

CSR

PURSUING CSR ONLY  
A CHEMISTRY-BASED  
COMPANY WOULD DO.

All executives and employees in Toray Group constantly strive to fulfill their social responsibilities in all domains of Toray's business activities. Toray pursues a wide range of CSR (corporate social responsibility) activities in ensuring safety, accident prevention, environmental preservation, corporate ethics, legal compliance, and management transparency. The Group also engages in utilizing our unique research and technological development capabilities in developing products that provide solutions to global environmental problems, and provides grants for promoting basic research into science and technology along with support for the arts, culture, and sports.

## CORPORATE GOVERNANCE

### BASIC POLICY

Toray Group's corporate philosophy centers on "contributing to society through the creation of new value with innovative ideas, technologies, and products." In order to realize this philosophy, we are constantly enhancing corporate governance. Toray Group places top priority on gaining the trust of shareholders, as well as obtaining the trust and meeting expectations of society by acting fairly while maintaining high ethical standards, ensuring a strong sense of responsibility, and reinforcing management transparency.

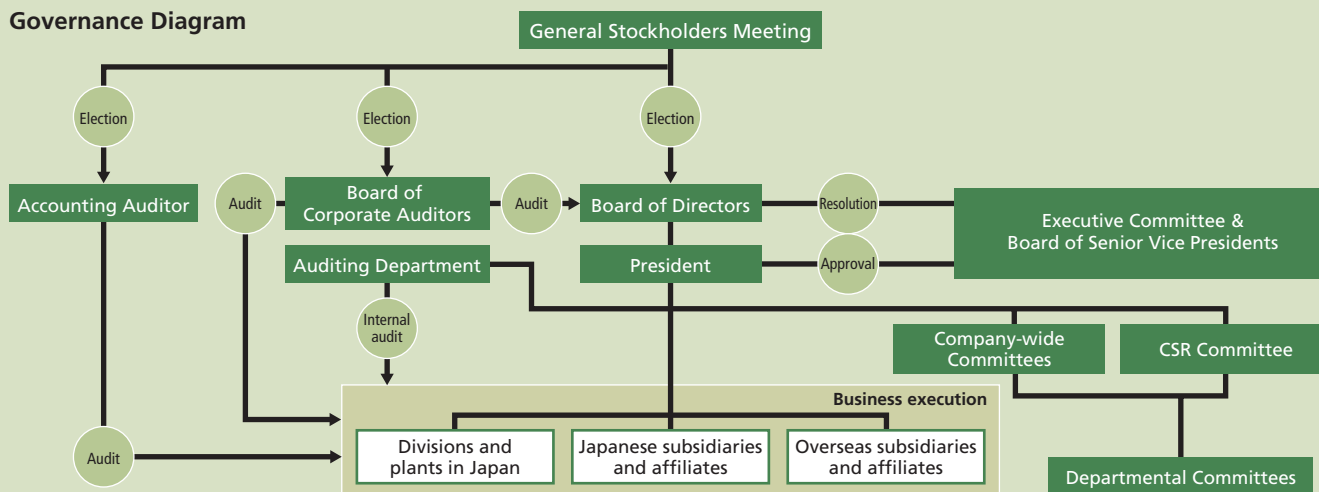
Since Toray Group supplies various basic materials to a wide range of industries and operates on a global scale, we believe that swift and flexible decision-making and the execution of duties by directors well-versed in the Group's business situations is essential from the perspective of fulfilling our responsibilities to shareholders. For this reason, we have not implemented an operating officer system. At present, we do not appoint external directors. However, all of Toray's top executives fully recognize the importance of incorporating valuable external perspectives, and in this respect we are continually examining the introduction of external directors who could fulfill a valuable and effective role in Toray Group.

### CORPORATE GOVERNANCE SYSTEM

As of June 27, 2007, the Board of Directors consisted of 30 members. Decisions concerning important matters related to Corporation Law are made at monthly Board of Directors meetings. At those meetings, directors present reports and exchange opinions as part of the mutual monitoring of the execution of each of their respective duties. To ensure timely and rigorous decision-making at Board of Directors meetings, we set and adhere strictly to limits on the authority of top management for each organization, and we operate both the Executive Committee to discuss policy matters and the Board of Senior Vice Presidents to discuss implementation as deliberative organs for decisions made at Board of Directors meetings and by the President. We have also established a CSR Committee and other company-wide committees for each important management theme, which play a supplementary role in decision-making and implementation.

As of June 27, 2007, there were four corporate auditors, of whom two were external auditors. The role of the auditors is to enhance the management monitoring function. All auditors attend Board of Directors meetings and, based on policies and plans adopted by Board of Corporate Auditors meetings held quarterly, perform regular audits of Toray offices and plants worldwide, including subsidiaries and affiliates. They also meet with the President, all directors and the heads of Toray's various departments. In addition, support personnel aid the auditors in their duties, and the Auditing Department assists the auditors when requested.

Governance Diagram



## INTERNAL CONTROL

### BASIC POLICY

Toray Group has established an internal control system to enable all executives and employees to realize our corporate philosophy. It encompasses the creation of an appropriate framework, including the above-mentioned system of corporate governance, as well as formulation of rules and regulations, dissemination of information, and monitoring. We will ensure the legal and efficient execution of operations by constantly examining and improving this framework.

### MAIN ACTIVITIES

#### (1) Corporate Ethics and Legal Compliance

Corporate ethics and legal compliance are priority management issues on a par with maintaining safety, accident prevention and environmental preservation. Based on the clearly defined stance and active leadership of the CEO, Toray Group works together towards these goals.

Specifically, the Group's compliance activities are spearheaded by three committees: (1) the Corporate Ethics Committee (chaired by the President & CEO and including all member of the board and the chair of the labor union), which determines policies related to corporate ethics and legal compliance; (2) the Company-Wide Legal Compliance Committee, which emphasizes direct communication between top management and employees; and (3) the CSR and Legal Compliance Committee, which implements programs at division, department, office, and plant levels.

To ensure that all executives and employees observe corporate ethics and comply with laws and regulations, Toray has adopted a Corporate Ethics and Legal Compliance Code of Conduct and Corporate Ethics and Legal Compliance Guidelines. The code of conduct and guidelines have been combined in the Corporate Ethics and Legal Compliance Handbook to ensure thorough dissemination to all executives and employees. We are also establishing an Internal Reporting System for executives and employees to report violation of laws, regulations, or the company's Articles of Incorporation.

#### (2) Risk Management

Toray's risk management system works to mitigate risks and prevent crises under normal conditions and to respond immediately in the event of a major emergency. We have identified the

risks that are potentially present in our business activities and established Risk Management Regulations.

As a subordinate organ to the CSR Committee, the Risk Management Committee is charged with overseeing risk management under normal conditions. In the event of a company-wide crisis, the Committee will take action in coordination with the Company-Wide Emergency Headquarters and the On-Site Emergency Headquarters.

#### (3) Financial Reports

For fiscal periods beginning on or after April 2008, Japan's Financial Product Exchange Law will require companies to submit internal control system reports and audits on these systems to be performed by auditing firms. To meet these new requirements, Toray's Internal Control Department is establishing a new system for financial reporting, which will be completed during FY Mar/08. The system will be implemented after April 2008.

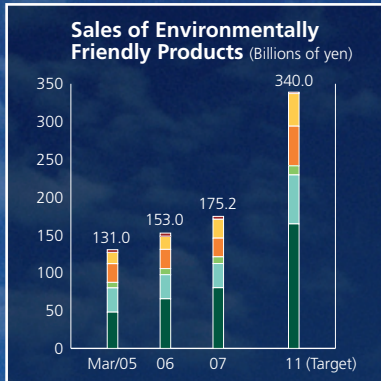
#### (4) Information Disclosure and Management

As a basic principle, Toray Group will continue functioning in an open manner by fulfilling its duty to provide information to all stakeholders. We are committed to independent and fair disclosure of information based on our Information Disclosure Principles. Business results are announced in quarterly financial reports, and important information related to the Group is disclosed in a timely manner through a variety of channels. These include filing reports with the Tokyo Stock Exchange, issuing press releases to media organizations, and posting information on the Toray website.

We have a robust system for storing and managing important documents and information, including minutes and financial reports related to management decision-making. Such information is made available to others when necessary. Confidential information is controlled by Confidential Information Management Regulations, which specify those in charge and methods of controlling such information, and we adopt measures to prevent improper access to such information by those outside the Group. Toray has also put in place a system for protecting personal information through our Personal Information Management Regulations.

*Ecodream* \*

- Reduction of carbon dioxide and energy
- Water purification
- Air purification
- Reduction of hazardous substances
- Recycling
- Others



Share of Environmentally Friendly Products in overall consolidated net sales

# 11.3

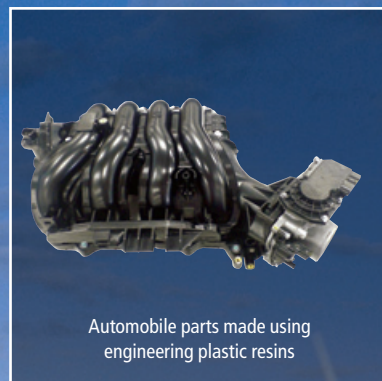
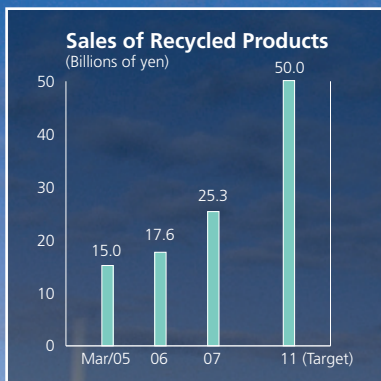
%

**CONTRIBUTING TO THE GLOBAL ENVIRONMENT THROUGH OUR BUSINESS**

Sales of Environmentally Friendly Products

# 14.5

% yoy increase



The length of blades used in large-capacity wind power generation continues to increase, and are now in the 40 to 60 meter range. Toray's carbon fiber is being adopted in these larger blades to reduce weight while maintaining strength.

**Ecodream\* — BASIC POLICY**

As a manufacturer committed to fulfilling its social responsibilities, Toray Group engages tirelessly in environmental preservation activities\*. These include reducing greenhouse gases and chemical emissions generated in the course of our business activities. At the same time, being a manufacturer of science and technology-based materials, we make our own contribution to society through the promotion of recycling and the development of technologies and products with minimal environmental impact. We have adopted the name *Ecodream\** for Group initiatives that place us at the forefront of global environmental protection initiatives, including the conservation of resources and the prevention of global warming, both of which aim to realize a sustainable recycling-oriented society.

\*For more details on environmental preservation initiatives, such as reducing greenhouse gases and chemical emissions, please refer to pages 48 and 49.

**EXPANDING BUSINESSES' THROUGH THE *Ecodream\** PROJECT**

To communicate information both internally and externally about our environmental and recycling initiatives, we have adopted *Ecodream\** as the general brand name for our environmentally friendly products and recycled offerings. Initiatives to expand the business of these products have been collectively named the "*Ecodream\** Project."

Under the *Ecodream\** Project, we aim to increase total sales of eco-friendly products, featuring minimal environmental impact throughout their entire lifecycle, to ¥340 billion by FY Mar/11. This target is more than double the figure for these products recorded in FY Mar/06.

Total sales of environmentally friendly products are steadily increasing and reached ¥175.2 billion in FY Mar/07, up 14.5% from the previous year.

**PROMOTING RECYCLING**

Toray Group's basic policy, which emphasizes "Less Energy Recycling," calls for the multilateral use of various recycling technologies suited to each material's properties. Here, our aim is to keep energy consumption and carbon dioxide emissions to the minimal levels necessary. To conserve resources and protect the global environment, we actively adopt recycling in our fibers and textiles, plastics, and carbon fiber composite materials businesses.

We are pursuing a "Total Recycling" program for our three major synthetic fiber: nylon, polyester, and acrylic. Specifically, we are using three recycling methods, based on their suitability to various raw materials and products. They are (1) "Material Recycling," in which the materials are recycled without decomposition of the polymers, (2) "Chemical Recycling," in which materials are recycled by chemically decomposing polymers into raw materials, and (3) "Thermal Recycling," in which heat recovered from the incineration processes is reused.

In FY Mar/07, we announced our intention to market clothes made of recycled nylon-6 fibers in collaboration with U.S.-based company, Patagonia, Inc. Compared with items made from virgin nylon-6 fiber, these textiles consume one-sixth of the energy and emit one-fifth of the carbon dioxide during the production process. This recycling initiative makes a substantial contribution to reducing environmental impact.

## Ecodream\* PRODUCTS

### Expected Effects on Environmentally Friendly Products and Technologies

Expected Effects	Products
<b>CO<sub>2</sub> Gas Reduction</b>	PLA (Polylactic Acid) fibers, plastic resins, films; 3GT fibers & textiles; Bamboo composite fibers; Cellulose fibers; Soybean protein fibers; Flexible and heat resistant films
<b>Energy Reduction</b>	Torayca* for transport machineries; Engineering plastic resins; Components for turbine generators; Components for fuel cells; Films for solar cells; films for capacitors for hybrid cars
<b>Water Purification (Water treatment)</b>	RO (reverse osmosis) membranes; UF-MF membranes; Immersed membranes for MBR; Water treatment system businesses; Torayvino*
<b>Air Purification</b>	Heat resistant bag filters (PPS, PTFE fibers); Air filters
<b>Hazardous Materials Reduction</b>	Non-halogen flame retardant (fibers & textiles, plastic resins, films); Waterless CTP plate; Non-halogen circuit materials; Heavy metal-free color filters
<b>Recycling</b>	PET; Nylon 6; PBT; ABS; PPS; CFRP; DMSO

■ Fibers & Textiles   
 ■ Plastics & Chemicals   
 ■ IT-related Products   
 ■ Carbon Fiber Composite Materials  
■ Environment & Engineering   
 ■ Life Science & Other Businesses

Product/technology	Description	Carbon dioxide reduction*1	Energy reduction*2	Water purification*3	Air purification**4	Hazardous substances reduction**5	Recycling**6	others
Torcon*, Toyoflon*, Teflon®, Tefaire®	PPS fibers and fluorofibers used to collect dust in the exhaust gas of garbage incinerators and coal-fired boilers.				●			
Ecodream*	Environmentally friendly polylactic acid fiber made from corn or other plants.	●	●					
Sotake*	Bamboo-based fiber combining the superior features of natural bamboo with Toray's technologies.	●						
Foresse*	Fiber made from non-petrochemicals, plant-based cellulose. Also, the spinning process does not involve organic solvents, but uses the melt spinning method.	●						
Aminos*	Plant protein fiber made from proteins derived from soybeans.	●						
UNFLA*-ex	Non-halogen flame resistant polyester material using phosphorous flame retardants.					●		
WarmSENSOR*	Moisture-absorbent, heat-generating, insulating material achieved through special fiber structure processing.		●					
Eco Dye® process	Low-energy carpet fiber dyeing method that reduces the amount of water needed for dyeing and cuts the number of processes through consistent dyeing and heat treatment technology.		●					
Fieldmate* biodegradable fishing line	Fishing line that largely breaks down into water and carbon dioxide to return to the natural environment if accidentally left in the water or on the ground after use.					●		
Fieldmate* biodegradable material	Used to provide underground support for trees but returns to the natural environment over time.					●		
Recyclon*	Recycled fiber made from used PET (Poly (ethylene terephthalate)) bottles, nylon fibers and other products.						●	
Nylon-6 recycling	Spent nylon-6 fiber products are depolymerized back into their constituent monomers, and then repolymerized to make new nylon-6.						●	
Acrylic recycling	Acrylic fiber scrap from spinners, knitters, and other manufacturers is collected and dissolved to make new fibers.						●	
Cellulose sponge	Environmentally friendly product that is made from wood pulp, does not generate harmful gases when incinerated, and is biodegradable when buried in the ground.	●				●		
Toraymicron*	Ultra-fine nonwoven fabric used in air filter and mask as it can clean foul air at the micro level.				●			
Wosep* microfiber nonwoven material	A non-woven fabric made from polypropylene ultrafinefibers that can separate the oil content of oil wastewater and does not generate harmful gases after disposal.		●					
Tekarisanari* oil-removing cloth	Oil-removing cloth made using microfiber technology that can be washed and reused.						●	
Ecodream*	High-functional plastic and film on the base of polylactic acid made from plant-origin materials like corn.	●	●					
Non-halogen flame retardant ABS, nylon, PBT resins	Non-halogen flame retardant plastics that do not generate harmful substances when incinerated or disposed of.					●		
Automotive engineering plastic resins	Plastics are lighter than conventional materials, and the use of Toray's products in components helps to improve fuel efficiency.		●					
Eco Toyolac*	Recycled ABS (Acrylonitrile Butadiene Styrene Copolymer) resin.						●	
Eco Amilan*	Recycled nylon resin.						●	
Eco Toraycon*	Recycled PBT (Poly (Butylene Terephthalate)) resin.						●	
Eco Torelina*	Recycled PPS (Poly (Phenylene Sulfide)) resin.						●	
Torcon* resin ceramic appearance grade	PBT resin for injection molding to substitute for china with fine texture and luster or thermoset plastic.					●		
Lumirror* ZV	Non-halogen flame resistant PET film that does not generate bromine-based harmful substances when incinerated or disposed of.					●		

Teflon® and Tefaire® are registered trademarks of Dupont. Eco Dye® is a registered trademark of the SUPERBA group of France.

**DIVERSE LINEUP OF Ecodream\* PRODUCTS**

Embracing the concepts of “Clean” and “Less Energy,” Toray Group is developing and commercializing products and technologies that contribute to environmental protection from six perspectives: carbon dioxide reduction, energy reduction (“Less Energy”), water purification, air purification, hazardous substances reduction (“Clean”), and recycling. Toray Group has adopted the name *Ecodream\** for products created through these initiatives.

Product/technology	Description	Carbon dioxide reduction*1	Energy reduction**2	Water purification*3	Air purification*4	Hazardous substances reduction*5	Recycling*6	others
Steel sheet laminating films	PET films for laminating steel sheets as a replacement for PVC in unit bathrooms.				●			
Food can laminating films	PET films ideal for laminating cans as a replacement for chemical coatings or plating.				●			
Films for capacitors for hybrid cars	Ultra-thin polypropylene films that remain stable under the very high voltages needed to improve hybrid car efficiency.	●			●			
Solar cell films	PET films ideal for use as the base back sheet in solar cells.	●						
Films for solar control systems	PET films that helps reduce energy consumption in air conditioners and heaters by reflecting heat.	●						
Transparent evaporating film <i>Barrialex*</i>	Transparent gas barrier films that does not generate harmful gases when incinerated because it does not use chlorine- or nitrogen-based substances or aluminum foil as raw materials.					●		
<i>Thiokol LP*</i>	Liquid polysulfide polymer, used as a sealant material for laminated glass with strong heat resistance and other applications.	●						
<i>Ionex*</i>	Ion exchange fibers used in decontamination of water condensate, water quality testing filter papers, and water purification systems at nuclear power plants.		●					
Positive <i>Photoneece*</i>	Photosensitive polyimide that can be developed using an environmentally friendly alkali aqueous solution instead of organic developer.				●			
Type K, Type S Toray copper clad polyimide laminate films	Non-halogen polyimide films that do not generate bromine-based harmful substances when incinerated or disposed of.				●			
<i>Topical*</i> LCD color filter	Uses environmentally friendly black matrix resins and does not use harmful heavy metals.				●			
<i>Toray Waterless Plate*</i>	Offset printing plates that do not use dampening water, which is a harmful wastewater generated during printing.				●			
DMSO	DMSO (Dimethyl sulfoxide), recyclable, used in separating agent and cleaning solution for electronic components.						●	
Toray Slit Coater	Liquid crystal color filter production equipment that is able to cost coating material only by slit nozzles without a glass substrate spinning, thus preventing coating material loss and manufacturing loss as well as enabling lower energy consumption.	●			●			
<i>Torayca*</i> carbon fiber	In addition to contributions to weight reduction for aircraft and automobiles, used in wind mill blades for wind power generator and fuel tanks for environmentally friendly compressed natural gas (CNG) vehicles.	●						
<i>Torayca*</i> prepreg	Sheet-form carbon fiber <i>Torayca*</i> impregnated with resin, used as a lightweight structural material for aircraft.	●						
<i>Torayca*</i> advanced composite materials	Production of large-scale structural molding components using carbon fiber.	●						
Toray carbon paper	Used as an electrode material in fuel cells, which are expected to offer a clean source of energy.	●						
<i>Torayca*</i> fabric construction	A method for using <i>Torayca*</i> fabrics made from lightweight, reinforcing carbon fibers to extend the life of existing buildings and bridges.	●					●	
<i>Torayca*</i> laminate construction	A simple construction method of adhering carbon fiber reinforced sheets as a surface treatment, thereby shortening construction time, improving working environments and extending the life of existing structures.	●					●	
<i>Romembra*</i>	Reverse osmosis membrane element for the desalination of seawater used in the production of drinking water and ultrapure water for the semiconductor industry.		●					
Water treatment systems	Water purification systems for seawater and brackish water desalination.		●					
<i>Torayfil*</i>	Ultrafiltration, microfiltration membrane modules used in the production of drinking water.		●					
Membrane bioreactor (MBR) modules	Modules for MBRs systems, which allow effluent and waste water to be reused.		●					
<i>Torayvino*</i>	Home-use water purification systems that remove residual chlorine, impurities, and general bacteria by combining hollow membrane fibers and activated carbon.		●					
Air filters	Air conditioning and industrial process filters that trap microscopic particles using electrolyte microfiber non-woven fabrics.			●				
<i>Loop Bonding*</i> and <i>Tough Binder*</i> Construction	This construction method using a resin-molded binder and a nylon-cut fiber prevents external tiles from falling off.						●	
Water-permeable ceramic blocks <i>Toraysurou*</i>	Recycled ceramic material, with its water permeability and water-retention qualities, ideal for reducing the heat island effect and preventing flooding in cities.	●					●	
<i>Toraycool*</i>	A recycled product that uses 80% tile waste material, and its water-retention capability helps mitigate summer heat.	●					●	
Environmental measurement survey	Surveys various environmental problems, such as of dioxins and PCBs and extremely small concentrations of endocrine disruptors, persistent organic pollutants, and perfluorooctanyl sulfonate, and publishes reports.							●
Analysis and evaluation of industrial materials	Analysis of gases given off by materials, detection of hazardous materials defined in RoHS directives in electric and electronic equipment, combustion testing of materials.							●
Environmental consulting	Statutory environmental assessments, other consulting work covering survey and analysis of range of natural and living environments.							●

\*1 Associated with reduction or prevention of carbon dioxide generation and reduction in usage of exhaustible resources. \*2 Associated with lower energy consumption or energy generation. \*3 Associated with purification of water. \*4 Associated with purification of air. \*5 Associated with reduction or prevention of hazardous substances. \*6 Products and technologies associated with recycling.

Ecodream\*  
CASE STUDY

1

### Carbon Fiber (Reducing Energy)

### Energy savings through weight reduction in aircraft

Quantum increase of CFRP in aircraft application

- By increase in CFRP to up to 50% of structural material, weight can be reduced by approximately 20%.
- Including the adoption of advanced engines, fuel consumption can be reduced by 20%.

weight reduction

20

%

reduction in  
fuel consumption

20

%

reduction in  
body weight

36

%

reduction in  
energy consumption

15

%

### Energy savings through weight reduction in cars

To save energy (reduction in greenhouse gases), expanded utilization of engineering plastic resins and CFRP

Said to be stronger than steel and lighter than aluminum, carbon fiber weighs one-quarter that of steel but has 10 times the strength. Consequently, demand for carbon fiber is expanding owing to its increasing adoption by the transportation sector, particularly for aircraft due to the need to improve fuel economy, and is expected to be adopted in next-generation cars as well in the future. As the largest manufacturer of carbon fiber in the world, Toray has launched initiatives to not only fulfill its responsibility of meeting such demand for supply\*, but also to develop even more advanced technologies, expand applications and recycle carbon fiber materials.

\*Please refer to page 29 for more information on Toray's initiatives to meet this expansion in demand.

### LIGHTER WEIGHT TO REDUCE ENERGY CONSUMPTION

Carbon fiber reinforced plastic (CFRP) is used for approximately 50% of the main wings and body in the Boeing 787 Dreamliner, scheduled to enter service in 2008. Its adoption has improved weight and fuel economy by approximately 20% compared with conventional models. Owing to its lighter weight, this medium-sized plane\*\* has a maximum cruising range of 15,200 kilometers, the same as a large plane. Toray Group is carving out a dominant position for itself in the supply

of CFRP for aircraft applications. As for next-generation cars that make use of CFRP in earnest, it is said they will weigh around two-thirds that of conventional cars and will reduce energy consumption by around 15%.

\*\*Standard model with a seating capacity of 210-250.

### RECYCLING CARBON FIBERS

Waste CFRP is expected to increase worldwide, with some calculations putting it as high as 20,000 tons by 2010, twice the current level. To date, however, nearly all carbon fiber, which is highly flame retardant, has been disposed of in landfills.

To remedy this situation, in 2006 the Japan Carbon Fiber Manufacturers' Association, of which Toray is a member, launched a carbon fiber recycling initiative. At present, the Association and Mitsui Mining Co., Ltd. are cooperating in constructing a pilot carbon fiber recycling plant in Fukuoka Prefecture. The recycling facility is scheduled to commence operations in April 2008, and is expected to produce 60 tons a month.

Carbon fiber recycling plants are rare worldwide, and this plant is the first such endeavor in Japan. Requiring roughly one-twentieth the amount of energy used to manufacture normal carbon fiber, the recycling process is expected to yield considerable energy savings.

Ecodream\*  
CASE STUDY

2

**Water Treatment Business  
(Water Purification)**

In today's world of growing populations, global warming, environmental pollution, and other problems, there is a worsening shortage of good-quality water worldwide. Roughly 1.1 billion people among the current global population of 6.5 billion are unable to obtain drinking water (including water for daily use). Approximately 2.4 billion people live without sanitation facilities, such as sewerage treatment. Moreover, it is estimated that by 2025 more than 40% of the world's regions will face serious water shortages.



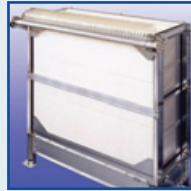

Toray Group is making a global contribution to solving the problem of insufficient clean water through its lineup of products and cutting-edge membrane treatment technologies, used for the high-speed treatment of water with high-accuracy control of water quality.

**FULL LINEUP OF HIGH-PERFORMANCE WATER TREATMENT MEMBRANES**

Water treatment using membranes is being introduced as a substitute for the conventional slow filtration and rapid filtra-

tion methods of water treatment. These methods bring various problems, such as acquiring land for facilities and dealing with deterioration in the quality of raw water, such as stamping out cryptosporidium — which is hard to do using chlorination.

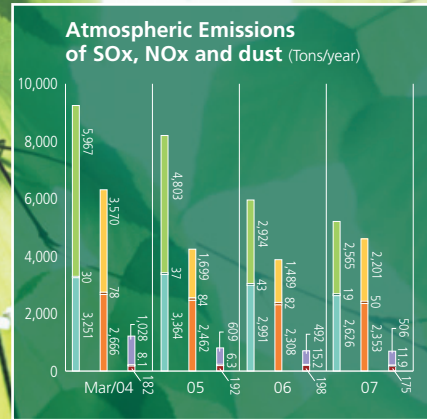
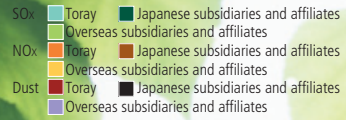
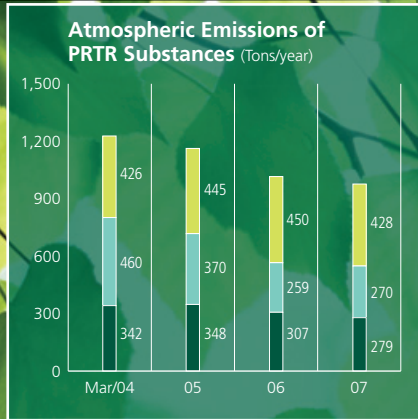
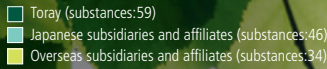
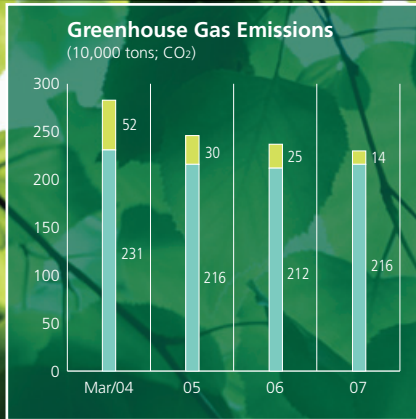
Toray Group has a 16% share of the world market for reverse osmosis (RO) membranes used to desalinate seawater, which accounts for 97.5% of the world's total water. We also possess a technological edge in hollow-fiber microfiltration (MF) membranes used to purify underground water and river water, and immersed membrane for MBR, which treat and recycle wastewater. Our RO membranes, in particular, are highly recognized for their excellent performance, including their high removal rate of boron, a chemical element that is difficult to remove and toxic to the human body. Today, Toray's products are found in seawater desalination plants in 30 countries around the world. They produce more than 1.9 million cubic meters of water a day, enough to satisfy the daily needs of approximately 7.6 million people. By continuing to increase production capacity, we seek to become the No.1 global supplier of water treatment membranes.

	RO/NF membrane	MF/UF membrane	Immersed membrane for MBR	Home water purifier Torayvino*
Appearance of product				
Removable material	Ion, Dissolved organic matter	Suspended solid, Bacteria, Virus	Contaminant water, Bacteria	Wastes, rust, Residual chlorine, Lead
Application	Seawater desalination, Brackish water desalination, Wastewater reuse, Ultra pure water production	Drinking water production, Treatment of wastewater, Pre-treatment for RO membrane, Industrial process water production	Treatment and reuse of wastewater	Water purification

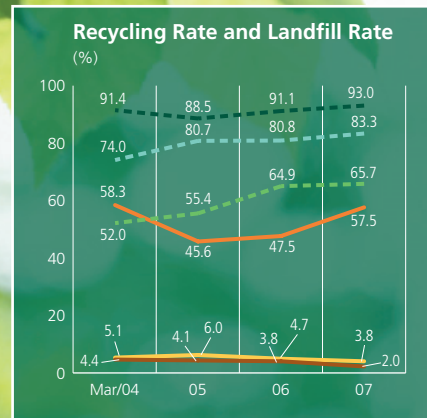
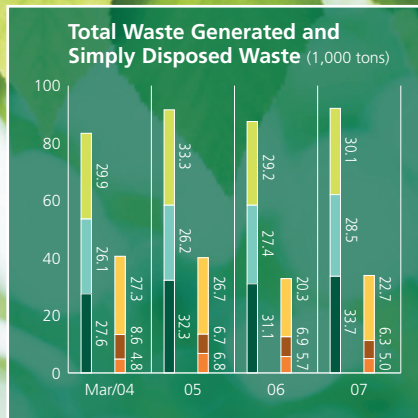
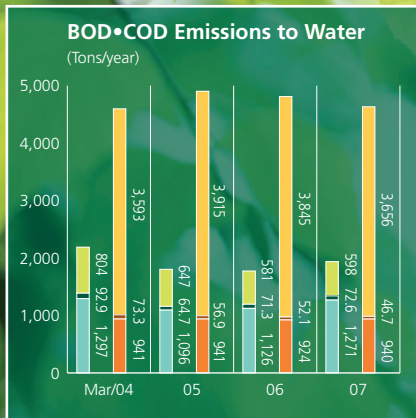


# TORAY'S INITIATIVES FOR "OUR COMMON FUTURE"

## 1) ENVIRONMENT



**TORAY IS COMMITTED TO REDUCING THE ENVIRONMENTAL BURDEN**



**BOD** Toray (12 plants, 1 research institute)  
 Japanese subsidiaries and affiliates (24 plants at 19 companies)  
 Overseas subsidiaries and affiliates (33 plants at 24 companies)

**COD** Toray (6 plants subjects to Total Pollutant Load Control)  
 Japanese subsidiaries and affiliate (7 plants at 7 companies subjects to Total Pollutant Load Control)  
 Overseas subsidiaries and affiliates (33 plants at 24 companies)

Total waste generated Toray Japanese subsidiaries and affiliates Overseas subsidiaries and affiliates  
 Simply disposed waste Toray Japanese subsidiaries and affiliates Overseas subsidiaries and affiliates

Note: Data for overseas subsidiaries and affiliates exclude that for Toray Seahan Inc. which has started calculation since FY Mar/07

Recycling rate Toray Japanese subsidiaries and affiliates Overseas subsidiaries and affiliates  
 Landfill rate Toray Japanese subsidiaries and affiliates Overseas subsidiaries and affiliates

1. Regenerative Combustion Facility at the Toray Chiba Plant for organic gases

2. Wastewater Treatment Facility at Toray Plastics (Shenzhen) Ltd. (China)

Graph 1	Graph 2	Graph 3
Photo. 1		Photo. 2
Graph 4	Graph 5	Graph 6

### POLICY FOR INITIATIVES

Toray Group's most important Corporate Guiding Principle is "placing top priority on safety, accident prevention and environmental preservation, ensuring the safety and health of our employees, our customers and local communities, and actively promoting environmental preservation." In line with this principle, we promote measures aimed at creating a sustainable recycling-oriented society by reducing emissions and waste and strengthening recycling initiatives.

The Group's policy toward environmental preservation is embodied in the Ten Basic Environmental Rules adopted in 2000. Adhering to these rules, the Group adopts a unified approach to environmental protection activities.

#### Ten Basic Environmental Rules

1. Prioritize environmental preservation
2. Prevent global warming
3. Achieve zero emissions of environmental pollutants
4. Use safer chemical substances
5. Promote recycling
6. Improve the level of environmental management
7. Contribute to society through environmental improvement technologies and products
8. Improve the environmental management of our overseas businesses
9. Improve employees' environmental awareness
10. Share environmental information with society

### THE FISCAL YEAR ENDED MARCH 2007 ACHIEVEMENTS

#### Preventing Global Warming (Graph 1)

Toray is targeting a 10% reduction by FY Mar/09 of its greenhouse gas emissions over FY Mar/91. Measures adopted to meet this target include establishing an N<sub>2</sub>O (dinitrogen monoxide) thermal decomposition facility, converting to natural gas as a fuel source, and promoting energy conservation. In FY Mar/07, we converted our boilers to city gas and opened a natural gas cogeneration facility. Having already reduced emissions that cause greenhouse gases by 9.6% compared with FY Mar/91, we are well on track to meet our 10% target.

#### Reducing Atmospheric Emissions of Chemical Substances\* (Graph 2)

Toray Group adopts initiatives aimed at reducing the volume of chemical emissions released into the atmosphere. In FY Mar/07, for example, the Toray Chiba Plant installed a regenerative combustion facility (2nd stage) to process organic gases. As a result, in FY Mar/07 we achieved a 57% reduction in chemical emissions compared with the year when we launched Group-wide initiatives. We will continue to promote measures targeting reduced levels of these emissions.

\*Substances designated by the PRTR (Pollutant Release and Transfer Register) Law. The PRTR Law establishes a system under which businesses that handle chemical substances report to the national government about the release into the environment of waste transfer designated substances. The government calculates total figures and publishes the results.

#### Preventing Air Pollution (Graph 3)

Conversion to natural gas and other proactive measures adopted by the Group have contributed to a reduction in SO<sub>x</sub> (sulfur oxide), NO<sub>x</sub> (nitrogen oxide), and dust emissions compared with FY Mar/04 levels.

#### Preventing Water Pollution (Graph 4)

Biochemical oxygen demand (BOD) and chemical oxygen demand (COD) levels have remained more or less unchanged since FY Mar/04 for the overall Toray Group. We will continue striving to prevent water pollution.

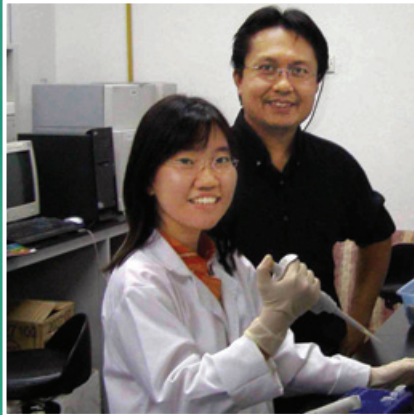
#### Reducing Waste (Graph 5 and 6)

Although increasing production capacity results in higher levels of waste and would normally impede a waste reduction program, the total volume of waste generated by Toray Group's facilities has remained unchanged. Efforts to reuse waste have contributed to a reduction in "simply disposed waste," (waste disposed of by means of incineration, landfill, and other methods). Toray Group's recycling rate is also improving.

Toray Group also pursues zero emission activities. In FY Mar/07, 13 plants operated by nine Group companies achieved zero emission status. We will continue to promote such activities with the aim of achieving zero emissions.

# TORAY'S INITIATIVES FOR "OUR COMMON FUTURE"

## 2) SCIENCE



### I've taken my first step as a researcher

**CHEW GUAT SIEW** (left)  
PhD student, School of Biological Sciences,  
Universiti Sains Malaysia, Penang

### Receiving 2006 MTSF Science and Technology Research Grant:

My supervisor and co-researcher, Dr Tengku Sifzizul Tengku Muhammad and I were elated when I was bestowed with the Science and Technology Research Grant 2006 sponsored by Toray Science Foundation, Japan (TSF) and the Malaysia Toray Science Foundation (MTSF). I was truly honoured to be selected as the competition was intense due to the high quality and number of entries. My research topic was new to our department and I started with nothing. Thanks to the grant, I was able to purchase the necessary equipment and materials to initiate the early phases of our project. More importantly, this research grant proved the feasibility of my proposed dissertation work. These factors were instrumental in providing me the impetus to other funding overtures. Thus began the journey of my research discovery, ascertained to be a formative experience of my life, setting not just my master and doctoral thesis research, but the course of my entire life and career. I remain to this day eternally grateful.

### Receiving the 47th (FY Mar/07) Toray Science and Technology Grant:

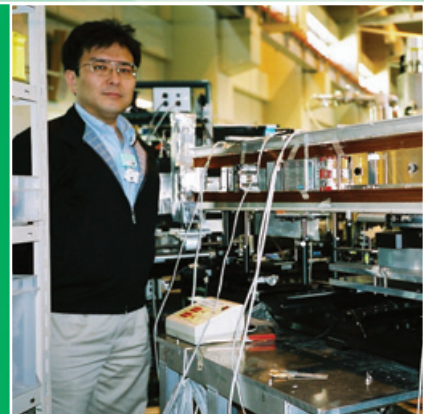
The objective of this research is to develop innovative, high-precision measurement technology. The point is the use of long wavelength neutrons. As with electrons used in an electron microscope, neutrons also have both particle and wave properties. Utilizing long wavelength neutrons, that is low-energy (cold) neutrons, we search for interferometric techniques that can distinguish the slightest changes in energy. In order to increase the range of detection of very low level interactions, we are developing large interferometers for cold neutrons making full use of multilayer mirrors. This innovative research has originated in Japan. With the assistance of this research grant, we hope to make breakthroughs in the development and manufacture of smooth, flat substrate for multilayer mirrors and high-precision flat base plates for positioning those mirrors.

**TORAY'S GRANT IS USEFUL FOR SCIENTIFIC DEVELOPMENT**

### Useful in innovative research unlike anything else in the world

**Dr. HARUHIKO FUNAHASHI**  
Associate professor  
in the Department of Engineering Science,  
Faculty of Engineering at  
Osaka Electro-Communication University

The 47th (FY Mar/07) Toray Science and Technology Grant has been awarded to Dr. Funahashi for his project on the development of a multilayer cold-neutron interferometer for fundamental physics. The grant is awarded annually to young researchers to subsidize fundamental research projects in science and technology.



One of Toray Group's Corporate Missions is "to establish ties and develop mutual trust as a responsible corporate citizen" for society. We continue fostering the sustainable advancement of society as a good corporate citizen of both local and international communities through our activities.

One priority activity is the promotion of science and technology through Japanese and international financial support to the Toray Science Foundation. We believe that discovering and nurturing scientists who will play a significant role in the science of tomorrow helps stimulate scientific and technological innovation, which in turn contributes to the growth and progress of society general. Such support is also integral to the development and continued existence of Toray Group.

### TORAY SCIENCE FOUNDATION

#### Results for FY Mar/07

Toray Science and Technology Prize	10 Million yen (2 awards)
Toray Science and Technology Grant	130 Million yen (10 awards)
Toray Science Education Prize	3.6 Million yen (9 awards)

### ASEAN TORAY SCIENCE FOUNDATION FUNDING

#### Foundation

	Funding amount	Funding amount (Million yen)	Forex rate	
Indonesia Toray Science Foundation (ITSF)	3,000 million Rp.	At establishment	200	6.67 yen/100 Rp.
		As of Dec 2006	40	1.33 yen/100 Rp.
Thailand Toray Science Foundation (TTSF)	40 million baht	At establishment	200	5.00 yen/baht
		As of Dec 2006	136	3.41yen/baht
Malaysia Toray Science Foundation (MTSF)	4 million RM.	At establishment	200	50 yen/RM.
		As of Dec 2006	135	33.7 yen/RM.

\*All of these foundations were established in 1993-1994

#### Award & Grant Results for FY Mar/07

	ITSF		TTSF		MTSF	
	Award/grant	Thousand yen	Award/grant	Thousand yen	Award/grant	Thousand yen
Science & Technology Award	0	0	2	2,728	2	2,022
Science Education Award	10	2,749	6	2,387	16	2,089
Science & Technology Research Grant	19	9,740	20	15,345	11	9,773
Total	29	12,489	28	20,460	29	13,884

### TORAY SCIENCE FOUNDATION AND TORAY ASEAN SCIENCE FOUNDATIONS

In 1960, Toray invested ¥1 billion to set up the Toray Science Foundation in Japan. As a pioneering initiative by the private sector, the Foundation has earned a high reputation for its activities, including the provision of large grants to young researchers. In 1993 and 1994, the Foundation established three ASEAN science foundations — in Malaysia, Thailand, and Indonesia — to foster scientific and technological advancement in those countries.

The Toray Science Foundation awards prizes and provides research grants annually. The Toray Science and Technology Prize is awarded for outstanding achievements in science and technology. Toray Science and Technology Grants are given to young researchers engaged in basic research projects in the fields of science and technology. We also present the Toray Science Education Prize to junior and senior high school teachers who achieve outstanding results through creative and innovative teaching. The Toray Science and Technology Prize is a prestigious award, and two of its recipients have gone on to receive the Nobel Prize for Chemistry.

## SOCIETAL CONTRIBUTION IN A VARIETY OF AREAS

Contributing to society is a major element of Toray Group's long-term corporate vision. We engage in a variety of activities, with the aim of serving as an excellent business group that is valued by all of its stakeholders.

As explained earlier, more than half of our contributions are directed at the fields of scientific research and education. However, another feature of our activities is Toray Group's diverse initiatives including support for the arts and culture at the local community level, environmental preservation efforts and international cultural exchanges.

### TORAY GROUP SOCIAL INITIATIVE POLICIES

1. Based on its Corporate Philosophy of "contributing to society through the creation of new value with innovative ideas, technologies, and products," we will contribute to sustainable development of local and international society as a good corporate citizen while continuously supporting employee social initiatives.
2. We will pursue unique programs dedicated to improvement of social welfare in local communities, international exchange through traditional culture, sports promotion, and especially the advancement of science.
3. Using company awards as other measures, we will create a culture that encourages employees to participate in society in constructive ways like volunteer activities, all the while performing aid activities with an eye to local needs.
4. We will examine all marketing and advertising activities from the perspective of social contribution before finalizing them.
5. We will contribute funds amounting to about 1% of our consolidated ordinary income to social initiatives.

Adopted May 2005

Toray Group, Social Contributions in FY Mar/07

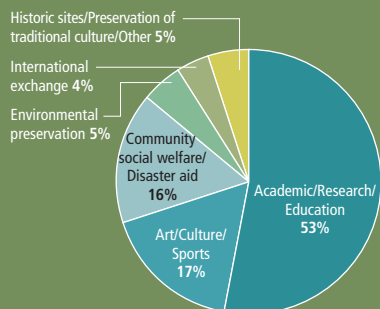
# 10.4

100 million yen



2

### Toray Group, Social Contributions by Category (FY Mar/07)



1



3

1. Support for the Musée D'Orsay exhibition (this picture was featured in promotional posters)
2. Sponsorship of a Science Camp for high school students
3. Volunteering in relief efforts for the Noto Peninsula earthquake