sup>™</sup> Nets
- Tanzania Donating Olyset<sup>™</sup> Nets
- Mozambique Donating Olyset<sup>™</sup> Nets
- Senegal Donating Olyset<sup>™</sup> Nets
- Congo Donating Olyset<sup>™</sup> Nets
- (Others)
  - Donating Olyset™ Nets to Millennium Villages across Africa

Asia

- South Korea
   "Run Together" marathon
   China
- University scholarship program Acceptance of student interns Support for elementary schools in Anhui Province
- Assistance with tree-planting activities
- Making visits to schools for disabled
- Making visits to child welfare facilities Holding a Japanese language
- competition for university students Donating books to libraries
- Thailand Assistance with tree-planting activities Beach cleanup activities
- Indonesia
   Assistance with tree-planting activities
- Malaysia Assistance with tree-planting activities
   Singapore
- Acceptance of visitors to the plant Acceptance of trainees
- A range of scholarship programs Support for musical activities

## "Sumitomo Chemical's Forest" in Ranong Province, Thailand

To help prevent global warming and conserve biodiversity, Sumitomo Chemical has been conducting a mangrove planting project in cooperation with OISCA in Thailand's Ranong Province since fiscal 2008.

Many mangrove trees were felled in Thailand to provide land for shrimp cultivation and charcoal production, and as a result the forest area has decreased substantially. Mangrove trees are said to be especially effective in the prevention of global warming because they have a high capacity to take in and fix CO<sub>2</sub>. These trees also help mitigate tsunami damage and conserve biodiversity. Their disappearance would have a serious negative impact on the lives of local people.

The project's aim is to plant mangrove trees in order to recov



grove trees in order to recov er a rich forest that was devastated by destructive felli ng. It is being fostered throu gh cooperation between the Thai government, local resid ents, OISCA, and Sumitomo Chemical. Sumitomo Chemi cal provides funding for the project in the form of donat ions made by directors and employees of the Sumitomo Chemical Group, matching the amounts under the Matching Gift program, which is promoted in cooperation with the Company's labor union.

The area for which the Company is providing support as of March 2011 consists of about 175,000 mangrove trees over 70 hectares and is managed as "Sumitomo Chemical's forest." Since fiscal 2008, Sumitomo Chemical has been dispatching volunteer employees and a delegation to the site of the activity to provide cooperation and make exchanges with local residents.

# "Run Together" Marathon for People with and without Disabilities

Dongwoo Fine-Chem has been continuously conducting a range of social contribution activities at its office in Seoul, as well as at its factories in Iksan and Pyeongtaek. In particular many employees of the factory in Iksan participate in the great "Run Together" marathon held every April, in which people both



# America

United States of America Protection of a forest preserve in Mettawa Support for NGOs through donations Participation in Relay for Life fundraising event Haiti Donating Olyset<sup>™</sup> Nets

# Dceania

- Australia
   Assistance with the control of red imported fire ants
   Fill
- Assistance with tree-planting activities



with and without disabilities run together over a distance of 6.5 km. The marathon provides participants with an opportunity to enjoy exchanges and deepen mutual understanding, and the 8th such event was held in 2011.

Dongwoo Fine-Chem has been supporting the organization of the marathon with

the help of its executives, employees, and their families since 2004, when the event was held for the first time, by providing participants in the event with food and donating money to support organizations for people with disabilities. Dongwoo Fine-Chem will continue to conduct a range of social contribution activities.

#### Participating in Relay for Life, a Fundraising Event to Support People Suffering from Cancer

Every year in the United States more than 55 ten thousand people die of various forms of cancer.

Every year across the United States thousands of people participate in Relay for Life, a series of local events that support the programs of the American Cancer Society in its fight to reduce the devastating effects of cancer. Relay for Life fundraising events are held nationwide, including Walnut Creek, California where the headquarters of Valent U.S.A. Corporation is located. Various community groups and businesses such as Valent form teams that commit to walking or running in a relay-fashion around a track for a 24-hour period to raise money and raise awareness to help the American Cancer Society support vital programs.

Employees of Valent U.S.A. have participated in the Walnut Creek event for three years and have raised over \$5 ten thousand for the American Cancer Society. The team raises funds by asking for sponsorships from family and friends, and by holding activities such as cake and cookie sales in the office and raffling off a quilt that was handmade by Valent employees.

Valent team members get to be a part of a life-changing event that gives everyone in the community a chance to celebrate the lives of people who have battled cancer, remember loved ones lost to cancer, and fight back against a disease that touches everyone. The 2011 event was especially meaningful for employees of Valent as they honored and celebrated the life of their coworker, Nancy Engman, who died from cancer in January 2011.



Members participating in the 2010 Relay for Life (late Nancy Engman in the center of the first row).



Late Nancy Engman, an employee of Valent U.S.A.

# Hand in Hand with Employees

Sumitomo Chemical is working to create a workplace environment in which individual employees can make the most of their abilities, giving due consideration to compliance and diversity among employees.

# Personnel System and the Use of Diversified Human Resources

#### GRI LA11 LA13

Sumitomo Chemical has introduced a personnel system to reward employees who have made contributions to the Company with high motivation and abilities regardless of their age, nationality, or gender. We are also employing diverse human resources and supporting their activities to enhance the organizational strength of the Company.

## HR System that Inspires Greater Motivation

#### (1) Role-Based HR System

Sumitomo Chemical has introduced a role-based human resources system to treat employees appropriately according to the level of their contributions to the Company.

We are applying the role-based evaluation criteria and evaluation system implemented at Sumitomo Chemical also to employees having important positions in overseas Group companies, while attributing importance to the identification and development of next-generation leaders. In the future we will build up a uniform HR system for the entire Sumitomo Chemical Group, including overseas Group companies.

#### (2) Evaluation System

Both managerial and non-managerial employees are evaluated not only for performance but also for competencies, behavioral processes, and attitude. The aim of this system is not merely the pursuit of short-term achievements, but rather employee development and medium- to long-term corporate development.

In the evaluation system, managers talk with their subordinates on a regular basis to help employees increase their motivation and abilities by giving feedback not only on their performance but also on the good points and points to be improved regarding their actions. Managers also talk with their staff about workplace policies, what is expected of individual members, and career plans.

#### (3) Compliance and CSR Evaluations

Compliance and CSR are included in the items evaluated for non-managerial employees with a view to raising their compliance and CSR awareness. CSR evaluations focus on Responsible Care (safety, environment, and product quality).

#### Reemployment of Retirees\*

Since fiscal 2006, Sumitomo Chemical has been implementing a system to reemploy retirees to provide them with opportunities to demonstrate the skills and expertise they have gained through working for the Company. In fiscal 2010, we reemployed 97 (72.4%) from among 134 retirees (of Sumitomo Chemical).

Moreover, to help employees make plans for their postretirement lives, we provide all employees reaching the age of 50 with a seminar on life design. In addition, employees talk with their managers on their post-retirement lives on three occasions—when they reach the age of 55, 57, and 59.

<b>Reemployment of Retirees</b>	(of Sumitomo Chemical)
---------------------------------	------------------------

Fiscal year	2007	2008	2009	2010
Retirees	205	167	176	134
The reemployed	129	88	116	97
Reemployment rate	62.9%	52.7%	65.9%	72.4%

## Employment of People with Disabilities\*

Sumitomo Chemical has been actively employing people with disabilities. When we accept them, we assign them suitable work, and modify the workplace where necessary so that they can make the most of their abilities.

#### **Employment Rate for People with Disabilities**

Fiscal year	2007	2008	2009	2010
Employment rate	1.93%	1.95%	2.01%	1.96%

## Diversified Employment\*

Sumitomo Chemical looks for and recruits talented people, regardless of age, gender, or nationality in a wide range of areas, and a diverse spectrum of people are working in the Company. In fiscal 2010, the Company recruited 269 people, including 19 foreign nationals.

We are also committed to providing employees with a workplace in which they feel comfortable working, regardless of gender, and an increasing number of women feel able to exercise their talents at the Company.

#### Numbers of New Women Employees and Female Managers

Fiscal year	2007	2008	2009	2010
New women employees	78	81	45	23
Percentage of new women employees	17.0%	19.1%	22.4%	8.6%
Number of female managers*	127	149	155	161
Percentage of female managers	4.1%	4.6%	4.8%	5.1%

\*As of August 1 of each fiscal year

# Managing the Physical and Mental Health of Employees and Giving Support to Their Social Contribution Activities

#### GRI 4.15 LA8

Sumitomo Chemical is implementing a range of measures to help employees maintain and promote their physical and mental health with the assistance of the chief occupational health physician of the Company. We are also improving the working environment to support employees' social contribution activities in a more proactive manner.

#### **Mental Health**

Employees are able to use the counseling services provided by the in-house mental health facilities and also by external specialist institutions. In fiscal 2010, seminars on caring for mental health were held for new employees, newly promoted employees, and for sectional managers and team leaders.

In addition, in order to help employees who have been absent from work for extended periods due to mental health problems return to work, we introduced a work rehabilitation system in April 2009. Under this system, an onsite occupational health physician, an HR staff member, and the employee's manager cooperate in helping the employee start working again by determining the working days, hours, and other details for the employee.

#### **Physical Health**

Since April 2008, the health insurance associations of companies have been required by law to have all employees and their dependents aged 40 or older undergo special health checks and receive guidance on preventing metabolic syndrome. Sumitomo Chemical works with its health insurance association to ensure that all employees and their dependents undergo the special health checks, regardless of age, and employees and their dependents aged 35 or older receive guidance on preventing metabolic syndrome, thereby helping employees with early diagnosis and the prevention of lifestyle-related diseases.

In fiscal 2010, the Company dispatched its chief occupational health physician to provide medical counseling and evaluate the medical service environment to Saudi Arabia twice and to China, Singapore, Thailand, and India once each to provide support for employees working overseas and their families.

#### Participating in the TABLE FOR TWO Program\*

Sumitomo Chemical has been participating in the TABLE FOR TWO program since May 2008 to promote employee's health and contribute to society. The Company serves healthy menu options



TFT menu at the head office in Tokyo

at the cafeterias at its sites according to the criteria set down by the "TABLE FOR TWO" (TFT) organization. When employees choose to eat any of the healthy meals, 20 yen per meal is donated to the TFT secretariat and the money is used to pay for a school lunch for one child in an African country. In this way the Company is helping to alleviate hunger in Africa while also helping employees avoid obesity and lifestyle-related diseases at the same time.

Furthermore, as a Matching Gift, the Company makes a donation to the TFT secretariat matching employees' donations, and donations to this organization totaled 8,740,280 yen as of the end of March 2011.

## Volunteer Leave System\*

We have instituted a volunteer leave system that enables employees to take paid volunteer leave up to two consecutive working days per year to support their social contribution activities. Since launching this system in April 2008, 29 employees have made use of it (for a total of 68 days) as of the end of March 2011.



Yasushi Goto

#### Environmental Protection & Utilities Section, Oita Works

## Taking Volunteer Leave to Make Contributions to Society

I work for the local rubber-ball baseball federation as one of its directors, belong to the local association of baseball umpires, and also work as an umpire for the Oita High School Baseball Federation. I serve as an umpire for a range of baseball games, including those for children and adults, and local, prefectural, and Kyushu district-level baseball tournaments.

Thanks to the understanding and support of workplace members and the Company's volunteer leave system, which allows me to take paid holidays, I have been able to make my shift work at the workplace and the aforementioned volunteer activity compatible. Neighboring companies do not have such a leave system, and those working with me as volunteer umpires envy me.

While making effective use of the volunteer leave system, I would like to continue making contributions to local communities and children by serving as a baseball umpire, which I always wanted to be in my childhood.

# **Initiatives to Promote Diversity and Work-Life Balance**

#### GRI 3.9 LA15

In order to "develop a vibrant corporate culture and continue to be a company that society can trust," Sumitomo Chemical is proactively working to promote diversity and work-life balance among employees as one of its priorities.

#### Improving the Workplace Environment to Increase Employees' Motivation and Morale

Sumitomo Chemical is promoting diversity among employees, so that individual human resources can make most of their abilities and work with motivation and morale. To this end we are implementing measures focusing on providing female employees with more opportunities to display their abilities.

To promote diversity, it is essential to provide all employees with comfortable workplaces where they can make the most of their skills and abilities in a variety of situations. To meet this requirement, Sumitomo Chemical is also implementing work-life balance-related measures to help employees make their private and business lives compatible and lead sound and fulfilling lives.

## **Initiatives in Fiscal 2010**

#### (1) Employee Surveys

In order to work on diversity issues on a full scale, we established the Diversity Promotion Office in April 2010 and appointed diversity facilitators at each of our sites.

Moreover, we conducted a series of employee surveys on work-life balance. First in June to July 2010, we interviewed a total of 105 managers and female employees across the Company and subsequently in August 2010 we conducted an awareness survey targeting all employees working for Sumitomo Chemical (97% of them replied to the questionnaire). We use the results of the surveys to enhance our measures for diversity and work-life balance, thereby helping employees raise their motivation and morale.

#### (2) Analysis of Problems and Examination of Measures

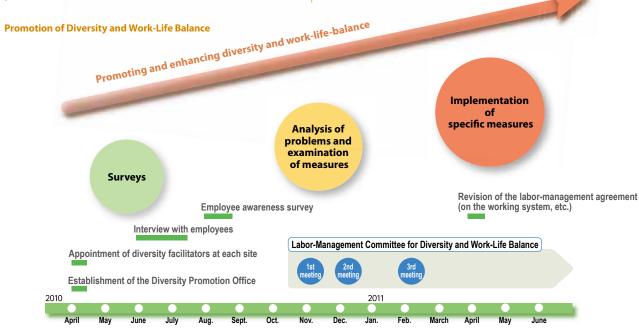
In November 2010, we established the Labor-Management Committee for Diversity and Work-Life Balance to provide management and the labor union with a forum to share information and exchange opinions about the promotion of diversity and worklife balance.

The committee is composed of representatives from the labor union and the Company and of female employees. Based on the results of interviews with employees and the employee awareness survey, the Committee identified various problems and developed specific action plans.

#### (3) Implementation of specific measures

Based on the results of the examinations made by the committee, we are implementing specific measures to promote diversity and work-life balance.

As for work-life balance improvement measures, we revised the employee support programs and have been implementing the revised programs since April 2011 to help employees make



their work and childbirth/childcare or nursing care of their families compatible, and also to encourage male employees to participate in childcare.

Sumitomo Chemical will continue to implement measures to promote diversity and improve work-life balance while paying attention to the progress of the measures.

Program	Details	Before revision	After revision
	Extending the period	Until the child becomes 18 months old	Until the end of the first April after the child becomes three years of
Childcare leave	Lifting the limit on the number of applications	Only once in principle	No limit
	Introducing paid holidays	Unpaid	Paid for consecutive seven days (can be taken up to four times)
	Extending the period	Up to one year	Up to 365 days in total
Nursing care leave	Lifting the limit on the number of applications	Only once per event	No limit
Paternity leave	Newly established	-	Paid holidays up to five consecutive days including the day of the childbirth
Maternity leave	Expanding the scope	Available only to undergo maternity checks	Available also for other reasons such as morning sickness and other health problems related with pregnancy
	Relaxing the limit on application	Once a month	Up to 20 days in total



# Chihiro Yaginuma

## Participating in the Labor-Management Committee for Diversity and Work-Life Balance

As a working mother, I am now utilizing Sumitomo Chemical's childcare support program. Thinking it necessary to better the program to enable more working mothers to use it easily to work more comfortably, I decided to participate in the committee.

At the meetings of the committee I made recommendations based on my own experiences as a user of the childcare leave program. To my pleasure, the Company expanded its support program for employees in fiscal 2011, incorporating the results of the examinations made by the committee.

I would like to continue tackling various problems, not limited to those related to childcare, and urge the Company to take measures so that more employees, regardless of their positions, can improve their work-life balance to work with more peace of mind.

Initiative Taken by the In-House Childcare Facilities

Sumitomo Chemical has been actively establishing in-house childcare facilities as part of measures to support employees raising children. In addition to the facilities established since fiscal 2008 in Ehime, Osaka, and Chiba, we opened the fourth one, named "Sumika Kids Tokyo," at the head office in Tokyo in August 2010.

At all our in-house childcare facilities, pre-school aged children, including infants in their first year (of mothers who have returned to work) are taken care of until 8:00 p.m. or even only for several hours in response to the needs of their parents. The facilities in Tokyo and Osaka also accept children of local residents to



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contribute to resolving the serious social problem concerning the long waiting lists for nursery schools. As of April 1, 2011, a total of 101 children are taken care of at the in-house childcare facilities.

Children painting pictures on the "picture wall" at Sumika Kids Tokyo

#### Systems and Measures for Better Work-Life Balance (Fiscal 2010)★

	System/Measure	Description	Number of users in fiscal 2010
	Childcare leave	Available until the child becomes 18 months, regardless of reason	60 employees
care	Nursing care leave (unpaid)	Available when nursing family members (for one year)	None
ing c	Nursing care leave (paid)	Up to 20 days per event; available when taking care of sick children or nursing family members	77 employees
nurs	Maternity leave (paid)	Available once a month, when the applicant undergoes an antenatal examination under the Maternal and Child Health Act	37 employees
e and	Special reserve leave (paid)	Available when employees cannot work for five consecutive days or longer because of nursing care, childcare, or illness	11 employees *1
ldcan	Reduced working hour system	Working hours are reduced by up to three hours per day for employees with children in the third grade at elementary school or younger and for employees nursing family members	53 employees
or child	Reemployment system	Employees who left the company because of childbirth, or for childcare, nursing, etc. are given the opportunity for reemployment subject to certain conditions	13 employees *2
ort fo	Establishment of in-house childcare facilities	Established on the premises of the Ehime, Chiba, and Osaka Works and the head office in Tokyo	_
Supp	Grant for childcare (Mutual aid association)	Every month 10,000 yen is paid per child to working employees if they have children younger than school age who attend childcare facilities	140 children
	Childcare and nursing care support services	Childcare and nursing care services are provided by welfare service companies with which the Company has formed partnerships	—
hours	Introduction of a "refreshment day"	Employees are encouraged to leave work on time on "refreshment days" designated by each individual workplace and worksite at least once a week	—
ing h	Number of annual paid holidays	Paid holidays of 20 days are granted to all employees from the first year of work	_
work	Systematic allocation of annual paid holidays	Annual paid holidays are allocated systematically by each worksite	—
and	Half-day paid holidays	Employees under the flextime program without any core working time are also eligible for half-day holidays	—
Leave	Special leave for employees going abroad because of job transfer of spouse	Employees going aboard because of the job transfer of their spouses can take this special leave subject to certain conditions	7 employees *3

Social Activities

\*1 Only for childcare and nursing care \*2 Number registered as of the end of March 2011 \*3 Number of users as of the end of March 2011

# Labor-Management Relations and Human Rights

#### GRI 4.4 4.16 HR3

Sumitomo Chemical and its labor union have been cooperating as good management partners to meet challenges and achieve targets based on long-term mutual understanding and trust.

The Company also implements measures to enlighten employees about human rights toward the elimination of all forms of discrimination.

## Labor-Management Initiatives

At Sumitomo Chemical, central labor-management meetings and regional labor-management meetings are held semiannually for the parties to exchange opinions. The Company and the labor union also hold meetings to discuss and formulate various programs for non-managerial employees to enable them to increase their morale and motivation at work.

In fiscal 2010, the Labor-Management Committee for Diversity and Work-Life Balance was established to promote labormanagement discussions on relevant issues, including future challenges and measures.

Moreover, the Company and its labor union are cooperating in supporting the anti-global warming measures and social contribution activities initiated by employees.

#### Social contribution activities promoted through labor-management cooperation (1) Promoting CO<sub>2</sub> emissions reduction in the household

In cooperation with its labor union, Sumitomo Chemical is encouraging reductions in CO<sub>2</sub> emissions, not only in its factories and offices, but also in its employees' households.

Since fiscal 2008, the Company has been distributing its own "environmental accounting books" to all employees and encouraging them to identify the sources of CO<sub>2</sub> emissions in their homes. In fiscal 2009, we started a program to encourage employees to reduce CO<sub>2</sub> emissions at home and to commend those who achieve substantial reductions.

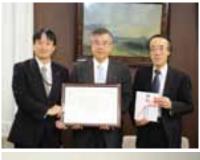


Environmental accounting book

#### (2) Matching Gift program 🕇

In fiscal 2007, Sumitomo Chemical started its Matching Gift program jointly with its labor union. In this program, donations are made by employees and executives of Sumitomo Chemical Group companies, and Sumitomo Chemical matches the amount collected. The total is then donated to the organizations selected as recipients.

In fiscal 2010, we donated to ASHINAGA,\*1 a private NPO, as part of our support for childcare and education. We also made a donation to the Organization for Industrial, Spiritual and Cultural Advancement-International (OISCA)\*2 to support its treeplanting activities as part of our support for global environmental





Donation presentation ceremonies wiht ASHINAGA (top) and OISCA (bottom)

protection and the prevention of global warming. Specifically, employees and executives donated 5,783,163 yen and 5,924,671 yen to ASHINAGA and OISCA, respectively and the Company also donated the same amount to the organizations.

Using part of the money donated to OISCA, we have been helping them to plant mangrove trees in Ranong in the south of Thailand since fiscal 2008.

\*1. ASHINAGA is a private NPO established to provide physical and mental support for children who have lost their parents because of illness, accidents, or for other reasons. The money donated to this organization is used to provide a scholarship fund for these orphans.

\*2. OISCA is a global NGO engaged in rural development and environmental protection mainly in the Asia-Pacific region. The money donated by Sumitomo Chemical to this organization is used for its Children's Forest Program and to plant mangrove trees in Ranong, Thailand.

## Protection of Human Rights\*

To educate employees on human rights issues and responsible behavior, Sumitomo Chemical holds a meeting on human rights every year, formulates annual policies on human rights, and implements measures to protect human rights, including measures to eliminate discrimination.

Moreover, based on the concept of providing employees with workplaces where they can display their abilities with ease of mind, we are addressing the issues of sexual harassment and power abuse, in addition to discrimination, mainly by holding enlightenment seminars.

In fiscal 2010, we held a total of 84 seminars, lectures, and film shows as a part of the in-house training curriculum, in which a total of 3,124 employees participated.

# Human Resources Development

GRI LA11

Sumitomo Chemical is implementing a range of programs and measures to help motivated employees fully display their abilities.

## Important Targets for Human Resources Development

In fiscal 2010, we provided employees of different job grades with necessary training and implemented measures according to their positions, to meet the following important targets:

- (1) Planned development of global leaders who will play a central management role
- (2) Smooth inter-generational transfer of technologies and skills that support our business
- (3) Support in strengthening workplace management
- (4) Support for employees in acquiring and developing the knowledge, skills, and competencies necessary for their job grades

## **Development of Global Talent**

To develop global business leaders, we are providing managers both within and outside Japan with training, dispatching employees overseas for studying purposes, encouraging employees to sit for the TOEIC examination, and holding various English-language courses, including writing courses, for employees.

In fiscal 2010, we began providing younger employees expected to become global leaders in the future with training seminars to help them improve their business communication skills in English.

In addition, we started to train managers at overseas Group companies to make them more committed to our Group management.



Global leader training



# Training Rotation System\*

Since fiscal 2004, Sumitomo Chemical has been carrying out systematic training rotations of younger employees to ensure that individuals are placed in the positions for which they are most suited. Under this system, we are using the preferences submitted by employees and the development plans made by their managers to help employees plan and develop their ideal careers.

In fiscal 2009, we launched a new training rotation system targeting all non-managerial employees and some managers. In addition we provided employees with "career development training" to give them opportunities to look back on their past jobs and get some tips for future career development.

Training rotation plans were made and implemented for 898 employees and for 880 employees in fiscal 2009 and fiscal 2010, respectively.

## **Creation of Training Guidelines**

In August 2010, Sumitomo Chemical created training guidelines for employees, to which they can refer in considering what abilities they should develop in the field for which they are most suited or in which they desire to work in the future.

The guidelines, which clearly show the knowledge, skills, reference materials, and training necessary for each job type, are available to all employees.

## Mentor and Trainer Systems\*

Sumitomo Chemical introduced a Trainer System in January 2008, under which older employees who are highly skilled and have an aptitude for teaching the young are certified as trainers. These trainers provide instructions and advice to younger employees to facilitate their development and ensure the succession of skills from generation to generation. As of April 2011, a total of 62 employees have been certified as trainers throughout the Company.

In April 2010, we also introduced a Mentor System to give supervisors and potential supervisors on-the-job training. We are using this system to enhance the development of core talent for manufacturing departments.

# **External Commendations and Marks Approved for Use**

The Sumitomo Chemical Group received the following commendations from external organizations and obtained approval for the use of the following marks.

## **GRI** 2.10

#### **Major External Commendations (Fiscal 2010)**

Commendation	Recipient	Organizer
Best supplier award for fiscal 2010 (in the division of liquid crystal panels)	Sumitomo Chemical	Samsung Electronics Co., Ltd.
Commendation in recognition of energy conservation activities for consumer products	Sumitomo Chemical	Japan Chemical Industry Association
Agrow Awards for 2010 ("Best Innovation in Non-Crop")	Sumitomo Chemical Olyset <sup>™</sup> Net	Agrow Magazine (United Kingdom)
Incentive award for fiscal 2010 from the Japanese Minister of Health, Labour and Welfare (Commendation by the Minister of Health, Labour and Welfare given to business establishments, organizations and individuals who achieved excellent results in occupational safety and health)	Chiba Works and Chiba Research Laboratory	Japanese Ministry of Health, Labour and Welfare
Commendation given by Ichihara City to companies giving exceptional support to employees raising children (for fiscal 2010)	Chiba Works	Ichihara City, Chiba Prefecture
Prize of excellence for fiscal 2010 given by Ibaraki Prefecture to companies fostering support to childcare (in the division of support for compatibility between work and childcare)	Tsukuba Research Laboratory	Ibaraki Prefecture
Fourth Annual Responsible Care Award	Tsukuba Research Laboratory	Japan Responsible Care Council
Prize for innovative management leadership for fiscal 2010 (South Korea)	Dongwoo Fine-Chem Co., Ltd. *1	Korea Management Association
Certification as a family-friendly company (for fiscal 2010)	Dongwoo Fine-Chem Co., Ltd.	Korean Ministry of Gender Equality and Family
Gold prize, Workplace Safety Health Awards 2010	Petrochemical Corporation of Singapore *2	Singapore Government
Award for corporate reporting for 2010 (Taiwan)	Sumika Technology Co., Ltd. *3	Taiwan Sustainable Energy Research Fund

\*1, 2, 3: Group companies in South Korea, Singapore, and Taiwan, respectively

#### **Marks Approved for Use**



Kurumin Mark



Eco Rail Mark



PRTR Awards



Eco-First Mark

#### Major SRI\* indices in which Sumitomo Chemical is included



\*Socially Responsible Investment (SRI): Investment based on evaluation criteria that include items on CSR measures implemented by companies

# Independent Assurance by KPMG AZSA Sustainability Co., Ltd.

#### **GRI** 3.13



We were engaged by Sumitomo Chemical Company, Limited (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 and social performance indicators and environmental accounting indicators marked with  $\star$  (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; and the Company's self-declaration on the Global Reporting Initiative ("the GRI") application level conforms to the
- application level criteria stipulated by the GRI. 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.

#### Criteria

The Company applies its own reporting criteria as described in the Report. These are derived, among others, from the Sustainability Reporting Guidelines 2006 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 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 Interviews with the Comnany's responsible personnel to struct preparation of information presented in the Report, and applying analytical and other procedures. The level of assurance

Interviews with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report.

- 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 the Company's domestic factory selected on the basis of a risk analysis.
- Evaluating the Company's self-declared GRI application level against the application level criteria. Evaluating the overall statement in which the Indicators are expressed.
- 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; and
- the Company's self-declaration on the GRI application level does not conform to the application level criteria We have no conflict of interest relationships with the Company that are specified in the Code of Ethics of J-SUS
- KPMG AZSA Sustainability Co., Itd.

KPMG AZSA Sustainability Co., Ltd. Osaka, Japan October 13<sup>th</sup>, 2011

#### VOICE

In the CSR Report 2011, Sumitomo Chemical has made a self-declaration on the GRI application level of B+, as a result of improving the disclosure concerning its management approach and performance indicators in line with the GRI guidelines. We provide assurance on that assertion, i.e. that the self-declared GRI application level conforms to the criteria set up by the GRI, as well as on the reliability of the performance indicators disclosed in the CSR Report.

It is appreciated that Sumitomo Chemical has attempted to improve the effectiveness of disclosure to its stakeholders by including a self-declaration on the level of conformance to the criteria of the world's most widely used sustainability reporting guidelines and having it assured by a third party.

In light of the fact that the Company is a participant of Global Compact LEAD, it is recommended that the Company work to make a self-declaration on the GRI application level of A+, the highest GRI application level to which external assurance has been provided. To this end, it is hoped that the Company will continue implementing measures to enhance the scope of reporting-in particular for social performance indicators.

As for the environmental and safety performance indicators, the Company had set the targets of many items of the "Primary Responsible Care Initiatives" for fiscal 2010, and implemented the initiatives. As a result of systematically taking such measures, the Company achieved the initial targets for most items. The Company has now set new targets and is continuously developing and enhancing relevant measures, which is highly evaluated.

Meanwhile, concerning the aggregation of environmental and safety performance indicators, it was revealed through visit to one of the Company's factories that there was a case in which an employee in charge had changed the final disposal rate used to calculate the landfill disposal amount at the person's own discretion, because there were no relevant calculation rules. The change was rational and acceptable, but the final disposal rate is an important factor that affects the calculation of landfill disposal, with which targets are set in the "Primary Responsible Care Initiatives." It is therefore important to ensure that employees do not alter the residue rate at their own discretion. It is hoped that the Company will clarify the rules for the calculation of the rate and other items for which no clear rules exist at present.

Also for the environmental and safety performance indicators as a whole, the percentage of environmental impact of overseas factories has been increasing in line with an increase in the share of overseas sales. Accordingly, the Company is expected to set targets for the entire Sumitomo Chemical Group, including overseas factories, and enhance its management system to reduce the Group's entire environmental impact.

Yoshitaka Ohno KPMG AZSA Sustainability Co., Ltd.



# **GRI Content Index**

The GRI application level of the Sumitomo Chemical CSR Report 2011 is "B+" according to the definition in Version 3.1 of the GRI Sustainability Reporting Guidelines.

## GRI 3.12

Global Reporting Initiative (GRI) is a Netherlands-based non-profit organization committed to creating guidelines for international sustainability reporting. Version 3.1 of the GRI Sustainability Reporting Guidelines (G3.1 Guidelines) provides guidelines applicable across the world as a framework to disclose performance information in sustainability reports. GRI recommends that report preparers self-declare the level to which they have applied the GRI reporting framework. Accordingly, we self-declare that the GRI application level of this report is "B+."

The table in the following page shows the GRI Content Index.

Repo	ort Application Level	С	C+	В	B+	Α	A+
	G3 Profile Disclosures	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 on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5-4.13, 4.16-4.17		Same as requirement for Level B	
Standard Disclosures	G3 Management Approach Disclosures	Not required	Report Externally Assured	Management Approach Disclosures for each Indicator Category	Report Externally Assured	Management Approach disclosed for each Indicator Category	Report Externally Assured
	G3 Performance Indicators & Sector Supplement Performance Indicators	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.		Respond 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.	

# GRI Sustainability Reporting Guidelines (G3.1 Guidelines) Reference Table

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1. 2	Description of key impacts, risks, and opportunities	p1-3,11
2. Organi	zational Profile	
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2. 2	Primary brands, products, and/or services	p4,26-28
2. 3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures	p4-5
2.4	Location of organization's headquarters	p4
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	p5
2.6	Nature of ownership and legal form	p4
2. 7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries)	p4-5
2.8	Scale of the reporting organization, including: - Number of employees; - Number of operations; - Net sales or net revenues; - Total capitalization broken down in terms of debt and equity; and - Quantity of products or services provided	p4-5,24,38
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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	p1
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	p25,38-44, 55,69
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3. 12	Table identifying the location of the Standard Disclosures in the report	p74-76
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	<ul> <li>Participates in projects or committees;</li> <li>Provides substantive funding beyond routine membership dues; or</li> </ul>	
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ENTI.	protected areas and areas of high biodiversity value outside protected areas	—
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EN26.	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation $% \left( {{{\left[ {{{\left[ {{{c_{1}}} \right]}} \right]}}} \right)$	p9-10
EN27.	Percentage of products sold and their packaging materials that are reclaimed by category	_
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EN28.	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations	We received no fines or sanctions for noncompliance with environmental laws and regulations.
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Total hours of employees training on policies and procedures concerning p70 aspects of human rights that are relevant to operations, including the percentage of employee trained

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HR6.	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	—
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HR7.	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	_
	t: Security Practices	
HR8.	HR8 Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations	_
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HR9.	Total number of incidents of violations involving rights of indigenous people and actions taken	
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[Society	-	
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Aspec S01	tt: Local Community Percentage of operations with implemented local community engagement,	
S09.	impact assessments, and development programs Operations with significant potential or actual negative impacts on local	
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PR3.	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	-
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	t: Marketing Communications	
Aspec	a. marketing communications	
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HR3.

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#### For information about Sumitomo Chemical's CSR activities, please also refer to the following:

#### Sumitomo Chemical CSR Highlights 2011

This booklet introduces Sumitomo Chemical's history, technologies and products for a better tomorrow, agriculture support activities, and other initiatives in an easy-to-understand manner.

#### Website

The CSR Report 2011 is also available online at the following website: http://www.sumitomo-chem.co.jp/english/csr/





As a Responsible Care company, Sumitomo Chemical voluntarily implements policies that take safety, the environment, and health into consideration in all processes, from chemical substance development to disposal. The Responsible Care mark and logo may only be used by companies that are members of the Japan Responsible Care Council.

# 地球のいのち、つないでいこう

#### 住友化学は生物多様性民間参画パートナーシップに参加しています

Sumitomo Chemical has participated in the initiative for private engagement in biodiversity, "Japan Business and Biodiversity Partnership" launched at the Tenth Ordinary Meeting of the Conference of the Parties to the Convention of Biological Diversity (COP10) held in October 2010. Only companies participating in the partnership can use this logo mark.



This is our Communication on Progress in implementing the principles of the United Nations Global Compact.

#### We welcome feedback on its conterns.

Sumitomo Chemical is conducting its business operations giving due consideration to the ten principles of the UN Global Compact as a company participating in the initiative. The logo mark demonstrates that this CSR Report represents Sumitomo Chemical's annual report to all its stakeholders as a "Communication on Progress" and a member of the UN Global Compact.

# 💠 Sumitomo Chemical Company, limited

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