kuraray

Kuraray CSR Report 2016

Corporate Social Responsibility Report 2016

kuraray

KURARAY CO., LTD.

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> This report uses paper made forests that are properly managed with responsible car

http://www.kuraray.co.jp/









In an effort to enhance readability



This report uses an easy-to-read font based on the Universal Design (UD) concept.



Overview of the Kuraray Group



Data on Economic Efficiency







This report conveys the CSR activities that the Kuraray Group implemented in fiscal 2015 with the aim of boosting understanding of them among all stakeholders.

Reporting Period

Fiscal 2015: Jan. 1 to Dec. 31, 2015

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 38 companies)

Referenced Guidelines

In accordance with the CORE of the GRI Sustainability Reporting Guidelines (G4). Environmental Report Guidelines (2012 Edition) of Ministry of the Environments (Japan)

Issue Date

June 2016 (Previous issue: August 2015; Next issue: May 2017 (planned))

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 after the war based on domestic technology, 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.

Breakdown of Consolidated Net Sales by Segment (Fiscal 2015)*



* Sales figures include sales to external customers and the amount of cross-segment internal sales and transfers

The figures do not include the adjustment expense of 110.5 billion yen.

Vinyl Acetate

274.7 billion

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.

Functional Materials 56.9 billion

In this business, we manufacture and sell CLARINO man-made leather with a 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.

119.6 billion Trading

In this business, we import, export and sell wholesale fiber and textile products such as polyester filament, 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

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

Isoprene

resistance

fiber

Others

The Kuraray Group

36 consolidated subsidiaries/1 equity-method affiliate (38 companies including Kuraray Co., Ltd.)

Domestic

Kuraray Co., Ltd. 🔍 🔺 Kuraray Engineering Co., Ltd. • 🔺 Kuraray Chemical Co., Ltd. Kuraray Aqua Co., Ltd. 🔳 🔺 Kurarav Trading Co., Ltd. Transport Co., Ltd. Kuraray Plastics Co., Ltd. 🔳 🔺 Kurarayliving Co., Ltd. 🔳 🔺 Kuraray Techno Co., Ltd. • 🔺 TECHNO SOFT CO., LTD. 🔳 🔺 **Overseas** Kuraray Travel Service Corporation Kuraray Saijo Co., Ltd. • 🔺 Kuraray Kuraflex Co., Ltd. • 🔺 Kuraray America, Inc. 🔶 MonoSol Holdings, Inc. 🔶 Kurarav Fastening Co., Ltd. MonoSol, LLC. Kuraray Tamashima Co., Ltd. • 🔺 MonoSol AF, Ltd. 🔶 Iruma Country Club Co. Ltd Kuraray Europe GmbH 🔶 Okavama Rinkoh Co., Ltd.

Kuraray Noritake Dental Inc. 😐 🔳 🔺 EVAL Europe N.V. 🔶 Kurashiki Kokusai Hotel Co., Ltd. 000 TROSIFOL 🔶 Kuraray Asia Pacific Pte. Ltd. 🔶 Kurarav Korea Ltd. 🔶 Okavama Rinkoh Warehouse and Kuraray International Trading (Shanghai) Co., Ltd. 🔶 Kuraray Okayama Spinning Co., Ltd. 😐 🔳 🔺 Kuraray Trading (Shanghai) Co., Ltd. 🔶 Kuraray China Co., Ltd. 🔶 Kuraray Hong Kong Co., Ltd. 🔶 Plantic Technologies Limited 4 Kuraray Holdings U.S.A., Inc. 🔶 Plantic Tribond Pty Ltd. 🔶 Plantic Technologies(UK) Ltd. 🔶

Vinyl Acetate

Isoprene

55 billion

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

Fibers and Textiles 46.3 billion

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 polvester

69.6 billion

Plantic Technologies(Germany) GmbH 🤙

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Top Commitment

Contributing to planetary and social innovation by fully utilizing originality in material technology



Searching for the starting point of Kurarav

~ A manufacturing company full of thoughts ~

Egami: I have written a book about Kuraray before After knowing more about your company, I have come to really feel that Kuraray is a company rich in thought and philosophy. Mr. Magosaburo Ohara, the founder, and Mr. Soichiro Ohara, a son of the founder and second generation, left many wise sayings and these sayings are still evident at Kuraray.

Ito: Yes, that's right. As a matter of fact, last year, we restructured our statements as Our Mission, Values (Philosophy and Guiding Principles) and Commitment and disseminated them to the members of Kuraray Group inside and outside Japan to utilize the words and thoughts of previous generations since our foundation to our daily activities.

Egami: Upon its foundation, Kuraray set "The Two and Three Mark" as its corporate emblem to remind the company never to become arrogant and lose connection with society even if Kuraray becomes a top company. In this sense also, I believe that Kuraray is a corporation that respects corporate social responsibility

Ito: The emblem expresses our position well. The emblem signifies that we should maintain the spirit of being in second or third position, and always aspire to be better, because companies and individuals tend to become arrogant once they come out on top. I am grateful to have this company ethos as our backbone now I have become the president of the company.

Egami: I understand that your starting point was at a production site

Ito: Yes, I was first assigned to a plant when I first got a job with Kurarav in 1980. During my first assignment, I realized that a broken machine can be fixed, but that human beings cannot be put right once they are broken. So, human beings should be treated very carefully. I learned the importance of walking together with the staff under the motto "Be strict, but be warm" by giving them maximum consideration with a warm heart while taking a strict stance toward their work.

Egami: Mr. Soichiro Ohara also said that the plant was the starting point of all. "Laying a new stepping stone of the industry and serving the nation and society" and "Economic growth without innovation is not true growth. Let us make efforts for originality and ingenuity at all times

Ito: The manufacturers are tasked with adding value to their products aside from merely manufacturing them. The price depends on sales and varies from one year to another. Basically, however, the price is a result of the evaluation by the market for technology incorporated in products. How can a plant figure out a good way forward and raise production efficiency within such evaluated price? In other words, every day's earnings are produced by the manufacturing

Responsibility to Work Colleagues ~ Significance of living a better life ~

Egami: Mr. Ito, you say to your employees "Let's live a better life." which is a unique message from a president.

Ito: I ask my members "Why are you working for Kuraray?" The primary purpose is to earn money. However, in my opinion, a loftier way to say this is that people work to be happy. One obligation of companies is to provide people a place to work in safety and security.

I wish to make Kuraray a company in which people can work with pride and joy. Egami: It is indeed a pleasure to hear when

family members and communities say "You are working in a good company."

Ito: That is true. For example, the manufacturing process of vinylon fiber is lengthy and a very long time is needed to restart a machine once it fails and stops. We experienced many accidents before when we tried to troubleshoot without stopping machines. When I was appointed as the general manager of Vinylon Production Department, I prohibited all such dangerous work and called for the discontinuation of such work even at the sacrifice of productivity. I believed that nobody should be put at risk of injury in a company in which people work to be happy.

Egami: Certainly, the message "Let's live a better life" to employees would fall on deaf ears unless executives themselves act first by thinking about employee safety.

Greatest Strength Is Technology **Original to Kuraray** ~ For people and the planet - to achieve what no one else can ~

Egami: In Kuraray's history, Kuraray has moved forward to innovate its original technology by sticking to the use of raw materials produced in Japan while Japan was occupied after World War II. A general principle at that time was "Creating profits for people with new technology," advocating an ambition of the enterprise toward social contribution.

Ito: Those products could be manufactured using raw materials available in Japan, which has scant resources. This is the dream of an entrepreneur. Products can sometimes be manufactured easily and at low cost if the raw materials are purchased from other sources.



Masaaki Ito

However, Kuraray had an insight and thought that raw materials should be sourced by itself. looking 100 years ahead. This was a case of wisdom and foresight. Egami: Recently, Kuraray has been active in M&A. Could this potentially dilute such Kuraray's DNA?

Ito: It may sound as if Kuraray is acquiring various companies. However, our original technology over poval is the starting point for our M&A, and all our M&A deals link to poval. I call on our new member companies that have joined our group and tell them that "Kuraray is a company that values starting points of technology." I want this culture of valuing the starting points of technology to become deeply rooted within our group. Egami: How do you communicate Kuraray's Philosophy to people in companies outside Japan that join the group through M&A? For example, "doushin-kyouryoku" (close cooperation to attain shared goals) is one of your philosophies and it may be difficult to understand for your people outside Japan. Ito: In the case of one company that joined our group the year before last, we let them choose between their way of doing things and Kuraray's way, whichever they thought better in running their company, for the first one year. We asked them to fully discuss among them which way to choose for the second year and after. Through discussion, people mutually enhance themselves to move on to a higher stage. By taking this approach, "sublation" (a philosophical term) and "aufheben" (a German word meaning both preserving and changing) can be achieved. The process of such approach would be "doushin-kyouryoku".

Egami: I may not be the only one who thinks that Kuraray was closer to consumers before. Recently, I have felt that Kuraray is a manufacturer of materials. What do you think?

Ito: In many cases, our direct customers are enterprises. We are always aware of consumers beyond our direct customers. The material industry in the future will be required to create a product that is needed by the world represented by consumers. The other day, I was told in India "All products of Kuraray are good, but we do not need products that are expensive and good." The point was that they would buy a Kuraray product that offers advantages such as low cost in net total even if the product itself were expensive. This point reflects true needs and future manufacturing must take such way of thinking into consideration. Egami: I believe that Kuraray makes a wideranging impact as a material manufacturer when it triggers innovation. As one example, I foresee that a huge number of lives could be saved by producing a material that can purify



Go Egami

A novelist and commentator born in Hyogo Prefecture on January 7, 1954. In 1977, Egami graduated from the Department of Political Science, School of Political Science and Economics, Waseda University, and entered former Dai-Ichi Kangyo Bank (currently Mizuho Bank), Egami left Mizuho Bank in March 2003 after working at Umeda and Shiba branches in Osaka and Tokyo, respectively, and in the corporate planning and personnel sectors (General Affairs Dept., Business Planning Dept., Personnel Dept., Public Relations Dept. and Internal Business Auditing Office) and serving as head of the Takadanobaba and Tsukiji Branches in Tokyo. In 1997, Egami was instrumental in settling the so-called Dai-Ichi Kango Bank corporate racketeer incident when Egami was the assistant manager of the Public Relations Dept. at Dai-Ichi Kangyo Bank. After the incident, Egami played a major role in establishing a compliance system at the bank. While working at Dai-Ichi Kangyo Bank, in 2002, Egami made his debut as a novelist and authored a book titled "Hijo Ginko (Coldhearted Bank)." In 2003, Egami left Dai-Ichi Kangyo Bank and started his career as a full-fledged novelist. Egami has written financial entertainment books that are new in style and free from the conventional framework of economic novels

any water using activated carbon produced by Kurarav

Ito: I think that a good balance between needs and seeds is important. We met the need for substitute materials for asbestos because we had vinylon fiber, our original material, and we could offer a precisely suitable material when a polarization film for liquid crystal panels was in demand because we had poval film. Conversely, it would be difficult to catch up like chasing road mirage if we only chased needs.

We face a mountain of social challenges and issues worldwide. Kuraray will continue to contribute truly to planetary and social innovation by achieving what no one else can by putting up an antenna that links needs and seeds and by fully utilizing Kuraray's original material technology.

Egami: That is exactly what we expect from Kuraray. Thank you very much for talking to us today about Kuraray's thought and history.

CSR Activities at Kuraray Group

Ever since its foundation, Kuraray has valued its bonds with society through business activities, believing that fulfillment of its responsibility as a good corporate citizen is a prerequisite for its existence. The corporate statements declared by the Kuraray Group embodies its basic stance in relation to corporate social responsibility (CSR).

Corporate Statements

Our Mission

We are committed to developing new fields of business using pioneering technology that improves the environment and enhances the quality of life throughout the world.

For people and the planet — to achieve what no one else can.

Our Values

(Philosophy)

- Respect for individualsClose cooperation to attain shared
- goals

 Constant creation of new value
- (Guiding Principles) • Safety is the cornerstone of everything we do
- Customers' needs are our top priority
 We act on ideas in the workplace
- **Our Commitment**
- We will constantly develop and provide safe, high-quality products and services.
- We will maintain a sound relationship with society through good communication.
- We will strive to preserve and improve the global environment, and to secure safety and health in all our workplaces.
- We will value all members of the Kuraray community and respect their rights.
- We will always conduct businesses in a free, fair and transparent manner.
- We will honor all intellectual property and secure data and information in a proper manner.

Kuraray Group Code of Conduct

- Safety and Quality of products and services
- Disclosure of Corporate Information
 Anit-Bribery/Rules for Donations
- No Relationships with Anti-Social
- Group Contribution to Society
- Environmental Preservation
- Safety and Disaster Prevention
 Safe and Comfortable Workplace
 Respect for Human Rights
- Enhancement of Diversity, Equal Opportunity
- Compliance with Antitrust/ Competition Laws
- Prevention of Unfair Competition
- Compliance with Laws Related to Exports and Imports
 Prohibition on Entertainment and Gift in an Excessive Manner
- Prohibition on Conflicts of Interest
- Prohibition against Insider-Trading
 Protecting Trade Secrets
- Protecting Intellectual Property

"Our Mission" states "The reason whiy Kuraray exists in society" and "With what we contribute to sociey," "Our Values" states "What we believe in and what we think of as important" when Kuraray members undertake corporate activities. "Our Values" reflect the basic spirit of Kuraray since its foundation. On the other hand, "Our Commitment" declares how we fullfill our accountability and respond the expectations of social context in which we operate.

"Kuraray Group Code of Conduct" clarifies "Our Commitment" for our corporate acitivities and serves as the basis of our compliance activities.



As a corporate group engaged in manufacturing, Kuraray Group creates economic and social value through its excellent products and services and provides them to the market.

Maximizing our technology that is rich in originality, we believe that our most fundamental responsibility as a company group is to provide solutions to global social issues through our business activities such as resource saving, energy saving, environmental conservation, and enhancement of quality of living.

All these business activities are undertaken based on compliance (compliance with laws, regulations, and social norms), risk management, and on top of everything all "safety." Additionally, quality management in manufacturing provides support in creating values.

On the other hand, all company activities are supported through dialogues with stakeholders (shareholders and investors, customers and consumers, local communities, central and local governments, NPOs). The employees, suppliers, and partners, who participate directly in business activities themselves, are also important stakeholders.

Through various opportunities, Kuraray Group will continue to fulfill its CSR through its company activities by further deepening its dialogues and cooperation with the stakeholders.

_	Stakeho	older	Commun	ication
	Stakeholder			Communication

Stakeholder	Communication
Shareholders and Investors	General meetings of shareholders, plant tours, meetings to explain settlement of accounts
Suppliers and Partners	Purchasing activities, safety councils, liaison meetings, etc.
Employees	Employee awareness surveys, labor-management meetings, personnel evaluation interviews
Local Communities	Dialogue with local communities by Responsible Care Subcommittee Meetings with local residents' associations for exchange of views, Plant tours, chemistry classes for boys and girls, Cherry blossom viewing parties, summer festivals and other events
Central and Local Governments, NPOs and NGOs	Plant tours, firefighting drills, volunteer activities
Customers and Consumers	Sales and marketing activities, trade fairs (Eco-Products Fair and other fairs), questionnaires

CSR Activities at Kuraray Group

We in the Kuraray Group interact with a variety of stakeholders in each process of our value creation activities as we manufacture products and provides services. Responsible consideration given to our stakeholders is considered an indispensable condition to sustainably engage in our corporate activities.

Responsible Consideration to Stakeholders along the Value Chain



Kuraray Group is engaged in the business of providing its products and services by adding higher value to resources received from society. The responsibility that needs to be fulfilled as a manufacturer is to give maximum consideration not only to impacts on our stakeholders related to the entire material cycle ranging from the activities in which the Group is directly involved, namely, procurement, development, production, selling, and shipping, but also to processing, consumption, waste disposal, and recycling after selling and shipping products to the customers. On the other hand, the Group believes that it is also an important responsibility to invest funds received from our shareholders and investors for business operation, to distribute the results earned in such investment, to reinvest the funds in equipment and research and development for sustainable growth and to appropriately return such earnings to employees, social contribution activities, and other purposes.

Solving Social Problems with Original Technology



Kuraray has established large scale production technology for poval, a water-soluble synthetic resin, and has succeeded in industrializing synthetic fiber vinylon for the first time in the world using poval as a raw material. The research results obtained in developing this industrialization process now serve as a foundation of Kuraray's original technology, providing motive power to create a series of products that support Kuraray's core business.

Beginning Fiscal 2015, Kuraray has launched a new 3-year plan "GS-STEP" and will be propelling five management strategies (1) Deepening of core businesses, (2) Technological innovation,

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CLARINO			
oducts and Kuraray Gro	Dent mate		
ss of		Industrial fil	ter
ment Plan "(membranes	
Targets for Busi		ce FY 2017 Plan	
	FY 2015*	("GS-STEP")	
Net sales	¥521.7 billion	¥650 billion	
Operating income	¥66.1 billion	¥90 billion	
Operating income to sales	12.7%	13.8%	

(3) Next-generation growth models, (4) Optimal allocation of management resources and (5) Environmental contribution. The measures implemented in Fiscal 2015 include a decision to strengthen the production capacities for *EVAL* and optical poval films, development of new process technology for vinylon, acquisition of Plantic Technologies Limited of Australia and integration of vinyl acetate related business from Du Pont.

Kuraray is committed to continuously implementing "GS-STEP" steadily and solving social problems, in order to accomplish our mission "For people and the planet - to achieve what no one else can."

CSR Activities at Kuraray Group

For the purposes of meeting various codes and guidelines as social requirements related to our business activities diversify, since 2014, Kuraray Group has been identifying priority issues (materialities). Process of identification, material items (aspects) and future management are posted.

Identification of Materialities by Kuraray Group

STEP 1: Selection of items

Items (aspects) to be studied in terms of importance and priority were selected. Seventy items were selected, using GRI Sustainability Reporting Guidelines Version 4.0 (GRI <G4>), which is an international standard, as an indicator, coupled with requirements in ISO 26000 and Responsible Care (RC).

STEP 2: Prioritization

The selected 70 items were evaluated by translating the degree of impact on Kuraray Group in the processes of value chain into points. These processes are procurement (raw materials, equipment, and parts), development to production (waste emission), sales marketing and shipping, processing, consumption, and waste disposal (recycling) and other (relations to local communities and central and local governments). Among them, about 30 items that were ranked high priority were extracted.

At the same time, items for which outside stakeholders, financial research organizations, rating agencies and other entities are expecting Kuraray Group to take action were given priority.

STEP 3: Identification

The 18 material items were identified by

taking Materiality items for stakeholders and Materiality items for Kuraray Group into considerations.

Identifed items were validated by CSR Committee and reflected in the tasks and targets for related business activities.

An approach for material items will be made in future.

Periodical reviews will be made to ensure appropriate selection and management of items meeting the changes of the times.

Materiality Map of Kuraray Group



CSR Activity Target and Materialities of Kuraray Group

		Activity Item	Target	Material Items	Boundary*	Selected Aspects	For more information, please contact:
	Management	Medium-term management plan	"GS-STEP" (2015 to 2017) • Deepening of core businesses • Technological innovation • Creation of next-generation growth models • Optimum allocation of management resources	Economic performance Products and services	O	Kuraray Group operates value-creation activities in accordance with medium-term management plan "GS-STEP" as our compass. Values will be provided to many stakeholders through technological innovation and fostering of next-generation growth businesses.	P9
Safety		Process Safety, and Disaster Prevention	Measures to prevent process accidents Transfer of operational skills and techiniques from experienced persons to unexperienced persons (Know-Why activities) and sustainable continuation Comprehensive understanding of risks and steady implementation of measures	Process Safety, and Disaster Prevention Logistics Safety Chemicals and products safety Safety and health for	0	We place an emphasis on process safety and disaster prevention, and carry out thorough safety management in manufacturing process, logistics and other phases of business operations. Customer safety is safeguarded by ensuring product safety. Accident-free workplace is made by enhancing safety awareness of employees. A	P13 to P15
~	Occupational Safety	 Enhancement of safety awareness of individual persons Global deployment of safety activity management 	customers Labeling of products and services	0	consistent effort is made to conduct drills for workplace accidents and disasters and to share information on cases of accidents and disasters for prevention of them.	115	
		Global warming prevention	Japan: Greenhouse gas emissions [Environmental efficiency] Improvement by 40%compared with Fiscal 2010 (Target year 2020) Overseas: Energy consumption [Environmental efficiency] Improvement by 10% compared with Fiscal 2010 (Target year 2020)	Energy Products and services	O	We will provide products and services that reduce CO ₂ emissions in net total based on energy consumption and LCA, in order to realize a low-carbon society.	
Environment	Envi	Effective Utilization of Water Resources	Overseas: Water consumption [Environmental efficiency] Improvement by 10% compared with Fiscal 2010 (Target year 2020)	Water sources in region	0	We will take necessary steps taking into consideration actual situations in areas of our business operations in light of importance of ensuring water resources as a global concern and impacts on regional communities from which water is taken.	P17 to P21
	Management of chemical substance emission	Japan: Emission of PRTR chemical substances designated by the Japan Chemical Industry Association [Environmental efficiency] Improvement by 100% compared with Fiscal 2010 (Target year 2020)	Emission into atmosphere	0	We are reducing emissions by changing raw materials and by refining its manufacturing process in view of environmental impact caused by emission of PRTR substances into atmosphere.	PZI	
		Effective Utilization of Waste	Japan Amount of waste generated and [Environmental efficiency] Overseas: Improvement by 10% compared with Fiscal 2010 (Target year 2020)	Wastewater and waste Raw materials	0	We will contribute to realizing a recycling society through effective utilization of raw materials, optimal selection of raw materials that can be recycled and reduction of wastewater and waste from raw materials.	
		Environmental Accounting		Environment in general	0	We will manage our activities to reduce environmental load caused by our business activities and to conserve environment, by introducing an accounting management system where preventive measures can be taken on such activities.	Web site **
	Wo	Personnel policy allowing employees to feel work is worth accomplishing	Providing growth opportunities to employees	Training and education	0	We are providing education and training to our employees for gaining knowledge and skills needed in their work, to support career formation, in which employees feel worth of working, and to provide global growth opportunities.	
	Workplaces	Diversity, work-life balance	 Promotion of active participation by female employees Refined working style Minimizing unused annual paid vacation 	Diversity and equal opportunity Employment	0	We will create a workplace environment with a good work-life balance and in which employees can work comfortably, in addition to achieving diverse working styles and employment.	P23 to P25
		Healthy Management of Mind and Body Continuation and boosting of mental health measures and measures against lifestyle-related diseases		Occupational safety and health	0	We will create workplaces that are considerate to occupational safety and health while taking steps to ensure health management such as upkeep of good physical condition of employees and mental health care.	
	Society	Contribution in Cultural, Academic, Environmental and Social Welfare Fields	Implementation of following activities: • "Sending School Backpacks Across the Sea" • "Chemistry Classes for Boys and Girls" • Operation of work facilities for people with intellectual disability • "Kuraray Fureai Fund" • Activity with emphasis on link to local community	Local community	O	We will contribute to local communities and human resource development by the way unique to Kuraray with a focus on culture, arts and sciences, environment and social welfare.	P27 to P29
	~ .						

*
 Inside and outside organization,
 Inside organization
 // Inside organization
 // Inside organization

Safety Activities >>>

 \sim Proactive Activities for Building up Secure and Safe Workplace \sim

Specific Safety Activity at each plant Individual plant is proactively devising and undertaking various safety activities to

build up secure and safe workplaces.

[Challenge 100% Activity] Okayama Plant

The Okayama Plant is aiming at 100% practicing KY (Kiken Yochi - hazardous prediction) and checking the procedure by pointing & call activity before starting operation.





KY (Kiken Yochi hazardous prediction) Pointing & call before starting operation

[Safety Experience Class] Okayama and Niigata Plants Various types of "hazards" can be artificially experienced.





Hands-on exr rience of being drawn into roller

Hands-on experience of being suspended with a safety belt Hands-on experience of electric shock

[Safety Patrol with Ringing Bell] KP Ibuki Plant, KFS Maruoka Plant Safety patrol of workplaces is ongoing while ringing a bell.





[Safety Activity Poster] KAI-LaPorte (U.S.)



[Team Morning Meeting] Kurashiki Plant Active morning meetings are held to attentively observe and listen to other persons



[Risk Reduction, Education and Training of Human Resources] Kashima Plant The Kashima Plant was awarded the 39th Safety Grand Prix of the Japan Chemical Industry Association.



[2000 Days of Zero Accidents Accomplished] **KEG-Moravia** (Czech Republic)



[Plant Safety Event] Saijo Plant





to start operation without consideration

[Lectures by Disaster Prevention Experts] Niigata Plant, KC Tsurumi Plant



[KYT Event] Okayama Plant, Saijo Plant, and other Plants KYT (Hazardous Prediction Training) events are held at individual plant.



Safety Activities

Concept, Policy, and Guideline

Guiding Principle on Ensuring Safety

"Safety is the Cornerstone of Everything We Do"

Basic Policy on Product Safety

Targeting contribution to realizing an affluent and comfortable society by responding to customer needs through supply of products that are safe and reliable.

Activities on Occupational Process Safety, and Disaster Prevention, Safety, and Disaster Prevention

The Kuraray Group is promoting creating safe workplaces that are free of occupational incidents, process accidents, and disasters by raising the safety awareness of our employees and operating a safety management system for preventing occupational incidents and process accidents through early discovery of the risks for them. In

Targets and Performance in Safety Priority Activities

ltem		FY 2016		
nem	Target	Performance E		Priority Activities
Process Safety, and Disaster Prevention Occupational Safety	Measures to Prevent Process Accidents	Setting the detail conditions to prevent process accidents Implementation of risk assessment of unusual situations Enhancement of capability to deal with abnormal situations	0	•Enhancement of process safety manegement level •Implementation of risk assessment of unusual
	Transfer of Operational Skills and Techniques from experienced persons to inexperienced persons (Know-Why activities) and sustainable continuation	Transfer of operational skills and techniques utilizing career development program (CDP) incorporating "know-why" activities Installation of new system that integrate education and training	0	jobs • Capability of detecting abnormal signs and dealing with abnormal situations • Transfer of operational skills and techniques
	Comprehensive Understanding of Risks and Steady Implementation of Measures	Implementation of risk assessment (RA) aiming at improvement the comprehensiveness Implemention of constitutive countermeasures for serious risks	0	from experienced persons to inexperienced persons (know-Why activities) •Enhancement of safety awareness of individual persons
	Enhancement of Safety Awareness of Individual Persons	KY (Kiken Yochi - hazardous prediction) before starting operation Pointing & call activities Compliance with rules to be observed Safety education incorporating training"	0	Dissemination of and compliance with rules Comprehensive understanding of risks Implemention of constitutive countermeasures
	Globalization of safety activity management	Activating intercommunication with overseas affiliates Construct the database "Global Safety Info" Globalization of occupational incidents evaluation system	0	for serious risks • Constructing the base for globalization of safety activity management

Numerical Targets and Accomplishments

	FY2015							
ltem	T		Actual			Fuchanting	FY 2016 Target (Inside and Outside Japan)	
	Target (Inside and Outside J	apan)	Japan	Outside Japan	Inside and Outside Japan	Evaluation	(
Process Safety, and Disaster Prevention	Number of Accidents:	0 cases	3 cases	1 case	4 cases	×	Number of accidents: 0	
Occupational	Number of Lost Time Incidents:	0 cases	6 cases	17 cases	23 cases	×	Number of Lost Time incidents: 0	
Safety	Frequency Rate of All Occupational Incidents:	1.5 or less	1.32	7.26	2.91	×	Frequency Rate of Japan:0.8 or less All Occupational Incidents* Outside Japan:4.0 or less	

Frequency rate of all occupational incidents: Number of all occupational incidents per million working hours. All occupational incidents are defined as incidents requiring at least minor medical attention, based on the definition of a recordable incident by OSHA (Occupational Safety and Health Administration) of the US.

Safety Management

In accordance with Corporate's Safety Activity Management Regulations, the Kuraray Group develops a 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 executives in charge, we makes an overall assessment and discussion of safety activity performances of previous year and decides activity policy for the coming fiscal year, and we disseminate decided activity policy to all Group companies. In line with this policy, the Group companies are conducting safety activities that reflect the specific action plans of each plant and department. A group of safety

Action Cources on Ensuring Safety (FY 2016)

- Ensure "Safety First, Production (Construction and R&D) Second"
- Take 5 seconds before You Act, and Do "CHECK" in order to eliminate Unsafe Situation (action, behavior, condition)
- Act with sense of ownership and responsibility for all employees, aiming to achieve zero accidents and disasters

preparation for accidents or disasters, we make efforts to minimize damage and to prevent the recurrences accidents or disasters, such as emergency drills, sharing information of accidents or lessons.

Evaluation: O Accomplished, A Nearly accomplished, X Not accomplished

representatives from the headquarters, including the executives in charge, visit every plant twice a year to conduct Internal Safety Audits on their safety activity plans, progress management, and the results.



Verification of Sites for Safety Activity at Okayama Plant

Safety Activities

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, and other accidents 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 this purpose, we have undertaken activities such as risk assessment related to process safety and disaster prevention, earthquake countermeasures for buildings and plants, and conditioning of the safety management system for facilities in all plants.

Industrial Safety Activities

At the Kuraray Group, we are promoting safety self-activities by implementing them as planned: ① Risk assessment, ② Utilization of accident information and ③ Transfer of technical background (Know-Why activity) in accordance with the "Activity Plan for Industrial Safety" compiled by the Japan Petrochemical Industry Association.

More specifically, we are undertaking risk assessment of unusual situations such as total power blackout and emergency stop and clarifying the criteria for discriminating abnormal situations in order to activate and enhance effectiveness of risk assessment activities. Additionally, CDP*1 activity and KMMS*2 are continuously undertaken to promote the transfer of operational skills and techniques from experienced persons to inexperienced persons incorporating the Know-Why activities.

In Fiscal 2015, unfortunately, three minor fire accidents in Japan and one leakage accident occurred outside Japan. All these accidents had no impacts on the external environment or human health and safety.

- We will continue to undertake the following activities in Fiscal 2016 and thereafter to prevent accidents.
- · Risk assessment activity of unusual situation
- Enhancement of capability to detect abnormal signs and to deal with abnormal situations

• Transfer of operational skills and techniques from experienced persons to inexperienced persons (incorporating Know-Why activity)





- *1 CDP: A system to evaluate levels of knowledge, skills, techniques, technologies, and action characteristics needed for first-line operators in workplaces to visualize them and to compile an assessment chart for mapping of capabilities of all personnel, to set targets for individual persons, and to provide training based on it.
- *2 KMMS: A facility management system based on the PDCA cycle (P: Plan making for maintenance, D: Do maintenance work, C: Check and evaluate activity results and reassess maintenance plan, and A: Act to review maintenance plan) by evaluating the importance of each piece of equipment in a unit of production activity and by setting an equipment management system in accordance with risks associated with each equipment. By undertaking activities under this system, operators participate in cause analyses of equipment problems and in reviewing countermeasures and equipment management norms, for furtherance of human resource development and transfer of techniques and technologies from experienced persons to inexperienced persons.

Comprehensive Emergency Drill

Kuraray Group handles large amounts of hazardous materials, highpressure gases and other dangerous materials. For this reason, at the plants of Kuraray Group, we maintain fire protection and firefighting equipment and periodically undertake drills including anti-disaster drills, alert drills, tsunami evacuation drills, and other drills in cooperation with local public fire department anticipating a variety of situations. In Fiscal 2015, a drill was implemented by the Emergency Command Center headed by the president assuming that several plants were simultaneously damaged by Nankai Trough Mega Earthquake. As a first challenge, damage situations were reported to this center on real-time basis by connecting the head office and five locations via video teleconferencing system.





Scene at local headquarters in Tokyo



Scene at local headquarters in Osaka

Realizing that the safety and health of its employees are the basis of business activities, the Kuraray Group aims to create safe and accident free workplaces by striving to enhance the safety level of each of its employees and organizations through appropriate implementation of its occupational safety management system. In Fiscal 2015, there were six lost time incidents of Kuraray Group in Japan, increased by one incident compared with the previous year. The frequency rate was 0.50.

On the other hand, criteria for lost time incidents outside of Japan differ from one country to another and assessment is made using



Logistics Safety

To prevent damage to society at large caused by logistics accidents, the Kuraray Group is engaged in an ongoing promotion of activities to ensure logistics safety in the aspects of product shipment and storage

Kuraray Logistic Safety Council, which is the core organization for this activity, marked its 15th year in 2015. In Fiscal 2015, examples

Product Safety

The first paragraph of "Our Commitment," a statement of Kuraray Group reads "We will constantly develop and provide safe, highquality products and services."

A working group centering on the CSR Division staff has been organized to study products that require a company-wide study of safety and to verify product safety. The products to be studied include those that are ingested in the body and that use nanomaterials. In Fiscal 2015, safety measures for workers, the environment and end users were deliberated for those development projects that handle such materials in accordance with the regulation on the handling of nanomaterials. As a result, appropriate safety measures have been taken.

Kuraray Group plans to further strengthen its mechanism in the future for studies of product safety in the design phase, to reliably continue the supply of safe products.

Chemical Substance Management

Kuraray Group is managing chemical substances using an information technology (IT) system. This system enable to be maintained allowing acquisition of information on related laws and regulations and on dangerous and hazardous properties by linking information on chemical substances such as registered raw materials

Occupational Safety

an indicator called a frequency rate of all industrial accidents more severe than slight incidents, instead of lost time incidents. In Fiscal 2015, the frequency rate for Kuraray Group outside Japan was 7.26 and was lower than 9.82 compared with the previous year. Generally, the companies in Europe and North America undertake activities focusing on preventing severe accidents and the frequency rate of industrial accidents including slight accidents there tends to be higher than in Japan. In fiscal 2016, safety activity management will spread globally, aiming at lowering the frequency rate of industrial accidents outside of Japan.



of activities at logistics companies for the prevention of accidents in transporting hazardous materials were introduced. Specific measures taken in these activities were applied to similar processes and products and safety awareness among the Group employees was enhanced. (The activities were undertaken by nine companies outsourced for transport of hazardous materials)

and products to an outside database containing laws, regulations, safety properties of chemical substances and other information. This system will also allow making of material safety data sheets (SDS's) and other documents.

In Fiscal 2015, the functions of the IT system to make SDS's for oversea countries were enhanced to better respond to oversea laws and regulations. And managers responsible for the management of chemical substances were appointed in the group companies in Japan and in the corporate divisions. Therefore periodic opportunities could be provided to these managers and their staff to share information. These actions ensure correct grasping of information on laws and regulations of the relevant countries and to take appropriate responses by the group as a whole,

Kuraray Group will further reinforce its organization for the management of chemical substances by proceeding cooperation such as information sharing related for management of chemical substances with Kuraray Group companies outside Japan, for more thorough compliance of laws and regulations and for higher quality of product information to be submitted to our customers.

Approaches to the Environment >>>

 $\sim\,$ Effects Expressed in Numbers through cLCA* $\sim\,$ Kuraray Group products contribute to the reduction of CO₂ emissions. High gas barrier packaging materials manufactured using PLANTIC[™] biopolymers.



PLANTIC[™] is a material for packaging of foodstuffs made of a biomass-derived raw material. Thanks to its excellent gas barrier on the meat market. Because PLANTIC[™] is biomass derived, it absorbs CO₂ while it is grown and emissions of greenhouse gases (GHGs) can be reduced significantly during Consumers can participate in activities to reduce GHGs by selecting commodities that use PLANTIC[™]. PLANTIC[™] is certified by DIN International S.A. (Belgian certification body) and Japan Organics Recycling Association as a biomass raw material.

Because of its high gas barrier performance food items delivered daily such as precooked food, as well as meat. In Australia, PLANTIC^T is already used as gas-replacement packagin trays for meat in major supermarket chains. PLANTIC[™] is beginning to be used in Europe and in the United States also. As it

can lengthen shelf life, PLANTIC[™] is also contributing to the "Reduction of Food Waste*" for which countermeasures are strongly demanded on a global scale.

ts from "Life Cycle Analysis of Chemical Products in Japan and World," Japan Chemical Industry Association, Dec. 2012

The scale of the global market for the food packaging business is very large and PLANTIC[™] will greatly contribute to reducing GHG emissions and food waste also.



Food waste. Foodstuffs that are discarded because they are sub-standard, due to expiration of consume-before dates or for other reasons evonant of the section of the secti

Approaches to the Environment

We believe that the Kuraray Group'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.

	r ·
[Note]	Before
As a result of the change in months in each fiscal year, the	Fiscal

- environmental data and information contained in this report
- including graphs are as follows.

Environmental Targets and Results

		FY201	5			Medium-term environmental target	E 1 4-
	Scope	Target	Actual performances	Evaluation	FY2016 target	(FY2020 target)	Evaluation
Global warming prevention	Kuraray Group in Japan	[Measures to reduce GHG emissions] Implement measures to reduce emissions by 20,000t	Reduced by 18,000t (YoY) Improved environmental efficiency (GHG emissions) by 9.4% compared with FY2010	0	Implement measures to reduce by 20,000t	[Environmental efficiency (GHG emissions)] Improve by 40% compared with FY2010	
	Overseas affiliates	[Environmental efficiency (energy consumption)*] Improve by 5% compared with FY2010	Improved environmental efficiency (energy consumption) 99 with 100 for FY2010	\triangle	Improve environmental efficiency by 6% compared with FY2010	[Environmental efficiency (energy consumption)] Improve by 10% compared with FY2010	\triangle
Management of chemical substance emissions	Kuraray Group in Japan	[Management of JCIA-designated PRTR substance emissions] Maintain emissions at FY2010 level (1,104t)	JCIA-designated PRTR substance emissions: 1,010t Improved environmental efficiency (PRTR substance emissions) by 21.2% compared with FY2010	0	Maintain emissions at FY2010 level (1,104t)	[Environmental efficiency(JCIAdesignated PRTR substance emissions)] Improve by 100% compared with FY2010	\bigtriangleup
Reduction of Waste	Kuraray Group in Japan	[Measures to reduce waste] Implement measures to reduce waste by the equivalent of 1% relative to FY2014 (811t)	Amount of waste reduced: 1,500t Improved environmental efficiency (waste generated) by 6% compared with FY2010	0	Implement measures to reduce waste by the equivalent of 1% (832t) relative to FY2015	[Environmental efficiency (waste generated)] Improve by 10% compared with FY2010	\triangle
	Overseas affiliates	[Environmental efficiency (waste generated)] Improve by 5% compared with FY2010	Lowered environmental efficiency (waste generated) 71 with 100 for FY2010	\triangle	Improve environmental efficiency by 6% compared with FY2010	[Environmental efficiency (waste generated)] Improve by 10% compared with FY2010	\triangle
Effective utilization of water resources	Kuraray Group in Japan	_	_		exposed to water supply shortage ar	e Kuraray Group premises in Japan, the risks of being e low for the moment. Possibilities of immediately even if water consumption at the current level is fore will not be set for the moment	_
	Overseas affiliates	Environmental efficiency (Water consumption: Excludes seawater)] Improve by 5% compared with FY2010	Lowered environmental efficiency (water consumption) 53 with 100 for FY2010	\triangle	Improve environmental efficiency by 6% compared with FY2010	[Environmental efficiency (water consumption)] Improve by 10% compared with FY2010	\triangle

* 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.

Environmental Management

Environmental Management System

Kuraray Group has set Kuraray Group Global Environment Action Guidelines and Environmental Activity Policy. Furthermore, continuous improvements in its environmental activities are made by rotating the Plan-Do-Check-Act (PDCA) cycle among the plants, affiliates and head office in accordance with Kuraray Environmental Activity Management Rules.

Kuraray plants and affiliates have acquired certificates under ISO 14001 (Environmental Management Systems) and are undertaking environmental conservation activities by rotating the PDCA cycle. Please visit Kuraray's website "Organization Chart of CSR Committee" for more information about the environmental conservation promotion organization of Kuraray Group.

_ _ _ _ _ _ _ _

Before fiscal 2013: Actuals in 12 months from April to March of the following year Fiscal 2014: Actuals for 9 months from April to December + Actuals for January to March 2014 (or estimated value) [Partially overlaps with fiscal 2013] After fiscal 2015 (For reference purposes): Actuals for 12 months from January to December

Evaluation: \bigcirc achieved, \bigcirc largely achieved, \triangle further effort required



Approaches to the Environment

Medium-Term Environmental Targets and Review of the Targets

Kuraray Group has mapped out its Medium-Term Environmental Plan setting Fiscal 2010 as a base year and Fiscal 2020 as a target year and has been undertaking activities since Fiscal 2011. Kuraray's Medium-Term Environmental Plan incorporates an indicator called an "environmental efficiency*" to numerically assess activity results. The targets are supplied in the table on the right.

Nevertheless, the business environment of Kuraray Group has greatly changed compared with the time when the plan was mapped out due to M&A cases outside Japan and more investments made to increase production equipment. In view of this situation, consider present Medium-Term Environmental Targets should be reviewed. Therefore we are our investigation indicator and mapping out new targets during 2016.

* Environmental Efficiency = Net sales/environmental load Environmental load: volume of GHG emissions, chemical substance emissions, waste generated, etc.

Global Warming Prevention

The reduction volume of GHG of Kuraray Group in Japan was 18,000tons-CO2e. It's the result of their CO2 reduction efforts, such as increasing biomass fuel volume, using of waste plastics as a fuel, higher operating efficiency, installing of energy saving equipment, and steady energy saving activities. As the result, the environmental efficiency of Kuraray Group in Japan is steadily progressing (109, environmental efficiency in 2010 was 100), however that didn't reach the initial target (112).

On the other hand, energy consumption of abroad Kuraray Group increased compared to 2014 due to the business expansion with M&A and increasing production volume, even though abroad Kuraray Group also addresses energy saving activities. As the result, environmental efficiency of abroad Kuraray Group has extremely decreased since 2014, and it was as same as the efficiency of benchmark, 2010. Because more intermediate manufacturing processes are in operation after business acquisitions, causing an increase in energy consumption that doesn't contribute directly to an increase in sale.

Actual GHG emissions and energy consumption in 2015 are as follows

Domestic Kuraray	Total: 1,265,000t-CO2
Group	[FY2014: 1,239,000t-CO2]
Overseas Affiliated	443,000kL (crude oil equivalent)
Companies	[CY2014 352,000kL (crude oil equivalent)]

Power Generation by Biomass Fuel

At Kurashiki Plant of Kuraray in Tamashima, Kurashiki City, a biomass fuel* (wood chippings from construction debris and other sources) has been used as a substitute fuel of coal and the consumption of biomass fuel is steadily increasing. In 2015, efforts were made to increase the supply sources of biomass fuel and about 55,000 tons of biomass fuel, roughly the same level as that in Fiscal 2014, was consumed, contributing to a reduction of about 82,000 tons-CO2 in its emissions.

* Biomass absorbs CO₂ in the atmosphere as it grows and can be considered to emit no CO2 when the CO2 that is generated while biomass is burnt is subtracted from CO2 that is absorbed during its growth.





Reducing Environmental Load during Product Transportation

Kuraray is also reducing its environmental load in the distribution stage of delivering its products to the users, in addition to GHGs emitted by itself during the manufacture of products at its plants and other facilities. Kuraray is continuously active in the "modal shift" of changing transportation means from trucks to cargo trains. ships and other means. Since Fiscal 2010, its emissions of GHGs and nitrogen oxides during product transportation have gradually been decreasing. In Fiscal 2015, Kuraray emitted almost the same levels of GHGs and nitrogen oxides as those of Fiscal 2014.

Emissions of Scope 3 GHG

The GHG Protocol* classifies GHG emissions into three categories. Scopes 1, 2 and 3.

Mandated under the law by which businesses voluntarily calculate and report Scope 1 and Scope 2 to the government, we have been reporting these to the government and publishing the results in our CSR Report and elsewhere.

In the case of Scope 3 GHG emissions that take into account the entire supply chain, there is movement for Japanese applicant manufacturers to calculate and announce Scope 3 emissions. Due to the increasing number of survey questionnaires requesting company Scope 3 emissions that are being received from environmental NGOs

- · Scope1; Direct emissions. GHG emissions generated by fuel combustion, such as at places of business
- Scope2; Indirect emissions. GHG emissions associated with purchased energy, such as purchased electricity
- Scope3; Other indirect emissions. GHG emissions along the entire supply chain (from raw materials to product disposal)

Image of Control on Emissions of Greenhouse Gases in Entire Scope-3 Supply Chain (1) to (1) show categories of Scope 3)



Control on Emission of Chemical Substances

Based on the Law Concerning Reporting, etc. of Pollutant Release and Transfer Register (PRTR Law), the domestic Kuraray Group checks, records and reports relevant chemical substances to the state. The Kuraray Group similarly discloses on its website and other places emissions of chemical substances not covered by the PRTR Law, but designated by the Japan Chemical Industry Association (JCIA) by checking and recording them.

In addition to them, persistent organic pollutants (POPs), volatile organic compounds (VOCs), hazardous atmospheric pollutants (HAPs) and particulate matter (PM) are considered to be chemical substances and Kuraray is taking action as explained in the table.

and other organizations, Kuraray decided to start calculations from those giving Fiscal 2013 performance.

Calculations were made in Fiscal 2015 for 7 categories in Scope 3, among 15 categories in total, excluding 4 categories that are not applicable to Kuraray and 4 categories for which data could not be collected.

* GHG Protocol (Greenhouse Gas Protocol) is an initiative scheme to develop international standards and related tools on greenhouse gases and climate change led by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) and participated by corporations, NGOs, government institutions and other organizations throughout the world.

Classification	Name of Substance	Action Taken			
	Polychlorobiphenyl (PCB)	Storing, managing, reporting and processing to render harmless in accordance with the Law Concerning Special Measures against PCB Waste. (Fiscal 2027 is set as a time limit for harm-free processing)			
POPs	Dioxin and the like	Emissions are measured for individual plants and other business units (Please visit Kuraray website)			
	Substances other than the above	Not applicable to Kuraray manufacturing and use			
	VOC	Included as substances in the pollutant release and transfer register (PRTR) and emissions are measured and reported as PRTR substances.			
	HAP	(Please visit Kuraray website for emissions by each plant)			
	PM	Emissions of particles of soot are reported in Material Flow on page 21 of this report			
PRTR		Emissions of substances applicable to the law and to the list compiled by the Japan Chemical Industry Association are measured and reported (Please visit Kuraray website for emissions by each plant)			

Approaches to the Environment

Emissions of PRTR substances in Fiscal 2015 totaled 1,010 tons (927 tons into atmosphere and 83 tons into water areas).

The environmental efficiency of Kuraray Group in Japan improved to 121.2 compared with 100 for Fiscal 2010 as the base year. Thanks to the measures taken such as changing the production process from organic solvent system to a water system to control emissions even if the production volume increases, the environmental efficiency is improving year after year. Legal restrictions such as the PRTR Law of Japan are not imposed on overseas affiliates. However, overseas affiliates are endeavoring to reduce emissions in accordance with the regulations on management of chemical substance emissions of the countries in which they are located. Their emissions totaled 197tons in Fiscal 2015.



Reduction and Effective Waste, and Reduction of Landfill Waste

Since Fiscal 2007, Kuraray Group in Japan has been maintaining "an effective utilization rate of waste of 90% or higher and final landfill disposal rate of 1% or lower." In Fiscal 2015 also, these rates were maintained by registering an effective utilization rate of 97.6% and final landfill disposal rate of 0.34%.

In Fiscal 2015, the environmental efficiency stood at 99.4 compared with 100 for Fiscal 2010 as the base year and remained almost unchanged.

Owing to increases in its production volume, industrial waste generated by Kuraray Group in Japan has been slightly increasing in the past several years. The plants and affiliates are making continuous efforts to maximally reduce waste generated such as by improving product vields.

On the other hand, production volumes at our overseas affiliates continue to increase owing to M&A and more investments in equipment to increase production. Their production volume has increased about 3 times including intermediate product compared with 2010. As the result, more waste is generated about 2.6 times compared with 2010 even though they have make effort to reduce waste generation. Therefore environmental efficiency has extremely decreased into 71 with 100 for fiscal 2010. Our overseas affiliates will carefully watch trends in the future also and continuously optimize operational conditions and recycle waste among various streamlining schemes. The plants and affiliates are making continuous efforts to maximally reduce waste generated such as by improving product yields.

The reasons why the amount of waste generated by our overseas affiliates is very small compared with the domestic Kuraray group are that utilities such as electricity are purchased from outside suppliers and that wastewater treatment at the plants is outsourced to outside disposal companies so that soot and incineration residues from boilers and sludge from wastewater treatment facilities are not generated physically.



Trends in Rates of Beneficial Waste Use at Kuraray Group in Japan





Trends in Rates of Waste Landfill Disposal at Kuraray Group in Japan



Effective Utilization of Water Resources

Kuraray Group, including its overseas affiliates, is not engaged in production activities in areas in which water resources are scant and their business activities affect water sources of such areas. The amount of water intake by the domestic Kuraray group excluding seawater is 69.8 million m³ per year and this level has remained nearly unchanged in the past several years. At some plants, water is reused such as heat recovery from hot wastewater and cooling water is reused as boiler feed water.

The exposure of the domestic Kuraray group to a water supply risk is low for the moment and a very large investment is needed to reduce the amount of water intake. For these reasons, the group has decided not to reduce its water intake, which would require an investment in equipment, but to reduce water consumption to the extent possible. The group will trace water consumption trends and will study the necessity for taking measures while saving its water consumption.

Material Flow in Business Activities (Fiscal 2015, Kuraray Group in Japan)

The Kuraray Group uses large amounts of energy, chemical substances, and water resources in the course of its business activities.



kuraray.co.jp/en/csr/report2016/environmental

Compared with 2014, water consumption by our overseas affiliates slightly increased owning to an expansion in their production scale, thus lowering their environmental efficiency (53 with 100 for FY2010). This is caused by an increase in the manufacturing process of intermediates that does not directly affect sales.



We make quantitative surveys of used resources and emitted substances, and use this information to minimize the environmental load associated with our business activities.

* Visit the Kuraray website for more information on environmental accounting and collection of environmental data.

Living Together with Local Community and Society >>>>

~ Career Support ~

Toward creating an organization in which each employee actively tackles career building and works energetically full of life

Mechanism to Support Autonomous Career Development

Beginning Fiscal 2015, the domestic Kuraray group has inaugurated a "mechanism to support autonomous career development," aiming at creating organizations in which



each employee actively tackles his or her career development and engages with work enthusiastically.

The mechanism roughly consists of "training for designing employee career by self" and a "career advisor system." The training is provided to employees of three age brackets and career visions are envisioned reflecting a stage for each age bracket and a set of values of each employee. As one feature of this mechanism, interviews by superiors of the employees and by career advisors are planned before and after the training and people



around the employees support them to realize their career visions.

After participating in training: Masakazu Oshima (Technology and Maintenance Dept., Okayama Plant)

The training was started by recalling our past. We looked hard at our sets of values and human relations at present and thought how we should live in the future after setting objectives. I experienced something that I do not want to recall now, but I now feel a sense of accomplishment with my present job and life after squarely facing and defining my future objectives in those two days of training free from routine work.

I believe that my thoughts gained during the training and interviews will be indispensable to my future career. I am grateful to the career advisors, superiors and those involved in the training for listening to my story with compassion.

Approaches in the Workplace

Through the Kuraray Group Global Human Resources (HR) Policy, K uraray Group is making efforts to develop its organizational system regarding the promotion of diversity, fos tering 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.

Sociality Goals and Actual Performance

Theme	Goal	Event and Result	Evaluation and Challenges	Fiscal 2016 Plan
Implementing Personnel		 A training program has been started allowing the employees to actively participate in their own career development. (Please see the highlights on page 22) 	 Started in Fiscal 2015 and evaluation is yet to be made. It is expected that more growth opportunities will be provided to the employees. Fixation of this system is a challenge. 	 Fixation of "Mechanism to Support Autonomous Career Development"
Policy Allowing Employees to Feel Work is Worth Accomplishing	Provisioning of growth opportunities to the employees	 A mentor program to assign mentors to new managerial workers has been continued and briefing sessions for mentor candidates have been held to spread the objective of the program. 	• Fixation of this system is a challenge.	A further brush-up of the mentor program studied
		GTT was undertaken, participated by seven overseas Group companies (Please see page 24).	 More Group employees and countries from abroad are participating. How to keep and increase the number of participating countries is a challenge 	Continued implementation of the GTT program
	Promotion of active participation by female employees	 Newly started a scheme through which the employees are given temporary leave, allowing them to accompany their spouse when their spouse is assigned to overseas posts Newly started a flex time scheme allowing the employees to work at flexible times while rearing a child More throough guidance is provided to the employees before and after taking leave when the employees take a leave for child rearing. 	The mechanism to support career development while achieving both household chores and work is not adequate.	Started an activity to further promote active participation by female employees (Training for awareness raising for managerial staff and female employees is planned)
Promotion of Diversity and Work-Life Balance	Refined working style	 Started a movement of "Refining working style". The information is used by the employees in their routine work. 	 The challenge will be to propose and implement tangible actions to refine working style. 	 Expansion of a working system tailored to diverse ways of working
	Minimizing unused annual paid vacations	Achieved 80% use of annual paid vacation on average (Please see page 25).	 The challenge will be to further raise the rate of annual paid vacations and to maintain the rate of 80%. 	 A study of specific measures to promote acquisition
Reinforcement and Promotion of Schemes for Management of Healthy Mind and Body	Continuation and beefing up of mental support measures	Line-care training and self-care training was continuously provided. Number of Trainees: 899 persons at 6 plants.	Could be implemented roughly as planned. Continuation of measures is a challenge.	Training programs continuously provided. Stress check to be made.
	Continuation and beefing up of countermeasures for lifestyle-related diseases	Health improvement campaign : Sponsored health improvement events. No-smoking campaign : Sponsored no-smoking seminar.	Continuation of measures is a challenge.	 Continuation of health improvement campaign. Implementation of no-smoking campaign.

Basic Approach to Human Resources

Policy for Global Talents

The basic approach of the Kuraray Group toward human resources is incorporated entirely in the Kuraray Group Global Human Resource Policy.

The Kuraray Group Global HR Policy

- We will respect the human rights of individuals.
- We will abolish discrimination and respect diversity and individuality.
 We will carry out our HR activities in full compliance with applicable
- We will create HR systems that uphold equality, fairness and
- transparency.
- We will strive to improve the environment of workplaces.
- **6** We will strive to employ personnel who are able to contribute to the development of the Kuraray Group.
- We will place the right person in the right job.
- We will implement evaluation and benefits systems that are fairly satisfactory.
- We will support professional development.
- We will strive to promote communication and disclosure information as appropriate.

31, 2015
3

	Total	Male	Female
Kuraray Group as a whole	8,405	7,006	1,399
Kuraray only	3,327	2,988	339

* Group = consolidated subsidiaries

Nu





Employee Turnover Rate

1,		
	Number of those leaving employment	Turnover rate
Personal reasons	36	1.1%
Retirement	76	2.3%

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

Activities at Workplace

Approach to Human Resource Development

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 parttime 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 selfimprovement.





[Global Talent Development Program]

Training is provided at each level of the organization to foster personnel who can actively play a part on the global stage to further accelerate global growth of the Kuraray Group.

In Fiscal 2015, group training (AGM and GTT) was provided to the department manager and section manager classes. Short-term Trainee Program was provided to staff level employees. The number of participants was more than 50 from domestic and overseas Kuraray sites.

In Fiscal 2016, the training programs that were provided in Fiscal 2015 will be refined, and EMT will be provided to executives..

Global Talent Development Program



A Fair, Impartial, and Transparent HR System

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. In fiscal 2016, a review of wages, allowances, bonuses and work systems will be continued to further enhance an understanding of the employee treatment system.

[Evaluation]

Personnel are evaluated based on management by objectives, in which goals for job duties and competence development are set after consultation between superiors and subordinates, and actual performances of individual employees are evaluated. Assessor training is continuously provided also.

Promotion of Diversity

Kuraray aims at maximizing the capabilities of a variety of personnel including femiles, senior workers and temporary workers to activate workplaces and to upgrade organizational power. Three standpoints are chosen especially as priority tasks - Employment of female employees, expansion of areas of responsibility for them and fixation of them in workplaces.

As part of maintaining an environment allowing the employees to continue working for a long time, a scheme was introduced in Fiscal 2015 granting temporary leave for employees allowing them to accompany their spouses when their spouses are assigned to overseas posts.

In Fiscal 2016, Kuraray will plan training programs to create a climate for promoting energetic activities by female employees and for enhancing career awareness of female employees, to satisfy both career development and household circumstances such as child rearing.

Scheme for Work-Life Balance

[Employment Systems and Average Working Hours]

Kuraray has instituted systems for flexibility in employment. These main systems include 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 hour system. We also have no-overtime days and are striving to improve the r ate of taking yearly paid vacations.



[Leave for Childcare and Nursing Care]

Kuraray has a scheme in place to support childcare and nursing care by its employees. 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.

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

Fiscal year	Childcare	Male employees	Nursing care
2011	35	22	0
2012	53	36	0
2013	59	38	0
2014	46	7	2
2015	48	18	2

[Re-employment System for Retirees]

A reemployment scheme has been established and is in operation for those employees who have left the Company due to childcare, nursing care or moving of residence because of job relocation of spouse, but who desire to work again.

Activities for Comfortable Workplace Environmentt

[Employment of People with Disabilities]

In addition to meeting the statutory employment rate (2.0%), Kuraray is supporting self-sustenance of people with disabilities in cooperation with communities and support groups for dpeople with disabilities

Kuraray has opened workshops for people with intellectual disabilities in cooperation with local welfare facilities.



* The statutory employment rate for disabled persons was revised from 1.8% to 2.0% in April 2013.

Scheme for Management of Healthy Mind and Body

[Basic Policy for 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 Our Commitment, 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 Care Schemes]

Kuraray has four care schemes including schemes for self-care and line care in an effort to reduce mental disorders. Training for preventing mental disorders, a scheme for counseling, a system for scheduling work attendance taking time for mind and body rehabilitation into consideration for employees on temporary leave who desire to return to workplace and other schemes are in place and are implemented.

[Support for Health Improvement]

Enhancement of health awareness of the employees is promoted through personal guidance on health, promotion of health improvement campaigns and other means. "Health Improvement Operation" is carried out companywide urging the employees to voluntarily deal with improvement of their lifestyles. Health checkups featuring checkup items surpassing the checkup items required by laws are provided to find employees who need health improvement.

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.

Living Together with Local Communities and Society

 \sim Sincerely Responding to Feelings of Children Volunteers, School Backpacks Cross the Sea Again \sim

The "Sending School Backpacks Across the Sea" **Campaign Is Carried out for Children in Areas Where Commodities Are in Dire Need**



Backpacks Full of Joyful Memories and Best Wishes Start Walking Their Second Life.

"Sending School Backpacks Across the Sea" is an international contribution activity in which elementary school children in Japan send used school backpacks to children in Afghanistan education opportunity by war. The backpacks are donated every year together filled with stationery and letters.

Afghanistan, Mongolia and Nepal. On the 12th anniversary of the campaign

that was launched in 2004, 7,111 school backpacks were donated in Fiscal 2015 from various parts of Japan. In cooperation with JOICFP, a public interest incorporated and packed by volunteer groups and the employees of Kuraray Group. From Octobe to December the school backpacks were Province, Afghanistan, as presents along wit school supplies. Many volunteers cooperated in shipping them via oceans. So far, a total of 97,390 school backpacks have been sent contribution activity to other countries in th future



2004

2005

2006 2007

2008

2009

2010

2011

8.514

12,076 5,504

6,894

7,022

7,522

8,973

11,144

8,326

6,396

7,908

7,111

97.390

Kuraray Co., Ltd.

FRecalling the Smiles of the Children

Junko Ito, H.R Department, General Affairs and H.R Division,

This is the 5th time for me to participate in this event. I once saw a visual record of the children of Afghanistan receiving the backpacks, and their smiles left me a strong impression. I hope to continue this work, and send even more smiles to the children

* For more information, visit kuraray.co.jp/csr/randoseru/

Interaction with Society

The Kuraray Group recognizes that tackling social issues is an important contribution as a corporate citizen. We undertake activities with a focus on four fields, culture, science, envir onment and social welfare in accordance with our social contribution policy.

Goals and Actual Results in Social Interaction

Fiscal 2015			
Goal	Actual Results	Evaluation and Challenges	Fiscal 2016 Goals
[Science] "Sending School Backpacks Across the Sea" campaign was steadily undertaken	 Delivered/7,111 backpacks Advertise to collect school backpacks through the Kuraray website and nearby elementary schools of Kuraray plants 	 The campaign was carried out as planned. This campaign will be hosted next fiscal year also. 	 To search for new recipients (countries) to support
[Science] "Chemistry Classes for Boys and Girls" was hosted at the five plants and head office of Kuraray more than once this year	 Hosted 9 times in total with 173 participants (Twice at Kurashiki Plant, three times at Saijo Plant, twice at Okayama Plant and twice at Niigata Plant) Additionally, Kashima Plant participated in the Kamisu Festa and the Science Festival for Youths. Tokyo Head Office participated in the Children's Summer Chemistry Experiment Show (held at Science Museum) 	 The event was carried out as planned. 	 To sponsor events more than once per year at each plant and Head Office To sponsor events outside the company To study collaboration with outside organizations
[Social Welfare] Operating workshops for people with intellectual disabilities	 Number of people employed/Intellectually and physically disabled: 39people,Instructors:12people 	 The targeted number of people were hired as planned. 	 To continuously employ the same number of people at the workshops
[Culture] [Science] [Environment] [Social Welfare] To steadfastly undertake existing activities at plants, sites and affiliated companies focusing on the relationship with local communities	 On-going activities were steadfastly undertaken As a new event, Okayama Plant sponsored a tennis tournament for school children. 	 In addition to on-going activities, new activities were undertaken 	 To continuously carry out the activities To cover the status of activities of the entire Kuraray Group including overseas sites as one organization

Social Contribution Activities

Social Contribution Activities by the Kuraray Group

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 with genuine value to the 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. In fiscal 2015, the Kuraray Group carried out activities focusing on culture, science, environment and social welfare in accordance with its policy for social contribution activities.

Kuraray Group Policy for Social Contribution Activities

To fulfill 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 issues
- · Activities rooted in local communities where Kuraray's establishments are based
- · 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







[Activities in Culture Field]

The Kuraray Group continues to support the Ohara Museum of Art, which was established by Magosaburo Ohara, the first president of the company. The Group also supports cultural activities at its plants and sites.

Okayama Plant has been holding the Elementary School Student Painting and Calligraphy Contest annually since 2005. Having become a fixture in the local community thanks to its ongoing successes, this contest received numerous artwork entries from five elementary schools in Fiscal 2015. Winning entries are displayed at the local community center, and all entries are shown on the Kuraray website. This contest will be continuously sponsored.



Contest on Painting and Calligraphy for Elementary School Children at Okayama Plant

Interaction with Society

[Activities in Science Field]

In fiscal 2015, the Kuraray plants sponsored the Chemistry Classes for Boys and Girls, participated in outside events and sponsored sports tournaments to foster healthy juniors and teenagers by continuously supporting on-going activities.

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 experimental work. In this program, employee volunteers of Kuraray serve as lecturers and assistants in dedicated classrooms in Kuraray plant premises, as well as in elementary schools and public facilities in the areas. This program has been sponsored every year since 1992 at Kuraray plants in Japan. In Fiscal 2015, 173 children and family members participated in nine class events. Tokyo Head Office participated in the Children's Summer Chemistry Experiment Show held in Tokyo's Chiyoda Ward. Kashima Plant participated in the Kamisu Festa held in Kamisu City, and the Science Festival for Youths in Hokota City, all in Ibaraki Prefecture. Kuraray's booths were visited by about 2,800 people. We will continue these events in the future and actively participate in outside events.



The Science Festival for Youths (Kashima Plant)

Plant	Class name	Number of classes	Number of participants
Kurashiki Plant	Fun Chemistry House	67	1,799
Saijo Plant	Exciting Chemistry Class	67	1,991
Okayama Plant	Fun Chemistry Class	41	1,323
Niigata Plant	Wondrous Laboratory	51	1,518
Kashima Plant	Fun Chemistry Class	19	1,228
	Total	245	7,859

Various plants of Kuraray are sponsoring sports events from the standpoint of fostering healthy juniors and teenagers. In Fiscal 2015, Okayama Plant newly sponsored a tennis tournament for children. This is one example and the other plants of Kuraray are also hosting new events in addition to the various events that have been hosted by them in the past. Kuraray is offering its baseball parks, gymnasiums and tennis courts to students of nearby schools for the promotion of sports in neighboring areas. These activities will be continued in the future.



Children's Tennis Tournament

[Activities in Environmental Field]

Aiming at implementing forest conservation work and volunteer cleaning work carried out every year, in Fiscal 2015, Okayama Plant undertook "Kuraray Mirai no Mori (Kuraray Forest of Future) Activity," and Niigata Plant undertook the "MIRABAKESSO Forest Creating Activity." All the plants undertook volunteer cleaning work.

At each Kuraray plant, employee volunteers engage in forest conservation activities, cleaning parks, roads and mowing gardens in day nurseries in cooperation with local governments and NPOs. As a topic for Fiscal 2015, "Kuraray Mirai no Mori (Kuraray Forest of Future) Activity" was undertaken jointly by Kibi-Chuo

Town of Okavama Prefecture.Kuraray Okayama Plant was taken up in a supplementary reader for fifth graders at elementary school of Okayama Prefecture as an example of afforestation activities by an enterprise. This activitity will be continued



Work scene in Kuraray Mirai no Mori (Kuraray Forest for the Future), Okayama Prefecture

[Activities in Social Welfare Field]

Aiming to support and continue the employment of people with intellectual disabilities and to undertake the Kuraray Fureai(Rapport) Fund-Raising Campaign, Kuraray's Kurashiki, Saijo, Niigata and Kashima Plants operated workshops and donated money raised in the campaign. Also, cherry blossom viewing parties were held at the Saijo and Niigata Plants tuned to the cherry blossoming season. Residents of nearby social welfare facilities visited the plants and enjoyed viewing cherry blossoms. These activities will be continued.

In cooperation with local welfare facilities, Kuraray has built workshops for people with disabilities to support their selfsustenance by providing employment opportunities.

In cooperation with Nakajo Town (currently Tainai City) and Niji no Ie (meaning ""Rainbow House"", operated by a social welfare corporation, Nanaho-kai), the Kuraray Workshop of Kuraray's Niigata Plant opened in 1997 for people with intellectual disabilities. The workshop sorts plastic waste generated in the production process for recycling and manufactures supplies and fittings. In 2007, the Himawari Sunflower Workshop opened at Kuraray's Saijo Plant. In 2011, the Kashima Plant opened its Aozora Blue Sky Works assisted by a social welfare corporation, Kamisu Keiai-en. 12 instructors and 39 workers now work at four of Kuraray's plants to

accomplish a variety

of job assignments,

Kuraray's Kurashiki

cleaning of uniforms

Plant engaged in

and labeling on

Kuraray products.

They mingle with Kuraray's employees

including those

employees at



Scene in labeling product labels (Kurashiki Plant)

through sports events and other occasions. These workshops and employment of those with intellectual disabilities will be maintained and continued.

	Types of Work
Kurashiki	Cleaning uniforms, labeling products
Saijo	Product recycling, cleaning uniforms
Niigata	Product recycling, manufacture of pot stands and aprons, cleaning uniforms
Kashima	Making double-ply product packing bags, separating foreign matter in products

CSR Procurement

History of Kuraray's CSR Procurement Activities

Promotes Green Procurement to Business Partners (2002~)

Under the Kuraray Group Action Guidelines for the Global Environment (established in 1993), we formulated our Green Procurement Standards in 2002 to promote global environmental preservation with the cooperation of our business partners. We also distributed a booklet comprising the above standards to around 800 key business partners and evaluated the status of initiatives at each company by way of a checklist.

CSR Procurement Policy of Kuraray

Respect for Human Rights

Respect for Human Rights

- 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

Compliance

- Compliance policy
- Compliance systems
- Compliance education program

Promotion of Green Procurement

- Preparation of environmental policies and environmental reports
- Green procurement implementation plan and implementation
- apparatus
- ISO14001 certification
- Education and awareness campaign for green procurement

We eatablished the Kuraray Fureai Fund in July 1992.Under this fund, companies make donations consisting of those made by their employees plus a matching gift of the same amount. Employees endorsing the fund agree to donate amounts of less than 100 ven from their salaries to it, and the company matches this amount. The funds collected in this way are used for social welfare programs. In Fiscal 2015, activities were undertaken contributing to local

communities such as donating nursing care supplies, books and other articles mainly to welfare facilities, local governments and schools in the neighborhoods of Kuraray plants. The fund will be continuously used for the sake of social welfare.



Kuraray Library financed by Kuraray Fureai Fund (Saiio Plant)

Develops into CSR Procurement (2005~)

In 2005, we formulated the Kuraray CSR Procurement Policy based on the 10 principles of the United Nations Global Compact, which are both international and universal.

This policy has become more comprehensive than before as it has added sections on "Respect for human rights and individuality" and "Compliance" to the "Promotion of Green Procurement" section. We requested the understanding of this policy from business partners and grasped the CSR procurement status of around 700 key business partners by conducting questionnaires about CSR procurement

Following the survey, we provided feedback and improvement requests to business partners in Japan with some problems.

[Continuation of CSR Procurement - 2016 Onward]

The Kuraray Group will continue to check the CSR procurement activities of suppliers before purchases are made from new suppliers.

In purchases of equipment and materials, a system has been built allowing checks of CSR procurement activities of suppliers through the Internet by renovating the purchasing system. This system will allow a more precise understanding of purchasing situations of suppliers.

Kuraray's Activities for Purchases of Green Commodities

In 2002. Kurarav set its Green Procurement Guidelines for purchases of 107 items in nine product categories needed for its business operations, including stationery, office equipment and automobiles. Since then, the Kuraray Group has been undertaking activities to preferentially and actively purchase Green Commodities that are low in environmental load. These activities will continuously be undertaken.

CSR Management

Corporate Governance

We at Kuraray view corporate governance as necessary for the maintenance of sound relations with our shareholders and 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.

Kuraray in Fiscal 2003 separated supervision and business execution by reinforcing its board of corporate auditors by

increasing the number of outside auditors, setting up a management advisory council, shortening the terms of office of directors, introducing an executive officer system and other measures. From Fiscal 2008, outside directors have been elected. These measures contributed to putting corporate governance into effect. In Fiscal 2015, the Basic Policy for Establishment of Internal Control System was amended to strengthen the governance system for Kuraray Group

Organization Chart for Corporate Governance



CSR Promotion Structure

In 2003, Kuraray instituted CSR Committee by integrating Philanthropy and Environment Committee and In-house Ethics Committee, and bolstered its CSR promotion structure on a Group level. Three committees of experts (Social Responsibility and Economic Subcommittee, Environmental and Industrial Safety Subcommittee, and Risk Management and Compliance Subcommittee) are organized under CSR Committee. Nine working teams are organized in each committee of experts. These committees of experts and working teams study company-wide policies and targets and propose them to the management. Each department constituiting these committees and working teams collaborates with various organizations in Kuraray Group in addressing respective theme in accordance with company-wide CSR policy. Multifaceted studies are made possible by appointing responsible directors and presidents of all companies as members of CSR Committee.

Compliance

Kuraray Group is implementing compliance activities without limiting itself to merely complying laws and regulations in a narrow sense, to create an organizational climate in which executives and employees act by high ethical standards individually as "good citizens" and ensure corporate transparency and fairness. "Our Commitment" states the principles of our conduct wich we should observe in doing our business. "Kuraray Group Code of Conduct" serves as guidelines to implement the commitment in performing day-to-day work. The top person of Kuraray Group has declared that we will comply with laws and regulations and "Our Commitment" under any circumstances. In order to share these principles and

commitments among all Kuraray Group personnel throughout the world, Compliance Handbook has been compiled containing the foregoing declaration by the top person and explanations of "Kuraray Group Code of Conduct." The handbook is written in eight languages, Japanese, English, German, Chinese, Hangul, Russian, Flemish and Czech, and has been distributed to group employees.

We plan to appoint compliance officers at Plants, Offices and Laboratories of Kuraray and group companies and to organize a compliance committee in each region to effectively and sustainably promote and implement compliance activities within the group as a whole

Whistleblower System

As a whistleblower system to prevent and to identify and troubleshoot any compliance violation at an early stage, Kuraray Group Employee Counseling Room has been set up for all employees of domestic Kuraray group including part-time employees, contract employees and dispatched staffs. Whistleblower contact windows are also provided at major subcidiaries in Europe and North America. In recent years, globalization of Kuraray Group has accelerated rapidly through M&A and other activities and the group is building a system at subcidiaries that do not have such contact windows yet, allowing all employees of the group inside and outside Japan to access a contact window

Risk Management

Within Kuraray Group, risks are managed vertically by Divisions, Offices, Plants, and affiliates by identifying, assessing and responding to intrinsic risks. Risks are also managed horizontally by corporate staff in charge, assessing pure risks that cause only negative impacts when such risks become realities, such as natural disasters and violations of laws and regulations, for crosssectional management. Additionally, material risks that need to be managed by the management level are identified among those risks that are identified in these management activities, to implement countermeasures on a priority basis. The president of Kuraray directs a group risk management policy to various organizations each year.

From 2016, "Basic Policy" as a long-term and continual policy for risk management of Kurarav Group and "Annual Tasks" to be focused in each year in the light of recent social situations and trends of Kuraray and other companies are developed separately. This new approach allows Kuraray Group to respond to changes in the risk environment more flexibly and quickly while maintaining our basic approach to risk management

Quality Management

Within Kuraray Group, quality management is carried out by implementing quality management systems such as ISO 9001 at each manufacturing site. The divisions have built a mechanism for each of their businesses to supply products that incorporate the requirements of customers. The corporate CSR Division undertakes activities aiming at reinforcing quality management within the entire group

Among Kuraray's divisions, beginning 2012, the EVAL Division has been continuing its ICS activity aimed at enhancing customer satisfaction, and is improving the quality of its activities such as by undertaking cross-sectional improvements. Beginning Fiscal 2015, the GENESTAR Division has launched a similar activity. The Quality Assurance and Product Safety Working Team inaugurated in 2014 is taking up common themes for the entire Kuraray Group. In Fiscal 2015, the team carried out two themes, ① Information exchange on the management of outsourced processing and suggestions for improvement and 2 Summary and analysis and information sharing for survey from our customers on quality management.

In Fiscal 2016, the scope of the ICS activity will be expanded further. A handbook for sharing the approach of "quality management" will be prepared to disseminate these activities widely. As a new activity,

Number of Consultations at Kuraray Group Employee **Counseling Room**

FY	2011	2012	2013	2014	2015
Number of Consultations	2	5	1	1	3

On-the-Spot Inspection by Fair Trade Commission

On March 1, 2016, Fair Trade Commission of Japan made an on-thespot inspection at Kuraray, involving competitive bidding on textile products purchased by Acquisition, Technology and Logistics Agency, Defense Ministry. Responding sincerely to this fact, we fully cooperate in the inspection and strive to more strictly implement compliance enforcement

Ba	sic Policy
	We will prevent illegal, unfair or improper practices which amount to betray confidence of society.
	We will prevent all accidents which threaten health and security of our employees, local communities, customers and business partners including occupational incidents, process accidents, environmental pollution and product accidents.
	In case of an event which causes serious negative impacts on our business or society, we will take actions to ensure confidence of society and health and safety, and to continue or quickly restore our normal business operation. In such situation, we will give priority to ensuring confidence of society and health and safety over continuing or restoring our normal business operation.
An	inual Tasks
(1)	Reexaming risks of material violation of laws and regulations.
	Implementing countermeasures to reduce business risks caused by natural disasters.
121	Poviowing ricks in upper stream of supply shaip including source of

- (3) Reviewing risks in upper stream of supply chain including source of raw materials
- (4) Strengthening countermeasures against quality problems.

"Saiteki Activity (meeting to discuss quality management)" will be started for the Business divisions and CSR division in unison to improve the activities of quality management at each division.

Handling of Product Complaints

Within Kuraray Group, information on complaints and claims received from the customers is managed by its divisions, so responses to customers can be promptly made and action is taken swiftly to prevent the recurrence of same flaws. Material complaints and claims are handled in accordance with the "Regulations on Producit Liability-related Accident Responce and Quality Complaint Report."

In Fiscal 2015, no product recalls or accidents that cause severe damage to health or damage to property such as fire were reported.