

Creative Hybrid Chemistry For a Better Tomorrow

SUMITOMO CHEMICAL CSR HIGHLIGHTS 2010

### **Sumitomo Chemical's Corporate Philosophy**

#### 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.

#### 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.

#### **Corporate Slogan**

# Creative Hybrid Chemistry For a Better Tomorrow

## Sumitomo Chemical's Approach to CSR

Sumitomo Chemical contributes to the sustainable development of society through "Sustainable Chemistry" built on its CSR-based management.

## Contributing to the Sustainable Development of Society



## **CSR HIGHLIGHTS 2010**

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Photo on the front cover: © M. Hallahhan/Sumitomo Chemical

This booklet introduces the major CSR activities conducted by Sumitomo Chemical in fiscal 2009. For details, including information on other CSR activities and numerical data, please refer to CSR Report 2010.



CSR Report 2010

You can access the report on the following website: <a href="http://www.sumitomo-chem.co.jp/english/responsible/report.html">http://www.sumitomo-chem.co.jp/english/responsible/report.html</a>

Message from Chairman and President



Hiromasa Yonekura, Chairman

Hiroshi Hirose, President

# Our Commitment to the Sustainable Development of the Global Community

"Our business must benefit not only ourselves but also communities and society at large." This is a principle of the Sumitomo Family's Business Philosophy, which forms the core of Sumitomo Chemical's corporate values.

Sumitomo Chemical was founded in 1913 as Sumitomo's fertilizer manufacturing company, which produced fertilizers by converting harmful emissions from smelting operations at the Besshi Copper Mine in Niihama, Ehime Prefecture. Created to provide solutions to overcome an environmental problem and help increase agricultural production, the Company is a perfect example of the Sumitomo Family's Business Philosophy, and the conviction that the essence of corporate social responsibility (CSR) is to contribute to the sustainable development of society through business activities is encoded in the Company's DNA.

In formulating our recently announced Corporate Business Plan for fiscal 2010 to 2012, we have developed our Corporate Vision that sets out our long-term management policies. One of the central policies is that we will aim to help meet global challenges, from improving people's lives and health to increasing energy and food security, to building a low-carbon society, and will contribute to the sustainable development of the global community by taking full advantage of the power of chemistry. In January 2010, we established our CSR Department to promote our CSR activities while stepping up efforts to achieve our Corporate Vision.

Responsible Care (RC), an initiative for ensuring safety, protecting the environment and maintaining high product quality throughout the lifecycle of our products, from development to manufacturing and sale, to use and disposal, is a central pillar of our CSR activities. In aiming to help solve problems related to resources, energy and the environment—particularly the issue of climate change—all of which are becoming more pressing globally, we have been putting forth significant efforts to achieve the world's highest energy efficiency and develop processes and products that help reduce CO<sub>2</sub> emissions. In January 2010, we established our Energy & Climate Change Office to promote concerted efforts by the entire Sumitomo Chemical Group and respond more effectively to the issues of energy and climate change.

We are also actively participating in international initiatives led by the global chemical industry. The International Council of Chemical Associations (ICCA), the global organization of major chemical industry associations representing chemical companies worldwide, has established a climate change and energy working group, and Sumitomo Chemical has been playing a central role in the group and leading its activities since its inception. The group demonstrated leadership in the ICCA's initiative in 2009 to quantitatively study and analyze how products of the chemical industry, such as insulation materials and photovoltaic cell materials, as they are used by consumers and other industries in various applications, contribute to the reduction of greenhouse gas emissions. The findings revealed that the reduction in greenhouse gas emissions from the use of chemical products is approximately double to triple the amount of greenhouse gas emissions attributable to chemical products over their entire lifecycles.

The chemical industry, which provides a wide range of products in various forms, from raw materials and components to finished goods, and makes vast contributions to daily lives of people around the world, should continue to play a major role in meeting the global challenges of climate change. We, the Sumitomo Chemical Group, will remain firmly committed to tackling these issues by making full use of the power of chemistry and our technological prowess and to providing leadership in the efforts of the global chemical industry.

We have been providing support for Africa by working on the prevention of malaria, which is one of the Millennium Development Goals (MDGs), a set of goals defined by the United Nations to address the most pressing challenges facing human society. Malaria is a mosquito-borne infectious disease that claims the lives of more than one million people every year. Many of the victims are children under the age of five living in the Sub-Saharan region of Africa.

Sumitomo Chemical developed the Olyset<sup>®</sup> Net, a special insecticidal mosquito net for controlling malaria. The Olyset<sup>®</sup> Net is highly durable and also retains its insecticidal efficacy for more than five years because our technology enables the insecticide contained in the material of its fibers to migrate gradually to the surface of the fibers. In 2001, our Olyset<sup>®</sup> Net was endorsed by the World Health Organization (WHO) as a long-lasting insecticidal net, becoming the first of its kind in the world, and has since enjoyed strong demand growth as one of the most effective means of preventing malaria.

To increase Olyset<sup>®</sup> Net production capacity, we licensed our manufacturing technology free of charge to a mosquito net manufacturer in Tanzania and started local production in 2003 in the hope of creating new jobs and supporting selfsustaining economic growth in Africa. In 2007, we started operation of a joint venture with this local manufacturer, and we currently have an annual production capacity of 29 million nets and employ as many as 7,000 people in Africa. This year, we expanded our global production capacity to 60 million nets per annum in response to a request from the WHO, which has set the goal of providing one long-lasting insecticidal net for every two people in areas at high risk of malaria infection.

We are also supporting projects to build schools and related facilities in Africa by returning a portion of the revenues from the Olyset<sup>®</sup> Net business. We are thus implementing a variety of initiatives to help meet the major challenges facing Africa and accelerate progress toward the MDGs.

As a framework for businesses to contribute directly to solving international problems caused by globalization and achieving sustainable growth, Kofi Annan, then Secretary-General of the United Nations, proposed the Global Compact, which sets forth ten principles for corporate behavior in the areas of human rights, labor standards, the environment, and anti-corruption. Sumitomo Chemical joined in this initiative in 2005. Since becoming the first Japanese company to participate in the Global Compact working groups in 2008, we have helped prepare guidelines on the tenth principle for anti-corruption as well as on the contribution of businesses to peace and development. We will continue to work closely together with a variety of stakeholders, including the United Nations and other international organizations, NGOs, and other companies, and promote CSR activities as a member of the global community.

We, the Sumitomo Chemical Group, will strive to help address pressing global challenges, such as the improvement of the lives of people around the world, the issues of energy and the environment, and the creation of a low carbon society, and contribute to the sustainable development of the global community through our businesses. We would greatly appreciate your continued support and cooperation.

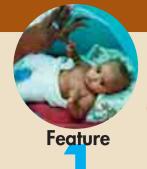


Hiromasa Yonekura

Hiroshi Hirose President of Sumitomo Chemical Co., Ltd.







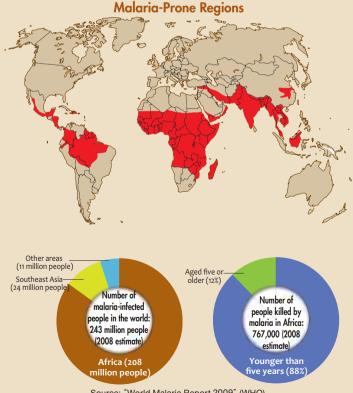
# For the Future of Africa

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

#### Malaria Takes the Life of One Child Every 30 Seconds

To many people, mosquito nets may sound like an obsolete technology, but a great many people worldwide are still in need of the protection they provide. Children in Africa, in particular, are especially vulnerable to malaria, an infectious disease transmitted by the Anopheles mosquito.

Every year, over 300 million people around the world develop malaria and more than one million people die from the disease. People living in Africa account for 90



Source: "World Malaria Report 2009" (WHO)

percentof these deaths, and most of the victims are children under the age of five living in the Sub-Saharan region. It is a sad fact that malaria takes the life of one child every 30 seconds.

Those who survive malaria still suffer from a high fever and must stay in bed for several days, which leads to increased poverty due to the loss of employment and educational opportunities added to the high cost of medical treatment. If the economic growth of a whole country is hindered by the spread of malaria, funding for anti-malaria measures dries up and the country falls into a vicious circle. Malaria is one of the biggest barriers to economic development in Africa, and the economic losses caused by the disease are estimated at 12 billion dollars annually.

Stopping the spread of malaria is therefore included in the Millennium Development Goals (MDGs), which are targets with action plans to be urgently implemented and achieved by 2015 based on the Millennium Declaration adopted by the United Nations in September 2000. These targets are grouped into eight categories, including poverty, education, the environment, and human rights.

#### Millennium Development Goals (MDGs)

Goal 1	Eradicate extreme poverty and hunger	
Goal 2	Achieve universal primary education	
Goal 3	Promote gender equality and empower women	
Goal 4	Reduce child mortality	
Goal 5	Improve maternal health	
Goal 6	Combat HIV/AIDS, malaria and other diseases	
Goal 7	Ensure environmental sustainability	
Goal 8	Develop a Global Partnership for Development	
Source: Website of the United Nations Development Programme (UNDP)		



Olyset<sup>®</sup> Net production bases

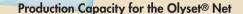
Manufacturing factories

## Malaria Control Initiatives and the Olyset® Net

The World Health Organization (WHO) has been implementing the Roll Back Malaria campaign since 1998. Recognizing the added effectiveness of mosquito nets when insecticides are applied, the WHO initially tried to encourage people to apply insecticide to mosquito nets themselves. This method, however, was not very effective because most people failed to repeat the application process regularly and the effect was lost through washing and the passing of time.

The WHO's attention was then drawn to the Olyset<sup>®</sup> Net developed by Sumitomo Chemical, which retains its insecticidal efficacy for five years or longer even with repeated washing. The fibers of this highly durable net are made from polyethylene resin kneaded together with an insecticide, which is then gradually released to the surface of the netting fibers. Because it is designed to be used in Africa, where it is very hot, the mesh is twice as large as that of an ordinary mosquito net in order to improve air circulation. Sumitomo Chemical developed the Olyset<sup>®</sup> Net through Creative Hybrid Chemistry, combining its proprietary technologies in the two separate fields of insecticides and resin processing.

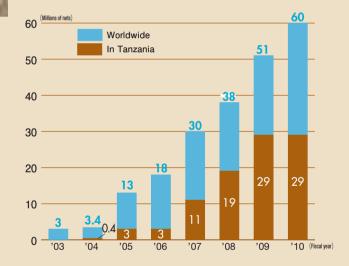
In 2001, the WHO endorsed the use of the Olyset<sup>®</sup> Net, calling it the first "long-lasting insecticidal net." With results from a limited regional trial indicating an impressive decline in the local rate of malarial infection, the distribution of long-lasting insecticidal nets has become one of the major means of controlling malaria.



Ethiopia

Tanzania

Malawi





Photograph © M. Hallahan/Sumitomo Chemical

China

India

Vietnam

#### Creating Employment through Local Production

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 manufacturer, with the aim of kick-starting local production of the net in Africa and building a framework for public-private partnerships with international organizations such as the WHO and United Nations Children's Fund (UNICEF). Subsequently, in order to respond to a rapid increase in demand, Sumitomo Chemical and A to Z Textile Mills established the joint venture Vector Health International Limited in 2007. As of July 2010, the local production capacity in Tanzania totaled 29 million nets, and the number of people employed by the company reached approximately 7,000. The Olyset<sup>®</sup> Net business is thus contributing to local economic development.

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 the fulfillment of this aim will require 250 million nets. To meet the demand, Sumitomo Chemical has increased



Photograph © M. Hallahan/Sumitomo Chemical



Olyset® Net manufacturing factory in Tanzania

the total Olyset<sup>®</sup> Net production capacity of its production bases in the three countries of Tanzania, China and Vietnam to 60 million nets per year.

#### Second TICAD Ministerial Follow-up Meeting

On May 2, 2010, the Second TICAD Ministerial Follow-up Meeting was held in Arusha, Tanzania.

The meeting brought together a total of 430 people from Africa and around the world representing international organizations, NGOs, and the private sector. The meeting was co-chaired by President Kikwete of Tanzania and Mr. Katsuya Okada, then Japan's Minister of Foreign Affairs. Participants reviewed progress on the implementation of the Yokohama Action Plan drafted at the Fourth Tokyo International Conference on African Development (TICAD IV) held in Yokohama in 2008 and discussed future challenges.

Representing Japanese industry, Sumitomo Chemical's Chairman, Hiromasa Yonekura, also attended the meeting and delivered a speech in which he considered the roles to be fulfilled by the private sector for the growth and development of Africa, emphasized the importance of public-private partnership, and shared examples of how the Olyset<sup>®</sup> Net has been used. During his stay in Tanzania, Mr. Okada visited the local Olyset<sup>®</sup> Net factory to see how the nets were sewn, inspected and put through other processes.





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

For Africa to achieve development, it is critical to provide local people with education. African countries, however, have a shortage of schools and a great number of children have to study outdoors or in overcrowded classrooms.

Sumitomo Chemical has been supporting education in Africa by returning a portion of its revenues from the Olyset<sup>®</sup> Net business to local communities. In cooperation with an NPO called World Vision 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.

Once the construction is complete, we continue to provide support for school fees and supplies, thereby helping the next generation of leaders get the education they need.



#### History of Sumitomo Chemical's Support to Africa

- 1994 Develops the Olyset<sup>®</sup> Net.
- **1998** The Roll Back Malaria campaign starts.
- **2000** The UN Millennium Development Goals formulated.
- 2001 The WHO endorses the long-lasting insecticidal Olyset® Net.
- **2003** A to Z in Tanzania begins local production of the Olyset® Net.
- **2005** Mr. Yonekura, then President of Sumitomo Chemical, attends the World Business Forum held in Davos, Switzerland.
  - The Olyset<sup>®</sup> Net is chosen as one of the "Coolest Inventions of 2004" by Time magazine.
- **2006** About 330,000 Olyset<sup>®</sup> Nets are donated to NPO Millennium Promise.
  - Supports the construction of schools in Tanzania and Kenya (and subsequently provides educational support also in Uganda, Zambia, and Ethiopia).
  - Receives a corporate citizen award from The Asahi Shimbun Company.
  - Vector Health (joint venture between Sumitomo Chemical and A to Z) begins production of the Olyset<sup>®</sup> Net.
  - Decides to donate 400,000 Olyset® Nets to Millennium Promise.

#### Donating 400,000 Olyset® Nets to Millennium Promise

Millennium Promise is an international nonprofit organization solely committed to supporting the achievement of the Millennium Development Goals (MDGs) to halve extreme poverty by 2015. Sumitomo Chemical has been supporting the Millennium Village Project\* started by this NPO and donated 330,000 Olyset<sup>®</sup> Nets to the organization in 2006. The end of the five-year effective lifespan of those nets is drawing near, and therefore, in 2010, the Company decided to donate another 400,000 nets to Millennium Promise, which will be distributed

2007

2010

from 2010 to 2011.



#### \*Millennium Village Project

A plan to help eliminate extreme poverty, one of the MDGs, by assisting people living in approximately 80 villages in 10 African countries to lead self-sufficient lives. Comprehensive support is given in areas including agriculture, health and sanitation, and education.

#### **Toward Achievement of the MDGs**

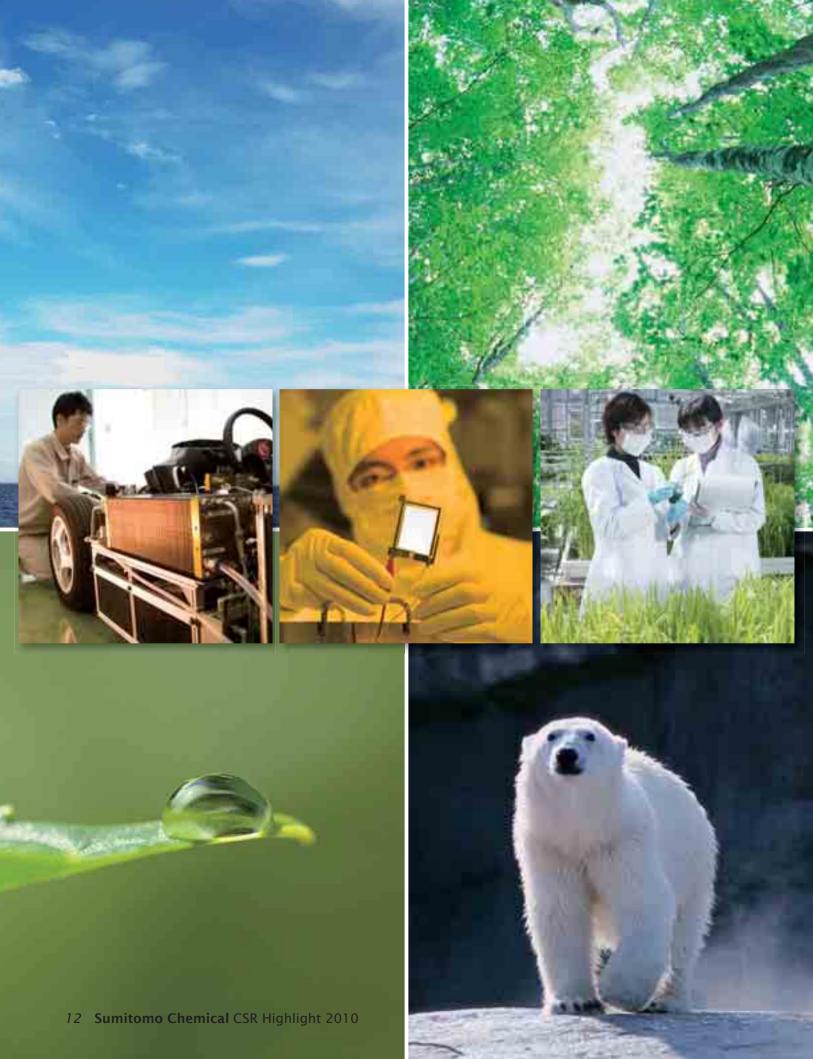
Nations, regions, international organizations, NGOs, and businesses are working together to achieve the MDGs throughout the world.

Through its Olyset<sup>®</sup> Net business, Sumitomo Chemical is working to prevent the spread of malaria and thereby reduce child mortality and improve maternal health. Moreover, we are conducting a wide range of other activities to contribute to the achievement of the MDGs. For example, local production of the Olyset<sup>®</sup> Net contributes to the elimination of poverty and providing educational support using a portion of the revenues from the business contributes to achieving the goal of universal primary education.

We will continue to make contributions to the sustainable development in Africa through our business operations.



Photograph © M. Hallahan/Sumitomo Chemical





# Protecting the Global Environment for the Future

Sumitomo Chemical's Next-Generation Technologies to Meet the Challenge of Climate Change Sumitomo Chemical continues to leverage the power of chemistry to provide products that contribute to bettering people's lives. Our technological prowess has also enabled us to boast a variety of achievements in the fields of energy and the environment. Here, we present the past achievements and future initiatives of Sumitomo Chemical, where we are promoting a broad spectrum of activities with our sights set on the future of the global environment.

#### Emergence of Global Warming

The problem of climate change, particularly the issue of global warming, is becoming increasingly evident worldwide, and it is essential that the international community make a concerted effort to address this urgent problem.

It is said that without greenhouse gases such as carbon dioxide (CO<sub>2</sub>) and methane in the Earth's atmosphere, the global average temperature would drop to 18°C below zero.

Life can survive on the Earth thanks to greenhouse gases contained in small amounts in the atmosphere. Since the beginning of the Industrial Revolution, however, emissions of greenhouse gases have been continuing to

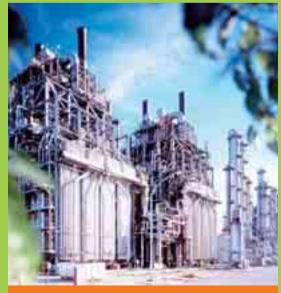
rise due to the consumption of coal and oil and for other reasons, and this has caused the average temperatures on Earth to rise. In recent years the rise has been growing more conspicuous, and there are concerns that global warming will exert a serious impact if it continues.

In tackling this problem, by how much do we need to reduce our emissions of greenhouse gases? According to the guidelines issued by the Intergovernmental Panel on Climate Change (IPCC), CO<sub>2</sub> emissions need to be reduced by 50 to 85% from the 2000 levels by 2050 in order to limit the rise in average temperatures to 2.0 to 2.4 degrees Celsius above the temperature before the Industrial Revolution.

#### Chemical Products Contributing to the Reduction of Greenhouse Gas Emissions

To deal with this global challenge, the Japanese chemical industry has set a non-binding target to reduce the entire industry's average unit energy consumption for the period from 2008 to 2012 by 20% relative to the fiscal 1990 level. Sumitomo Chemical has taken a further step in setting a target of reducing the energy intensity\* of all our plants by 25% relative to the fiscal 1990 level by fiscal 2015, and we are currently working toward fulfilling this commitment.

Many chemical products are based mainly on naphtha, a byproduct of refined crude oil, and the chemical industry



Sumitomo Chemical's major petrochemical manufacturing plants have been proven to be among the world's most energy-efficient through surveys conducted by the IEA and other organizations. This photo shows the ethylene plant (naphtha cracker) at the Chiba Works.

is generally thought of as a vast consumer of energy and resources. However, the industry provides a variety of products that help reduce greenhouse gas emissions. For example, light-weight resin products have contributed to reduced vehicle weight, which has in turn led to higher fuel efficiency. In addition, resin-based insulating materials have substantially improved housing insulation while panels for solar power generation systems were developed through chemical technologies.

\*Energy intensity Energy consumption per unit production amount

#### Feature 2 Protecting the Global Environment for the Future

Sumitomo Chemical's Next-Generation Technologies Bring You the Future

More Energy-Efficient TV and Lighting Equipment

#### Climate Change Initiatives from a Medium- to Long-Term Perspective

Sumitomo Chemical has been promoting activities to reduce its environmental impact and has achieved steady results based on the idea that the Company should promote energy conservation in production processes while manufacturing products based on innovative technologies that contribute to energy conservation in various sectors of society worldwide. We regard the problem of climate change as one of our management's top priorities, and established the Energy & Climate Change Office in January 2010 in order to respond appropriately to the problem from a medium- to long-term perspective.

In our Three-Year Corporate Business Plan started in fiscal 2010, we have also positioned achievement of the world's highest energy efficiency and development of processes and products that help reduce CO<sub>2</sub> emissions as our important missions.

We have already been working for many years on the development of next-generation products that contribute to the reduction of CO<sub>2</sub> emissions in numerous areas of R&D and are accelerating the development of related technologies for early commercialization.

#### Sumitomo Chemical's Next-Generation Technologies that Contribute to Preventing Climate Change

Polymer Organic Light-Emitting Diodes (PLEDs) Polymer organic light-emitting diode (PLED) technol-



ogy is attracting global attention as a technology for nextgeneration displays and lighting devices. This technology has brought together a variety of Sumitomo Chemical's related proprietary technologies including those for polymer materials, thin film formation, and the design and synthesis of organic compounds. PLEDs use polymer materials that emit light when an electric current is applied, and consume little power and are environmentally friendly. The production process itself is also more energy-efficient because these products, which have a thinner and simpler structure than that of LCDs, can be manufactured using printing technology. Furthermore, they do not contain hazardous substances, making it possible also to reduce energy consumption during their disposal.

Sumitomo Chemical's next generation technologies [Keyword]

#### Organic Thin Film Solar Cell

Organic thin film solar cells are next-generation solar cells made using organic photoelectric conversion materials. Compared with conventional silicon-based solar cells, these cells are thinner, lighter, and more flexible, and also require less energy for

manufacture and installation. The organic thin film photoelectric conversion materials that Sumitomo Chemical is now developing have achieved some of the highest energy conversion efficiency in the industry, and we are now engaged in R&D for the practical use of these materials and related technologies within several years.



# Sumitomo Chemical's next generation technologies [Keyword]

Cathode materials are a major determinant of the performance of lithium ion secondary batteries. Sumitomo Chemical's innovative cathode material is made without using cobalt, a rare metal that is in short supply worldwide. Moreover, compared with

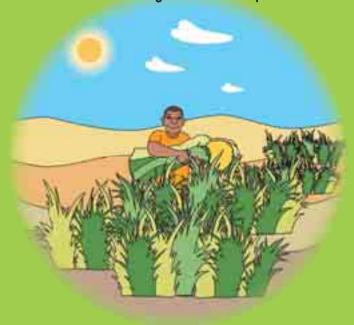
conventional cathode materials that contain cobalt, our product has achieved a higher output in batteries of the same capacity.



#### **Non-CO<sub>2</sub>-Emitting Vehicles**

**Climate Change-Resistant Crops** 





#### Lithium Ion Secondary Battery and Fuel Cell Materials

Gasoline-powered vehicles are increasingly being phased out and replaced with hybrid, electric, and fuel cell vehicles. In response to this trend, Sumitomo Chemical is developing the materials for lithium ion secondary batteries and fuel cells, which will be used mainly in automobiles.

We have already commercialized our heat-resistant separator for lithium ion secondary batteries, which has won the praise of customers, and have begun studying commercial production of our cathode material, following the mass production of our heat-resistant separator, which has won the praise of customers. The development of

# Sumitomo Chemical's next generation technologies [Keyword]

Crop Stress Management

Crop stress management is designed to mitigate the effects of environmental stress—such as global warming, desertification, harmful insects, and diseases—on agricultural products,

and thereby increase agricultural yields. It is attracting attention as a means to help redress projected food shortages resulting from an increase in the global population.



electrolyte solutions has also started at one of our Group companies. We are thus seeking to supply general materials by promoting R&D.

In the area of fuel cells, we are developing a polymer electrolyte membrane, which is one of the main components of fuel cells. We are developing a hydrocarbon polymer electrolyte membrane which is more environmentally, and are now working to achieve higher performance.

#### Plant Growth Regulators

#### (Stress-Resistance Inducing Compound)

High temperatures, dryness, and salinity levels are examples of environmental stress, which hinders the growth of green plants. Sumitomo Chemical is focusing efforts on the development of plant growth regulators that increase resistance to such environmental stress. These regulators are expected to help prevent a decrease in crop yields due to climate change.

In addition to developing technologies for reduction of CO<sub>2</sub> emissions, Sumitomo Chemical has been developing next-generation technologies to deal with the impact of climate change on agriculture, capitalizing on its R&D strengths in the area of agrochemicals—strengths that the Company has cultivated since its foundation.

Sumitomo Chemical is continually seeking to further develop its current cutting-edge technologies in order to remain a company that contributes to society and people's quality of life as well as helping to address the issue of climate change.

## **CSR Highlights 2009 (Social Contribution Activities)**

## **Opening Sumika Kids Chiba**, an In-house Childcare Facility

Sumitomo Chemical has been enhancing measures and systems for helping employees achieve and maintain a good work-life balance, including shortening working hours and supporting employees caring for children or other relatives. Due to the decreasing birth rate, which is becoming a significant social concern in this day and age, it is more important than ever that companies provide employees with working conditions that allow them to continue working while raising their children. Therefore, in addition to such systems as childcare leave and shortened working hours, Sumitomo Chemical is also promoting the establishment of in-house childcare facilities to assist employees with children.

In October 2009, we opened an in-house childcare facility called Sumika Kids Chiba on the premises of the Company-owned employee housing located near the Petrochemicals Research Laboratory at the Chiba Works.





Sumika Kids Chiba takes care of infants less than a year old (whose mothers have finished postpartum childcare leave) to preschool-aged children of Sumitomo Chemical Group employees during working hours, with extended care till eight o'clock at night. The facility has a grassy area and a vegetable field where children can learn about growing vegetables, ensuring the well-rounded development of the

children.

Sumika Kids Chiba is the third in-house childcare facility, following the establishment of Sumika Kids Ehime in Ehime and Izumi Kids in Osaka in April 2008. As of April 1, 2010, 37, 14, and 19 children are regularly taken care of at the Ehime, Osaka, and Chiba facilities respectively. The facility in Osaka also accepts children of local residents not employed by the Group.

In August 2010, the Company opened its fourth childcare facility, Sumika Kids Tokyo, on the first floor of its Tokyo head office.

Sumitomo Chemical will work to make further improvements to the workplace environment to enable employees to work with even more peace of mind.



Growing vegetables at Sumika Kids Chiba



Sumika Kids Tokyo opened in August 2010

## "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 recover a rich forest that was devastated by destructive felling. It is being fostered through cooperation between the Thai government, local residents, OISCA, and Sumitomo Chemical. Sumitomo Chemical provides funding for the project in the form of donations 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.

## Support to the Victims of the Major Earthquake in Haiti Donating Olyset® Nets

To support the victims of the major earthquake that struck the Republic of Haiti on January 12, 2010, Sumitomo Chemical donated Olyset<sup>®</sup> Net insecticidal mosquito nets via a US NGO and the UN Secretariat.

Approximately 3.7 million people fell victim to the earth-



quake, and at least 1 million of those have lost their houses and been forced to live as refugees in tents.

As the Republic of Haiti is in a malaria-prone region, Sumitomo Chemical

donated 5,000 Olyset<sup>®</sup> Nets to local victims through a US NGO called "Population Services International" (PSI) as well as to UN peacekeeping staff engaged in support activities in Haiti. PSI distributed the mosquito nets to refugee camps across the country in cooperation with local volunteer organizations.



Thailand

Planting trees with local residents (delegation sent in February 2010)

The area for which the Company is providing support as of March 2010 consists of about 125,000 mangrove trees over 50 hectares and is managed as "Sumitomo Chemical's forest." In February 2009, Sumitomo Chemical employees visited the area and worked as volunteer tree-planters and in February 2010, the Company sent a delegation to inspect the growth of the trees in the forest.

#### Initiative by a Group Company

Sumika Electronic Materials (Shanghai) and Sumika Electronic Materials Trading (Shanghai) **Giving Support to Local Schools** 

Two Group companies in Shanghai have been donating funds to schools in nearby poor districts in cooperation with their labor unions. The donations are made by both employees and the companies themselves.

In fiscal 2009, they provided support to an elementary school in Huoqiu County, Anhui Province, helping the school refurbish its classrooms and open a library as well as donating furnishings, supplies, and books to the school. At the donation ceremony held on October 30, 2009, representatives from the companies made friends with the students, who expressed their excitement about the new classrooms and donated items.



## **CSR Highlights 2009 (Responsible Care Activities)**

# Submitting a Follow-up Report for the Eco-First Program

Sumitomo Chemical became the first diversified chemical company to be certified as an Eco-First company by the Japanese Ministry of the Environment in November 2008. In February 2010, we submitted a follow-up report to the Minister on the progress in implementing the initiatives we had committed to and the results.

The Eco-First program was launched by the Ministry of the Environment in April 2008 with a view to encouraging leading companies in each industry to undertake more environmental activities. Under the program, companies make Eco-First commitments to the Minister of the Environment. Specifically, they promise to implement advanced measures for global environmental protection, including measures for the management of chemical substances and the prevention of global warming.

Sumitomo Chemical reported to the Minister that it was making "very favorable" progress on seven out of the 11 items, including "Reviewing safety information for chemicals and conducting risk assessments" and "Voluntarily inspecting the safety of HPV chemicals and conducting LRI activities to study the impact of chemicals on human health and the environment"

As a leading company in the chemical industry and a member of the global community, Sumitomo Chemical will continue to fulfill its Eco-First commitments for a better future and the sustainable development of society.



Follow-up Report Submitted to the Ministry of the Environment (February 2010)



Sakihito Ozawa (left), Minister of the Environment, and President Hirose of Sumitomo Chemical



On the day, a total of six companies submitted reports, including Sumitomo Chemical

	Category	Achievement Status
Management of chemical substances and promotion of risk communication	Reviewing safety information for chemicals and carrying out risk assessments Voluntarily inspecting the safety of HPV chemicals and conducting long-range research (LRI) to study the impact of chemicals on human health and the environment	0 1 0
	Reducing the release of substances subject to the PRTR* Act into the air and water Disclosing information and communicating risks	$\bigcirc$
Preventing global warming	Improving unit energy consumption (at all Works)	$\bigtriangleup$
	Reducing unit CO <sub>2</sub> emissions from the captive consumption of fossil fuels (at all Works)	O
	Implementing an innovative low-temperature heat recovery project (at petrochemical plants) Improving unit energy consumption (in the logistics divisions)	
	Reducing $CO_2$ emissions from households in cooperation with the labor union to preven global warming	t 🔘
Creating a recycling-based society	Reducing the generation of industrial waste and landfill Achieving zero waste emissions at all Works	0
	$\odot$ : Very favorable $\bigcirc$ : Generally favorable $\bigcirc$ : Further studies	s needed

System to identify, collect, and disseminate data on the sources from which hazardous chemical substances were released into the environment or transferred as waste

# Energy- and Climate Change-Related Initiatives at the ICCA

The International Council of Chemical Associations (ICCA) established the Energy & Climate Change Leadership Group in 2007 in response to a proposal made by Japan. Since then, led by this country, the United States, and Europe, the group has been holding regular discussions on what measures the chemical industry should take to contribute to solving the problem of global climate change. Mr. Yonekura and Mr. Kawachi, Chairman and Senior Advisor respectively of Sumitomo Chemical, served as the first leader and chairman of this group, and the group has been achieving excellent results with the Japan Chemical Industry Association (JCIA), including Sumitomo Chemical, playing a leading role.

Specifically, the group focuses its activities on (1) policy, (2) establishing a common energy efficiency evaluation indicator based on benchmarking, (3) quantifying contributions made to reductions in greenhouse gas emissions by the chemical industry through carbon life cycle analysis (cLCA), and (4) public relations.

With regard to cLCA initiatives, the group published a report titled "Innovations for Greenhouse Gas Reductions" to predict the influence of the chemical industry over global greenhouse gas emission reductions, and the ICCA presented the report worldwide in Japan, the United States, and the EU in July 2009. This report shows quantitatively and objectively that, though the global chemical industry emits vast amounts of greenhouse gases from its production activities, it has made great contributions to reducing global greenhouse gas emissions through the use of insulators, solar power generation materials, and other products it provides.

The chemical industry will utilize these findings and analysis data effectively for the good of nations, industries, and people's daily lives and make even greater contributions to more efficient and effective measures to combat global warming.

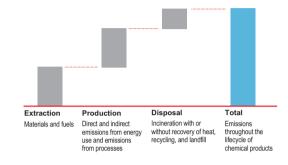


Meeting of the ICCA Energy & Climate Change Leadership Group (In Horgen, Switzerland in January 2010)

#### **cLCA** Method

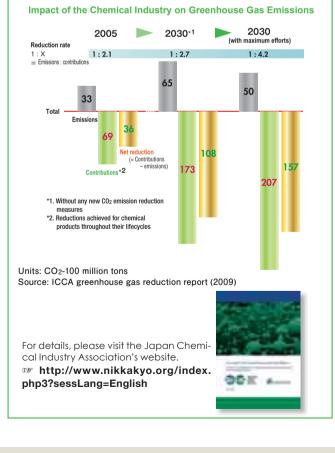
#### (1) Emissions

Total CO<sub>2</sub> emissions during the lifecycles of chemical products (from the extraction of materials to manufacture, distribution, consumption, recycling, and disposal) will be analyzed.



#### (2) Results of calculating emissions and contributions

The chemical industry is said to consume large amounts of energy, but the industry as a whole contributes greatly to preventing global warming through reductions in greenhouse gas emissions achieved by chemical products throughout their lifecycles. According to the ICCA's report, CO<sub>2</sub> emissions from extraction of materials, production, and disposal by the chemical industry will double relative to the 2005 level by 2030, but indirect CO<sub>2</sub> emission reductions achieved by chemical products while they are being used will be 2.7 to 4.2 times greater than the industry's emissions.



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

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

In formulating this new 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 portfolio of businesses. The new Corporate Business Plan is positioned as the first step toward achieving the Company's Corporate Vision, and under this new plan the Company is striving to achieve seven goals, including the prompt improvements in profit and cash flow from the major investments made under the previous Corporate Business Plan and enhancement of its financial strength.

In fiscal 2012, the final year of the plan, we aim to achieve sales of 2,400 billion yen, operating income of 190 billion yen, ordinary income of 220 billion yen, and net income of 140 billion yen.

#### **Corporate Vision**

- (1) Achieve sustainable strong growth as a stronger, more innovative global company.
- (2) Help meet pressing global challenges, such as energy and food security, and contribute to sustainable development of the global community.
- (3) Continuously enhance the value of the company.

Performance Targets				
	Fiscal 2009	Fiscal 2012		
Sales	1,620.9 billion yen	2,400 billion yen		
Operating income	51.5 billion yen	190 billion yen		
Ordinary income	35 billion yen	220 billion yen		
Net income	14.7 billion yen	140 billion yen		

## Completion of All the Petro Rabigh Facilities

Rabigh Refining and Petrochemical Company (Petro Rabigh), an equally-owned joint venture between Sumitomo Chemical and the Saudi Arabian Oil Company (Saudi Aramco), held a completion ceremony for the Rabigh Project on November 8, 2009.

The Rabigh Project was started as a project to estab-



Ethane cracker

lish a world-scale integrated oil refinery and petrochemical complex (1) by constructing a high olefin fluid catalytic cracker (HOFCC) at



the existing refinery and (2) by constructing a new petrochemical plant with an ethane cracker for cracking ethane gas and facilities to produce a variety of derivatives at Saudi Aramco's oil refinery. The oil refinery, which has a crude oil processing capacity of 400,000 barrels per day, is located in Rabigh on Saudi Arabia's Red Sea coast.

Petro Rabigh is proceeding with its oil refining and petrochemical business utilizing a stable supply of highly competitive feedstocks from Saudi Aramco, and is maximizing economies of scale.

The Rabigh Project is expected to help the growth of downstream industries and contribute to industrial diversification and creation of employment opportunities in Saudi Arabia, thereby helping the country develop its economy sustainably while contributing to closer relations between Japan and Saudi Arabia.

## Establishing Agricultural Corporations to Support Agriculture

In May 2009, Sumitomo Chemical established Sumika Farm Nagano, an agricultural corporation for growing strawberries in Nakano City, Nagano Prefecture, and in November, Sumika Farm Oita, an agricultural corporation for



Harvesting strawberries in a greenhouse at Sumika Farm Nagano

growing tomatoes in Bungo Ohno City, Oita Prefecture.

The Sumitomo Chemical Group

handles a variety of agricultural products, including pesticides, fertilizers, irrigation tubes, and polyolefins for agricultural use, and Sumika Farm Nagano and Sumika Farm Oita are producing high-quality crops using these products. Sumitomo Chemical is committed to its "total solution provider" business, which comprehensively supports the efficient production of safer, healthier agricultural products. The Company will accumulate cultivation technologies, agricultural management know-how, and various other skills gained through establishing and managing agricultural corporations, and will spread these technologies throughout the country in cooperation with agricultural producers, cooperatives, and local governments to help revitalize local agriculture.

## Starting Sales of the SUMILOOK Edge-Light Type LED Light

Sumitomo Chemical has developed an edge-light type LED light, and started sales of this product, called "SUM-ILOOK," through Sumika Acryl in February 2010.

SUMILOOK has special features, including (1) being gentle to the eyes because it has small variations in brightness and is not dazzling; (2) being very thin (15 mm or thinner), and (3) reducing power consumption and  $CO_2$  emissions by approximately 20%, thus reducing operating costs while achieving the same brightness as conventional fluorescent lights.

SUMILOOK is expected to be used in mainstream lighting equipment, and we plan to promote sales of this highly



efficient light first to schools and offices and then further expand our sales targets.

Classroom equipped with SUMILOOK

## Developing an Aluminum Titanate DPF

Sumitomo Chemical has developed an aluminum titanate diesel particulate filter (DPF) that can be attached to the muffler of a diesel-powered vehicle. The aluminum titanate DPF outperforms conventional silicon carbide (SiC)-based DPFs in several parameters, including the amount of soot it can continuously filter.

In Europe, the use of diesel-powered vehicles is being promoted for higher fuel economy and lower CO<sub>2</sub> emissions, and in the future DPFs will be attached to diesel-powered vehicles as standard equipment to comply with exhaust gas regulations.

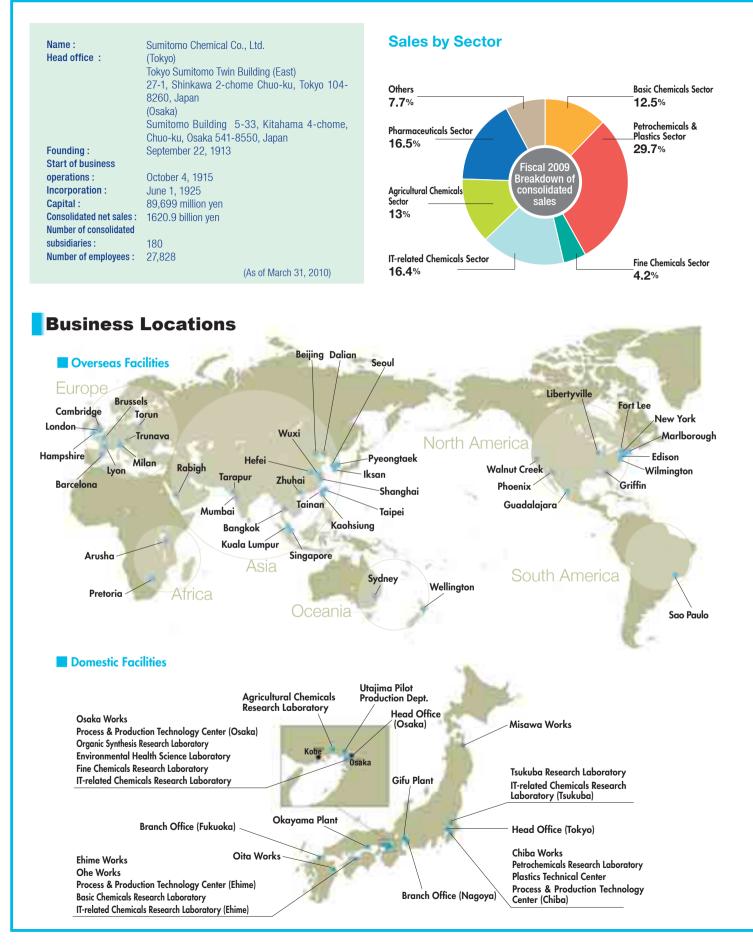
Sumitomo Chemical will begin providing samples of its aluminum titanate DPF to automobile manufacturers in 2010 for practical evaluation on actual vehicles, and once these evaluations have been completed, is

targeting full-scale commercial production by 2015, when use of DPFs in dieselpowered vehicles are expected to come into widespread use in Europe.



Aluminum titanate DPF

## **Company Profile**







#### **Ordinary Income** 00 million ven 2 000 1 580 1,500 - 1,411 1.000 500 ▲ 326 Λ -500 *'*05 '09 (FY) *'*06 '07 **'08 Overseas Sales Ratios** (%) 50 45.0 11 41.8 40 41 6 39.2 37.5 31 4 30 29.5 28.2 20 01 '02 '03 '04 '05 '06 '07 '08 '09 (FY)

### **Business Sectors**

#### **Basic Chemicals Sector**

Inorganic chemicals, raw materials for synthetic fibers, organic chemicals, methyl methacrylate (MMA), alumina products, aluminum, etc.



Products made using alumina powder and alumina

#### **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

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

'06

'05

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

'07

'08

'09 (FY



Containers and wrapping films made from polyethylene

#### **Agricultural Chemicals Sector**

Agricultural chemicals, fertilizers, agricultural materials, household insecticides, insecticides for epidemic prevention, materials for the prevention of tropical infections, feed additives, etc.



Agricultural pesticides for various crops

#### **Fine Chemicals Sector**

Functional materials, additives, dyes, pharmaceutical chemicals, etc.



Resorcinol, the raw material for adhesives for tires and flame retardants

#### **Pharmaceuticals Sector**

Ethical pharmaceuticals, diagnostic radiopharmaceuticals, etc.



Pharmaceuticals manufactured by Dainippon Sumitomo Pharma Co., Ltd.

#### SUMITOMO CHEMICAL COMPANY, LIMITED

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