



**Kuraray CSR Report** **2013**  
Corporate Social Responsibility Report



In fiscal 2012, the Japanese economy did not recover as hoped amid various issues such as delayed reconstruction after the Great East Japan Earthquake and unresolved nuclear power plant and energy issues. Overseas, the protracted recession in Europe resulting from financial uncertainty and the lack of improvement in fiscal soundness and unemployment in the United States precluded full-scale economic recovery. Regarding the economies of emerging countries, economic growth in the ASEAN nations was strong, while China lost its momentum of past and growth was sluggish on the whole in India, Brazil and Russia.

Reflecting the aforementioned factors, consolidated net sales for fiscal 2012 increased 0.1% compared with the previous fiscal year to ¥369.4 billion and operating income decreased 10.1% to ¥49.2 billion.

Based on the core management strategies (technological innovation, geographical expansion, utilization of external resources, strengthening of the global business foundation and environmental measures) of the GS-III medium-term management plan (covering fiscal 2012 through fiscal 2014) implemented at the start of the fiscal year to achieve sustained growth, the Kuraray Group made large-scale investments and conducted mergers and acquisitions (M&A) to accelerate its global strategies for core businesses and aggressively developed next-generation businesses in the areas of water and the environment, energy, and optics and electronics.

In carrying out various measures based on the major management strategies of the GS-III, we aim to achieve record highs in both sales and income with net sales of ¥430.0 billion and operating income of ¥60.0 billion in fiscal 2013.

## Responsibility as a Chemical Manufacturer

One of Kuraray's missions is to provide the materials and intermediate materials required for products that are needed to create a low-carbon society and an environmentally conscious society and to make sure that these items are manufactured in such a way as to cause the lowest environmental load reasonably achievable.

As part of this endeavor, in fiscal 2012 Kuraray started evaluating its contribution to the reduction of GHG (greenhouse gases) for a product's lifecycle, through usage and disposal. By doing so, we are now able to measure the extent of our contribution to the reduction of GHG, through disposal of the product, in addition to the amount of GHG emissions during the production phase. In fiscal 2012, we conducted such an evaluation on one of our landmark products *EVAL* and going forward we intend to expand the scope of these evaluations.

The number of accidents at chemical companies has been increasing recently in Japan, and serious accidents have occurred at some chemical companies. It has been pointed out that the primary cause is deterioration in the basic understanding of facilities, due to progress in automatic control devices, generational changes in operators and other reasons. We also feel the necessity of improving "Know-Why" training, of finding risks during unusual operations, of maintaining a sense of tension. Small acts of carelessness caused by becoming accustomed to every day operations are the cause of accidents and disasters in many cases. This carelessness and human errors may bring misfortune on individuals and may put the company's existence at risk.

All employees of the Kuraray Group always confirm our fundamental principle, "Safety is the Cornerstone of Everything We Do" with a new attitude, and ensure the safety of every work and operation under this fundamental principle.

## Challenging Difficult Issues

Kuraray was founded by Magosaburo Ohara in 1926 for the purpose of commercializing rayon. In 1950, the Company succeeded in the commercial manufacture of the synthetic fiber *KURALON* derived from the raw material *POVAL*, which it had been researching as a next-generation fiber since before World War II, and started sales. The process was not totally smooth sailing and the Company had to ride out several storms. However, the fruits of our efforts in the areas of research and development, technology, manufacturing, and marketing accumulated and served as the foundation of Kuraray's innovative business development. They were the basis for the development of *EVAL*, optical film business and other areas.

Magosaburo felt a desire to resolve social problems such as poverty scientifically and rationally in addition to ensuring the health, safety and hygiene of workers at around the same time he founded Kuraray. He has built a social business that even now continues to play a part in such organizations as Ishii Memorial Aizen-en, Ohara Institute for Social Research and Kurashiki Institute for Science of Labour.

The Kuraray Group has stated its policy to "contribute to the solution of issues threatening our planet and livings with pioneering technology," which is our long-term corporate vision. We will continue the unceasing work of our predecessors and treat problems facing society as our own, striving toward their resolution, which I believe will open up the path ahead for Kuraray.

Rather than recoil from the adversity that awaits, I would like each person in the Kuraray Group to add his or her wisdom and continue to challenge the concept of "contributing to the world and individual well-being through actions that others are unable to produce."

**Fumio Ito**

Representative Director and President  
Kuraray Co., Ltd.

# Kuraray Group's CSR Activities throughout the Product Lifecycle

"Contributing to the World and Individual Well-being through Actions that Others are Unable to Produce."

Kuraray pursues the value of contributing to society by respecting each and every individual and producing materials that fill a need in people's lifestyles through pioneering technology. We aim to contribute to a sustainable society by respecting the interests of all stakeholders and at the same time enhancing added value and giving back to society through pioneering technology that makes use of the resources afforded us by society.



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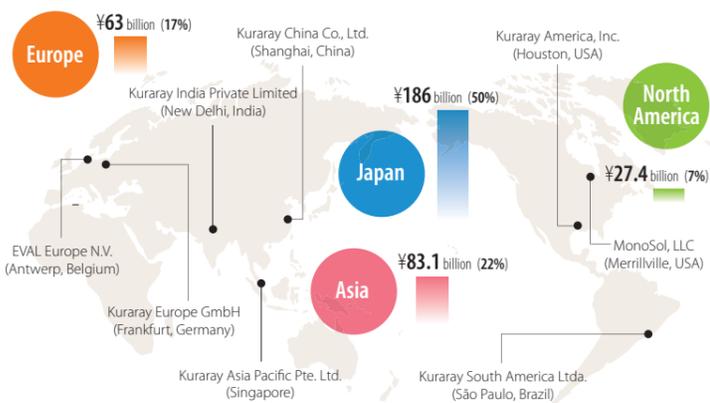
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Corporate Profile

Company name	Kuraray Co., Ltd.
Representative Director and President	Fumio Ito
Date of establishment	June 1926
Capitalization	89 billion yen (as of March 31, 2013)
Number of employees (consolidated)	7,332 (as of March 31, 2013)
Head offices	Tokyo, Osaka
Plants and laboratories	Kurashiki, Saijo, Okayama, Niigata, Kashima, Tsukuba
Group companies	32 consolidated subsidiaries, 1 equity method affiliate (as of March 31, 2013)
Overseas operations	USA, Germany, Belgium, China, Singapore, India, Brazil

Business by Region (business scale)



Business Outline

Kuraray was founded for the purpose of commercializing chemical fiber rayon in 1926 in Kurashiki City, Okayama Prefecture. Ever since becoming the first firm in the world to commercialize vinylon fibers and textiles after the war based on domestic technology as well as POVAL, the resin that is used as its raw material, we have made use of this unique technology and have delivered a variety of one and only and number-one products to the world as a specialty chemical manufacturer.



In this business, we manufacture and sell poval resin, which features water solubility and adhesive properties, poval film, which can be applied to liquid crystal displays and is also used for single-use packets for detergents and so on, EVAL, which has an excellent gas barrier property, and PVB film used as an interlayer for laminated glass.

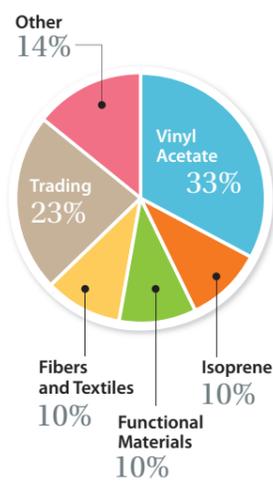


In this business, we manufacture and sell the world's only synthetic isoprene chemical products and their derivative SEPTON, a thermoplastic elastomer, as well as GENESTAR a new polyamide resin with excellent heat resistance.



In this business, we manufacture and sell CLARINO man-made leather with structure and functionality as elaborate as natural leather, dental materials that enable repairs that closely resemble natural teeth, and methacrylate resin, which boasts excellent transparency and weather resistance.

Consolidated Net Sales Share by Segment\* (Fiscal 2012)



\*Sales figures include sales to external customers and the amount of cross segment internal sales and transfers. They do not include the adjusted amount of 95.1 billion yen.



In this business, we manufacture and sell vinylon fiber used as a substitute material for asbestos, MAGIC TAPE hook and loop fasteners, KURAFLEX nonwoven fabric used for lifestyle products and industrial materials, and polyester fiber.



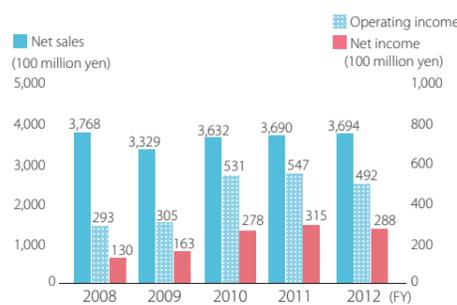
In this business, we import, export and sell wholesale fiber products such as polyester continuous fiber, resin and chemical products.



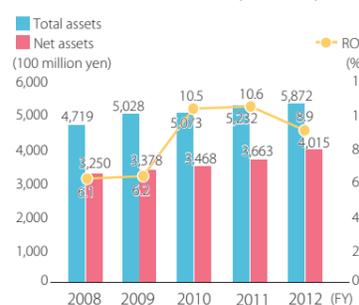
In this business, we manufacture and sell carbon material and highly functional membranes and systems used in water treatment, conduct an engineering business, as well as handle VECSTAR liquid crystalline polymer film, which is used mainly for flexible circuit boards.

Data on Economic Efficiency

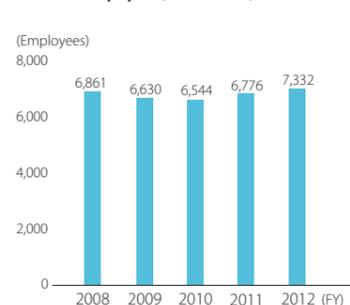
Trends in Consolidated Business Performance



Trends in Consolidated Total Assets, Net Assets, and ROA\*



Number of Employees (Consolidated)



\*ROA = Return on Assets

Corporate Philosophy

- Respect for individuals
- Cooperation in shared goals
- Creation of values

Guidelines for Action

- Act on customers' needs
- Act on ideas in the working place
- Act on your own initiative

Corporate Mission

We in the Kuraray Group are committed to opening new fields of business using pioneering technology and contributing to an improved natural environment and quality of life.

The Kuraray Group Code of Conduct

**We will develop and provide products and services, giving full consideration to safety.**

1. Safety of Products and Services
2. Compliance with Antitrust, Competition and Related Laws
3. Prevention of Unfair Competition
4. Compliance with Laws Related to Exports and Imports
5. Prohibition on Entertainment and Gifts in an Excessive Manner
6. Prohibition against Insider-Trading

**We will keep good communications and maintain a sound relationship with society.**

7. Respect for Human Rights, Enhancement of Diversity and Equal Opportunity, and Other Workplace Responsibilities
8. Contributions to Society

9. Disclosure of Corporate Information
10. Compliance with Domestic and Foreign Anti-Bribery Regulations
11. Rules for Donations
12. No Relationship with Anti-Social Groups
13. Prohibition on Conflicts of Interest

**We will strive to preserve and improve the global environment and to secure safety and health.**

14. Environmental Preservation
15. Safety and Disaster Prevention
16. Safe and Comfortable Workplace

**We will respect intellectual properties including trade secrets and control information properly.**

17. Protecting Trade Secrets
18. Respecting Intellectual Property Rights

Editorial Policy

This report conveys the CSR activities that the Kuraray Group implemented in fiscal 2012 with the aim of boosting understanding of them among all stakeholders.

Reporting Period

From April 1, 2012 to March 31, 2013 (Some activities conducted before or after the reporting period are included.)

Scope of the Report

**Safety and Environment:** Reports focus on Kuraray Co., Ltd. and domestic affiliated companies, but also include some overseas affiliated companies

**Social:** Reports focus on Kuraray Co., Ltd., but also include some affiliated companies depending on their activities in the respective field

**Economic:** Kuraray Co., Ltd., consolidated subsidiaries, and equity method affiliates (total 34 companies)

Reference Guidelines

GRI Sustainability Reporting Guidelines (Version 3.1), Ministry of Environment's Environmental Report Guidelines (2012 Edition)

Issue Date

August 2013 (Previous issue: August 2012, Next issue: August 2014 (planned))

The Kuraray Group (Consolidated Subsidiaries)

Domestic

- Kuraray Co., Ltd.
- Kuraray Engineering Co., Ltd.
- Kuraray Techno Co., Ltd.
- Kuraray Business Service Co., Ltd.
- Kyosei Chemical Co., Ltd.
- Kuraray Saijo Co., Ltd.
- Kuraray Tamashima Co., Ltd.
- Kuraray Kuraflex Co., Ltd.
- Kuraray Chemical Co., Ltd.
- Kuraray Trading Co., Ltd.
- Kuraray Plastics Co., Ltd.
- Ibuki Kosan Co., Ltd.
- Iruma Country Club Co., Ltd.
- Kuraray Living Co., Ltd.
- Techno Soft Co., Ltd.
- Kuraray Fastening Co., Ltd.
- Kuraray Travel Service Corporation
- Okayama Rinkoh Co., Ltd.
- Okayama Rinkoh Warehouse and Transport Co., Ltd.
- Kurashiki Kokusai Hotel Co., Ltd.
- Kuraray Noritake Dental Inc.

Overseas

- Kuraray Holdings U.S.A., Inc.
- Kuraray America, Inc.
- MonoSol Holdings, Inc.
- MonoSol AF, Ltd.
- Kuraray Europe GmbH
- OOO TROSIFOL
- Kuraray Asia Pacific Pte. Ltd.
- Kuraray (Shanghai) Co., Ltd.
- Kuraray Trading (Shanghai) Co., Ltd.
- Kuraray Hong Kong Co., Ltd.
- EVAL Europe N.V.

● Kuraray site ■ Domestic affiliated companies ▲ Domestic Kuraray Group companies ◆ Overseas affiliated companies

All italicized product names in this report are trademarks of the Kuraray Group.

# CSR Management

Kuraray's corporate philosophy is to pursue the value of contribution to society by respecting each and every individual and by producing materials that fill a need in people's lifestyles through our creative technological skills. The purpose of our business is to add value to the resources entrusted to us by society through the application of pioneering technology and thereby return this contribution to society.

We believe that how we implement measures to achieve these goals while respecting the interests of all our stakeholders, including our shareholders, suppliers, consumers, local residents and employees, is important as a social responsibility of our company.

## Corporate Governance

We at Kuraray view corporate governance as necessary for the maintenance of sound relations with our shareholders and the various other parties in society with a stake in our company. We consider it vital not only for assisting in the improvement of our performance and sustained growth as a company but also for fulfilling our responsibility to society.

In fiscal 2003, we executed a program of reform in which we reinforced the Board of Auditors by adding more outside auditors, established the Management Advisory Council, reduced the prescribed number of directors while shortening their term of office, and introduced the executive officer system in order to separate the functions of supervision and execution. In fiscal 2008, we made further enhancements for corporate governance by appointing outside directors.

Corporate Governance Structure (as of June 30, 2013)



Item	Composition	Details
Directors	Directors (10), including outside directors (2)	Besides making decisions on matters of importance to management, Directors monitor and supervise the execution of business in accordance with the basic guidelines for internal control.
Executive Officers	Executive Officers (25) (including 6 directors)	The Executive Officers are appointed by the Board of Directors, and some are also members of the Board who have been granted executive authority. They serve as the heads of internal companies, divisions, subsidiaries, and major functional units, and are responsible for business execution and results.
Corporate Auditors	Corporate Auditors (5), including outside auditors (3)	The Corporate Auditors attend Board of Directors meetings and other important conferences, and monitor the execution of duties by the Directors through activities such as hearings on business execution status and audit visits to Group business locations.
Management Advisory Council	Permanent members (6), including outside experts (4)	This council offers advice to the President on matters such as Kuraray Group's management policies and important issues, business plans, succession of the President, successor candidates, and remuneration, with attention to compliance with laws and regulations, protection of shareholder interests, and management transparency.

<http://www.kuraray.co.jp/en/ir/strategy/governance.html>

## CSR Promotion Structure

In 2003, Kuraray instituted the CSR Committee by integrating the Philanthropy and Environment Committee and In-house Ethics Committee, and bolstered its CSR promotion structure on Group level. Under the CSR Committee are arrayed four subordinate committees as specialized units on the management level (the Social Responsibility and Economic Subcommittee, Environmental and Industrial Safety Subcommittee, Global Warming Measures Subcommittee, and Risk Management and Compliance Subcommittee). These

committees examine companywide policies and targets and report on the same to management. The theme-specific working groups making up the subordinate committees collaborate with various Group units in addressing their respective agenda based on the CSR-related policies. In 2011, we added all company heads as CSR Committee members for a system that enables even more multidimensional examinations.

CSR Committee Organization



## Risk Management

To further enhance our management structure at the Group level, we are working to improve Company-wide risk management. Based on self-assessments made by the heads of divisions, plants, subsidiaries, and administrative organizations, we are identifying actual risks facing each structure and identifying those judged to be major risks. The CSR Committee selects, evaluates and deliberates on those risks in particular that management ought to address and promotes appropriate response. In addition, the President provides instruction to each structure with the aim of enabling

swift response to changes in the risk environment by Kuraray Group Basic Policy on Risk Management. This policy is reflected by the results of risk evaluations in the prior year as well as cases of risk that have arisen in society.

Since the Kuraray Group has many businesses that command large shares of the market and that are based on original technology, we are also creating and enhancing a business continuity plan (BCP) for core businesses assuming the risk of prolonged suspension in supply. In fiscal 2012, we formulated a Company-wide policy related to our BCP.

### Kuraray Group Basic Policy on Risk Management for Fiscal 2013

- 1 Continually preserve operational skills and technologies, and reinforce disaster prevention.
- 2 Formulate, improve and expand effective business continuity plans (BCP).

### Companywide Policies for BCP (Business Continuity Plan)

- Give top priority to securing the safety of regional residents, employees
- Aim for early recovery/restoration of businesses/regions
- Act in unison with regional society for recovery/restoration

## Compliance

### Basic Policy and Approach to Compliance

Kuraray has built an organizational culture in which executives join with each and every employee in taking action underpinned by a keen sense of ethics as good citizens. We have mounted approaches to compliance that go beyond the mere observance of laws and regulations in order to ensure corporate transparency and fairness.

Our Principles for Business Conduct were established in 1998 for the purpose of seeing that all of our business activities are in harmony with the global environment and civil society in light of our wide-ranging involvement with that society. They set forth proper patterns of behavior for each employee. Then in 2003, the Compliance Declaration was published to clearly state that “we will give precedence to laws and regulations, and to the Principles for Business Conduct, over corporate profits.”

In addition, a Compliance Card containing the President's Compliance Declaration, our corporate philosophy and Principles for Business Conduct, and the contact number of the internal reporting system has been distributed to all employees of the Kuraray Group in Japan, including temporary staff since 2003. Employees are instructed to carry it with them at all times. In 2005, we compiled the Compliance Handbook, which consists of the Kuraray Group Code of Conduct describing the Principles in specific terms and the Compliance Guidelines with examples and commentary on them, and provided all of our domestic employees (including part-time, contract-based and temporary staff) with a copy of the Handbook for education.

In 2009, we published the second edition of the Compliance Handbook with revised contents. To reflect situations at our overseas locations, we prepared US, German, Chinese, Belgian and Singaporean editions for distribution to the respective subsidiaries, which are using them for employee education.

The Principles and the Code are disclosed on our website.

<http://www.kuraray.co.jp/en/csr/conduct.html>

### Compliance Declaration

- 1 We will comply with the laws and regulations or the Principles for Business Conduct.
- 2 We will give precedence to laws and regulations, and to the Principles for Business Conduct, over corporate profits.
- 3 We will strive to prevent any act that goes against laws and regulations or the Principles for Business Conduct, or that betrays the trust that society has placed in us.

### Compliance Education

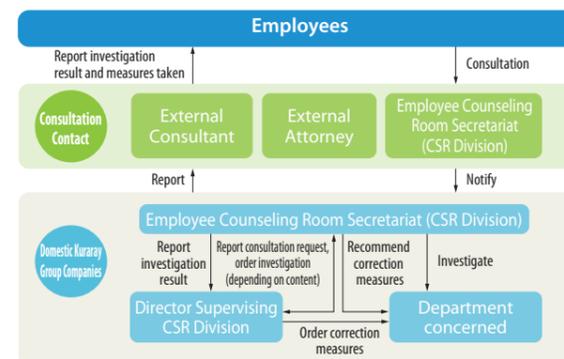
The Kuraray Group is working to reduce compliance risk by providing education on anti-trust laws through an external attorney and on intellectual property rights, and we started releasing news on compliance in fiscal 2012 aimed at boosting awareness even further. We post cases from outside the company that have become social issues on our internal website, providing the opportunity to think about how they apply to the company and to review the words, behavior and response of employees. We also started compliance education based on e-learning and in the first installment sought to deepen understanding of anti-trust laws, code of conduct, export control and chemical product management. Going forward, we will provide compliance education related to various fields in a planned manner in addition to expanding the scope of the education to affiliates.

### Internal Reporting System

We set up the Kuraray Group Employee Counseling Room as the center of our internal reporting system for all employees of domestic Group companies (including contract-based, temporary and part-time staff). The system is aimed at preventing compliance violations as well as early detection and resolution of the same. We also provide our employees with information on methods of internal reporting and rules for protection of informants through our intranet and on the Compliance Card. In addition, our overseas affiliated companies have each set up their own internal reporting systems.

Furthermore, each of our offices is equipped with a special consultation office related to sexual harassment, staffed with personnel including female employees.

#### Internal Reporting System



#### Number of Consultations at the Kuraray Group Employee Counseling Room

FY	2010	2011	2012
Number of consultations	2	2	5

## Quality Management

At the Kuraray Group, we have created a system that enables the consistent provision of products that satisfy the requirements of individual customers by way of quality management systems such as ISO9001 and ISO13485, which are primarily managed at the manufacturing site level, and quality management in accordance with the flow of goods in each business.

Going forward, we will strengthen quality management in each business and promote standardization of the content.

### Responding to Product Complaints

At the Kuraray Group, we are working to respond quickly to complaints and prevent reoccurrence through the integrated management of information on complaints. We respond to major cases in accordance with the Regulations on Product Liability-related Accident Response and Quality Complaint Report.

In fiscal 2012, there were no product recalls or accidents causing major health problems or damage to property such as fire.

### Chemical Substance Management

The Kuraray Group introduced a new system for the management of chemical substances in an integrated manner that ensures there are no omissions. Information regarding the nature and safety of raw materials being used as well as the safety of products provided to customers and legal responsiveness is input into the system to improve overall responsiveness in such areas as distributing an SDS (Safety Data Sheet) to customers, labeling, and studies into the materials contained in products as requested by customers.

In fiscal 2012, we customized the system and collected further data that we input into the system.

Going forward, we will utilize the system for legal response (notification on amount pursuant to the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.) and strive to maintain and enhance the system by inputting information on new products and raw materials, making sure there are no omissions.

### Boost Customer Satisfaction

As an example of strengthening quality management in each business, we started a project to bolster quality assurance in the EVAL business division with the aim of enhancing customer satisfaction via a three-year plan from fiscal 2012, the first year of GS-III, our new mid-term management plan. Customer demands associated with product and service quality are increasing daily, driving the need to enhance customer satisfaction by reinforcing the quality assurance system within the EVAL business division.

Specifically, we are taking steps to develop human resources through group training held by outside professors, exams for QC certification and on-site problem resolution via small group activities. Through these activities, we can improve the atmosphere of production, sales, development and quality assurance departments and it will become easier to convey customer opinion to all employees working in the EVAL business division. As a result, we can share in the joy of resolving customer concerns one by one by taking responsibility for our own jobs and cooperating with each other.

#### Quality Management in Line with Business Activities



## Communication

To ensure its accountability to society as a whole, Kuraray practices timely and appropriate disclosure of information to the whole spectrum of stakeholders (shareholders, customers, suppliers, employees, local communities, etc.) in line with the Kuraray Group Disclosure Policy formulated in May 2007.

<http://www.kuraray.co.jp/en/disclosure.html>

### IR Activities

The Kuraray Group provides IR information for shareholders and investors based on a policy of emphasizing the reliability and fairness of investor information. In addition to conducting financial presentations for institutional investors, we are working to ensure timely and equal information provision that includes financial presentations to individual investors and distributing video of the general meeting of shareholders through our website.

In fiscal 2012, we held study tours of the Kuraray Tsukuba Research Center with the aim of deepening understanding of the Company's technological expertise and growth potential among individual shareholders. In addition, we took part in the "+YOU Japan Nationwide Support Caravan" event for individual investors organized by the Tokyo Stock Exchange, where we introduced our business developments stemming from unique technology.



Study tour for individual investors

<http://www.kuraray.co.jp/en/ir/>

### Publicity and PR Activities

The Kuraray Group is engaged globally in publicity activities for timely provision of information on our current status. Besides announcements of corporate news through regular news agencies in Japan and overseas, we have a full assortment of tools for this purpose, including display of the latest company information on our websites in Japanese, English and Chinese, and preparation of brochures and videos.

To raise recognition of our company and understanding of our business operations, we are promoting PR activities encompassing a corporate advertising campaign centered around TV commercials in Japan, and advertisements in

chemistry journals overseas. We also strive to communicate with our stakeholders through appearances at exhibitions and events.

As part of this communication, we have been exhibiting at Eco-Products, Japan's largest environmental exhibition, since 2005. In 2012, we introduced the Kuraray Group's environment-oriented materials and technologies based on the theme "Chikyu Kai Kai", the new keyword added to the company's ad campaign along with "Mirabakesso", and received around 10,000 visitors.



Eco-Products 2012 was held from December 13-15, 2012

#### \*1 Mirabakesso

A keyword used in the Kuraray Group's corporate advertising campaign, which is a contraction of the catchphrase, "Mirai ni Bakeru Shinsozai." Translated from the Japanese, it means: "New materials that transform into the future."

#### \*2 Chikyu Kai Kai

A keyword used in the Kuraray Group's corporate advertising campaign, which is a contraction of the new catchphrase, "Chikyu Mondai no Kaijitsutsu ni Idomu Kaisha." Translated from the Japanese, it means: "A company that takes on the challenge of solving global problems."

### Communication with Local Communities

#### Regional Communication with the Responsible Care Committee

Kuraray is taking part in regional communication organized by the Responsible Care Committee of the Japan Chemical Industry Association. The regional communication is held around every two years in each of 15 areas and includes factory tours and an introduction to the disaster prevention activities and environmental conservation activities of each company as well as providing the opportunity for businesses, administrative agencies and local residents to exchange opinions directly.

In fiscal 2012, the Kuraray Kurashiki Plant and Kuraray Okayama Plant participated in the regional communication for the Okayama area (November 2012) while the Kuraray Kashima Plant participated in the regional communication in the Kashima area (February 2013). Kuraray made a report on the disaster prevention system and earthquake response of its complexes at the regional communication in the Kashima area.

We hope to continue engaging in communication with local citizens in the future through opportunities such as these.



Regional communication for the Okayama area



Regional communication for the Kashima area

### Plant Tours and Briefing Sessions

Kuraray's plants as well as the plants of Kuraray Plastics Co., Ltd., Kuraray Chemical Co., Ltd. and Kuraray Fastening Co., Ltd. hold tours and regular briefing sessions for the purpose of communication with local residents. In fiscal 2012, a total of 2,853 people took part, which served to deepen understanding of the activities being implemented at our plants.

### Interaction with the Local Community

Each of our business locations conducts activities rooted in the local community.



Cherry blossom viewing party (Niigata Plant)

Saijo Plant and Niigata Plant hold cherry blossom viewing parties when the blossoms are in full bloom on their grounds. In fiscal 2012, approximately 7,500 people came to the parties and really appreciated the blossoms in full bloom. In December, Kurashiki Plant held a Christmas fantasy event for the public, where the night sky was lit up with a Himalayan cedar.



Christmas fantasy (Kuraray Plant)

In addition, employees volunteer to clean up in the areas surrounding our plants. In fiscal 2012, Kuraray Chemical's Tsurumi Plant was recognized as an action group in the "Okayama Adopt" project and is broadening its activities in this regard (see page 25).

Employees from Kuraray America take part as volunteers in the Japan Festival held in Houston, thus further strengthening ties with the local community by introducing Japanese culture to the city's residents.



Japan Festival (Kuraray America)

# Approaches to Safety

The Kuraray Group has a safety management system for detecting risks of occupational incidents and process accidents to prevent any such occurrences. We operate this system to create workplaces that are safe and free of accidents and disasters by heightening the safety awareness of employees. Similarly, in preparation for the event of accidents and disasters, we conduct drills to curtail damage to the minimum. We also attempt to prevent any recurrence through sharing of information on actual cases and their lessons.

## Basic Policy and Concepts in Occupational Safety and Disaster Prevention

### Concepts on Occupational Safety and Disaster Prevention

**“Safety is the Cornerstone of Everything We Do”**

### Basic Policy on Occupational Safety and Disaster Prevention (Fiscal 2013)

- 1 Ensuring “Safety First, Production (Construction, R&D) Second”
- 2 Do “CHECK” to eliminate “RISK” before taking every action
- 3 All employees act with determination for the achievement of zero accidents and disasters

## Safety Management

In accordance with the Safety Activity Management Regulations, the domestic Kuraray Group formulates safety plans every fiscal year and operates them to ensure occupational safety, process safety, and disaster prevention. To be more specific, each year, at the Safety Promotion Committee attended by the President and the executives in charge, we make an overall assessment of safety activity performances and discuss policy for such safety activities in the coming fiscal year. In line with this policy, we are conducting safety activities that reflect the specific action plans of each plant and department. A group of safety

representatives from headquarters, including the executives in charge, visit each plant twice a year to conduct Safety Site Inspections in aspects such as the drafting of action plans, action taken based on these plans, and the results.

Each department makes use of a Safety Level Evaluation System formulated as a tool to objectively assess the level of safety as well as weaknesses in each department for identifying the strengths and weakness relative to safety. In addition to these, each department has been carrying out PDCA cycles of safety activities efficiently and effectively.

### Targets and Actual Performances

Evaluation ◎: achieved ○: largely achieved △: further effort required ×: not achieved

Item	Goals for achievement	FY2012			FY2013 target
		Target	Actual performances	Evaluation	
Process Safety and Disaster Prevention	Number of process accidents 0 incidents	0 incidents	1 incident	×	0 incidents
	Improving intrinsic safety of plant facilities	Steady implementation of appropriate measures to reduce process risks according to the size of the risk	We have focused on activities to identify risk that exceeds expected levels and minimize (reduce) risk that has been identified in light of a rash of explosions at chemical plants.	◎	<ul style="list-style-type: none"> <li>• Comprehensive identification of risk without overlooking hazards and steady implementation of measures</li> </ul>
Occupational Safety	Establishment of a safe, comfortable workspace and safety climate	Steady implementation of thoroughly identifying risks, avoiding overlooking hazards	We have worked to enhance the completeness of the scope of risk evaluation through a comprehensive risk assessment method and by identifying risk in work inventory as well as in equipment and work procedures.	◎	<ul style="list-style-type: none"> <li>• Taking over operation technologies (Know-Why) and steady continuation of these efforts</li> <li>• Implementation of effective safety activities and appropriate evaluation of the effects of the safety activities</li> <li>• Enhancement of individual safety awareness</li> </ul>
		Implementation of efficient and effective safety activities based on appropriate evaluation of activity results	We have organized and reviewed safety activities relative to weak points identified quantitatively and objectively through use of the Safety Level Evaluation System and reflected this in the safety activities for the coming fiscal year.	◎	
	Number of Lost Time incidents 0 incidents	0 incidents	5 incidents	×	0 incidents
	Frequency Rate of occupational incidents 1.0 or less	1.0 or less	1.5	×	1.0 or less

Scope of the number of incidents and accidents: Domestic Kuraray Group  
Frequency Rate of occupational incidents: Number of occupational accidents (including Lost Time, No-Lost Time and First Aid) per million work hours

## Process Safety and Disaster Prevention

At the Kuraray Group, we consider it a major responsibility to prevent the occurrence of explosions, fires, leakage of hazardous materials, other accidents and disasters that could have an immense impact on society, as well as to curtail the damage in the event of any occurrence to the minimum level. For that reason, we have mounted Company-wide approaches in areas such as risk assessment related to safety and disaster prevention, quake-proofing measures for buildings and plants, and conditioning of the safety management system for facilities. We have especially dealt with safety assessment and change management, when the facilities are newly built or remodeled, and operating conditions will be changed. In fiscal 2012, we conducted assessment from all angles to identify hazards potentially leading to process accidents, and investigated and implemented measures to prevent disasters from spreading (disaster mitigation measures), as well as to take fundamental prevention measures (disaster prevention) in accordance with the degree of risk. Nevertheless, in fiscal 2012, a small fire broke out when the wooden material on the underside of a welded part overheated during welding. Nobody was injured and the damage to equipment was minimal.

From 2011 to 2012, a series of explosions occurred at leading companies' chemical plants in Japan, resulting in a large number of casualties and provoking anxiety in society. Kuraray is working to cross develop the lessons for accidents based on those accident reports that have been released. Specifically, we urgently conducted safety inspections in such areas as recognizing abnormal situations, response procedure when conditions are abnormal and training and education on handling abnormalities. We also added perspective countermeasures for the facilities and equipment such as constant DCS monitoring of temperature in some hazardous substances tanks. In addition, we are working to further strengthen countermeasures for software such as organizing response procedure, education and training, and taking over technologies.

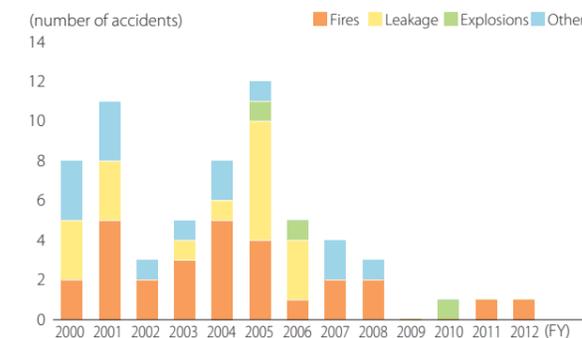
### General Disaster-Prevention Drills

In its production activities, the Kuraray Group handles huge amounts and various kinds of hazardous materials and high-pressure gasses. In readiness for accidents or disasters, each plant is equipped with fire-prevention and -extinguishing facilities. Each plant also has emergency organization, which regularly conduct drills. In fiscal 2012, we conducted disaster prevention drills, notification drills and tsunami evacuation drills on the assumption of various situations at each plant, including occurrence of fires, leakage of hazardous materials, earthquakes, and tsunami. In addition, because major accidents require crisis management on a Company-wide scale, we also regularly conduct drills involving the Emergency Command Center with the participation of the President and other representatives from each division at our headquarters.



Drill using fire extinguisher in fiscal 2012 at the Kuraray Saijo Plant

### Process Accidents (Domestic Kuraray Group)



Comprehensive disaster prevention drill in fiscal 2012 at the Kuraray Niigata Plant

## Occupational Safety

We at the Kuraray Group recognize that ensuring employee safety and health is the very basis of a company's business activity. Through proper operation of our occupational safety management system, we strive to improve the level of safety for the entire organization as well as for each employee, toward creating safe and incident-free workplaces. In fiscal

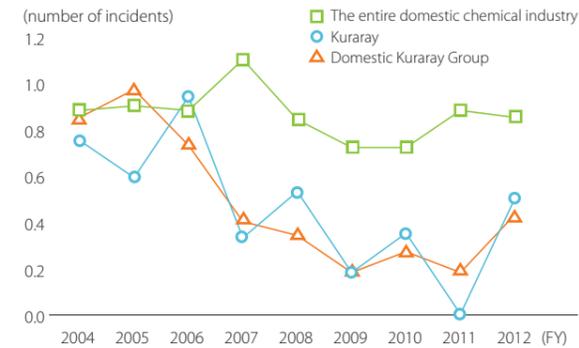
2012, we worked to overcome weak points in safety activities identified through the Safety Level Evaluation System and conducted comprehensive risk assessment activities without overlooking hazards. As a result, although the incidence of Lost Time incidents increased from two to five, the domestic Kuraray Group achieved a lower points score in the newly

introduced "accident evaluation score" rating occupational incidents based on the potential degree of injury and an analysis of the cause of the incident (poor quality). We believe that this result indicates the effectiveness of safety activities.

Although the number of overseas affiliates increased by one (overall work hours up by 8%), the number of incidents

decreased from 18 to nine. Despite the fact that overall work hours overseas are only around 40% of those in Japan, the number of Lost Time incidents is significantly higher than in Japan due mainly to a tendency to take time off based on differences in the medical systems between overseas and Japan.

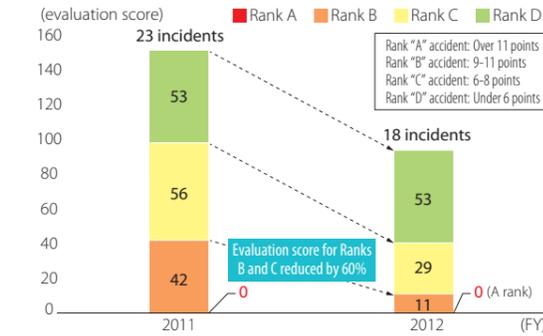
**Frequency Rate of Lost Time Incidents<sup>\*1</sup>**



**\*1 Frequency Rate of Lost Time Incidents**

Number of Lost Time Incidents per million work hours = Number of Lost Time Incidents/Total working hours × 1,000,000

**Accident Evaluation Score<sup>\*2</sup> (Domestic Kuraray Group)**



**\*2 Accident Evaluation Score**

Assigns a score to potential degree of injury and human, facility/equipment, and managerial responsibility for Lost Time incidents, No-Lost Time incidents, and First Aid. The higher the score, the greater the responsibility.

**Number of Lost Time Incidents**

	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 <sup>*4</sup>
Kuraray	2	3	1	2	0	3
Domestic affiliated companies	3	1	1	1	2	2
Domestic subcontracting companies <sup>*3</sup>	7	1	1	0	1	1
Overseas affiliated companies	5	12	9	7	18	9

<sup>\*3</sup> Companies performing contracted work in Kuraray plants

<sup>\*4</sup> Added MonoSol, LLC as an overseas affiliated company (2H of FY2012)

**Occupational Health**

To provide a workplace environment where it is possible to work in both a physically and mentally safe and healthy manner, we formulated the Kuraray Basic Policy on Occupational Health.

**Kuraray Basic Policy on Occupational Health**

In keeping with the Principles for Business Conduct, the Kuraray Group recognizes that ensuring the safety and health of employees and other stakeholders is the basis of a company's business activity. Kuraray strives to provide a healthy and safe work environment for its employees and engages in health promotion activities.

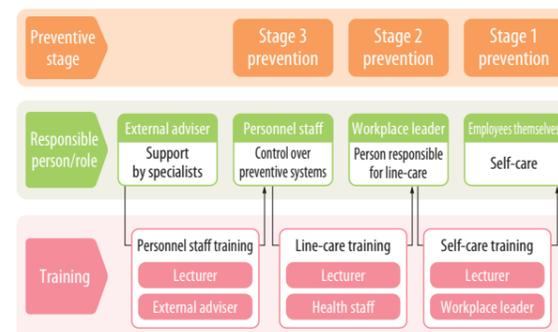
**Mental Health**

The Kuraray Group has mounted a companywide approach to mental health measures aimed at preventing stress-related conditions that have been on the rise in society as a whole in recent years.

**Training for Prevention**

With guidance from the Institute for Science of Labour, we continue to implement training for self-care (action taken by employees themselves) and line-care (action taken by managers and workplace leaders) with an awareness that the employees themselves as well as their superiors and personnel staff are the principals of initiatives to maintain mental health.

**Preventive System**



**Mental Health Counseling Office**

Kuraray has established counseling offices both inside and outside the company, and has made arrangements that make it easy for employees to get counseling over the phone or through face-to-face meetings. To prevent mental difficulties caused by long working hours, we have employees who work a lot of overtime receive a health examination by industrial physicians and health care staff.

**Assistance with Return to the Workplace**

We introduced a rehabilitative attendance system to support a phased return to the workplace of employees who have been off the job for a long time.

**Support for Building Health**

To promote the health of its employees, Kuraray is deploying a companywide program for improvement of life habits under the banner "Health Up Strategy." In this program, each employee sets his or her own goals (for amounts of exercise, eating, etc.) and works to attain them on his or her own initiative. This is part of our wider health promotion strategy.

In our employee health exams, besides testing for the items stipulated in the Industrial Safety and Health Act, we have expanded the applicable age and added items for tackling lifestyle diseases and gynecological testing.

**Logistics Safety**

To prevent damage to society at large due to logistics accidents, we are engaged in an ongoing promotion of activities to ensure logistics safety in the aspects of product shipment and storage. The Logistics Safety Conference, which leads these activities, entered its 12th year, and we conducted

training in fiscal 2012 (two sessions with participation by 19 companies) for people involved in logistics related to the transportation of dangerous substances on subjects concerning safety guidance and transportation contracts at affiliated companies.

**Product Safety**

**Basic Policy on Product Safety**

The Kuraray Group endeavors to contribute to creating an affluent, comfortable society by meeting customer needs through the supply of safe and reliable products.

**Action Guidelines for Product Safety**

- 1 Supply products that meet the level of safety expected by society in compliance with safety-related laws and regulations and on the basis of the latest technologies.
- 2 Minimize any anticipated risk associated with the products we supply.
- 3 Maintain an appropriate quality management system to ensure that all products meet requisite quality and safety standards.
- 4 Provide accurate product information to customers and end users to prevent accidents due to inappropriate use or handling.
- 5 Strive to develop safer products and improve product safety technologies.
- 6 Strive to strengthen information gathering and internal and external cooperative frameworks to ensure and improve product safety and quickly respond to accidents.
- 7 Strive to raise product safety awareness among all employees and develop product safety specialists.

We believe that the provision of safe products is our minimum obligation as a manufacturer, and the first item of the Kuraray Group Code of Conduct (see page 6) points to this idea.

Our specific direction is stated in our Basic Policy on Product Safety and Action Guidelines for Product Safety.

We conduct daily management at the business unit and affiliate level, but we have created a system to confirm that

safety and other risk-related areas are being managed at an acceptable level when we develop and sell products that require Company-wide examination, such as those that are consumed, through working groups led by the CSR Division. In fiscal 2012, we investigated safety measures for sheet heating elements using nano-materials and formulated regulations related to handling nano-materials.

# Approaches to the Environment

—Aiming to Realize a Sustainable Society—

We believe that Kuraray's mission as a material and intermediate material manufacturer is as follows:

- Contributing to society by providing the materials and intermediate materials required for products that are needed to create a low-carbon society and an environmentally conscious society; and
- Production of items with as low an environmental impact as possible.

With this in mind, we are working consistently to implement environmental conservation activities that include promoting measures against global warming, managing chemical substance emissions, and the beneficial use of wastes.

## Environmental Management

### Kuraray Group Action Guidelines for the Global Environment

Kuraray Group has formulated the following basic guidelines and action principles as a basis for engaging in global environmental preservation activities. And we deal with global environmental prevention activities.

#### Basic Guidelines

We fulfill our responsibility to future generations through sustainable corporate activities that are in harmony with the global environment and the local community. In order to achieve these basic guidelines, we will undertake the following activities.

- 1 We will assign the highest priority to the environment and safety in the course of our corporate operations.
- 2 We will work to improve the global environment and ensure its sustainability.
- 3 We will develop technologies and products that contribute to the goal of improving the global environment.

#### Action Principles

- 1 Continual reduction of designated chemical substance emissions into the environment
- 2 Contribution to the prevention of global warming
- 3 Promotion of conservation, reuse and recycling of resources
- 4 Development and supply of technologies for improving the environment and products with low environmental impact
- 5 Utilization of environmentally friendly products
- 6 Public disclosure of environmental information and dialog with the community
- 7 Raising the levels of environmental consciousness and environmental management
- 8 Cooperation with stakeholders

### Environmental Management System

We have formulated the Kuraray Group Action Guidelines for the Global Environment (1993) and the Environmental Action Policy 2013 (Environmental and Industrial Safety Management Center (ESC) Policy 2013), and we are promoting environmental conservation activities pursuant to a PDCA cycle that consists of making action plans, implementing activities, confirming results and reflecting these in plans for the coming fiscal year at every plant and affiliates.

The Kuraray Group's domestic plants and affiliated companies have each attained ISO 14001 certification and are conducting internal audits as well as external audits by an outside examining authority (JQA). Through these audits and examinations, we confirm that the environmental

management system is functioning properly and receive advice on where to make improvements to ensure that it is continually upgraded. On the other hand, the accuracy of the internal audits is influenced by the capabilities of the internal auditors, therefore, we invite an outside instructor to each plant to provide training aimed at improving their capabilities.

In addition, representatives from the ESC visit the domestic Kuraray plants and affiliated companies, and conduct "environmental data audits" to check the measurement data itself in order to confirm that there are no mistakes in the data reported to the state and local government with the objective being to prevent false reporting and the like. In fiscal 2012, these audits were conducted at the Kuraray Saijo Plant, Kuraray Kurashiki Plant and Kuraray Fastening Co., Ltd. and it was confirmed that reporting is being done in an appropriate manner.

Each plant also verifies the status of legal compliance every year pursuant to the environmental management system and in fiscal 2012 it was confirmed that there were no incidences of leaked notifications or false reporting to the state and local government.

Based on "Safety and Environment Examination Standards," the domestic Kuraray Group examines the impact on the environment in advance when introducing new facilities or equipment. In case the new introduction is deemed to cause an environmental impact, we do our best to change the construction method, operating method and materials used.

### Promotion Structure for Environmental Preservation

Kuraray's Company-wide environmental preservation activities are facilitated by the Global Warming Prevention Committee and Environmental and Industrial Safety Committee, both of which were established within the CSR Committee. These committees work primarily on promoting global warming solutions, management of chemical substance emissions, and beneficial use of waste resources. (See the CSR Committee Organizational chart on page 8.)

### Medium-term Environmental Targets

We have formulated medium-term environmental targets aimed at fiscal 2020 relative to the standard fiscal year of 2010. Activities toward these targets were first implemented in fiscal 2011. We introduced the indicator "Environmental Efficiency" as a medium-term target so that we could evaluate quantitatively the effects of our activities.

**\* Environmental Efficiency = Net sales/environmental load**  
 Environmental load: volume of GHG emissions, chemical substance emissions, waste generated, etc.  
 Even if GHG emissions are reduced in the manufacturing process, the absolute amount of emissions will increase as business activities expand, which means that efforts to reduce emissions will not be evaluated appropriately. We introduced "Environmental Efficiency" as an indicator for evaluating how our production activities were efficient based on net sales and environmental load. Our target is to raise this Environmental Efficiency.

### Environmental Targets and Results

Fiscal 2012 evaluation ○: achieved ○: largely achieved △: further effort required

	FY2012				FY2013 target	Medium-term environmental target (FY2020 target)	Achievement rate of medium-term environmental target (to be achieved by FY2020)	Page ref.
	Scope	Target	Actual performances	Evaluation				
Global warming prevention	Domestic Kuraray Group	[Measures to reduce GHG emissions] Implement measures to reduce emissions by 20,000t	• Reduced by 44,000t (YoY) • Improved environmental efficiency (GHG emissions) by 6% compared with FY2010	○	Implement measures to reduce by 20,000t	[Environmental efficiency (GHG emissions)] Improve by 40% compared with FY2010	14%	P18
	Overseas affiliates	[Environmental efficiency (energy consumption)] Improve by 2% compared with FY2010	• Improved environmental efficiency (energy consumption) by 11% compared with FY2010	○	Improve environmental efficiency by 3% compared with FY2010	[Environmental efficiency (energy consumption)] Improve by 10% compared with FY2010	110%	P18
Management of chemical substance emissions	Domestic Kuraray Group	[Management of JClA-designated PRTR substance emissions] Maintain emissions at FY2010 level (1,104t)	• JClA-designated PRTR substance emissions: 991t • Improved environmental efficiency (PRTR substance emissions) by 15% compared with FY2010	○	Maintain emissions at FY2010 level (1,104t)	[Environmental efficiency (JClA-designated PRTR substance emissions)] Improve by 100% compared with FY2010	15%	P19
Reduction of waste	Domestic Kuraray Group	[Measures to reduce waste] Implement measures to reduce waste by the equivalent of 1% (748t) relative to FY2011	• Amount of waste reduced: 3,220t • Improved environmental efficiency (waste generated) by 5% compared with FY2010	○	Implement measures to reduce waste by the equivalent of 1% (728t) relative to FY2012	[Environmental efficiency (waste generated)] Improve by 10% compared with FY2010	50%	P20
	Overseas affiliates	[Environmental efficiency (waste generated)] Improve by 2% compared with FY2010	Environmental efficiency (waste generated): down 8%	△	Improve environmental efficiency by 3% compared with FY2010	[Environmental efficiency (waste generated)] Improve by 10% compared with FY2010	▲80%	P20
Effective utilization of water resources	Domestic Kuraray Group	—	—	—	Review current understanding and usage conditions by fiscal 2014 and judge whether or not to set target values in fiscal 2015	—	—	P20
	Overseas affiliates	[Environmental efficiency (Water consumption: Excludes seawater)] Improve by 2% compared with FY2010	Environmental efficiency (water consumption) on par with FY2010	○	Improve environmental efficiency by 3% compared with FY2010	[Environmental efficiency (water consumption)] Improve by 10% compared with FY2010	0%	P20

\* Almost all electric power and steam is purchased from external sources at Kuraray's overseas affiliated companies. Because the source of supply has a large effect on GHG emissions (changes in emission factor), energy consumption is evaluated without incorporating the impact of the supply source in order to properly evaluate the activities of our overseas affiliated companies.

## Global Warming Prevention

**Medium-term Environmental Target**

- Improve environmental efficiency (GHG emissions) by 40% by FY2020 (domestic Group; compared with FY2010)
- Improve environmental efficiency (energy consumption) by 10% by FY2020 (overseas affiliated companies; compared with FY2010)

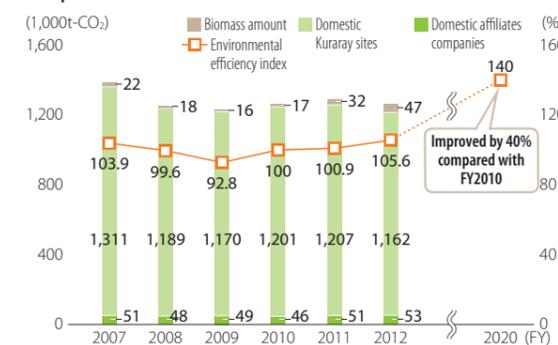
In fiscal 2012, domestic Kuraray Group and overseas affiliated companies improved upon the benchmark standard of 100 (FY2010) with results of 106 and 111, respectively. In particular, overseas affiliated companies have already achieved the target set for fiscal 2020. Also, in fiscal 2012, not only Environmental Efficiency was improved but GHG emissions (absolute value) were reduced overall year on year, despite an increase in GHG emissions relative to purchase electricity due to the halting of nuclear power generation plant in Japan. These results can be attributed to expansion of biomass fuel use, the start of operation for high-efficiency gas engine power generation equipment, the introduction of energy saving equipment and a review of operating conditions for manufacturing facilities.

Results for GHG emissions and energy consumption in fiscal 2012 were as follows.

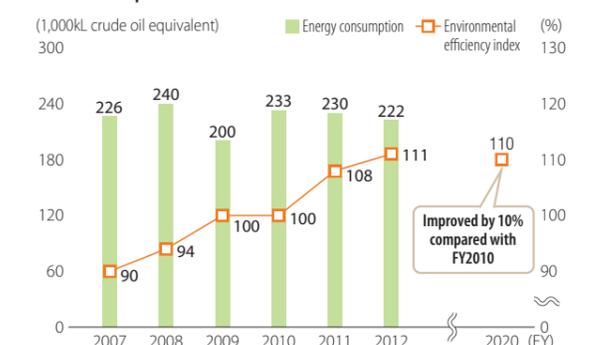
<b>Domestic Kuraray Group</b>	Total: 1,215,000t-CO <sub>2</sub> (FY2011: 1,258,000t-CO <sub>2</sub> )
<b>Overseas affiliated companies</b>	222,000kL (crude oil equivalent) (2011: 230,000kL (crude oil equivalent))

In addition, in fiscal 2012 we implemented measures to reduce GHG emissions and managed to reduce the amount by approximately 44,000t compared with fiscal 2011, which is significantly higher than our single-year target of 20,000t.

GHG Emissions and Environmental Efficiency Index at Domestic Kuraray Group



Energy Consumption and Environmental Efficiency Index at Overseas Affiliated Companies



### Evaluating the Contribution of CO<sub>2</sub> Reductions throughout the Lifecycle of Products using Kuraray Group Materials

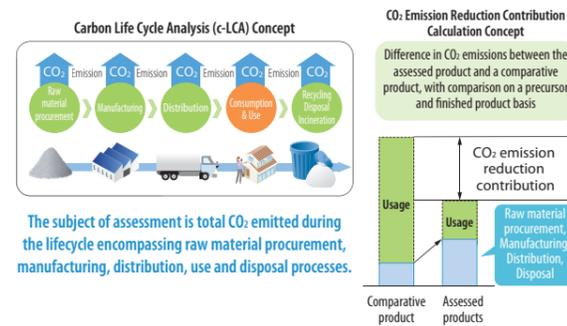
In fiscal 2012, we began assessing our contribution to reducing GHG in the product lifecycle from raw material procurement to disposal. As a result, we enabled assessment of the degree to which we contribute to reducing GHG emissions at the manufacturing stage through to the final disposal of the products we make.

EVAL gas barrier resin is one of our representative products. In fiscal 2012, we assessed the three applications of automobile fuel tanks, food package (bottles) and refrigerator vacuum insulating panels, and realized that EVAL contributes to reducing annual CO<sub>2</sub> emissions in Japan by approximately 255 thousand tons. The total amount of contribution to CO<sub>2</sub>

Finished Product Subject to Assessment	CO <sub>2</sub> Emission Reduction Effect
Automobile plastic fuel tank	Total of 255,000t-CO <sub>2</sub>
Food containers (bottles)	
Refrigerator vacuum insulation panels	

Source: CO<sub>2</sub> Reduction Contribution Assessment Consulting Report (Mizuho Information & Research Institute, Inc., May 2013)

### The Carbon Life Cycle Analysis Assessment Method (Method for Calculating the Amount of CO<sub>2</sub> Emission Reduction Contribution)



Source: "Lifecycle Analysis of Chemical Products in Japan," Innovation for Greenhouse Gas Reductions, Japan Chemical Industry Association

emission reduction was equivalent to approximately 21% of the Kuraray Group's domestic GHG emissions in fiscal 2012.

In addition, the reduction contribution is equivalent to about 250kg of CO<sub>2</sub> per kilogram of EVAL products. Therefore, EVAL's reduction contribution is about 30 times greater than the approximately 8 kilograms of CO<sub>2</sub> emitted per kilogram during manufacture and disposal by incineration.

Going forward, we plan to evaluate other products and publish the results on our CSR Report and elsewhere.

### Biomass Fuel Power Generation and High-efficiency Gas Engine Power Generation

The Kuraray Kurashiki Plant (Tamashima) has introduced biomass fuel (construction waste material) as a substitute fuel for coal for their power generation plant. They are expanding the amount of biomass fuel gradually. In fiscal 2012, they optimized their operating conditions for the fuel injection system and expanded supply source. As a result, the biomass fuel injection amount increased over 10,000 tons compared with the previous year and that contributed to reducing GHG emissions by 15,400t-CO<sub>2</sub>. The plant intends to invest capital into the further reduction of GHG emissions.

On the other hand, the Kuraray Niigata Plant introduced and started operating the high-efficiency gas-engine power generation facility in fiscal 2011, which uses natural gas as fuel, and in fiscal 2012, this facility contributed significantly to GHG reduction, since its GHG reduction effects were developed on a year-round basis.

### Reducing Environmental Load during Product Transportation

Besides striving to reduce GHG emitted during the production processes at our plants, we are also doing our best to minimize environmental load at the logistics stage when transporting products to users. We worked on making a modal shift from trucks to rail or sea transport, and since fiscal 2010 we have gradually reduced GHG and nitrogen oxide emissions during transportation.

## Reduction and Effective Use of Waste and Reduction at Landfill

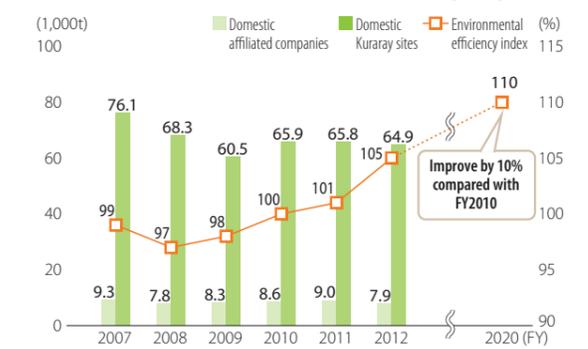
Medium-term Environmental Target

● Improve environmental efficiency (waste generated) by 10% by FY2020 (both of domestic Kuraray Group and overseas affiliated companies; compared with FY2010)

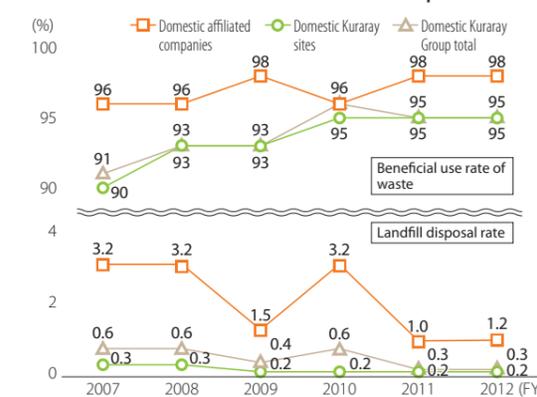
Since fiscal 2007, the domestic Kuraray Group has maintained a level of more than 90% for beneficial use of waste and less than 1% for landfill disposal. In fiscal 2012, the beneficial wastes use rate was 95% and the landfill disposal rate was 0.3%. We have achieved a reduction of 3,220t waste generation, so we have achieved the fiscal year 2012 target, which was a reduction equivalent to 1% of the waste generated in fiscal year 2011 (748t). With regard to our medium-term environmental target, we have made a 5% improvement in fiscal 2012 compared with fiscal 2010. We have reached a level exceeding our schedule.

In terms of overseas affiliated companies, Environmental Efficiency was down 8% compared to fiscal 2010 and waste material increased due mainly to production expansion. Going forward, we will focus on trends and strive to optimize operating conditions and reuse resources in order to achieve our medium-term environmental target.

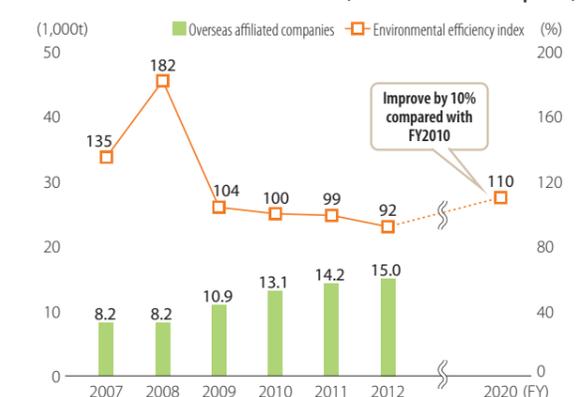
Trends in the Amount of Waste Generated (Domestic Group Companies)



Trends in Rates of Beneficial Waste Use and Landfill Disposal



Trends in the Amount of Waste Generation (Overseas Affiliated Companies)



## Management of Chemical Substance Emissions

Medium-term Environmental Target

● Improve environmental efficiency (chemical substance emissions) by 100% by FY2020 (domestic Kuraray Group; compared with FY2010)

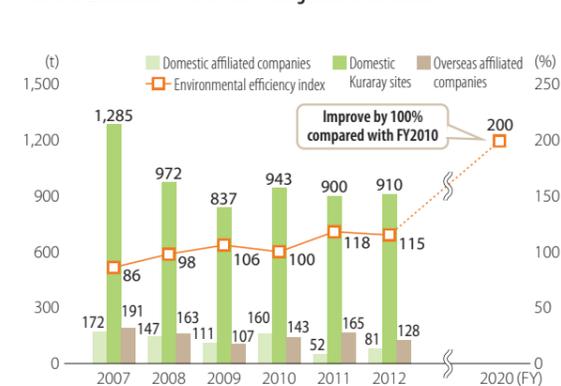
Based on the Law concerning Pollutant Release and Transfer Register (PRTR Law), Kuraray's domestic plants and affiliated companies investigate and figure out the amount of annual emissions of object chemical substances and report the information to the government. In addition, we also figure out and publish emissions of chemical substances set forth by Japan Chemical Industry Association (JCIA) on our website and elsewhere, that are not subject to the PRTR Law.

In fiscal 2012, we improved environmental efficiency by 15% compared with fiscal 2010. JCIA-designated PRTR substance emissions increased slightly with results of 910t at domestic Kuraray plants (up 10t YoY) and 81t at domestic affiliated companies (up 29t YoY). This was due to an increase in consumption of relevant chemical substances owing to our production expansion.

Overseas affiliated companies are also working to reduce emissions in line with the regulations of the respective regions

they are located, and in fiscal 2012, emissions amounted to 128t (down 37t YoY).

Trends in Emissions of JCIA's PRTR-designated Substances



## Effective Utilization of Water Resources

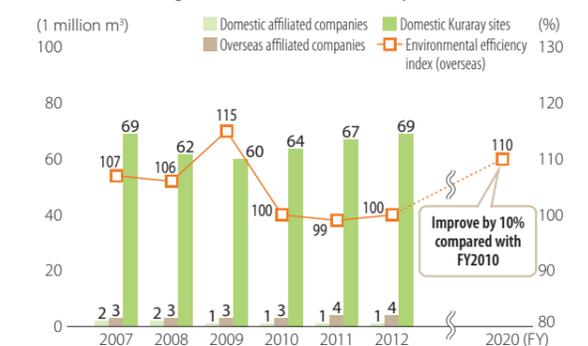
Medium-term Environmental Target

● Improve environmental efficiency (water consumption) by 10% by FY2020 (overseas affiliated companies)

The Kuraray Group, including overseas affiliated companies, does not conduct production activities in regions that have only poor water resources. We are considering that water is a limited resource and have stated the effective utilization of water resources as one of our medium-term environmental targets.

At domestic Kuraray plants, we have seen a trend of water consumption (excluding seawater) gradually increasing since fiscal 2009. As such, we are planning to identify and investigate conditions by fiscal 2014 and decide whether we should formulate a quantitative target in fiscal 2015. At overseas affiliated companies, there has been no major change in consumption compared to fiscal 2011. These companies aim to improve environmental efficiency by 10% by 2020 (compared with FY2010).

Trends in Water Usage and Environmental Efficiency



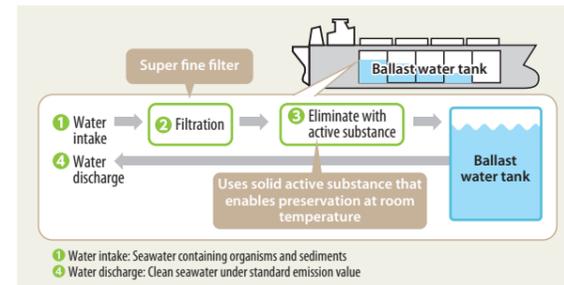
## Provision of Products that Contribute to the Biodiversity Conservation

Kuraray has formulated an Action Policy for Biodiversity Conservation and is promoting the development of technologies and products that contribute to biodiversity conservation. As an example, we gained type approval certification from the Japanese government on May 30, 2012 for MICROFADE, a ballast water\* management system, and started sales in earnest.

MICROFADE is a hybrid system that removes organisms through high-precision filtration, and remaining small organisms are eliminated by infusing low concentrations of active substances. This enables the purification of ballast water and provides high expectations as a product that can contribute to the preservation of biodiversity.

The International Maritime Organization (IMO) adopted the Ballast Water Management Convention in February 2004, which requires all ships to install a ballast water management system.

### Ballast Water Management System



\* **Ballast water**, consisting of sea water that is drawn into ballast water tanks in order to maintain balance on cargo ships after unloading cargo, is often taken from a port in one country and discharged at a port in another. The resulting disruption of local ecological systems following the introduction of foreign plant and animal species contained within ballast water has become an international problem.

### Action Policy for Biodiversity Conservation

#### 1. Promote biodiversity conservation

- 1 Assess and evaluate the business impact for biodiversity in land owned.
- 2 Avoid the damage to biodiversity associated with business and restore biodiversity that has been damaged.
- 3 Conduct an environmental assessment when we are planning construction that exceeds legally set standards.

#### 2. Awareness raising and education

- 1 Promote awareness raising and education for stakeholders, including our employees.
- 2 Provide education on biodiversity that should be considered when we are conducting business.

#### 3. Support activities

- 1 Connect with company volunteers and stakeholders, and evaluate and support their activities.
- 2 Publish information related to biodiversity conservation and communicate about it with stakeholders.

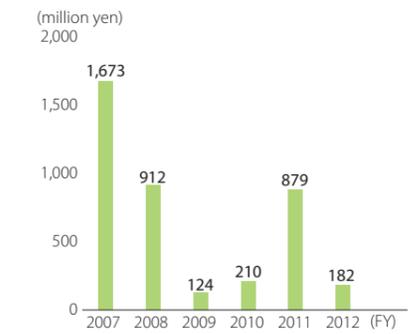
## Environmental Accounting

- Total investment during the reporting period: 32.4 billion yen
- Total R&D costs during the reporting period: 12.8 billion yen

### Environmental Preservation Costs (million yen)

Category	Investments	Cost	Principal activities	
Costs within the sites	Pollution prevention costs	219	1,381	Operating cost of environmental facilities, measures to prevent emissions of toxic chemical substances
	Global environmental preservation costs	222	14	Cost of energy conservation activities
	Resource recycling costs	79	636	Recycling costs and waste processing costs
	Total	519	2,031	
Upstream and downstream costs	—	109	Recycling and reuse of packaging materials, improvement of container packaging	
Administrative costs	75	127	ISO 14001, environmental measurements, environmental education	
Research and development costs	3	148	Development of environmentally friendly products	
Social activity costs	—	0	Afforestation, beautification, provision of environmental information to host community residents	
Environmental damage costs	—	0		
Total	597	2,415		

### Investment in Environmental Facilities

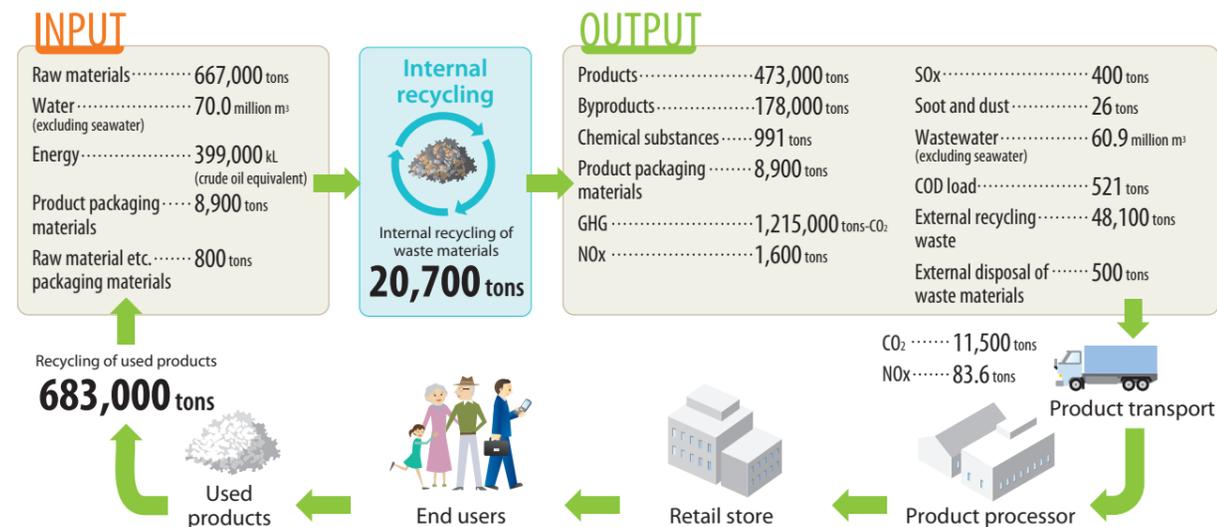


The Kuraray Group made large-scale investment in environmental facilities for a few years prior to fiscal 2007 and large projects have already been completed. As a result, the amount of investment in environmental facilities has decreased since fiscal 2008.

## Material Flow in Business Activities (Fiscal 2012)

The Kuraray Group uses large amounts of energy, chemical substances, and water resources in the course of our business activities. We make quantitative surveys of used resources and

emitted substances, and use this information to minimize the environmental load associated with our business activities.



### Environmental Preservation Effects

Category	Unit	FY2010	FY2011	FY2012	Difference
Pollution prevention effect	SOx emissions	430	375	351	▲24
	NOx emissions	1,528	1,516	1,556	40
	Soot and dust emissions	27	22	22	▲0
	PRTR substance emissions	943	900	910	10
	COD load	583	573	520	▲53
Global environment preservation activities	GHG emissions	1,201	1,207	1,162	▲45
	Energy consumption	407	419	386	▲33
Resource recycling activities	Unutilized externally processed industrial waste	422	511	345	▲166
	Rate of effective waste utilization	95.5	95.1	94.8	▲0.3
	Water resource usage*	64	67	69	2
	Total discharge of wastewater*	59	60	60	0

\* Excluding seawater

- 1 Basis for environmental accounting calculations
  - Reporting period: April 1, 2012 to March 31, 2013
  - Scope covered: Kuraray sites
- 2 Environmental preservation cost calculation criteria
  - Depreciation: Straight-line method
  - Standard for allocating costs: In principle, 100% of costs are allocated to individual environmental preservation items. However, a portion of costs is allocated on a pro rata basis.
- 3 Standard for calculating environmental preservation effects
  - Effects are calculated in a simple comparison with the total environmental load of the previous fiscal year and are not adjusted for production volume.
- 4 Standard for calculating economic effects (benefits) of environmental preservation measures
  - Although material effects such as income from recycling are known, benefits are deducted from environmental preservation costs.

Please see our website for the full set of environmental data.

# Approaches with the Community

We in the Kuraray Group consider the sound and sustainable advancement of society a precondition for corporate growth and prosperity, as well as the ultimate objective of corporate activities. It goes without saying that we see it as our duty to contribute to society through provision of products of genuine value to people. Beyond this, we consider assistance with the resolution of social issues within an appropriate scope to be another important form of social contribution in our capacity as a corporate citizen.

## Social Contribution Activities

### Kuraray Group Policy for Social Contribution Activities

For fulfilling its responsibilities as a member of society, the Kuraray Group shall make vigorous approaches to social contribution activities in accordance with the following policy.

#### Types of Activities

- Activities that lead to a resolution of social problems and issues
- Activities rooted in local communities hosting Kuraray establishments worldwide
- Activities emphasizing participation by employees on their own initiative
- Activities that are sustainable in the long term

#### Areas of Activities

- Priority areas: culture, science, environment, and social welfare

## Science

### Chemistry Classes for Boys and Girls

Kuraray conducts the "Chemistry Classes for Boys and Girls" program with the goal of enabling elementary school students to experience the fun of chemistry through hands-on experiments.

From 1992, this program has been held every year at each plant, and Kuraray employees volunteer to serve as instructors or assistants to conduct classes at special classrooms on plant premises and at local elementary schools and public facilities. In fiscal 2012, a total of 351 children participated in 11 sessions. Since 2002, we have been exhibiting at Dream Chemistry-21, a chemistry experiment show for children held by the Japan Chemical Industry Association. In fiscal 2012, our experiment for production of



Fun Chemistry Class (Kashima Plant)

#### Chemistry Classes for Boys and Girls Held

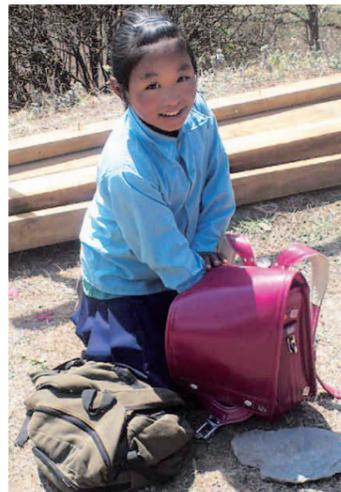
Plant	Class name	Number of classes to date	Number of participants to date
Kurashiki Plant	Fun Chemistry House	61	1,701
Saijo Plant	Exciting Chemistry Class	59	1,754
Okayama Plant	Fun Chemistry Class	36	1,188
Niigata Plant	Wondrous Laboratory	46	1,447
Kashima Plant	Fun Chemistry Class	13	1,001
<b>Total</b>		<b>215</b>	<b>7,091</b>

aromatics using highly water-absorbent resin attracted the participation of about 1,600 children and their parents.

### Sending School Bags across the Sea

"Sending School Bags across the Sea" is an annual program of international cooperation under which we send school bags once used by Japanese elementary school students, along with school supplies and letters, to children in Afghanistan and other countries where wartime devastation has robbed them of schooling opportunities.

The year 2012 marked the ninth year since the start of the program in 2004. The program has been steadily expanding and we received some 10,000 school bags from all parts of the country in 2012. Filled with the good wishes of the children, the bags are sorted and packed by the members of the JOICFP (Japanese Organization for International Cooperation in Family Planning) and other affiliated groups as well as Kuraray Group employees, before being sent overseas with the cooperation of many other volunteers. This year, we again delivered bags to children in need of them.



Child in Nepal (Photo courtesy of the Akita Prefectural University Himalaya Project)

In efforts to widen the scope of our activities, we continued to participate in the Himalaya Project held at Akita Prefectural University to bring electric lights to elementary schools in Himalayan villages. Through this project, we presented school bags and stationery supplies to Nepalese children.



Children in Afghanistan (Photo courtesy of JOICFP)

### Organized Sports Festival

Kurashiki Plant, Okayama Plant and Niigata Plant are committed to the sound development of children in the region, and among other initiatives, organize a sports festival for local elementary and junior high school children that includes softball, soccer and soft tennis.



Children's ball games festival in Konan (Okayama Plant)

## Social Welfare

### Support for Independent Life of the Mentally Challenged

To help those with disabilities lead self-sufficient lives by providing them with opportunities for employment, Kuraray sets up workplaces especially for the mentally challenged in coordination with local welfare facilities.

The Kuraray Workshop at the Niigata Plant opened its doors as a place of work for the mentally challenged in 1997, with the cooperation of Nakajo town (the current city of Tainai) and the Nanahokai social welfare organization's "Niji-no-ie." Employees at the workshop perform sorting for recycling of scrap material generated in production processes and produce articles. At the Himawari Workshop, which opened on the grounds of the Saijo Plant in 2007, employees engage in recovery and weighing work required for recycling of leftover fiber generated in production processes.

In 2011, we also opened Aozora Works at our Kashima Plant with the help of the social welfare organization Kamisu Kei-ien. The workers there have begun making bags for packaging liquid resin.

With the inclusion of those engaged in the tasks of cleaning work clothes and affixing labels to dental materials at our Kurashiki Plant, we employ 10 instructors and 36 workers with disabilities at a total of four locations.



Workers from the Kuraray Workshop at the Niigata Plant

### Support for Medical and Welfare Facilities

Magosaburo Ohara, our founder, also helped to pioneer philanthropy in Japan, and was involved in the establishment of numerous medical and welfare facilities. As part of its social contribution activities, the Kuraray Group continues to offer support in the management aspect to the Ishii Memorial Aizen-en, Kurashiki Central Hospital, and Doushinkai Saijo Central Hospital. In addition, we operate a nursing facility for the aged using welfare facilities in our plants.



Kurashiki Central Hospital



Saijo Central Hospital

**Child Welfare**

Kuraray Europe participates in the "Christmas in a Shoe Box" campaign. Presents like toys, clothes and sweets are placed inside an empty shoe box and given to poor children who live in Eastern European countries. In fiscal 2012, 145 gift boxes were given out while the company also paid for a portion of the transportation and Christmas party subsidy.



A happy child after receiving a gift (Kuraray Europe)

**Environment**

**Activities for the Conservation of Nature**

Volunteers from Kuraray plants join with local government and NPOs to conduct activities aimed at conserving forests. We also continue to participate in a tree-planting activity at Mount Fuji cosponsored by the labor union. Fiscal 2012 marked the seventh such event and had up to 328 people from Kuraray plants nationwide taking part.

Overseas, Kuraray Asia Pacific participates in a tree-planting activity in a park owned by the Singapore government.



Planting trees on Mount Fuji



Planting trees in Singapore (Kuraray Asia Pacific)

**Environmental Education**

Kurashiki Plant sends employees to local elementary schools to provide environmental education. In fiscal 2012, we gave a lecture on the importance of water resources and provided a hands-on learning experience at two elementary schools that involved purifying water and making a fiber from recycled polyethylene terephthalate resin.



Children participate in environmental education at their school (Kuraray Plant)

**Environmental Photo Contest**

Kuraray Trading has been holding a "Children's Eco-Talk Photo Contest" for elementary school children in conjunction with the Japan Professional Photographers Society with the idea of getting them interested in the environment by taking eco-related photos in their daily lives.

The winner of the contest is invited to a parent-child camp in the summer holidays, which provides the opportunity to learn about nature by spending time in the outdoors.



Parent-child camp (Kuraray Trading)

**"Okayama Adopt" Activity (see page 12)**

Kuraray Chemical's Tsurumi Plant holds clean-up activities as part of their social contribution program and since fiscal 2012 has been participating in a new initiative upon approval as a contributing action group for "Okayama Adopt." This activity revolves around cleaning up and beautifying roads, rivers, coastline and parks managed by Okayama Prefecture more than a set number of times a year. In fiscal 2012, a total of 189 people took part in the five road cleanup events in a bid to make the region cleaner and more beautiful.



"Okayama Adopt" Activity (Kuraray Chemical)

**Culture**

**Cultural Support Activity**

Kuraray continues to support the Ohara Museum of Art, which was established by Magosaburo Ohara, the first president of the company (see page 31).

Kuraray Techno has tied up with the Museum and regularly holds an event called My Museum Book (participants make a story and complete a picture book using pictures that the museum has) and contributes to the spread of art and culture through a lecture presentation on art for adults.



My Museum Book event (Kuraray Techno)

**CSR Procurement**

**CSR Procurement Policy of Kuraray**

Kuraray shall deal with companies that practice CSR.

**1. Respect for Human Rights**

- ① Respect for human rights and individuality
- ② Observance of the International Labor Organization's core labor standards
  - Guarantee of the right to organize and the right to collective bargaining
  - Prohibition of compulsory labor
  - Prohibition of child labor

**2. Compliance**

- Compliance policy
- Compliance systems
- Compliance education program

**3. Promotion of Green Procurement**

- Preparation of environmental policies and environmental reports
- Green procurement implementation plan and implementation apparatus
- ISO 14001 certification
- Education and awareness campaign for green procurement

**Philosophy on CSR Procurement**

Kuraray procures equipment, materials and services from over 2,000 business partners.

We make sure each business partner understands our management philosophy and CSR Procurement Policy so that we can practice CSR procurement together.

**History of Kuraray's CSR Procurement Activities**

**Promotes Green Procurement to Business Partners (2002~)**

We formulated our Green Procurement Standards in 2002 and distributed a booklet comprising these standards to 800 key business partners. We also started evaluating the status of initiatives at each company by way of a checklist.

**Develops into CSR Procurement (2005~)**

In 2005, we formulated a more comprehensive Kuraray CSR Procurement Policy, which adds sections on "Respect for human rights and individuality" and "Compliance" to the "Promotion of Green Procurement" section.

We request the understanding of this policy from business partners and started evaluating the CSR procurement activities of around 700 companies by conducting a survey. We provide support through interviews on an individual basis for items deemed inadequate and take other measures to boost CSR procurement together with our business partners.



Green Procurement Standards

**Kuraray's Green Product Purchasing**

In 2002, Kuraray formulated Green Purchasing Guidelines for 107 items (stationery, OA equipment, automobiles, etc.) under nine categories required for business activities and makes effort to preferentially purchase environmentally friendly (green) products.

# Approaches in the Workplace

Through the Kuraray Group Global Human Resources (HR) Policy, Kuraray Group is making efforts to develop its organizational system regarding the promotion of diversity, fostering of human resources, and fair and just evaluation of performances, as well as establishing a healthy corporate culture and creating new employment opportunities, so that each employee can work in a way which leads to personal growth through the fulfillment of his or her duties.

## The Kuraray Group Global HR Policy

### 1 We will respect the human rights of individuals.

Based upon our Corporate Philosophy, "Respect for individuals," we will respect the individual character and the human rights of all people working in the Group. Any abuse of human rights, such as sexual harassment, bullying, child labor, forced labor and so on, should be eliminated.

### 2 We will abolish discrimination and respect diversity and individuality.

In all aspects of HR activities, including hiring, treatment, personnel development, assignment and evaluation, no distinction unrelated to work ability and performance, nor discrimination based upon individual attributes such as race, nationality, gender or beliefs, shall be allowed. We will esteem and promote diversity that accepts the personal traits, culture and worldview of people from various nations.

### 3 We will carry out our HR activities in full compliance with applicable laws and regulations.

We will strictly comply with applicable laws and regulations of each country in carrying out the implementation of personnel policies.

### 4 We will create HR systems that uphold equality, fairness and transparency.

In implementing our HR policies, we will give full consideration to equality, fairness and transparency, and will seek due satisfaction to all of the Group employees.

### 5 We will strive to improve the environment of workplaces.

From the perspective of occupational health and safety, we will strive to maintain working environments that enable people to work safely and with regard for their physical and mental health.

### 6 We will strive to employ personnel who are able to contribute to the development of the Kuraray Group.

We will employ people who are highly skilled and knowledgeable, and who possess a sound sense of morals and ethics, as well as the desire to make significant contributions to the development of the Kuraray Group.

### 7 We will place the right person in the right job.

We will place each individual in its right job, in due consideration of capabilities, knowledge, suitability and skill development, with an aim to maximizing operational contributions and job satisfaction.

### 8 We will implement evaluation and benefits systems that are fairly satisfactory.

We shall implement an evaluation and benefits systems that is fairly satisfactory to employees, with a focus on job description, exercise of potential, performance, attitude and action through dialogue with evaluations.

### 9 We will support professional development.

We will provide an appropriate level of support for job skill development with a focus on development through performance of individual works.

### 10 We will foster communication and maintain appropriate levels of disclosure.

So that all Kuraray Group personnel may possess a sense of unity in working toward the fulfillment of a shared mission, we will provide appropriate levels of disclosure and conduct direct and indirect communications with them.

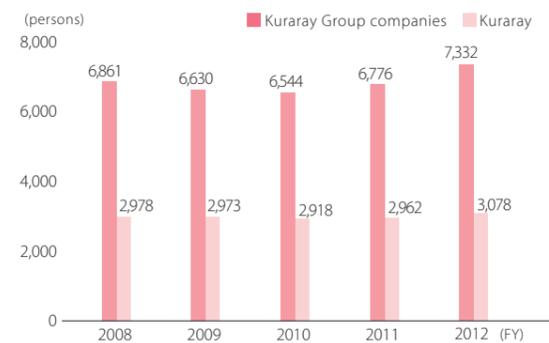
## Basic Employee Data

Number of Employees As of March 31, 2013

	Total	Male	Female
Kuraray Group as a whole	7,332	6,258	1,074
Kuraray only	3,078	2,796	282

\* Group = consolidated subsidiaries

### Trends in the Number of Employees

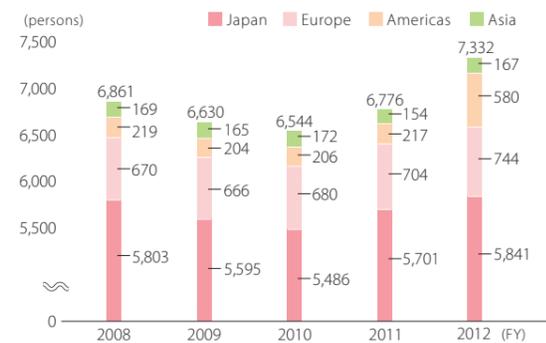


Employee Turnover Rate FY2012

	Number of those leaving employment	Turnover rate
Personal reasons	23	0.6%
Retirement	89	2.1%

\* Turnover rate = Number of those leaving employment by cause/Number of Kuraray's employees at the beginning of the fiscal period

### Trends in Number of Employees by Region

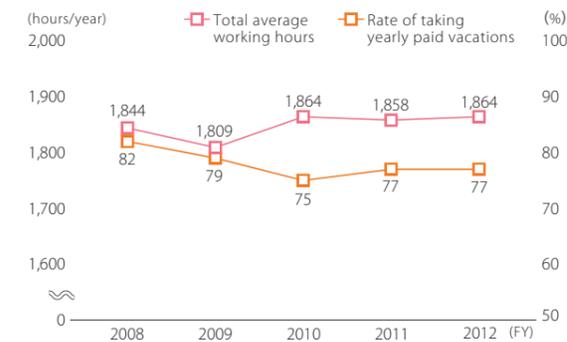


## Diversity and Work-Life Balance

### Employment Systems and Average Working Hours

Kuraray has instituted systems for flexibility in employment. The main such systems are discretionary labor systems for adaptation to the nature of individual work, the "de facto working hour" system for out-of office work, and variable working hours. We also have no-overtime days and are striving to improve the rate of taking yearly paid vacations.

Trends in Total Average Working Hours and Rate of Taking Yearly Paid Vacations (Kuraray)



### Leave for Childcare and Nursing Care

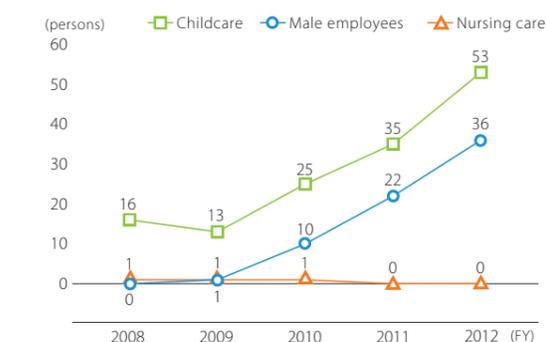
Kuraray has introduced a system to support childcare and nursing care by employees as infrastructure to support a good work-life balance.

In consideration of the timing of admission into a day-care center, employees are allowed to take childcare leave either until the end of April in the year after the child turns one or until the child is one year and six months old, whichever is longer. We recommend male employees to take childcare leave to encourage more fathers to get involved in child rearing.

Employees can also use our reduced working hour system for childcare up to the point when the child finishes the third year of elementary school. Almost all of the female employees who have children avail themselves of these systems.

Provisions for leave and reduced working hours for nursing care up to one year each, for a total of two years maximum, are available to employees.

### Number of Employees Taking Leave for Childcare/Nursing Care (Kuraray)



Kuraray was certified by the Minister of Health, Labour and Welfare upon achievement of its action plan in accordance with the Act on Advancement of Measures to Support Raising Next-Generation Children in March 2007 and March 2009. (As of August 2013; applied for certification for the third time in March 2013)



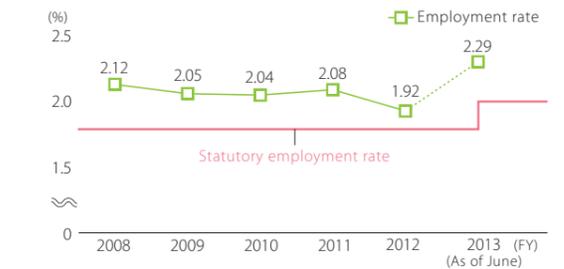
### Re-employment System for Retirees

We have devised a re-employment system for people who had to retire for such reasons as childcare, nursing care or transfer of spouse's place of work and who would like to return to work.

### Employment of Disabled Persons

Kuraray not only attains the statutory employment rate but also has taken other action to help the disabled lead self-sufficient lives, such as the establishment of workplaces especially for the mentally challenged in coordination with local welfare facilities (see page 24).

Rate of Employment of Disabled Persons (Kuraray)



\* The statutory employment rate for disabled persons was revised from 1.8% to 2.0% in April 2013. The rate of employment of disabled persons at Kuraray was 2.29% as of June 1, 2013.

### Other Provisions

#### 1 Support for Social Contribution

Kuraray employees may use accumulated yearly paid vacations, which ordinarily lapses with the prescribed passage of time, as special vacations (up to 60 days a year) for social contribution activities. We have also made provisions for social contribution leave, and support diverse activities of this type by our employees.

#### 2 Refresh Vacations

On the occasion of commendation for 25 years of continuous service, employees may choose to receive a travel voucher for an award. In this case, they may take special vacations to go on a trip with this voucher.

#### 3 Life Planning Support

Kuraray offers employees life planning courses for each stage of life. We have also introduced web tools that are tailored to our wage and retirement benefit systems so that employees can simulate their future income and expenditure at home.

## Human Resource Development and Assessment

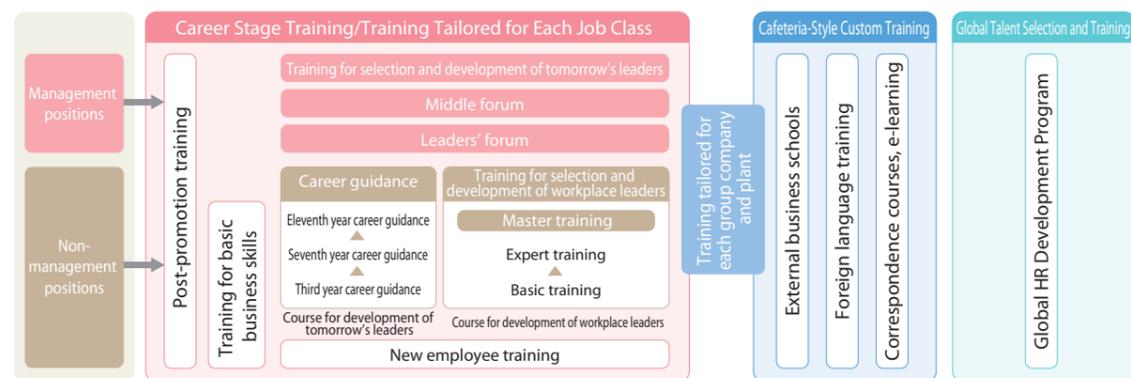
For the domestic Kuraray Group companies, we have established a companywide training scheme to support acquisition of the knowledge and skills required for jobs and career-building efforts by employees themselves.

The training is open not only to regular employees but also part-time and contract-based ones, as necessary. In addition, Kuraray plants and domestic group companies plan and

implement their own training programs and provide their employees with finely tuned support for skill development and career-building.

Kuraray also has an incentive system under which it furnishes grants for acquisition of certain public qualifications by employees for their own self-improvement.

### Kuraray Group Training Scheme



### Global HR Development Program

The ratio of overseas sales in the Kuraray Group in fiscal 2012 was 50% and roughly 20% of all employees are working overseas. In order to further accelerate global growth in the Kuraray Group, we believe our urgent tasks are to boost global responsiveness of human resources, foster consistent management awareness throughout the Group, promote sharing of the Kuraray DNA and develop personnel that can play active roles on the global stage. We started a Global Human Resource (HR) Development Program in fiscal 2007

and are planning and conducting a variety of different types of training. Over 400 people from Japan and abroad took part in several trainings between fiscal 2007 and fiscal 2012, including Global Team Training (GTT) for training in a group at respective sites overseas and a "trainee" scheme in which employees are sent for training to Group companies in Japan and overseas. We will continue with the program every year going forward and make revisions to it as necessary.

### Global HR Development Program



### Start of Executive Management Training

The Kuraray Group started training for upper management and other managers, including those from overseas, in fiscal 2012. A total of 20 people received training in the first course, including five from overseas, which was held in Singapore for around a week using a training institute.

### Accepting People for Overseas Internships

Kuraray accepts internships from universities in Japan and overseas.

The purpose of the internships differs depending on the division involved, but one of the main objectives is to build and strengthen relationships with universities worldwide while nurturing students that can play a role in the future of the chemical industry. We also aim to greatly increase motivation among employees who accept the internships.

Below, we introduce the thoughts of Inga Nol, who came to Japan from RWTH Aachen University in Germany in 2012 and completed a 10-week internship at the Fibers and Textile Company.

### A Fair, Impartial, and Transparent HR System

Kuraray has instituted a personnel system in which elements such as improvement of job execution capabilities, performance, roles, and spirit to challenge demanding targets (as opposed to seniority and personal factors) are reflected in remuneration.

Specifically, we instituted a scheme of role ranks for management positions, under which remuneration slides with the role and performance, and one of skill qualifications for ordinary employees, under which remuneration reflects the extent of skills and performance. Wages and bonuses are determined on the basis of these schemes. We have also incorporated a scheme whereby personnel can change education courses to suit their desired career paths.

With regard to personnel evaluation, we instituted a scheme of target-based management in which actual employee performance is rated with reference to targets for duties and skill development set through consultation with superiors. We also provide ongoing training for personnel making the evaluations.

In addition, we periodically conduct surveys of employee awareness to ascertain how employees feel about their job and workplace, and what changes they would like to see. We use the findings for improvement of schemes and the workplace environment.

### Comment from an Intern

The 10 weeks I spent as an intern at Kuraray were very fulfilling from a number of different perspectives. I got to put into practice the theories I learned at university, and also got to learn marketing skills, which provided me with a lot of valuable experience. From a personal viewpoint, the internship at Kuraray gave me the chance to learn a lot about Japanese culture and life, which helped to broaden my own possibilities. I experienced another internship when I was an undergraduate, but compared to that the internship at Kuraray let me have much more responsibility. I even had my own project, and learned how to implement it properly. That experience will be an excellent reference for my career going forward.

The internship was also a great opportunity to know what it's like to work in the textile industry outside Germany.



## Relations with Workers Unions

Employees of Kuraray belong to the Kuraray Workers Union and the Federation of Kuraray Workers Unions, which is composed of all workers unions for Kuraray Group employees. Through venues such as labor management councils and

councils on occupational safety and health, we engage in earnest consultation with representatives of these unions on various issues and work for their resolution through mutual cooperation.

# Kuraray's Excellent Point of Origin

Visiting associate professor Reiko KANEDA of the Institute of Global & Local Cultures, Waseda University, who is conducting ongoing research from the perspective of leadership in corporate management related to the modernization of Japan, writes about the management philosophy of Kuraray's founder Magosaburo OHARA and his son, the company's second president, Soichiro OHARA, and the expectations for Kuraray to pass on these origins.



Magosaburo OHARA

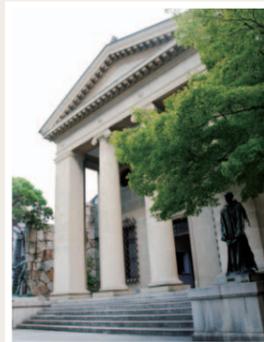


Soichiro OHARA

Kuraray has an excellent point of origin.

The term "point of origin" used here refers to the management philosophy to be "out of the ordinary" that has been passed down from the founder, Magosaburo OHARA, and the second-generation president Soichiro OHARA. Every company has a founder and a point of origin. And it's clear that it wasn't only Magosaburo and Soichiro OHARA who provided the excellent point of origin. However, the Marxian economist Hyoe Ouchi was of the view that although Magosaburo OHARA was not as major a businessperson as Yataro Iwasaki or Zenjiro Yasuda, he was a great businessperson whose results exceeded most large companies such as Mitsui and Mitsubishi and other businesspeople in terms of using the wealth he made for non-profit purposes, which serves as a legacy that deserves to be passed down through the generations.

Magosaburo was actually a pioneer in the steps he took to guarantee the happiness, health, safety, hygiene and motivation of workers in the company he ran in an era characterized by worker migration into the city, which marked the turning point from an agrarian economy to a capitalist economy and by disparity between the "haves" and "have-nots." He also made efforts to develop



The Ohara Museum of Art

infrastructure and business in the Kurashiki and Okayama region, and based on a desire to resolve social problems in advance using scientific and rational methods, he established the Ohara Institute for Agricultural Research, the Ohara Institute for Social Research, Kurashiki Institute for Science of

Labour (currently the Institute of Plant Science and Resources, Okayama University, the Ohara Institute for Social Research, Hosei University, and the Institute for Science of Labour, respectively), as well as Kurashiki Central Hospital, Ohara Museum of Art and Wakatake no Sono (day-care center). In addition, he established the Ishii Memorial Aizen-en. This organization is aimed at continuously and systematically implementing settlement activities organized by researchers who settled in a poorer part of Osaka to resolve problems facing people in this area.

Magosaburo set his sights on creating a better society, not just within the company he ran, but also for the communities of Kurashiki, his hometown, Okayama, and even for Japan and the world.

Soichiro, his only son who took over the business, was seen as a completely different type of manager to his father, and was known as "the flower of the Kansai business community and a beautiful businessperson" by Konosuke Matsushita and as "a cultural figure" by others. But the father and son also had a lot in common. The most representative of these was their negation of a profit-only mentality, or economics that ignored the people.

Soichiro strongly asserted the idea that a company must not exist solely to make profit but must be of use to society and the public on top of generating money.

The second commonality between the two was their love of nature. Soichiro stated, "The term human civilization makes no sense if we don't pay attention to nature. If we live that way, I believe we'll soon come to



Aizenbashi Hospital, which is affiliated with Ishii Memorial Aizen-en

regret it and start pining for nature again." He also pointed out prior to the period of high economic growth that environmental pollution was the responsibility of the generator, which sent out an early warning.

The third thing they had in common was their stance toward original management and a focus on innovation and creation. Magosaburo advanced the production of rayon while studying and seeking multidimensional management, which gave rise to Kuraray's prototype and led to the birth of Kurashiki Kenshoku. Soichiro inherited this spirit as well as the business that Magosaburo had been working on since before the war, overcoming technical and financial difficulties to be the first in Japan to succeed with the commercial manufacture of a synthetic fiber, vinylon after the war. There were several major reasons for Soichiro not abandoning this challenge during the tough post-war recovery period. He wanted to play a part in driving Japan's economic independence and to give the Japanese people inspiration and courage as the country lay in ruins based on a desire to live by the words of his father, Magosaburo.

Although the lifecycle of a business is typically estimated to be 30 years or 50 years at most, the success that the company had with vinylon over 60 years ago is carried on at Kuraray even today. Kuraray has several products that command a top global share, and most of these are derived from poval resin, the raw material in vinylon. That does not mean, however, that Kuraray simply held on to the success of vinylon and reaped the benefits. It remained true to its original concept to change if needed in accordance with the demands and changes of the times. Thus, those products have survived as the core business by making radical changes to applications along the way.

Magosaburo also pointed out that it is the role of new generations to fix the mistakes of those that came before and that merely bragging about how great people from the past were is a backward step. While it's important to maintain good traditions, it's also imperative to introduce new elements and make reforms to meet changes in the times. Soichiro was also committed to doing what he could for the community and chose a path that differed from other companies.

Just as the business scholar Clayton Christensen, who wrote "The Innovator's Dilemma," pointed out when he



A display of vinylon textile with the exhibits on sale

stated that most of Japan's companies that had soared to the top of the market and had nowhere else to go were not immune from the dilemma of "disruptive innovation," Japanese businesses would no doubt face increasingly difficult times amid advancing globalization and a dwindling population. However, not everything Kuraray did ended in success, which in fact stood it in good stead. And more than anything, it had an excellent point of origin in being "out of the ordinary." This point of origin, advocated by Magosaburo and Soichiro, father and son, saw the company turn its attention to society and the community from an era that had no clear concept of corporate social responsibility (CSR), and display a kind of leadership that considered the perspective of the people in trying to create a win-win value in society. Both of them believed that a company doesn't make profit correctly until it creates common value in society directly through its activities. It could be said that the management philosophy and activities of these two for the most part correctly incorporated an element of creating shared value (CSV), a concept that is being asserted strongly nowadays by business scholar Michael Porter to take the place of community-service type CSR activities.

Soichiro, who placed importance on innovation, was more aware of how difficult this was than anyone. Nonetheless, I quietly hope that Kuraray will come up with technology in the future to combat the social threats we are facing. I would like to see Kuraray make the most of its excellent point of origin in being "out of the ordinary" and look to drive further CSV for society going forward.



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- Books:
- "The Pioneers who did Welfare Practice: Kosuke Tomeoka & Magosaburo Ohara" (Fujiwara-shoten, 2003)
  - "The Philanthropy and Contribution by Magosaburo Ohara" (Seibundoh, 2009)
  - "Post-war Reconstruction & Soichiro OHARA: Made Every Efforts on Vinylon, the First Synthetic Fiber in Japan" (Seibundoh, 2012)
  - "Magosaburo OHARA: A Business Administrator with Good Will & Strategies" (Chuko Shinsho, 2012)



"Magosaburo Ohara: A Business Administrator with Good Will & Strategies"



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