ABOUT THE COVER

An Indigenous Forest Raised from Acorns—
The Toray Mishima Plant Forest

In the autumn of 1973, 4,000 Toray employees kicked off the company’s project to create a forest reserve in the area surrounding the Mishima Plant by collecting fallen acorns from area temples, shrines and mountains.

Under the guidance of Yokohama National University bioecologist Professor Akira Miyawaki (now professor emeritus), the acorns they gathered were raised to seedlings at each worksite and planted at the Mishima Plant. Miyawaki argues that indigenous plant species are best able to survive and prosper even when earthquakes, fires or landslides bring difficult conditions—that the ancient groves of trees remaining at temples and shrines around the country are Japan’s true botanical heritage, capable of covering the earth even without excessive human intervention.

Today, over thirty years later, the laurel, camphor, white oak and other trees that were planted have turned into a magnificent grove covering more than 10,000 square meters.

Toray’s 13 offices and plants including the Mishima Plant, have worked towards environmental greeneration by their contributions to the afforestation of approximately 180,000 square meters in total, using methods akin to that of the ancient groves.
Throughout this report an asterisk (*) is used to indicate a封锁 more detailed explanation or a reference to a source. A registered trademark of Toray Industries, Inc. or member subsidiaries and affiliates.

Companies Covered in this Environmental-related Report
The environmental reporting in this CSR Report covers 56 companies: all members of the Toray Group, manufacturing companies in Japan and overseas that conduct activity, mainly involved in the manufacturing, processing, and sales of synthetic fibers, plastic, paper, and chemical products. Statistics are presented for Toray's total sales, for 56 companies, and for major areas of each of the 56 companies listed below. Statistics on the activities and results of joint ventures and affiliated companies are included as appropriate.

Japanese Subsidiaries and Affiliates 26 Companies
Be-Pot Products Inc. Dow Corning Toray Co., Ltd. Du Pont-Toray Co., Ltd. Dow Chemical Toray Co., Ltd.

Overseas Subsidiaries and Affiliates 39 Companies

20. Basic Policy & Enhance Corporate Governance and Management Transparency

21. Uphold Corporate Ethics and Comply with Laws and Regulations

22. CSR Guideline 3

23. Emphasis Safety, Accident Prevention, and Environmental Preservation

24. CSR Guideline 4

25. Ensure Product Safety and Quality

26. Perform Risk Management

27. CSR Guideline 6

28. Promote Dialogue with Stakeholders

29. CSR Guideline 7

30. Step Up Environmental and Recycling Efforts

31. CSR Guideline 8

32. Secure and Train Personnel and Promote Human Rights

33. CSR Guideline 9

34. Cooperate with Suppliers in their Environmental and Social Initiatives

35. CSR Guideline 10

36. Purge Social Initiatives

37. Environmental-friendly Products and Technologies

38. Environmental Impact Overview

39. Chemical Substance Emissions and Transfer Data

40. Environmental Data for 12 Toray Plants

41. External Communications

42. External Evaluation

43. Third Party Comments

44. Global Reporting Initiative Guidelines Reference Chart

45. Chronology of CSR Initiatives

46. Editorial Policy

47. In 2005, Toray Group created the CSR Committee and formulated a three-year CSR road map. In December 2006, the CSR Committee drew up the Group’s CSR Guidelines and created respective Action Programs. Since then, CSR Reports have been published annually in accordance with the CSR Guidelines.

As part of an effort to rise to the challenge of “Innovation” in every domain of our corporate activities, Toray Group is pursuing “CSR Innovation” as a priority management issue. For these reasons, this Report incorporates “Innovation” as one of its themes in describing progress in Toray Group’s CSR activities.

Since 1999, Toray Group has been implementing a three-year CSR Road Map, which is based on the CSR Guidelines and Action Programs created by the CSR Committee. In December 2006, the Committee drew up the Toray Group CSR Guidelines and Action Programs and prepared a new CSR Road Map. The Committee has been working to implement the Road Map since January 2007.

The CSR Committee is comprised of representatives from major Group companies. The Committee is responsible for establishing and implementing the CSR Guidelines and Action Programs and reports to the Board of Directors of Toray Co., Ltd.

The Committee has been working to implement the Road Map since January 2007. The Committee has also developed a CSR Communication Plan that aligns the Road Map with CSR communication activities.

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Through “Innovation,” Toray Group strives to become a business group offering leading role in contributing to society.

Introduction
In 1926, Toray was originally founded under the name Toyosaki Rayon as a manufacturer of the synthetic fiber viscous rayon. We celebrated our 80th anniversary in 2006. Since our founding, our corporate culture has been forged under the concept of “Safety First” along with the fundamental philosophy of “aiming for strength and discipline, we place importance on the development of our human resources and our contribution to society,” reflecting our tradition of “R&D-centered management” and “management with a pioneering spirit.” This management philosophy bore fruit in the commercialization of the three major synthetic fibers of nylon, polyester, and acrylic. Since 1970, when the company name was changed to Toray, we have progressively expanded operations to include plastic resins, films, and chemical products, as well as carbon fiber composite materials, IT-related products, pharmaceuticals and medical products, water treatment, and more.

Using History and Experience as Assets
As Toray Group looks toward the future, our history and experience provide numerous assets to be deployed and utilized. One of these is our “power of know-how accumulated in the workplace” in R&D, manufacturing technologies, and marketing and sales; another is our “power of management” with a high degree of flexibility to adapt to changing times to promote greater progress.

One form taken by this “power of know-how accumulated in the workplace” is the core technology cultivated by the business of synthetic fibers, which are organic synthetic chemistry, polymer chemistry, and biotechnology. Furthermore, we have broadened the domain of our proprietary technology by integrating leading-edge nanotechnology with these core technologies and thereby accelerated the development of new products and technologies. Other important assets include manufacturing technologies and capabilities which have enabled us to steadily improve quality and productivity with an emphasis on the details, and sales and marketing capability in the form of a corporate culture that seeks to provide new value from the customer’s perspective.

Our management capability incorporates three significant aspects. First is our adoption of a stance that seeks to strengthen our profit base through self-improvement effort. Through the company’s daily operations we have created a robust business model that is not easily affected by inevitable economic fluctuations; you might call it a “self-improvement management style.” In doing so we have sought to incorporate what we believe to be the most important aspect of management capability, namely, the wisdom to take steps to cope with difficult times while avoiding complacency in times of prosperity.

The second aspect of our management capability is the “development of global operations.” Starting with fibers & textiles, Toray Group has been developing its businesses on a global scale for more than 50 years. Subsequently we expanded our global operations in plastic resins and films, followed by carbon fiber composite materials, which are increasingly used as structural materials for aircraft. As a result of these efforts, we are now securing significant profits in regions of the world that are experiencing growth in demand.

The third aspect is the practice of adhering at all times to the approach of “continual cultivation of strategic businesses,” a strategy for facilitating sustainable growth by consistently developing medium- and long-term earnings pillar. Specifically, we are moving to effect a strategic expansion of our businesses in carbon fiber composite materials and IT-related products as drivers of near-term profitability, while cultivating operations that are expected to develop into the pillars of future business: life science including pharmaceuticals and medical products; our water treatment, which is closely involved in resolving the planet’s environmental challenges; and new businesses utilizing non-petrochemical raw materials.

Environmental Change as a Positive Opportunity
Today, the social and economic environment in which Toray Group operates continues to change at an extraordinary pace. In all manufacturing industries, there is unprecedented competition on a global scale, as well as soaring prices in crude oil. Critical issues such as energy and the natural resource agenda, the global environmental problems, and rising demand for corporate social responsibility, require each of us to effectively respond to these diverse changes.

We see our most important task as coping with these changes in the external environment and treating them as opportunities for securing sustainable growth. For this reason, we continue to take steps to create a strong management foundation for our operations while pursuing “innovation” to create new value. This forward-looking evolution is of great importance to our future.

Toray Group celebrated its 80th anniversary in 2006, formulating the long-term corporate vision “AP-Innovation TORAY 21” with the goal of securing sustainable growth and further leap. We have adopted the corporate slogan of “Innovation by Chemistry” based on our corporate philosophy of “contributing to society through the creation of new value with innovative ideas, technologies and products” and reflecting our aim of becoming “a global top company of advanced materials.”

In addition to pursuing technological innovation, we seek to achieve high profitability, evolve dynamically, and grow sustainably by rising to the challenge of “Innovation” in every aspect of our corporate activities.

Toward More Active CSR Initiatives
In addition to seeking to expand our businesses and increase profitability, we are dedicated to the principles of corporate social responsibility through the active pursuit of safety, accident prevention, environmental preservation, corporate ethics, and legal compliance programs. Toray Group has always practiced management with an emphasis on social responsibility, and we believe that playing an active role through social contributions and striving to offer high value to all stakeholders are important factors to fulfill our long-term corporate vision.

I am pleased to reaffirm our commitment to achieving bold yet sustainable development in the 21st century by building a robust management foundation and evolving through the theme of “Innovation.”

For corporations, the fulfillment of CSR is a constant imperative. This CSR Report summarizes the accomplish- ments of Toray Group’s CSR activities during FY 2006, and I am confident that it will enable you to gain an understand- ing of how we are making steady, step-by-step progress. I look forward to your understanding and support for Toray Group’s corporate activities, now and in the future.

September 2007
President, CEO and COO, Representative Director
Toray Industries, Inc.
Through the Practice of Innovation

Overview of Toray Industries, Inc.

Established
Japan
Paid-in capital
¥963,973,207,771
Number of employees
36,553 (consolidated)

Number of consolidated companies
(As of March 31, 2007)

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>67</td>
</tr>
<tr>
<td>Overseas</td>
<td>144</td>
</tr>
<tr>
<td>Total</td>
<td>211</td>
</tr>
<tr>
<td>Consolidated subsidiaries</td>
<td>35</td>
</tr>
<tr>
<td>Equity method subsidiaries</td>
<td>16</td>
</tr>
<tr>
<td>Equity method affiliates</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>118</td>
</tr>
<tr>
<td>Business area</td>
<td>124</td>
</tr>
</tbody>
</table>

Consolidated business results

Year: FY 2006

<table>
<thead>
<tr>
<th>Net sales</th>
<th>Operating income</th>
<th>Ordinary income</th>
<th>Net income</th>
</tr>
</thead>
<tbody>
<tr>
<td>¥1,546.5 billion</td>
<td>¥102.4 billion</td>
<td>¥93,270 million</td>
<td>¥58,577</td>
</tr>
</tbody>
</table>

End of March, 2007 Employees by Geographic Segment

- Asia: 36,553 employees
- Japan: 24%
- North America, Europe and other areas: 76%

Mid-term Business Strategies

In April 2006, Toray Group formulated a new long-term corporate vision called “AP-Innovation TORAY 21” designed to ensure sustainable growth and new advances. In October of the same year we developed the mid-term business strategies IT-2010 to rise to the challenge of “Innovation” not only in technology, but in every aspect of our corporate activities, while creating new value and actively contributing to sustainable development and environmental preservation.

IT-2010 identifies the development of the five innovations of business structure, technologies, competitiveness, business awareness, and CSR as key challenges while seeking to dramatically transform our management with the “Innovation” theme by implementing eight company-wide projects.

We aim to realize our corporate philosophy of “contributing to society through the creation of new values with innovative ideas, technologies and products” by practicing “innovation” based on the “AP-Innovation TORAY 21” long-term corporate vision and IT-2010 mid-term business strategies.
Toray’s 80 Years and Innovation

Since its founding as a manufacturer of rayon, chemical fiber, and other materials, Toray Group has constantly risen to the challenges of pioneering advanced technologies, for over 80 years. Following the celebration of the 80th anniversary of our founding in 2005, we adopted “Innovation by Chemistry” as our new corporate slogan, signaling a commitment to technological innovation centered on chemistry, and aspire to become a global top company of advanced materials.


Company milestones

1955 Company milestones
Company motto “Toray Rayon serves society” adopted.

1951 Fibers & Textiles
Toray Rayon launches Japan’s first full-scale production of nylon.

1941 Fibers & Textiles
Toray Rayon succeeds in synthesizing Nylon 6, a first in Japan.

1927 Fibers & Textiles
Production of rayon begins at Toray Shiga Plant.

1956 Company milestones
Toray Rayon begins promoting female employees to management positions, a move that is ahead of its time in Japan.

1960 Social contributions
Toray Rayon Science Foundation (now Toray Science Foundation), a pioneering private research support organization, is founded.

1966 Company milestones
Toray Rayon School of Technology and Business opens to train technicians to deal with the rapid pace of technological innovation (name changed to Elison School in 1978).

1957 Company milestones
First overseas employee is dispatched to New York.

1926 Toy Rayon Co., Ltd. founded.

1953 Toy Rayon is listed on the Tokyo and Osaka Stock Exchanges.

1964 Toy Products (currently Du Pont-Toray) is established as the company’s first joint venture with an overseas company.

1963 Toy Rayon begins production of Japan’s first modified cross-section silky-touch Tetoron filament Silikot®

1961 Toy Rayon Textile Mills and Toy Rayon Co., Ltd. are established, becoming the company’s first overseas manufacturing companies.

1986 New corporate symbol introduced.

1981 Anoray introduces Breath® fabric for liquid crystal displays that does not use the harmful heavy metal chromium.

1979 Electronics & Information Materials
Toray introduces the Toray Wireless Plate®, the world’s first printing plate material that does not generate liquid waste.

1976 Company milestones
Toray introduces a maternity leave program to help employees balance work and family life, anticipating the subsequent legislation of such programs in 1981.

1971 Fibers & Textiles
Toray starts production of world’s first PAN-based carbon fiber Torayca®

1985 Pharmaceuticals & Medical Products
Toray starts to market Ferros®, the world’s first natural interferon if preparation.

1992 Pharmaceuticals & Medical Products
Toray begins synthesizing and marketing Damiron*, the world’s first proestacyclin (PGI2) derivative formulated for oral administration.

1993 Electronics & Information Materials
Toray starts to market Topica®, a color filter for liquid crystal displays that does not use the harmful heavy metal chromium.

1995 New management philosophy formulated.

2005 Water Treatment
Southeast Asia’s largest water treatment facility commence operation in Singapore using the advanced Toray Membrane® reverse osmosis membrane elements.

2006 Pharmaceuticals & Medical Products
Toray starts to market 3D-Gene®, an ultra-high-sensitivity DNA chip that opens the possibility of tumor-related clinical treatments.

2004 Plastics
Toray develops the world’s first biodegradable polyactic acid (PLA) film.

1996 Fibers & Textiles
Toray starts to market Fieldemut® biodegradable fishing line.

1998 Pharmaceuticals & Medical Products
Toray starts to market Toray Bone®, a new anti-infective agent for the prevention and treatment of diabetic foot ulcers.

1998 Pharmaceuticals & Medical Products
Toray begins the Pharmatel Project, a joint research project with pharmaceutical companies.

2001 Pharmaceuticals & Medical Products
Toray starts to market Artena®, a drug for the treatment of diabetic foot ulcers.

2008 CSR Committee formed.

2010 CSR Committee holds first meeting.

2012 CSR Committee holds 10th meeting.

2014 CSR Committee holds 20th meeting.

2015 CSR Committee holds 25th meeting.

2017 CSR Committee holds 30th meeting.

2018 CSR Committee holds 35th meeting.

2019 CSR Committee holds 40th meeting.

2020 CSR Committee holds 45th meeting.

2021 CSR Committee holds 50th meeting.

2022 CSR Committee holds 55th meeting.

2023 CSR Committee holds 60th meeting.

2024 CSR Committee holds 65th meeting.

2025 CSR Committee holds 70th meeting.

2026 CSR Committee holds 75th meeting.

2027 CSR Committee holds 80th meeting.

2028 CSR Committee holds 85th meeting.

2029 CSR Committee holds 90th meeting.

2030 CSR Committee holds 100th meeting.

2031 CSR Committee holds 105th meeting.

2032 CSR Committee holds 110th meeting.

2033 CSR Committee holds 115th meeting.

2034 CSR Committee holds 120th meeting.

2035 CSR Committee holds 125th meeting.

2036 CSR Committee holds 130th meeting.

2037 CSR Committee holds 135th meeting.

2038 CSR Committee holds 140th meeting.

2039 CSR Committee holds 145th meeting.

2040 CSR Committee holds 150th meeting.

2041 CSR Committee holds 155th meeting.

2042 CSR Committee holds 160th meeting.

2043 CSR Committee holds 165th meeting.

2044 CSR Committee holds 170th meeting.

2045 CSR Committee holds 175th meeting.

2046 CSR Committee holds 180th meeting.

2047 CSR Committee holds 185th meeting.

2048 CSR Committee holds 190th meeting.

2049 CSR Committee holds 195th meeting.

2050 CSR Committee holds 200th meeting.

2051 CSR Committee holds 205th meeting.

2052 CSR Committee holds 210th meeting.

2053 CSR Committee holds 215th meeting.

2054 CSR Committee holds 220th meeting.

2055 CSR Committee holds 225th meeting.

2056 CSR Committee holds 230th meeting.

2057 CSR Committee holds 235th meeting.

2058 CSR Committee holds 240th meeting.

2059 CSR Committee holds 245th meeting.

2060 CSR Committee holds 250th meeting.

2061 CSR Committee holds 255th meeting.

2062 CSR Committee holds 260th meeting.

2063 CSR Committee holds 265th meeting.

2064 CSR Committee holds 270th meeting.

2065 CSR Committee holds 275th meeting.

2066 CSR Committee holds 280th meeting.

2067 CSR Committee holds 285th meeting.

2068 CSR Committee holds 290th meeting.

2069 CSR Committee holds 295th meeting.

2070 CSR Committee holds 300th meeting.

2071 CSR Committee holds 305th meeting.

2072 CSR Committee holds 310th meeting.

2073 CSR Committee holds 315th meeting.

2074 CSR Committee holds 320th meeting.

2075 CSR Committee holds 325th meeting.

2076 CSR Committee holds 330th meeting.

2077 CSR Committee holds 335th meeting.

2078 CSR Committee holds 340th meeting.

2079 CSR Committee holds 345th meeting.

2080 CSR Committee holds 350th meeting.

2081 CSR Committee holds 355th meeting.

2082 CSR Committee holds 360th meeting.

2083 CSR Committee holds 365th meeting.

2084 CSR Committee holds 370th meeting.

2085 CSR Committee holds 375th meeting.

2086 CSR Committee holds 380th meeting.

2087 CSR Committee holds 385th meeting.

2088 CSR Committee holds 390th meeting.

2089 CSR Committee holds 395th meeting.

2090 CSR Committee holds 400th meeting.
Toray products support your life and make it secure, creating a picture of your future. From the very beginning, Toray fibers clothe people, serving to protect them and helping them realize their dreams.

Toray materials have a virtually endless array of uses. Ultimately, Toray products evolve with the times to create new lifestyle choices.
Toray recognizes global warming as a critical challenge and is working to reduce Green House Gas (GHG) emissions. Toray Group has steadily lowered GHG emissions thanks to a combination of consistent energy conservation efforts dating to the aftermath of the 1973 oil embargo and more recent actions such as moves to conversion to more environmentally friendly fuels. As a manufacturer responsible for supplying materials to a range of industries, we anticipate that our own initiatives will be augmented in the years to come by increased market demand for products that help lower energy use and GHG emissions.

Establishing New Targets for Global Warming Countermeasures

In FY 2005, we set global warming initiative targets of reducing GHG emissions 10% over FY 1990 levels by FY 2008 and holding CO2 emissions to 1990 levels. We formulated new targets in FY 2007 in response to forecasts indicating that we would be able to meet these targets through converting fuel used in boilers from oil to natural gas, and consistent energy conservation activities such as reducing heat loss. The target selection process took into account expected energy savings such as reducing heat loss. The target selection process took into account expected energy savings such as reducing heat loss.

New Targets

1. Toray will set targets in terms of absolute quantities and at a minimum will maintain Japan’s reduction ratio as established by the Kyoto Protocol.
2. Toray Group (Japan) will manage targets using unit energy consumption.
3. Toray Group (including overseas subsidiaries and affiliates) will raise its targets for reducing unit GHG emissions (per supplier).
4. Toray Group (Japan) will reduce unit GHG emissions (per supplier) by 6% over FY 1990 levels by FY 2010.

Reduction Plan for Meeting the New Targets

The construction of new boilers to be placed into operation by FY 2010 is one of the key initiatives in the Toray Group’s new climate change initiative. Reductions through converting to more environmentally friendly fuels is one of the key initiatives in the Toray Group’s new climate change mitigation strategy. Converting fuel used in boilers from oil to natural gas, and consistent energy conservation activities such as reducing heat loss will also contribute to meeting our new targets.

Providing Products That Help Lower Energy Use and GHG Emissions

Toray launched the “Ecodream” Project in FY 2005 with the target of doubling FY 2005 net sales of environmentally friendly products by FY 2010. In keeping with the project’s key themes of saving energy and lowering GHG emissions, we are focusing our efforts on carbon fiber composite materials and products derived from non-petrochemical raw materials. On one hand, increasing net sales of environmentally friendly products (i.e., increasing production volumes) has the effect of driving up our emissions of GHG. The production of carbon fiber, a light, strong, and corrosion-resistant material, involves considerable energy use and GHG emissions due to high temperatures required in the manufacturing process. However, the material’s significant contribution to more lightweight aircraft and automobile designs, which ultimately help to conserve energy and lower CO2 emissions will offset the increase in the environmental impact caused by the manufacturing process.

Improvements in Next-generation Aircraft Fuel Economy and Reductions in CO2 Emissions

Demand for carbon fiber reinforced plastic (CFRP)*1 is growing in the aviation industry, where the fuel economy and environmental countermeasures are increasingly seen as important considerations. Lightweight designs are expected to yield benefits in the form of improved fuel economy and reduced CO2 emissions.

Reducing CO2 Emissions with Lighter Cars

The use of CFRP can lower the weight of the mild steel sheets used in automobiles by 50%, yet this highly safe material can absorb 1.5 times more energy than steel. Use of CFRP is expected to expand in the automotive field in coming years. Simulations by the Ultra Light Steel Auto Body, Ultra Light Steel Auto Closures, and Ultra Light Steel Auto Suspension Project indicate that widespread adoption of lightweight cars using CFRP would reduce annual CO2 emissions by 3.88 billion tons by 2020. Conversely, a reduction of approximately 3 tons of CO2 could be expected per vehicle over the course of 10 years. In other words, CFRP automobiles also have an environmental contribution to make to the standpoint of CO2 balance.

Related article

See page 27 for examples of initiatives in FY 2006.

[Diagram: Use of CFRP Components in Automobiles and Associated Weight Savings]

[Diagram: Reducing CO2 Emissions with Lighter Cars]

[Diagram: Improving CO2 Reductions with Lighter Cars]

[Table: Estimated Energy Savings and CO2 Emissions Reductions by 2030]

<table>
<thead>
<tr>
<th></th>
<th>Total vehicles</th>
<th>Gasoline equivalent</th>
<th>CO2 emissions reductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>200,000</td>
<td>22,000 t/yr</td>
<td>51,000 t/yr</td>
</tr>
<tr>
<td>2020</td>
<td>2,000,000</td>
<td>220,000 t/yr</td>
<td>510,000 t/yr</td>
</tr>
<tr>
<td>2030</td>
<td>15,000,000</td>
<td>1,500,000 t/yr</td>
<td>5,100,000 t/yr</td>
</tr>
<tr>
<td>2040</td>
<td>30,000,000</td>
<td>3,000,000 t/yr</td>
<td>10,200,000 t/yr</td>
</tr>
</tbody>
</table>

*1 Glass fiber reinforced plastic (GFRP): A molded material reinforced with glass fibers.

*2 Aluminum

*3 CFRP (Carbon fiber reinforced plastic)

*4 Light Steel Auto Closures, Ultra Light Steel Auto Suspension Project under NEDO’s New Global Warming Prevention Technology Program.

*5 The estimation is based on the CO2 emissions factor of 0.32 kg CO2 per kWh in the year 2005.

*6 The estimation is based on the CO2 emissions factor of 0.32 kg CO2 per kWh in the year 2005.

*7 The estimation is based on the CO2 emissions factor of 0.32 kg CO2 per kWh in the year 2005.
Toray is addressing issues on water shortages and safety from a global viewpoint.

Many countries are currently experiencing water shortages due to the rapid pace of population growth and social development. These shortages exert a serious effect not only on everyday lives but also on food production and natural ecosystems. Observers also fear that problems involving the safety of the water supply, for example water pollution caused by inadequate wastewater treatment facilities, are becoming increasingly serious. Toray is working to address these problems from a global perspective to ensure it remains responsive to the needs of society.

Water Issues Around the Globe

With seawater accounting for 97.5% of the water on Earth, the freshwater required to maintain human life is only 2.5% of the total. Moreover, because most freshwater is locked up in glaciers and underground aquifers, experts believe that only 0.01% of freshwater is accessible for use by people. Today this invaluable supply of water is experiencing a range of problems. Worldwide, 1.1 billion people must walk at least 30 minutes to obtain the water they require each day, and 2.6 billion people live without access to toilets and other hygienic facilities. Ecosystem damage caused by deteriorating water quality is also a fear. More recently, alarms are being sounded about water shortages caused by the effects of global warming and falling groundwater levels due to development.

Membrane Technology Contributing to Water Environment Issues

Human beings require water for a range of applications including agriculture, industry, and daily life. For example, we need membranes for extracting pure water from seawater and for drinking water, membranes to remove the bacteria cryptosporidium, which cannot be killed by chlorine.

Toray developed and brought to market RO membrane (reverse osmosis membrane) for manufacturing ultrapure water for industrial applications in 1980 and later applied the technology to seawater desalination. We have developed a variety of separation membranes based on our core competencies of organic synthetic chemistry, polymer chemistry, biotechnology, and nanotechnology. Used in combination, these products deliver the membrane technologies that are needed to implement efficient water treatment.

Increasing Demand for Seawater Desalination

As worldwide water shortages intensify, Toray expects demand for effective use of seawater and wastewater will increase to secure sustainable water sources, in addition to the use of limited river and groundwater resources.

Until now, the methods of evaporation and electrodialysis have been used to desalinate seawater. However, RO is becoming the preferred approach thanks to the development of technologies for improving RO membrane performance (water permeability and salt rejection), lowering the RO membrane cost per unit of freshwater generated as well as operational energy consumption.

Toray has accumulated significant expertise in seawater desalination with exceptional RO membranes, and our products are used by water treatment plants worldwide. As a result, we help desalinate a total of 2 million cubic meters of seawater each day (as of June 2007), enough water to sustain approximately 8 million people in their daily lives.

Participation in the World Water Forum and Other Activities

Although efforts to combat global warming have begun in the world’s major countries, international partnerships and initiatives to address water problems continue to lag. As part of our efforts to increase partnerships with relevant entities in order to address the world’s water problems, Toray has participated in the World Water Forum, a gathering sponsored by the World Water Council, UNESCO, and related Japanese government agencies, since its third meeting in 2003. We also actively support the Japan Water Forum, a non-profit organization that operates primarily in Japan.

In an effort to address the world’s water and its hygienic problems, Toray Group is committed to making an international contribution consistent with these support activities by providing membranes and other advanced water treatment technologies.
Toray works with employees to create workplace environments that facilitate participation by women while implementing programs that promote work-life balance.

Advancement of Women Project
Toray has led Japanese companies in proactively offering employment and work opportunities to women as well as in providing equal opportunities to male and female employees. The Advancement of Women Project launched in FY 2004 is geared to create structures that enable women to pursue even more fulfilling careers by making our history of steady accomplishment in female participation a key part of our corporate culture.

**Advancement of Women Project Initiatives**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2004</td>
<td>Formal Working Team</td>
<td>Formulated various proposals for the advancement of women. In FY 2006, surrounded 2 years of activities and reported to executive committee.</td>
</tr>
<tr>
<td>August and September 2005</td>
<td>Implementation leader conducted enlightenment rounds</td>
<td>General Manager of the Personnel &amp; Industrial Relations Division, who served as the implementation leader for the project, visited all plants. Participants discussed and shared views on topics including the purpose of the project and key considerations in training female employees.</td>
</tr>
<tr>
<td>November 2005</td>
<td>Provided consultation services</td>
<td>Responds to questions and consultations concerning various programs, company employee opinions, and their views on the policy formulation process.</td>
</tr>
<tr>
<td>December 2005 to February 2006</td>
<td>Held Advancement of Women Forum with workshops and exchange seminar</td>
<td>The forum was to foster the development of female leaders, return female employee awareness and boost morale, and build networks. Six workshops and lecture were held for female employees at the Tokyo office and Osaka office to discuss issues and share experiences.</td>
</tr>
<tr>
<td>December 2006 to February 2007</td>
<td>Held Advancement of Women Forum with workshops and lecture</td>
<td>Total of three workshops and lecture for female employees at the Tokyo Head Office (5 topics) and individuals who were unable to participate in the first seminar (12 sessions) for employee involvement.</td>
</tr>
<tr>
<td>From January 2007</td>
<td>Began an annual period of reflection in the internal company newsletter introducing examples of female career development.</td>
<td>Articulated and instructed examples of female employees who have developed careers in Toray Group, balanced the demands of work and personal life, and supported efforts to help them in their career development.</td>
</tr>
<tr>
<td>Up to March 2007</td>
<td>Enhance policies designed to help employees achieve work-life balance and related advanced programs.</td>
<td>Planned new programs and reviewed existing programs based on discussions held by the Working Teams. These programs will be launched in FY 2007.</td>
</tr>
</tbody>
</table>

**Toward Balancing Work and Family Life**

**Systems Designed to Help Employees Balance Work and Family Life**

We are working to enhance these systems as we work to create a culture in which employees can make energetic contributions while balancing the demands of work and family. We are particularly proud of either meeting or exceeding legally mandated provisions in systems related to childcare, family-care, leave and maternity protection, and we are working to make systems accessible and responsive to the individuals who wish to use them.

Several new systems to ensure good working conditions that were designed in FY 2006, were launched in FY 2007. Specifically, we established a new system to help employees pay for babysitter services, reviewed the system for registering employees seeking reemployment, and reviewed our short-time and flextime work systems.

**Compliance with the Law to Promote Measures to Support the Development of the Next Generation**

We established a First Action Plan in FY 2005 based on Japan's Law to Promote Measures to Support the Development of the Next Generation, which took effect in April 2005, and had implemented the provisions of the plan by the end of FY 2006. As a result of these efforts, in May 2007 we received certification that confirmed the First Action Plan meets the standards set by the Next Generation Law. Starting in FY 2007, we plan to establish a Second Action Plan and pursue new initiatives in this area.

**Systems Designed to Help Employees Balance Work and Family Life (Key Changes in April 2007)**

- **Established new system to help employees pay for babysitter services.**
- **The company signed a contract to give employees access to babysitter services at a discounted rate.** Employee services cost typically range from ¥20,000 to ¥30,000 per hour for babies, ¥15,000 to ¥20,000 per hour for toddlers, and ¥10,000 to ¥15,000 per hour for nursery schoolers. Employees may be eligible to participate in retrenchment compensation plans and may use the services for a lower rate, and their personal circumstances.
- **New program**
- **Review the system for registered employees seeking reemployment.**
- **The registration period for unemployment was extended to 10 years.** Employees unable to participate in unemployment compensation programs or returning after a 1-year break from work may be eligible to participate in the program.
- **Employees unable to use these systems in combination.**
- **New program**
- **Employees eligible for childcare leave who have a child under 1 year may pursue even more fulfilling careers by making our history of steady accomplishment in female participation a key part of our corporate culture.**
- **The period of time over which employees are eligible for these systems was extended until the end of the fiscal year in which their children enter the third grade.**
- **New program**
- **Employees unable to use these systems in combination.**
- **These systems had been available only until school age.**

**Related article**
See page 51 for more information about Toray’s efforts to create a corporate culture that facilitates participation by female employees.

**View from the Field**

**Takahiro Maeda**

**Pharmaceutical & Medical Products Division, Administration Dept.**

**The mom’s view**

I took maternity and childcare leave from October 2006 to September 2006. Afterwards it was easy for me to return to my original job because my husband also took childcare leave. When I resumed work at the end of my first day back, I was surprised to see my husband gathering ready for dinner with our son in a carrier on his back. I respected my husband’s decision to take childcare leave, but I never imagined that he would actually become a stay-at-home dad! It seems that only a few male employees take childcare leave, but I hope that more will consider this option in the future in order to encourage women to participate more actively in the workplace.

**The dad’s view**

I took six months of childcare leave from October 2006, when my wife went back to work after her childcare leave. We took full advantage of the company’s system, which allows employees to take childcare leave until the end of the fiscal year in which the child reaches the age of 1. As for my impressions of my time as a stay-at-home dad, I think the idea of fathers helping raise their children includes sharing responsibility for household chores. Each partner must do what they can, when they can. When your partner does something for you, you must show appreciation. I felt that I came to appreciate the hard work that my wife does by sharing the burden of childcare and earning a harmonious home during the time I spent on childcare leave. It was a great experience for my wife and I to both take childcare leave.

**Ayumi Maeda**

**Office Management Center, Child Care Center**

**Toray Industries, Inc.**

**Pharmaceutical & Medical Products**

**The company signed a contract to give employees access to babysitter services at a discounted rate.** Employee services cost typically range from ¥20,000 to ¥30,000 per hour for babies, ¥15,000 to ¥20,000 per hour for toddlers, and ¥10,000 to ¥15,000 per hour for nursery schoolers. Employees may be eligible to participate in retrenchment compensation plans and may use the services for a lower rate, and their personal circumstances.

**Couple takes childcare leave together**
**Toray Group CSR: Today and Tomorrow**

Toray Group carries on a legacy of CSR activities by creating action programs and reviewing them annually based on CSR Guidelines that broadly cover CSR. We emphasize practicing CSR at each workplace and have launched CSR line activities at subsidiaries and affiliates.

**Steady Pursuit of CSR Activities**

Toray Group has long pursued corporate activities by paying dues to stakeholders — customers, employees, shareholders, and local communities — in an effort to fulfill our corporate philosophy of “contributing to society through the creation of new value with innovative ideas, technologies, and products.”

Current CSR activities can be traced back to the creation of the CSR Committee as an entity reporting directly to the president. After the original mid-term action plan was completed, we adopted a new three-year CSR road map in March 2006. The action programs for each guideline are implemented and revised each year.

The CSR line activities launched at Toray in 2005 are systemized under the CSR Innovation umbrella, in which the CSR Innovation Management Committee, established in March 2006, serves as a coordinating body. The committee is composed of Toray Group’s senior officers and promotes CSR activities company-wide.

**Toward the Next Step**

CSR Innovation is one of the Five Innovations identified in Toray Group’s IT-2010 Mid-term Business Strategies, which establish targets as we approach 2010. We are seeking to achieve sustainable growth while meeting society’s demands by promoting activities that enable us to achieve our company-wide strategy in accordance with the CSR Guidelines, as well as department-specific CSR line activities designed to address issues selected by individual departments.

Our CSR road map is designed to set general directions and specific targets for the entire Group with an emphasis on materiality and viability. We believe that the pursuit of Toray Group’s CSR activities through the PDCA management cycle and the steady implementation of the road map will enable us to earn and maintain the trust of our stakeholders continuously into the future.

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**Ten Basic Environmental Rules**

*Adopted January 2000*

1. **Prioritize environmental preservation**
   - We do not compromise on efforts to achieve our corporate aims while placing the highest priority on environmental preservation in the selection of sites and in product design, manufacturing, processing, and waste disposal of products.

2. **Prevent global warming**
   - We will promote energy conservation and work to reduce our unit energy consumption and greenhouse gas emissions.

3. **Achieve zero emissions of environmental pollutants**
   - We aim to avoid and reduce any substances that threaten the order and safety of our social system and to make a steadfast effort to reduce all environmental pollutants.

4. **Use safer chemical substances**
   - We will collect, maintain, and provide information on the health and environmental effects of chemical substances in our handling and use to ensure safety, chemical substances, and public health.

5. **Promote recycling**
   - We will develop recycling technologies for products, containers, and packaging and cooperate with society in promoting the necessary use of each material.

6. **Improve the level of environmental management**
   - We will take appropriate and the level of environmental management while working to upgrade our environmental management technology and skills, performing self-evaluation, and taking other measures.

7. **Contribute to society through environmental improvement activities and technologies**
   - We will meet the challenge of developing new technologies and contribute to society by contributing to environmental technologies as well as products that place a lesser burden on the environment.

8. **Improve the environmental management of our overseas businesses**
   - We will take proper responsibility for our overseas businesses. We will place the same priority as in our domestic business activities to fulfill our corporate aims while obeying local laws and regulations, and further, we will manage our overseas business activities in accordance with the management standards of Toray Group.

9. **Improve employers’ environmental awareness**
   - We will strive to improve our employers’ awareness of environmental issues through our business activities, human resources, social communications activity, and other means.

10. **Share environmental information with society**
    - We shall strive to offer information about our environmental activities and programs, as well as information about environmental activities of the Toray Group related organizations to the public through websites and other channels.

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**CSR Road Map**

**Mid-term Action Plan**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Establishment of CSR Guidelines and Action Programs</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>2. Revise CSR Guidelines and Action Programs</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>3. Develop CSR line activities at the Toray Group level and overseas subsidiaries and affiliates</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>4. Establish a CSR line management system</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>5. Collect information for company-wide CSR activities</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>6. Promote environmental self-evaluation standards</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>7. Implement CSR audit</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>8. Conduct field inspections of CSR activities</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
<tr>
<td>9. Other activities</td>
<td>Planned</td>
<td>Planned</td>
<td>Completed</td>
<td>Completed</td>
</tr>
</tbody>
</table>

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**Corporate Ethics and Legal Compliance Code of Conduct**

*Adopted October 2005*

1. **Contribute to society**
   - As a company aspiring to be a Nice Value Creator, provide trustworthy products and services that satisfy all our stakeholders.

2. **Communicate with society**
   - Determine how to communicate with society, including how to release information to society and how the company is involved with the company, including its customers and shareholders as well as members of the local community. Actively and honestly disseminate information about the company.

3. **Behave as a good corporate citizen**
   - Comply with laws and regulations, respect human rights, and actively contribute to society as a good corporate citizen.

4. **Play an active role in preserving the global environment**
   - We will play an active role in preserving the global environment by devoting our business activities to conserving energy and reducing emissions, and promoting recycling and reuse.

5. **Prioritize fairness and trust in corporate activities**
   - Engage in business transactions that abide by market competition, and conduct corporate activities that earn the deep trust of society.

6. **Comply with national laws and regulations**
   - Pursue management from a global perspective, comply with the respective national laws and regulations, and improve our social contribution with high ethical standards. Conduct corporate activities with respect for the culture and values of each country and contribute to the advancement of local communities.

7. **Raise motivation and create a corporate culture that lets employees demonstrate their ability**
   - Strive to create a corporate environment that allows each and every employee to contribute to achieving more individual self-value, character, and personality, and maintain creativity and professionalism.

8. **Break off relations with antisocial forces**
   - Always work for the good of society, break off malfeasance and antisocial forces that threaten the order and safety of social culture, and take a steadfast effort as a united company.

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**Related Article**

See page 21 for more information about the CSR promotion framework.
Established in September 2006, the CSR Operations Group in the Corporate Strategic Planning Division in September 2006 to strengthen CSR line activities and extend them throughout the Toray Group. The CSR Operations Group was spun off to become the CSR Operations Department in June 2007.

We established the CSR Operations Group in the Corporate Strategic Planning Division in September 2006 to strengthen CSR line activities and extend them throughout the Toray Group. The CSR Operations Group was spun off to become the CSR Operations Department in June 2007.

CSR Activities at Subsidiaries and Affiliates

The entire Toray Group seeks to pursue CSR activities as defined by the CSR Guidelines and Action Programs in combination with the basic approach to management laid out in the Corporate Philosophy, Corporate Missions, and Corporate Guiding Principles.

In April 2006, we launched CSR line activities by training key individuals at six model companies in Japan (Towa Drimone, Toray Monofilament, Ichimura Sangyo, Toray International, Toray Construction, and Soda Aromatic). We subsequently began training key individuals at remaining Japanese subsidiaries and affiliates in September 2006 and launched CSR line activities in March 2007.

We also began extending CSR activities to our overseas subsidiaries and affiliates, starting with three countries in Southeast Asia (specifically, in Thailand, Malaysia, and Indonesia).

CSR Promotion Framework

Toray Group considers the promotion of CSR and growth in profitability as twin pillars of equal and central importance in management.

Promotion of CSR on the Company-wide Subsidiary/affiliate, Division, and Facility Level

The CSR Committee, which reports directly to the president and is chaired by the vice president, coordinates the activities of the Group's CSR-related committees. CSR-related committees have been established in each subsidiary and affiliate, division, and plant, where they promote CSR activities based on the guidelines of the CSR Committee.

One unique aspect of Toray Group's approach to CSR line activities is that it emphasizes on-site action with 100% employee participation. Specifically, each worksite defines CSR issues based on the viewpoint of multi-stakeholders, CSR Guidelines, and Action Programs and then addresses them through the PDCA Cycle.

PDCA Cycle in CSR Management

The PDCA Cycle is a strategic management tool that follows the four stages of Plan, Do, Check, and Act. This cycle helps organizations manage and improve their processes and outcomes. In the context of CSR, the PDCA Cycle can be used to ensure that CSR activities are aligned with the company's overall strategic objectives.

The PDCA Cycle is divided into the following stages:

- **Plan**: This stage involves the planning and setting of goals, objectives, and strategies. It is important to establish clear and measurable targets for the CSR initiative.

- **Do**: This stage involves the execution of the planned activities. It is essential to implement the strategies and actions defined in the Plan stage.

- **Check**: This stage involves monitoring and evaluating the results of the implemented activities. It is crucial to assess whether the expected outcomes are achieved and if the CSR initiatives are effective.

- **Act**: This stage involves taking corrective action based on the results of the Check stage. It is important to adjust the strategies and actions if necessary to improve the effectiveness of the CSR initiatives.

The PDCA Cycle is a continuous process that allows organizations to improve their CSR activities over time and adapt to changing circumstances.

The CSR Core Values

- **Integration**: This core value emphasizes the integration of CSR into the company's overall strategy and operations. It is essential to ensure that CSR activities are aligned with the company's mission and goals.

- **Participation**: This core value emphasizes the involvement of all stakeholders in the CSR process. It is important to engage with employees, customers, suppliers, and other stakeholders in the development and implementation of CSR initiatives.

- **Stakeholder**: This core value emphasizes the consideration of the needs and interests of various stakeholders in the CSR process. It is important to assess and prioritize the needs of different stakeholders to ensure their satisfaction and support.

- **Sustainability**: This core value emphasizes the pursuit of long-term sustainability in CSR activities. It is essential to focus on initiatives that are environmentally friendly and contribute to the company's social and economic sustainability.

- **Leadership**: This core value emphasizes the role of leadership in promoting CSR initiatives. It is important to ensure that leaders are committed to CSR and provide guidance and support to the organization.

- **Engagement**: This core value emphasizes the importance of active participation and engagement in CSR activities. It is crucial to encourage employees and other stakeholders to participate in and benefit from CSR initiatives.

- **Communication**: This core value emphasizes the importance of effective communication in CSR activities. It is important to ensure that stakeholders are informed about CSR initiatives and the progress made in achieving their goals.

The CSR Core Values guide Toray Group in promoting CSR activities and ensuring that they are effective and sustainable. By integrating CSR into the company's overall strategy and operations, promoting participation and engagement, and ensuring effective communication, Toray Group can achieve its CSR goals and contribute to sustainable development.
Emphasizing Corporate Ethics and Legal Compliance

Toray Group considers corporate ethics and legal compliance to be among its most important management issues. Based on a clearly defined stance and the leadership of top management, Toray Group works together toward this goal.

Framework for Promoting Corporate Ethics and Legal Compliance

Promoting Corporate Ethics and Legal Compliance

The figure to the lower left illustrates the framework within which Toray promotes corporate ethics and legal compliance. The Corporate Ethics Committee, which is chaired by the president, discusses policies related to corporate ethics and the employee code of conduct, and encourages labor and management to work together for CSR efforts. The Legal Compliance Committee is primarily composed of front-line section managers and works to facilitate closer communication with top management. The Division- and plant-level CSR/Legal Compliance Committees develop and implement activities based on individual employees’ awareness of related issues.

During FY 2006, the Group sought to augment the activities by creating a new Corporate Ethics and Legal Compliance Group in Toray’s Affiliated Companies Division to oversee the promotion of related activities, added to the previously established CSR/Legal Compliance Committees at each Japanese subsidiary and affiliate. We also strengthened our compliance framework by appointing directors and section heads in charge of legal compliance at all subsidiaries and affiliates.

We also continued to establish CSR/Legal Compliance Committees at overseas affiliates, and as of March 31, 2007, committees have been established at 63 overseas companies.

Corporate Ethics and Legal Compliance Code

All Toray executives and employees (including part-time and temporary personnel) receive the Corporate Ethics and Legal Compliance Handbook, which includes the Code of Conduct and detailed explanations and notes. The second edition of the Handbook was published in April 2007 in response to revisions of the Group’s Management Philosophy, changes in applicable laws and regulations, and other new information.

The Handbook also creates similar codes of conduct, guidelines, handbooks, and other information for Japanese and overseas subsidiaries and affiliates with CSR/Legal Compliance Committees.

Related article
See page 19 for the complete text of the Corporate Ethics and Legal Compliance Code of Conduct.

Corporate Culture Based on Ethics and Legal Compliance

Toray encourages autonomous and voluntary educational activities in every workplace to help spread employee awareness of corporate ethics and legal compliance issues. Workplaces regularly discuss such issues at monthly meetings, conduct study groups, and research case studies in corporate misdeeds reported by the media.

Company-wide activities and initiatives in FY 2006 included efforts to enhance legal compliance training in security trade administration and the deployment in November of a Legal Reform Information Distribution System through which information about changes in laws that are applicable to the Group’s activities is sent out to all divisions as well as Japanese subsidiaries and affiliates in a weekly email. We also launched a Company-wide CSR/Legal Compliance Bulletin Board system on the Company intranet in February 2007 as part of an effort to strengthen our ability to distribute information about legal compliance issues.

Strengthening Security Trade Administration

Following a warning issued in May 2006 by the Ministry of Economy, Trade and Industry regarding an application for authorization to export certain products to Taiwan, Toray and Toray International immediately established the Security Trade Administration Countermeasures Division and the Security Trade Administration Department. These new organizational entities were created to form the basis of a framework for administering exports via third countries, third-country transactions, and imports by overseas affiliates in response to increasingly strict domestic and international regulations. Other FY 2006 initiatives saw the Group conducting training for all offices and plants, surveying relevant divisions and departments, and providing guidance in implementing improvements. We also continued to build organizational frameworks for Japanese and overseas subsidiaries and affiliates that handle listed (controlled) substances and provide relevant training.
Emphasize Safety, Accident Prevention, and Environmental Preservation

Toray Group seeks to manage safety, health prevention, and environmental preservation in a unified, common manner, which includes Japanese and overseas subsidiaries and affiliates. Each year we identify Safety, Health, Accident Prevention, and Environmental Action Policies and pursue their implementation throughout the Group. In 2006, we addressed the 16 Priority Actions listed in the Second Three-year Environmental Plan and formulating the Third Three-year Environmental Plan.

Commitment

In the critical area of safety, we are striving to achieve the world’s lowest rate of lost-worktime injuries by pursuing the Step-up 3Z (Zero Accident Program), an important part of the IT-Aims Manufacturing Technology Innovation Project. Environmentally, we are working to further lessen the impact of our operations and contribute to the realization of a recycling-based society by achieving the targets set forth in the Third Three-year Environmental Plan adopted in FY 2007.

ISO14001 Certification

As part of our RC activities, we have been working to acquire certification under the ISO14001 international standards for environmental management. All 12 of Toray’s plants have already been certified. During FY 2006, 6 Japanese subsidiary as well as 6 overseas subsidiaries/affiliates and 7 associated plants were certified, bringing the total to 42 subsidiaries/affiliates and 58 plants.

Unified Management of Safety, Health, Accident Prevention, and Environmental Preservation Issues

Toray Group conducts an annual Safety, Health, Accident Prevention, and Environmental Audits to evaluate and improve conditions and management at all manufacturing companies and plants. Specifically, the audit process encompasses three stages: an internal audit at each plant using a uniform auditing checklist, a preliminary site audit or document audit by the auditing staff, and an executive audit by Toray’s board of directors or representatives or supervisory company presidents for each region or country. During FY 2006, audits conducted at a total of 13 Toray plants and laboratories, 25 plants at Japanese subsidiaries and affiliates, and 40 plants at overseas subsidiaries and affiliates focused on issues such as the dangers of oxygen deficiency and forklift safety countermeasures.

Responsible Care (RC) Activities

Although chemical substances play an indispensable role in modern society, they can have adverse effects on human health and the natural environment if handled improperly. Responsible Care refers to the responsible and voluntary implementation of appropriate safety, health, and environmental measures when handling chemical substances throughout the product lifecycle, from development and manufacturing to distribution, use, and disposal. Toray has been an active member of the Japan Responsible Care Council (a) since its establishment in 1995. FY 2006 initiatives focused on reviewing and rebuilding a new chemical substance notification system and pursuing GHS* compliance.

* The Global Harmonized System of chemical product categories and labels.

REACH Regulation Compliance

The European Union’s REACH* chemical regulations took effect in December 2006, extending comprehensive controls to existing chemical substances. Toray Group formed a REACH Compliance Promotion Department to oversee compliance with the new regime and established structures to pursue compliance at all Toray divisions and departments as well as Japanese and overseas subsidiaries and affiliates. We are currently identifying targeted products in preparation for preliminary registration, which starts in June 2008.*2

Examing Environmental Efficiency Indicators

A variety of environmental efficiency indicators have been proposed recently to express the relationship between business activities and their environmental impact. Because no standard approach has yet been determined for calculating an integrated indicator that incorporates various environmental impacts, Toray Group is experimenting with expressing the results of environmental initiatives by calculating separate environmental efficiency indicators for principal environmental evaluation items instead of using an integrated indicator.

*2 REACH: Registration, Evaluation, Authorization and Restriction of Chemicals

Related article

See pages 58 to 59 for more information about environmental efficiency indicators
Three-Year Environmental Plans

Toray Group is pursuing systematic efforts to reduce its environmental footprint by setting a basic environmental policy for the medium-term. The Second Three-Year Environmental Plan ended in FY 2006 after guiding dramatic progress in reducing emissions of greenhouse gases (GHG), chemical substances, SOx, NOx, and dust. Overseas subsidiaries and affiliates could not achieve the plan’s targets due to production increases, although they made efforts to reduce atmospheric emissions of chemical substances and total waste.

### Results of the Second Three-Year Environmental Plan

<table>
<thead>
<tr>
<th>Theme</th>
<th>FY 2001 target</th>
<th>Results</th>
<th>Initial</th>
<th>中期</th>
<th>Achieve Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promotion of global warming</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Reduction of greenhouse gas emissions (FY 2000 target compared to FY 1990)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toray (comprised of FY 1994)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH4: 50% reduction FY 2000</td>
<td>27</td>
<td>27</td>
<td>9.6% compared to FY 1990 levels.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH4: 25% reduction FY 1990</td>
<td>27</td>
<td>27</td>
<td>9.6% compared to FY 1990 levels.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Energy conservation</td>
<td>Toray: Reduce air and energy consumption by 1% annually</td>
<td>27</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toray: Reduce air and energy consumption by 1% annually</td>
<td>27</td>
<td>27</td>
<td>9.6% compared to FY 1990 levels.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP: Reduce air and energy consumption by 1% annually</td>
<td>27</td>
<td>27</td>
<td>9.6% compared to FY 1990 levels.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Management of chemical substances**

<table>
<thead>
<tr>
<th>Theme</th>
<th>FY 2001 target</th>
<th>Results</th>
<th>Initial</th>
<th>中期</th>
<th>Achieve Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce chemical substances emitted to atmosphere (compared to FY 1998)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toray</td>
<td>20% reduction</td>
<td></td>
<td>20% reduction</td>
<td>20% reduction</td>
<td>20% reduction</td>
</tr>
<tr>
<td>JP: Reduce PTE emissions</td>
<td>20% reduction</td>
<td></td>
<td>20% reduction</td>
<td>20% reduction</td>
<td>20% reduction</td>
</tr>
<tr>
<td>Toray and affiliates (compared to FY 1998)</td>
<td>20% reduction</td>
<td></td>
<td>20% reduction</td>
<td>20% reduction</td>
<td>20% reduction</td>
</tr>
<tr>
<td>JP: Reduce PTE emissions</td>
<td>20% reduction</td>
<td></td>
<td>20% reduction</td>
<td>20% reduction</td>
<td>20% reduction</td>
</tr>
<tr>
<td>Overseas subsidiaries and affiliates (compared to FY 2000)</td>
<td>20% reduction</td>
<td></td>
<td>20% reduction</td>
<td>20% reduction</td>
<td>20% reduction</td>
</tr>
<tr>
<td>JP: Reduce PTE emissions</td>
<td>20% reduction</td>
<td></td>
<td>20% reduction</td>
<td>20% reduction</td>
<td>20% reduction</td>
</tr>
</tbody>
</table>

**Air quality**

<table>
<thead>
<tr>
<th>Theme</th>
<th>FY 2001 target</th>
<th>Results</th>
<th>Initial</th>
<th>中期</th>
<th>Achieve Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toray (compared to FY 1998)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO2 emissions: 40% reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx emissions: 40% reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total emissions: 40% reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission rates:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Index)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2000</td>
<td>40 30 25 14 16</td>
<td></td>
<td>40 30 25 14 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2001</td>
<td>40 30 25 14 16</td>
<td></td>
<td>40 30 25 14 16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Water quality**

<table>
<thead>
<tr>
<th>Theme</th>
<th>FY 2001 target</th>
<th>Results</th>
<th>Initial</th>
<th>中期</th>
<th>Achieve Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toray (compared to FY 1998)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOD emissions: 20% reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total emissions: 20% reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission rates:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Index)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2000</td>
<td>80 79 78 77 76</td>
<td></td>
<td>80 79 78 77 76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2001</td>
<td>80 79 78 77 76</td>
<td></td>
<td>80 79 78 77 76</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Waste reduction**

<table>
<thead>
<tr>
<th>Theme</th>
<th>FY 2001 target</th>
<th>Results</th>
<th>Initial</th>
<th>中期</th>
<th>Achieve Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toray</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total waste generated: 25% reduction over FY 1998</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landfill waste: 5% or less of total waste generated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycling rate: 85% or higher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission rates:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Index)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2000</td>
<td>31 29 27 25 23</td>
<td></td>
<td>31 29 27 25 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2001</td>
<td>31 29 27 25 23</td>
<td></td>
<td>31 29 27 25 23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We are committed to reducing the environmental effect of our operations and pursuing steps to achieve a recycling-based society even as we plan for increased production by implementing environmental countermeasures on an ongoing basis.

### Action on Global Warming Initiatives

Toray is working systematically to reduce greenhouse gas emissions and prevent global warming through measures such as conserving energy and converting to more environmentally friendly fuels.

**Toray’s action on Global Warming Initiatives**

Toray has established the goal of reducing GHG emissions by 10% compared to FY 1990 levels by FY 2008. Steady energy conservation efforts during FY 2006, including the conversion of boilers at the Shiga Plant and a cogeneration system at the Chiba Plant to city gas and reductions in heat loss, generated steady progress as we reduced emissions by 9.6% compared to FY 1990 levels.

Toray has also set a target of a 1% annual reduction in unit energy consumption, and in FY 2006 we achieved a 3.5% reduction. Steady efforts at each plant and energy conservation assessments by company experts contributed to this success.

**GHG Emissions (Toray)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10,000 t CO2e)</td>
<td>230</td>
<td>200</td>
<td>170</td>
<td>140</td>
<td>110</td>
<td>80</td>
<td>50</td>
</tr>
</tbody>
</table>

**Energy Consumption and Unit Energy Consumption Index (Toray)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (KWh)</td>
<td>180</td>
<td>160</td>
<td>140</td>
<td>120</td>
<td>100</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Unit energy consumption (KWh/m2)</td>
<td>90</td>
<td>80</td>
<td>70</td>
<td>60</td>
<td>50</td>
<td>40</td>
<td>30</td>
</tr>
</tbody>
</table>

**Deployment of a Natural Gas Cogeneration System at the Shiga Plant**

Construction is ongoing on a project to increase overall efficiency by conversion from fuel oil to natural gas and deploying a cogeneration system. The new system, which is designed to reduce emissions by another 40ktCO2, should come online in January 2008.

**Taking Energy Conservation Activities Overseas**

Toray Sankei Precision (Shanghait) Co., Ltd. is continuing energy conservation activities with the goal of reducing power consumption by 1,200 megawatt-hours per year under the guidance of a senior expert from Toray.

**Developing New Manufacturing Processes to Improve Efficiency**

Carbon fiber composite materials help reduce fossil fuel consumption by enabling more lightweight designs for aircraft and automobiles. We are working to develop manufacturing processes that use at least 10% less energy compared to conventional processes.

**Initiatives to Protect the Ozone Layer**

Toray halted use of chlorofluorocarbons (CFCs) in all manufacturing processes in 1994. We have also stopped purchasing CFCs for use in refrigerators and are working to replace existing CFCs with alternative compounds.

---

1. Emission rates are expressed as kg/m3.
2. Percentages of waste not put to effective use (a, waste disposed of in landfills; b, waste incinerated, etc.).
3. Recyclable rates (%) = (biodegradable waste + recoverable waste + total waste generated - recoverable waste) / total waste generated × 100

---

**Three-Year Environmental Plan**

The Third Three-Year Environmental Plan that took effect in FY 2007 articulates Toray Group’s overall approach to environmental issues by establishing Group-wide targets.

**Area**

- **Promotion of global warming**
- **Management of chemical substances**
- **Air quality**
- **Water quality**
- **Waste reduction**

**Target**

- **FY 2007 target**

---

**CIR Guidelines**

Emphasize safety, accident prevention, and environmental preservation.

---

**Shiga Plant**

Shiga Plant is an example of the Toray Group's efforts to reduce environmental impact through innovative technologies and practices.
Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances

Consistent with its emphasis on the importance of reducing atmospheric emissions of chemical substances, the Group has reduced its emissions of PRTR Law substances by 57%. The Third Three-Year Environmental Plan also incorporates initiatives to reduce atmospheric emissions of volatile organic compounds (VOCs)¹.

**Toray Group Performance and Future Initiatives**

- **Reducing Atmospheric Emissions of PRTR Law**² Substances
  Toray achieved a year-on-year reduction in emissions of 9% in FY 2006, although it couldn’t completely reach the Second Three-Year Environmental Plan’s target of a 74% reduction over the base year FY 1995. Japanese subsidiaries and affiliates achieved their targets for the second year in a row with a 66% reduction over FY 1998 levels. Overseas subsidiaries and affiliates reduced emissions 5% compared to the previous year, although increases in production since 2003 make that equivalent to a 9% increase in emissions over FY 2000 levels.

**Atmospheric Emissions of PRTR Law Substances**

<table>
<thead>
<tr>
<th>(Total)</th>
<th>(Group-wide)</th>
<th>(Subsidiaries and affiliates)</th>
<th>(Japan)</th>
<th>(Overseas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>55% reduction</td>
<td>55% reduction</td>
<td>66%</td>
<td>33%</td>
</tr>
</tbody>
</table>

- **Reducing Atmospheric Emissions of JCIA PRTR Substances**
  Toray and its Japanese subsidiaries and affiliates achieved year-on-year reductions of 22% and 8%, respectively, during FY 2006, achieving Second Three-Year Environmental Plan targets. Overall the Group reduced emissions by 60% over the base year.

- **Voluntary Reductions Under the Third Three-Year Environmental Plan**
  The Third Three-Year Environmental Plan established the target of reducing Group-wide atmospheric emissions of PRTR Law substances by 55% over FY 2000 levels, reflecting our commitment to continue to pursue voluntary reductions. We are also extending our reduction efforts from JCIA PRTR substances to include all VOCs, with the goal of cutting overall Group emissions by 55% compared to FY 2000 levels.

**Atmospheric Emissions of JCIA PRTR Substances**

<table>
<thead>
<tr>
<th>(Total)</th>
<th>(Group-wide)</th>
<th>(Subsidiaries and affiliates)</th>
<th>(Japan)</th>
<th>(Overseas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>55% reduction</td>
<td>55% reduction</td>
<td>66%</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Initiatives at Toray**

- **During FY 2006**
  Toray Group met the reduction targets laid out in the Second Three-Year Environmental Plan thanks to active efforts at the Shiga Plant, Chiba Plant, and other facilities to convert from fuel oil to city gas.

**Toray Group Performance**

- **Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances**
  Toray Group plans to systematically implement similar initiatives in the future.

**Atmospheric Emissions (Toray)**

<table>
<thead>
<tr>
<th>(Total)</th>
<th>(Group-wide)</th>
<th>(Subsidiaries and affiliates)</th>
<th>(Japan)</th>
<th>(Overseas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>55% reduction</td>
<td>55% reduction</td>
<td>66%</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Atmospheric Emissions (Japanese Subsidiaries and Affiliates)**

<table>
<thead>
<tr>
<th>(Total)</th>
<th>(Group-wide)</th>
<th>(Subsidiaries and affiliates)</th>
<th>(Japan)</th>
<th>(Overseas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>55% reduction</td>
<td>55% reduction</td>
<td>66%</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Initiatives to Prevent Air Pollution**

We met all voluntary reduction targets laid out in the Second Three-Year Environmental Plan thanks to active efforts at the Shiga Plant, Chiba Plant, and other facilities to convert from fuel oil to city gas.

**Toray Group Performance**

- **Atmospheric Emissions of JCIA PRTR Substances**
  Toray Group achieved reductions of 74% over the base year FY 1995, a result of efforts to convert oil boilers at the Shiga Plant and Chiba Plant to use city gas enabled particularly significant reductions in SOx and dust emissions.

**Efforts to Switch to Low-Sulfur Fuels and Strengthen Operational Management**

At overseas subsidiaries and affiliates, aggressive efforts over the last two or three years to convert boiler operation from fuel oil to natural gas at companies in Southeast Asia drove dramatic reductions of 56% for SOx, 50% for NOx, and 56% for dust compared to the base year FY 2001. As a result, the entire Group posted significant reductions for 52% for SOx, 39% for NOx, and 53% for dust compared to the base year (Toray, 1998; Japanese and overseas subsidiaries and affiliates: 2001).

**Atmospheric Emissions (Overseas Subsidiaries and Affiliates)**

<table>
<thead>
<tr>
<th>(Total)</th>
<th>(Group-wide)</th>
<th>(Subsidiaries and affiliates)</th>
<th>(Japan)</th>
<th>(Overseas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>55% reduction</td>
<td>55% reduction</td>
<td>66%</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Initiatives at Toray**

- **During FY 2006**
  Toray Group plans to systematically implement similar initiatives in the future.

**Atmospheric Emissions (Overseas Subsidiaries and Affiliates)**

<table>
<thead>
<tr>
<th>(Total)</th>
<th>(Group-wide)</th>
<th>(Subsidiaries and affiliates)</th>
<th>(Japan)</th>
<th>(Overseas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>55% reduction</td>
<td>55% reduction</td>
<td>66%</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Initiatives at Overseas Subsidiaries and Affiliates**

**FY 2006 saw a dramatic reduction in emissions in Thailand, Indonesia, and Malaysia due primarily to the completion of efforts to convert companies with high atmospheric emissions to the use of natural gas. We plan to continue working aggressively to convert equipment to natural gas use.**

**We checked measurement of exhaust gas concentrations for companies in Southeast Asia and China using the instrumental analysis method, and we are working to enhance operational management.**

**Measurement of exhaust gas concentrations at Perbadan Sdn. Berhad**

**FY 2006 Results and FY 2007 Plan ( Initiatives to Prevent Air Pollution)**

<table>
<thead>
<tr>
<th>Second Three-Year Environmental Plan (FY 2006 target)</th>
<th>FY 2006 progress</th>
<th>FY 2007 plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>30% reduction in JCIA PRTR substances over FY 2000</td>
<td>28% reduction</td>
<td>30% reduction</td>
</tr>
<tr>
<td>40% reduction in JCIA PRTR substances over FY 2000</td>
<td>37% reduction</td>
<td>40% reduction</td>
</tr>
<tr>
<td>50% reduction in JCIA PRTR substances over FY 2000</td>
<td>42% reduction</td>
<td>50% reduction</td>
</tr>
<tr>
<td>60% reduction in JCIA PRTR substances over FY 2000</td>
<td>48% reduction</td>
<td>60% reduction</td>
</tr>
</tbody>
</table>

**Initiatives to Prevent Air Pollution**

- **SOx**
  - Reduction in SOx emissions by 45% compared to FY 2006
  - Conversion for fuel oil to natural gas

- **NOx**
  - Reduction in NOx emissions by 45% compared to FY 2006
  - Conversion for fuel oil to natural gas

- **Dust**
  - Reduction in dust emissions by 45% compared to FY 2006
Water Emissions (Toray)

Water Emissions (Overseas Subsidiaries and Affiliates)

As a result, overall BOD emissions for Toray Group fell 34% compared to the base year (Toray: 1998; Japanese and overseas subsidiaries and affiliates: 2001).

Initiatives to Reduce Waste

Toray Group is redoubling initiatives to improve recycling rates and achieve zero emissions as part of larger efforts to bring about a recycling-based society.

Zero Emissions Activities

Although we reduced COD emissions by 11% compared to the base year, a year-on-year increase of 1.7% prevented us from reaching our voluntary reduction target. Going forward, we will be redoubling process improvements and wastewater stabilization.

BOD emissions at Japanese subsidiaries and affiliates increased 2% year-on-year due to increased production, while COD emissions fell 10%.

BOD emissions at overseas subsidiaries and affiliates rose 3% year-on-year in Southeast Asia and China, while COD emissions fell 5%.

Initiatives to Reduce Waste

Despite reduction activities such as process stabilization and recycling of waste products, the total volume of waste generated by Toray Group grew 5,000 tons over the previous year to 9,300 tons, approximately 7,000 tons of which were due primarily to increased production. Key reduction activities included the construction of a sludge dryer at the Okazaki Plant to reduce waste volume, efforts to increase throughput at TFC’s Chiba Plant wastewater treatment facility to reduce the volume of wastewater that must be treated at outside facilities, and the achievement of more stable production at Indonesia Toray Synthetics through enhanced cleaning at the company’s facilities to reduce yarn waste.

During FY 2006, Toray Group reduced landfill waste by 3,000 tons compared to the previous year to 19,000 tons. Toray’s landfill rate for FY 2006 was 2.0%, marking the fourth straight year in which we have achieved the target of 5.0%.

Our recycling rate improved 1.9% over the previous year to 93.0%, barely missing the target of 95%, while Japanese subsidiaries and affiliates posted a recycling rate of 83.3% to meet the target of 75% for the second year in a row.

The recycling rate for overseas subsidiaries and affiliates was 65.7%, an improvement of 0.8% over the previous year.

Total Waste Generated and Simply Disposed Waste (Toray Group)

Recycling Rate and Landfill Rate (Toray Group)

<table>
<thead>
<tr>
<th>Second Three-Year Environmental Plan (FY 2007 target)</th>
<th>FY 2006 progress</th>
<th>FY 2007 plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total waste generated</td>
<td>24,600 tons</td>
<td>23,700 tons</td>
</tr>
<tr>
<td>Landfill rate of 8% or higher</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Recycling rate of 95% or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total waste generated</td>
<td>18,000 tons</td>
<td>20,500 tons</td>
</tr>
<tr>
<td>Landfill rate of 8% or higher</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Recycling rate of 75% or lower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overseas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total waste generated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landfill rate of 8% or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycling rate of 75% or lower</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FY 2006 Results and FY 2007 Plan (Initiatives to Prevent Water Pollution)

<table>
<thead>
<tr>
<th>Second Three-Year Environmental Plan (FY 2007 target)</th>
<th>FY 2006 progress</th>
<th>FY 2007 plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese subsidiaries and affiliates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overseas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Occupational Safety Initiatives

Toray Group is working to completely eliminate serious accidents and achieve the world’s lowest rate of lost-worktime injuries through Zero Accident.

Group-wide Safety Activities

Key Toray Group safety policies are determined by the Safety, Health, and Environment Committee and communicated to Japanese and overseas subsidiaries and affiliates through the Safety, Health, Accident Prevention, and Environment Conference for subsidiaries and affiliates. The annual Toray Group Safety Meeting, which is attended by Toray’s president, board members, office and plant general managers, presidents of Japanese subsidiaries and affiliates, and other employees, provides an opportunity for participants to listen first-hand to the policy objectives of top management, hear reports on safety activities by Toray and Japanese subsidiaries and affiliates, and work together toward safety activities and safety management, for example by applying their respective strengths and innovations horizontally across the Group.

2006 Safety Slogan

IT-2010 Achieve Zero Accident. Everyone Keep the Basic Rule!

principal 2006 initiatives

• Observe work standards
• Enhance use of protective equipment and enhance associated management
• Develop countermeasures for serious near-accidents and apply laterally throughout the organization

Introduction of Automated External Defibrillators (AED)

Toray placed AEDs, which were recently approved for general use by the government, in all offices, plants, and laboratories. Employees at all worksites are preparing for accidents by undergoing training on how to use the devices as well as in CPR techniques.

Zero Accident Initiatives

The first item in the Corporate Guiding Principles of Toray’s Management Philosophy is “Safety and Environment,” reflecting the top priority we give to creating a safe workplace culture and working environment. Since 2006 we have been pursuing zero accident activities as one of the Manufacturing Technology Innovation Projects under the IT-2010 mid-term business strategies. The entire Group is working together to meet the project’s target of completely eliminating serious accidents and achieving the world’s lowest rate of lost-worktime injuries*1 (0.5 or lower). To do so, all companies, offices, and plants create annual plans, and directors responsible for the project manage plant efforts across the organization.

Similarly, responsible directors bring a perspective that cuts across individual businesses to bear in creating and pursing plans to address business-specific issues.

*1 Number of fatalities and injuries causing lost workdays per 1 million man-hours.

Toray Group Safety Achievements

Toray Group experienced a total of 31 accidents in 2006 (Lost worktime and non-lost worktime), of which 3 occurred at Toray, 13 at Japanese subsidiaries and affiliates, and 15 at overseas subsidiaries and affiliates. The rate of lost-worktime injuries was 0.27 (Toray parent: 0.20), and the overall accident rate including accidents that did not cause lost worktime was 0.39 (Toray parent: 0.27). These numbers compare favorably to Japan’s overall manufacturing industry rate of 1.32.

Accident Prevention Education and Drills

In addition to conducting accident preparedness drills, Toray pursues a variety of voluntary safety activities to prevent accidents involving fires and explosions.

Voluntary Safety Inspections with Toray’s Proprietary Checklist

Toray Group has prepared the FP Checklist, a proprietary checklist of 550 items relating to fire and explosion accident prevention. The entire Group, including subsidiaries and affiliates, works to prevent fire and explosion accidents by utilizing the checklist to conduct voluntary annual inspections.

Preventing Recurrences by Sharing Accident Information

In the event of a fire accident or near-accident, a Fire Accident/Near Accident Report is issued as a means of sharing information throughout the Group to prevent similar accidents from occurring in the future. The entire Group implemented countermeasures to prevent recurring accidents following two serious accidents in 2006, when a heat medium circulation pump caught fire at the Nagoya Plant (see CSR Report 2006 for more information) and a lightning strike sparked a fire at the Seta Plant.

Related article

See page 109 for more information about the lightning strike and fire at the Seta Plant.

Accident Prevention Education and Drills

Toray Group believes that giving employees firsthand experience of the potential dangers of the chemicals they handle and the frightening potential of fires and explosions with test devices increases the effectiveness of accident prevention efforts. To this end, we systematically conduct experimental demonstrations of fires and explosions.

We also conduct systematic fire prevention drills covering communications, evacuation, firefighting, and other activities to minimize damage in the event of an accident. We conducted comprehensive fire drills, emergency task force drills, and emergency communication drills last year.

Distribution Safety Initiatives

Toray works to ensure shipping safety by maintaining a system that facilitates emergency communications in the event of shipping accidents and conducting emergency drills.

Safety Management of Hazardous Substances

A variety of legal regulations such as the Fire Service Law, High Pressure Gas Safety Law, and Poisonous and Deleterious Substances Control Law require the assurance of safety when transporting hazardous substances. Toray’s Hazardous Substance Transport Safety Management Regulations govern matters related to the safe transport of combustible or hazardous materials. We are working to conclude safety agreements with customers, suppliers of raw materials and resources, and distribution partners to define the specific division of safety management roles and responsibilities during shipment and material handling.

Initiatives to Reduce Distribution Accidents

The Transport Safety Law*2 enacted in October 2006 mandates improvements in distribution and transport safety. As part of its responsibility as a shipper, Toray has long asked distribution partners involved in shipping Toray products to work aggressively to prevent overloading, and during FY 2006 we sought to increase the effectiveness of those efforts by conducting random checks of truck weight at each of our plants. In the future we will continue to work with our distribution partners to reduce distribution accidents by regularly conducting similar activities.

Emergency Response

Toray maintains emergency communication systems and conducts emergency drills to prepare for accidents that might occur during the shipment of its products. In the event that such an accident were to occur, our response systems are capable of dispatching support personnel to the accident site immediately. In addition, drivers of shipping vehicles carry Yellow Cards*3 bearing descriptions of emergency measures for minimizing damage at accident sites.

*2 A law requiring shippers to establish and strengthen safety management systems.

*3 Cards summarizing the names of any hazardous substances, applicable laws and regulations, hazardous properties, emergency accident procedures, emergency reporting and contact information, methods for minimizing the spread of damage, and other information.
Environmental Accounting
Toray introduced environmental accounting in FY 1999 to record environment-related investments and costs and calculate their effectiveness.

Accounting Results for FY 2006
Capital investment totaled 2.09 billion yen, primarily for updating electrostatic precipitators on boilers, reducing atmospheric emissions of chemical substances, enhancing wastewater-treatment facilities, and renovating product recycling facilities.

Costs totaled 6.75 billion yen, of which 1.78 billion yen was allocated to air quality efforts and 2.28 billion yen for water quality efforts. Operating costs for existing existing gas and wastewater treatment facilities accounted for the majority of those charges. These expenditures saved 570 million yen in energy costs and 30 million yen in waste disposal costs while netting 960 million yen in sales of valuable recycled resources.

Toray Group Facility Investment in Safety, Health, Accident Prevention, and Environmental Preservation Projects
In addition to the environmental preservation, energy conservation, recycling, and other areas targeted by environmental accounting, Toray tabulates facility investment related to safety, accident prevention, and environmental preservation. FY 2006 investment in this category totaled 4.3 billion yen for Toray, 1.3 billion yen for Japanese subsidiaries and affiliates, and 1.8 billion yen for overseas subsidiaries and affiliates.

Safety investments centered on retrofitting existing equipment to improve fundamental safety, while accident prevention investments sought to strengthen buildings to increase resistance to earthquakes. For domestic affiliates, to reduce atmospheric emissions of chemical substances at Toray Advanced Film Co., Ltd., while overseas investments included boosting wastewater treatment facility capacity at Pentafilm Sdn. Berhad (Malaysia) and installing an exhaust gas desulfurization facility on coal boilers at Toray Fibers (Nantong) Co., Ltd.

Environmental Risk Management
Toray Group seeks to control and reduce environmental risk in order to fulfill the “Safety and Environment” priorities that sit at the top position in the Corporate Guiding Principles of Toray’s Management Philosophy.

Managing Environmental Risk
Toray Group considers environmental risk management to be a critical priority. The Safety, Health, and Environmental Committee deals with Group-wide directions and policies, while individual plants strive to manage and reduce environmental risks. These activities are reviewed during annual safety and Health, Accident Prevention, and Environmental Audits.

In addition to conducting emergency response drills, we work to increase individual employees’ awareness of environmental issues by offering “wastewater education tours” designed to show workers where the wastewater they wash down the drain ends up.

Environmental and Accident Prevention Compliance and Accident Report
The Virginia Plant operated by Toray Plastics America, Inc., was cited with one violation in FY 2006 when the contracted waste treatment volume exceeded the level for which the plant had received a permit. Upon being informed by the relevant regulatory agency of the mistake, the company immediately took corrective action and implemented a system of checks to ensure that the problem would not recur.

Five accidents occurred at Toray Group facilities during FY 2006, including a lightning-triggered fire at the Seta Plant (see sidebar below). All were reported immediately to the relevant local government which implemented countermeasures to prevent a recurrence. In addition, the Seta Plant received a total of 18 complaints and requests from local residents concerning wastewater odor, noise, and other annoyances. We took these complaints seriously and responded in good faith by making improvements.

Soil and Groundwater Pollution Prevention
Toray Group conducts embankments around facilities and storage tanks holding hazardous or dangerous substances to prevent spills from leaking into the surrounding area or seeping into the soil.

We continue to deal with soil pollution that was discovered at the Nagoya Plant (see CSR Report 2005 for more information) and have currently installed 71 purification wells. Similarly, we have installed 57 purification wells at Toray Monofilament Co., Ltd. (see Toray Group Environmental Report 2002 for more information), where we continue to purify groundwater by pumping it up to the surface and aerating it. Neither facility has fallen below environmental standards, but steady cleanup work is making a difference.

We are committed to conducting voluntary surveys, reporting and otherwise disclosing results, and undertaking purification measures in the event that any pollution is discovered.

Environmental and Accident Prevention Incidents in FY 2006 (Toray Group)

Administrative punishments due to violations of workplace safety and health regulations
Accidents, etc. (fires, explosions, environmental accidents, etc.)
Complaints/requests (noise, odor, etc.)

Certified occupational accidents (Toray Group) 17 (1)
Certified health incidents based on the Asbestos Law (Toray Group) 4 (1)

Number (industrial diseases excluded)

Lightning-triggered fire at Seta Plant
On August 12, 2006, a lightning strike sparked a fire at the Seta Plant’s No. 2 Plant (Textile Development). The solid wood construction of the facility’s roof and ceilings aggravated fire-fighting efforts, and approximately 11,000 square meters were destroyed in the blaze. No employees were injured, although one neighborhood resident was taken to the hospital for smoke inhalation as a precaution (she was not seriously injured). Smoke from the fire drifted into neighboring residential areas and inconvenienced residents, but we worked in good faith with the residents’ association to wash cars and otherwise make amends.

Environmental and Accident Prevention Incidents and Accident Report

Certified occupational accidents (Toray Group) 17 (1)
Certified health incidents based on the Asbestos Law (Toray Group) 4 (1)

Number (industrial diseases excluded)

(1) Includes improvement orders and fines. Improvement guidance and recommendations are included in accident figures.

Toray Group CSR REPORT 2007 24-35
Product Safety and Quality Assurance at Toray

As part of the “AP-innovation TORAY 21” Long-term Corporate Vision, Toray Group created the “Quality” and “Customer-focus” aspects of its corporate image for the 21st century, as a focus for unifying and driving product safety and quality assurance.

Quality Policy (revised June, 2007)

We give top priority to the product quality offered to our customers as well as safety and environmental impact in our corporate activities. We work on the quality management with the stance of “Customer First”:

1. We make our best efforts to meet our customers’ expectations with products and services of high satisfaction.
2. We commit ourselves to abide by the “Quality First” principle, and to improve quality and reliability of our products, in all our divisions such as sales, manufacturing and research and development.
3. We establish the quality at the stage of design and development, and ensure it in the manufacturing process to meet quality requirements.
4. We continuously strive to organize, maintain and improve our quality management system.

Product Safety Management Basic Policy

1. We shall place safety priority on the various measures required to ensure product safety.
2. We shall conduct adequate safety evaluation prior to marketing a new product.
3. For products already on the market, we shall take note of information from customers and the general public and always remain attentive to safety.

Newly-established Product Safety and Quality Assurance Planning Department

To strengthen the quality assurance program for our expanding international and OEM production activities, the Product Safety and Quality Assurance Planning Department, covering the entire Toray Group, was established under the direct supervision of the President, which was established in December of 2006. At the same time, Quality Assurance Departments were established in each business division’s Product Safety Secretariat, by adding the function of quality assurance. This is to further ensure product quality in a wide range of business areas—fibers and textiles, films, plastics, composite materials, electronics and informatics materials, pharmaceuticals and medical products.

The Product Safety and Quality Assurance Planning Department sets product safety and quality policy for the entire company, and provides guidance and management for the individual Quality Assurance Departments. During FY 2006, we reexamined the quality policy based on our Corporate Philosophy, focusing on a customer-first, quality first approach.

Thorough, Ongoing Product Safety Activities

Toray Industries’ product safety system is shown in the diagram on page 37. As the basis for product safety management, each year the Product Safety Committee sets out product safety issues common to the entire company, then, through discussions with the Product Safety Managers Council, the Divisional and Departmental Product Safety Committees plan comprehensive activities. During FY 2006 the product safety management systems at affiliated Japanese and overseas companies were reviewed and improvements put in place, including a move from GHS (a globally-unified system for the classification and labeling of chemicals) to MSDS (Material Safety Data Sheets). Divisional and departmental Product Safety Committees also meet with the Product Safety Managers Council to set annual product safety themes, and in close cooperation with those in charge of production, technology and sales, work to improve the level of product safety management.

To ensure both Japanese and overseas affiliates have the same safety management as Toray, all have enacted the product safety control regulations. The affiliated companies division, each division and department mainly provide support and guidance so that the product safety level of the entire Toray Group is improved.

New Product Safety Confirmation

New product safety checks are undertaken by the Director in charge of manufacturing new product. The examination includes a safety check of the product itself, the MSDS, an examination of the instruction manual (including warning labels), catalogs and other safety information sources used by the customer, as well as a confirmation of the environmental impact of the product. When any doubts about product safety emerge as a result of these checks, the Product Safety Review Board, a group of impartial, knowledgeable individuals from both divisions outside the company, will convene, and the product must pass their review before going to market. Safety is also followed-up after the product is delivered.

Strengthening Approaches to Product Safety Information

Regulations concerning product safety information are being strengthened in Japan, including revisions to the Industrial Safety and Health Law to make more rigorous labeling and documentation, and a November 2006 revision to the Consumer Product Safety Law to require product accident reporting. In response to these changes, we are working to build and improve systems for dealing quickly and appropriately with product accidents, complaints, and near-accidents.

As we pursue a range of businesses that provide products and services to both consumers and other businesses, our respect for the “Eight Rights of the Consumer” is a fundamental and constant theme in our dealings with all customers. We strive to ensure product safety and quality by undertaking major programs and initiatives. We are also working to improve accessibility for users of major consumer goods, for example by staffing a toll-free product inquiry number.

Acquiring Quality Certification

As part of our quality assurance program, each production plant has acquired quality assurance registration to the ISO 9001 standard. In the same manner, our subsidiaries and affiliates in Japan and overseas have also obtained ISO9001 certification.

Because Toray Group manufactures a diverse range of products, various quality certifications are required to meet the respective characteristics of the individual products. For example, for the manufacture and sale of pharmaceuticals and medical products, GMP* or the ISO13485** certification are required for automotive applications. For reinforced carbon fiber composite products for use in aircraft, plants must gain JIS C9010*** certification. These are just a few examples of Toray’s active pursuit of the appropriate certification for each office or plant.

* GMP: Good Manufacturing Practices for pharmaceutical production and quality control
** Quality management system standard for medical devices
*** Quality management system standard for automotive applications
**** Quality management system standard for aerospace applications

For more information on the “Eight Rights of the Consumer” please see our website.
Promoting Risk Reduction Activities
Toray is actively working to reduce risks in business-as-usual conditions as well as to prevent future crises. At the same time, we are also preparing a crisis management framework by adopting Crisis Management Regulations to enable us to deal with crises that could have a dramatic impact on the continuation of management and business activities.

Developing Risk Management System
Toray’s risk management system is illustrated in the figure on page 39, and is divided between risks encountered in normal times and emergency times.

In normal times, the Risk Management Committee pursues company-wide risk management by following up on the risk management conditions resulting from the activities of the Risk Management Committees in each of Toray’s divisions, departments, offices and plants and reports its findings to the CSR Committee. The Committee also handles the company-wide risk management policy, including the planning and execution of personnel education and training.

When an actual accident or environmental crisis occurs, information is transmitted along the emergency report route and the Crisis Management Regulations go into effect, causing emergency headquarters to be established both on-site and at the company level. The On-site Emergency Headquarters coordinates with the Company-wide Emergency Headquarters to deal with the incident while bringing in support from other plants and divisions in the area. The Company-wide Emergency Headquarters makes and implements decisions from a company-wide perspective, for example dealing with government agencies and providing emergency information to individuals and prospective, for example dealing with government agencies and providing emergency information to individuals and prospective, for example dealing with government agencies and providing emergency information to individuals and prospective, for example dealing with government agencies and providing emergency information to individuals and employees.

Risk Management System
The Risk Management System is composed of the Risk Management Committee on a company-wide basis and divisional and plant emergency headquarters. The Risk Management Committee coordinates with the Company-wide Emergency Headquarters to deal with the incident when the incident is determined to play an important role in the BCP.

Additionally, the Risk Management Committee reevaluates and implements countermeasures designed to prevent major damage and collapse, to monitor the company’s activities and ensure that they are being managed in a safe and secure manner. When a large-scale natural disaster or similar event occurs, the committees and divisions concerned, and the divisional management committees, have the responsibility for temporary safety work immediately after securing the company’s survival.

Developing and Promoting a Major Activities Plan
Each division, department, office and plant has established its own major activities plan, and developed its own risk management activities. The following outlines some of the main activities undertaken in FY 2006.

Major Activity Plan

<table>
<thead>
<tr>
<th>Division/ department</th>
<th>Office/plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violation of corporation ethics</td>
<td>Violation of corporation ethics and legal compliance</td>
</tr>
<tr>
<td>Information leak</td>
<td>Information leak</td>
</tr>
<tr>
<td>Export control</td>
<td>Export control</td>
</tr>
<tr>
<td>Product safety</td>
<td>Product safety</td>
</tr>
<tr>
<td>Earthquake</td>
<td>Earthquake countermeasures</td>
</tr>
<tr>
<td>Fire and explosion</td>
<td>Fire and explosion</td>
</tr>
<tr>
<td>Environmental accident</td>
<td>Environmental accident</td>
</tr>
<tr>
<td>Response to suspicious persons</td>
<td>Response to suspicious persons</td>
</tr>
</tbody>
</table>

Risk Management System (in Normal Times)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Countermeasure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violation of corporation ethics and legal compliance</td>
<td>Executed education and study meeting related to laws and regulations</td>
</tr>
<tr>
<td>Information leak</td>
<td>Implemented regular inspection of information security management</td>
</tr>
<tr>
<td>Export control</td>
<td>Executed education and study meeting related to export control</td>
</tr>
<tr>
<td>Product safety</td>
<td>Implemented product safety review</td>
</tr>
<tr>
<td>Earthquake</td>
<td>Executed earthquake protection standards and executed earthquake emergency training. Implemented earthquake-preventing all important buildings</td>
</tr>
<tr>
<td>Fire and explosion</td>
<td>Undertook voluntary inspections based on an independent checklist of fire and explosion risks</td>
</tr>
<tr>
<td>Environmental accident</td>
<td>Established standards and undertook training under administrative guidance</td>
</tr>
<tr>
<td>Response to suspicious persons</td>
<td>Strengthened control of entry and exit, reviewed and reinforced crime prevention systems</td>
</tr>
</tbody>
</table>

Promoting the Business Continuity Plan (BCP)
Toray works to maintain a BCP for restoring operations more quickly and more comprehensively in the event of a stoppage due to a large-scale natural disaster or similar event. Specifically, we approach the task of formulating the BCP by assuming the occurrence of a major earthquake and examining operations from the viewpoints of (1) Head Office functions, (2) information systems, and (3) early resumption of production.

As part of an effort to enhance existing production facilities in order to protect human life and minimize any impact outside the company, since 2002 we have been working to strengthen resistance to an earthquake measuring intensity. Lower 6 through a series of countermeasures designed to prevent major damage and collapse. We have also worked where possible to strengthen utility and other buildings that are deemed to play an important role in the BCP so that they can withstand an earthquake measuring an intensity of Upper 6. New projects such as manufacturing facilities for important products have been designed to withstand an earthquake measuring an intensity of Upper 6. Earthquake proofing has also been undertaken in the Shiga Information Systems Center.

To ensure that the company’s head office can continue to function in case of a disaster, a plan has been made for the establishment of an emergency office in Tokyo, including identification of emergency task force personnel and individuals subject to emergency mobilization. In preparation for temporary shutdown of Tokyo head office, we have started compiling a manual for temporary transferring of headquarter function to Osaka head office and other plants.

The Following Head Office BCP Has Been Executed:

1. Emergency response plan for major earthquakes
   An emergency response plan for Tokyo head office has been created and was explained at a meeting of the head office personnel in December 2006. Seventy people were selected for the emergency task force to demonstrate their work immediately after securing their own safety and that of their families.

2. Preparation of manuals describing important business operations and their contingency plans
   Manuals describing important business operations and their continuation by different personnel in the event of an accident or disaster have been created by the divisions in question, and the content of both has been reviewed by outside experts.

3. Safety confirmation system
   A decision was made at early 2001 to test a system for using text messaging on mobile phones to early-employee safety at workites in the Tokyo area.

Initiatives to Protect Personal Information
Toray put in place a system for protecting personal information by introducing a set of Personal Information Management Regulations in March 2005, predating the enactment of Japan’s Personal Information Protection Law in April of the same year.

To better assess the individual information in our possession, we created a Personal Information Management Database on the company intranet and registered all personal information retained by the company departments. The database is subject to regular inspections.

Related article
For more on environmental risk management, please see page 35
Stakeholder Communications Through CSR Line Activities

One of the defining characteristics of Toray Group is its pursuit of CSR line activities, an important and unique program at the workplace level that involves all employees. CSR activities are promoted through stakeholder communications, with the aim of fostering dialogue and collaboration with stakeholders.

Each workplace in Toray Group specifies its own personal CSR line activities, and, in order to increase the satisfaction level of everyone, dialogue and collaboration with stakeholders is a critical requirement in pursuing CSR activities that are characterized by full participation.

Stakeholder Communications Through CSR Line Activities

- Toray Group will review its corporate behavior and implement reforms through the practice of CSR line activities.
- Each workplace identifies its own stakeholders and deter-...
Communications with Stockholders and Investors

Easy-to-Attend General Stockholders Meetings
To make its General Stockholders Meetings easier for investors to attend, Toray avoids scheduling them on dates when other companies’ typically hold similar meetings. We also send out invitations as far in advance as possible to give stockholders adequate time to consider the meeting’s proposal. In FY 2006, we sent out invitations four weeks prior to the date of the meeting.

Explanatory Meetings for Investors
On the day that business results are released, the president holds briefings to provide institutional investors and security analysts with an opportunity to hear opinions about the management directly from investors and securities analysts. To enhance direct communication with individual investors, the chief IR officer and department staff attend briefings sponsored by the Nagoya and Fukuoka stock exchanges.

Internet-based Information for Stockholders and Investors
To promote information disclosure to stockholders and investors, Toray maintains an IR section on its website. This provides information such as notification of business results and other announcements to the securities exchange and the media, as well as materials from briefings, all with the immediacy of the web. These materials are also quickly translated into English and provided on the website. In February 2007, an additional section designed for individual investors was created, providing full information disclosure that is easy to understand.

Reflecting the Voice of Stockholders and Investors in Management and Business Activities
The opinions of stockholders and investors received through the investor relations department are regularly reported to the board of directors, and also regularly discussed with the companywide communications committee, and reflected in the company’s management activities.

Communication with Employees

Presentation on “Innovation and Creativity at My Section”
To enable the entire group to work together in implementing the IT-2010 mid-term business strategies, labor and management co-sponsored a kickoff event entitled “Innovation and Creativity at My Section” in November 2006. Some 300 people, including the president, executives, Toray labor union chairman, union leadership, and other employees, attended the event and watched presentations describing 12 activities selected from 570 entries submitted by workplaces throughout the company. Talks by Toray’s president and the chairperson of the Toray labor union preceded the presentations and were broadcast live through Toray’s internal network to all offices and plants.

Results Briefings for Employees
Following the announcement of annual and semi-annual business results, the president and other executives travel to each office and plant to present results briefings that are also attended by employees of subsidiaries and affiliates. The briefings include explanations of financial results and provide an opportunity for attendees to exchange opinions among themselves and with management. During FY 2006, we held results briefings at 15 locations. The events facilitated energetic communication, including questions about initiatives for pursuing IT-2010 projects and steps for increasing profitability in the face of high prices of raw materials and fuels.

Communications with Local Communities

Interaction with Local Communities Through Sports and Events
Sports were the vehicle for a wide range of interaction with local communities, such as volleyball training sessions with the TORAY ARROWS, and employees coaching judo and kendo at sports grounds and gyms around the country. As an example, the Oizaki Plant has held kendo training sessions since 1978; in FY 2006 the local primary and secondary school teams took part and scored highly in the national kendo competitions. Visitors were also welcomed to the Shiga Plant and the Toray Human Resources Development Center in Mishima. In FY 2006 nearly 1,700 visitors in 240 groups visited the Shiga Plant, and nearly 500 visitors in 40 groups visited the Toray Human Resources Development Center. Toray proactively seeks communication with local communities such as invitations to the summer festivals held at each plant.

Communications with NPOs
In 2006, Toray was again a supporter of the Community Care Aid Program, sponsored by the Community Care Aid Center. This support is gradually beginning to generate results, and we are committed to continuing to actively foster communication with NPOs through the Center, which works to support NGOs seeking to bring about a society in which everyone can live in comfort and safety (social welfare in a broad sense).

Communications with the Media
The Corporate Communications Department serves as the interface between the company and various media organizations, providing them with press and publicity information. As well as fulfilling the company’s responsibility for information disclosure, its activities are intended to proactively shape public opinion. Information disclosure means the active transmission of information, even that which might be sensitive or negative, based on Toray’s Information Disclosure Principles.

For more on Toray’s Information Disclosure Principles, please see our website.

Major Media Activities in 2006

<table>
<thead>
<tr>
<th>Activity</th>
<th>Attendees from Toray</th>
<th>Number of meetings</th>
<th>Approximate number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Results Announcements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>President, Financial Accountant/Director</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director in charge of investor relations</td>
<td>4</td>
<td></td>
<td>819</td>
</tr>
<tr>
<td>Briefings on Business Strategies for Investors</td>
<td>1</td>
<td></td>
<td>36</td>
</tr>
<tr>
<td>General Managers of Divisions &amp; Departments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Briefings for Individual Investors</td>
<td>Director in charge of investor relations</td>
<td>2</td>
<td>321</td>
</tr>
<tr>
<td>Interview Handling for Investors and Analysts</td>
<td>Director in charge of investor relations, Investor Relations Department staff</td>
<td>Always available</td>
<td>603</td>
</tr>
</tbody>
</table>

Provisioning Information to Stakeholders

Providing Information Through the Website and Publications
Toray provides a wide range of information — corporate, research and technology development, stockholders and investors, and CSR activity information — through our website, as well as with printed corporate profiles, CSR reports and other materials. To improve access for those visiting the website and provide quicker navigation for individuals looking for specific content, the Japanese website was updated in April 2007 and re-launched as two sites: http://www.toray.co.jp for corporate information, and http://www.toray.jp for product and service information. The Global site will also be revised in FY 2007.

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Special volleyball clinic by the TORAY ARROWS at the Numazu School for Children with Disabilities, Shizuoka Prefecture (July 2006)

Kendo training session at the Oizaki Plant (July 2006)

At the presentation (November 2006)

Business results briefing, Tokyo (November 2006)

Summer Festival at the Oizaki Plant (August 2006)

Employees of the Ishikawa Plant join in the 25th Annual Dance Contest (August 2006)

CSR Guidelines 1 2 3 4 5 6 7 8 9 10 Promote Dialogue with Stakeholders
Promoting the “Ecodream” Project

Since the establishment of the Global Environment Research Laboratories in 1991, we have utilized all of the Group’s resources and capabilities to reduce the environmental impact of our operations. These include resource and energy conservation, environmental clean-up, and recycling, and we have provided products and technologies designed to take advantage of the results of this research to society. “Ecodream” is the general name for our environmental conservation activities, and we are focusing Toray Group’s resources and capabilities on enhancing and advancing associated initiatives.

We have adopted the name “Ecodream” Project to describe initiatives aimed at expanding our businesses by providing environmentally friendly products, including recycled products, and are seeking to double FY2005 net sales of Toray Group’s environmentally friendly products by FY2010.

Expanding Toray Businesses Through the “Ecodream” Project

<table>
<thead>
<tr>
<th>Net sales (billion yen)</th>
<th>Others</th>
<th>Recycling</th>
<th>Reduction of hazardous substances</th>
<th>Air purification</th>
<th>Water purification</th>
<th>Reduction of CO2 emissions and energy use</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>2,000</td>
<td>3,000</td>
<td>2,000</td>
<td>1,500</td>
<td>1,000</td>
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<tr>
<td>2006</td>
<td>2,000</td>
<td>3,000</td>
<td>2,000</td>
<td>1,500</td>
<td>1,000</td>
<td>1,000</td>
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<tr>
<td>2007</td>
<td>2,000</td>
<td>3,000</td>
<td>2,000</td>
<td>1,500</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>2008</td>
<td>2,000</td>
<td>3,000</td>
<td>2,000</td>
<td>1,500</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>2009</td>
<td>2,000</td>
<td>3,000</td>
<td>2,000</td>
<td>1,500</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>2010</td>
<td>2,000</td>
<td>3,000</td>
<td>2,000</td>
<td>1,500</td>
<td>1,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Initiatives to Design Environmentally Friendly Products

Toray is working to develop and commercialize products and technologies based on the concepts of “Clean” and “Less Energy” with goals such as CO2 reduction, energy reduction, water purification, air pollution reductions in hazardous substances, and recycling.

Development of Non-petroleum Chemical Products

Toray is working to develop and commercialize non-petroleum chemical products in response to increasing interest in these materials from their standpoint of global warming and dealing with resource depletion. Of these substances, PLA is manufactured using plant-origin materials such as corn and is a carbon neutral material that does not increase CO2 levels, even when incinerated. We are developing PLA fibers, textiles, and plastic products under the Ecodream® brand.

In FY 2006, Hitachi, Ltd., selected Ecodream® plastic for use in manufacturing a desktop mobile phone cradle. Nano-alloy technology, which is capable of dispersing small amount of high-performance polymers throughout a PLA substrate at the nanometer level, dramatically improves PLA’s heat resistance, impact resistance, and formability, enabling it to be used in a variety of electrical and electronics products.

Tomy Company, Ltd., chose PLA for its “Nohohon Family” toy, because it is an environmentally friendly material capable of offering the safety required of a toy, along with the same strength as the petroleum-based ABS resin conventionally used.

Environmental Impact of Manufacturing “Nohohon Family”

<table>
<thead>
<tr>
<th>C02 emissions</th>
<th>Conventional</th>
<th>Ecodream®</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fossil resource consumption</th>
<th>Conventional</th>
<th>Ecodream®</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>87</td>
<td></td>
</tr>
</tbody>
</table>
Milling Reuse

made with extra fine fibers.

fibers and super-soft textiles

we successfully produced

using bamboo as a raw

SOTAKE*, a textile produced

vegetable protein; and

Aminos*, a fiber made from

polymerization technique for cellulose;

cation of the melt spinning

production of PLA sheet (non-oriented film) using a newly

to energy savings.

ing liquid while contributing

(photoreactive) using only a slit

Coater, developed and commercialized by Toray, utilizes

mental impacts.

Chemistry (GSC) Award in recognition of

Sixth (FY 2006) Green & Sustainable

(VOC) emissions by eliminating the need

waste and volatile organic compound

nology reduces alkaline developer liquid

fields. Moreover, this innovative tech-

printing capabilities for a wide range of

products, form the resulting mixture into chips, and spin them

into Nylon-6, which will then be used by Patagonia to man-

ufacture clothing for sale. Garments made of this recycled

material can be manufactured using approximately 1/6 the

energy required to produce clothing using virgin Nylon-6
derived from crude oil. Moreover, CO2 emis-
sions generated dur-

ing the manufacturing process can be dra-
matically reduced to

approximately 1/5 of the conventional pro-
duction process.

Comparison of Nylon-6 Material Recycling

<table>
<thead>
<tr>
<th></th>
<th>CO2 emissions</th>
<th>Where conventional manufacturing has an impact of 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional: Casting</td>
<td>100%</td>
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Toray Saehan, Toray Group’s Korean subsidiary, began

production of PLA sheet (non-oriented film) using a newly

installed manufacturing facility with an annual production

capacity of 5,000 tons.

Toray has been successful in creating a number of non-

petro chemical products other than PLA, including Forestex*, a

new fiber manufactured using the world’s first appli-
cation of the melt spinning technique for cellulose. Aminex*, a fiber made from

vegetable protein; and

Aminos*, a fiber made from

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Fibers & Textiles Recycling

Toray established the Fibers & Textiles Recycling Department in the

Fibers & Textiles Division to facilitate proactive recycling initiatives.

For example, we developed technologies to turn

Nylon-6 fiber in used clothes into new fiber, due to the fact

that manufacturing Nylon-6 from crude oil requires more

energy than polyester and other fibers.

During FY 2006, we signed an agreement with Patagonia Inc. to work together on Nylon-6 materials recycling. Under

the new initiative, Toray will melt down non-standard materials generated during the manufacture of other prod-

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Plastic Recycling

In recycling ABS, Nylon, PBT, PET, and PPS resins, Toray focuses

on material recycling, an approach that allows plastic resins to be

reused without undergoing a depolymerization process. We collaborated with Hitachi Appliances, Inc., to develop new

technology for separating and recycling glass-fiber-reinforced

AS resins used in fans in indoor residential air conditioner

units. In addition, we shared the Wastech 2006 Awards

Committee Chairperson’s Special Award with Mitsubishi

Electric Corporation and Hyper Cycle Systems Corporation in

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Secure and Train Personnel and Promote Human Rights

Human Rights Promotion Efforts
Toray Group believes that respect for human rights is a fundamental rule indispensable to the management of the company. We therefore strive to promote and increase awareness of human rights issues while prohibiting discrimination in any form based on factors such as race, creed, gender, academic background, nationality, religion or physical characteristics in the areas of recruiting, hiring, positioning, compensation, education and retirement. In addition, we respect international rules such as the United Nations Human Rights Treaty and the United Nations Global Compact, prohibiting forced labor and child labor under any circumstances, and comply with the laws and regulations of each country and region in which we conduct our business.

Human Rights Promotion System
We have established a Human Rights Promotion Section within the Industrial Relations Department, as well as Human Rights Promotion Committees under the Corporate Ethics Committee to promote human rights awareness company-wide and at the office and plant level. In addition, we have appointed Human Rights Promotion Officers for each workplace; some 300 such officers dedicate themselves to making the work environment more pleasant and productive.

Implementation of Human Rights Training Workshops
To help increase awareness and promote a correct understanding of human rights issues, we held training workshops and campaigns both at head offices and at each office and plant. The FY 2006 campaign, which took as its theme “Broaden the Circle of Human Rights and Workplace Harmony at Your Workplace,” focused primarily on prevention of sexual harassment and bullying or “power harassment” in the workplace, as well as considering human rights issues in dealing with a diversifying workforce. In an effort to raise each employee’s awareness of human rights issues, we held training sessions for operational and administrative managers at each office and plant, and conducted workshops in conjunction with workplace study groups.

Action Program (FY 2006)
We will initiate group-wide efforts in areas such as securing and training personnel, promoting human rights, diversifying employment, increasing opportunities for women, balancing the demands of work and home, and improving the workplace environment.

Action Program Results
1. The Group conducted a number of human rights training programs including the 2006 Human Rights Promotion Campaign.
2. The Group strengthened measures to achieve diversity in our human resources and to train our personnel, actively hiring both recent graduates and those with work experience.
3. The Group executed a Phase 1 Action Plan to maintain compliance with the Next Generation Law, strengthened our support system for balancing work and home, and held lectures and training sessions under our Advancement of Women Project.

Commitment
The most important factor for Toray Group in striving to become the world leader in advanced materials is working to secure, develop and retain talented personnel. We can flourish on the global stage. Indeed, an emphasis on human resources is counted among our corporate guidelines. Respecting each employee as a valuable resource, I personally commit myself to taking the lead in promoting various initiatives to create a happy, vibrant corporate group where all employees can find meaning in their work and the corporate culture encourages taking on new challenges.

Human Rights Promotion System

- Human Rights Promotion Officers for each workplace; some 300 such officers dedicate themselves to making the work environment more pleasant and productive.
- Training workshops and campaigns both at head offices and at each office and plant.
- The FY 2006 campaign, which took as its theme “Broaden the Circle of Human Rights and Workplace Harmony at Your Workplace.”

For FY 2007 we will focus on responding to revisions to the Equal Employment Opportunity Law and, given the diversification of types of employment, on promoting human rights for non-regular employees such as temporary and part-time workers.

Harassment Prevention
Toray established Sexual Harassment Prevention Guidelines in 1999. When problems arise we swiftly launch an investigation and take firm steps both to help the victim and prevent a recurrence. In addition to educating our employees about sexual harassment through training seminars at each level of our organization, counseling services have been established and the Speak-Up Program (complaint box) adopted at each Toray office and plant.

We also undertake educational activities aimed at preventing “power harassment.”

Developing Human Resources That Can Create New Value
The development of human resources is one of Toray Group’s most important managerial objectives. We conduct personnel training with three objectives: the cultivation of fair-minded members of society who have high ethical standards and a sense of responsibility; the training of professionals with advanced expertise, technical skills and originality; and the cultivation of leaders with foresight and a sense of balance.

Rational and Well-organized Training System
The Toray employee education system represents a rational, systematic approach to human resources responding to various needs in every field. We conduct many types of training for employees of all levels and in all areas to improve management performance, sales performance, production management skills, professional skills, and international operations. For example, the voluntary Challenge Training Program helps motivated employees develop their own talents while the Overseas Junior Training Program develops human resources suitable for employability globally.

Beginning in FY 2007, as a way to strengthen the development of sales personnel, we began implementing a human resources training program based on consistent training objectives for a designated “initial training period” spanning the first three years after joining the company.

Early Leadership Development
To cultivate future executives, courses to promote unified management have been held at the Toray Management School since 1991. Here section managers learn the knowledge and skills needed to become corporate executives.

Toray is also working to train section and unit managers in coaching skills*1 and to improve their problem-solving skills through logical thinking*2 concepts.

We also established the Toray School of Technology and Business, where mid-level employees at manufacturing plants are trained in a one-year live-in-schooling environment.

FY 2006 Company-Wide Training Course Enrollment (Toray)

<table>
<thead>
<tr>
<th>Training Category</th>
<th>Persons Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>645</td>
</tr>
<tr>
<td>Technical</td>
<td>271</td>
</tr>
<tr>
<td>Sales</td>
<td>74</td>
</tr>
<tr>
<td>General</td>
<td>479</td>
</tr>
<tr>
<td>Total</td>
<td>2,464</td>
</tr>
</tbody>
</table>

Note: Excludes domestic and plant-level training.

Leadership Training

- Leadership Training Program
- Overseas Junior Training Program
- Challenge Training Program (open to overseas employees)
- 6 education courses for new employees
- Training outside the company

48-49
A Personnel System That Promotes Employee Motivation and Accomplishment

Toray adopts the following personnel systems to create a dynamic and organizational culture that encourages individual employees who dare to explore new possibilities to contribute to the company.

**Management-by-philosophy system**
This system establishes the core values for each employee. At the end of the fiscal year, employees and their supervisors jointly review the content to which they were able to meet their objectives.

**Personal evaluation system**
This system is designed to facilitate a fair evaluation of employees based on four dimensions of duties, responsibilities, capabilities, and results.

**Individual career system**
Under the system, employees meet with their supervisors twice yearly in a one-on-one setting. Supervisors work to develop their employees’ abilities and ensure they can accept the various types of job transitions.

**Self-management system (for managers, occupational specialists, and general staff)**
Employees are given authority on those matters which are most important in their respective work environment and diverse concern topics such as job transitions in an organic process that is linked to individual personnel interviews.

**Career Assessment System (for general staff)**
Employees participate in a regular, compulsory review consisting of self-presentations and personnel evaluations. We focus on the direction of their future growth.

**Internet recruiting system**
We recruit from inside the company as appropriate in order to ensure staff assignments and support employees’ external ambitions to direct their own careers.

**Remuneration system for employees (individuals)**
We revised this system in April 2007 to boost awards above past levels to allow us to innovate the creation of new occupational incentives.

Creating an Organizational Culture Conducive to the Advancement of Women

Toray initiatives to facilitate active participation by female employees reach back at least to 1958, when we began promoting women to management positions, making us a pioneer among Japanese companies. Our uniquely deep-rooted commitment to create a workplace responsive to the needs of women is evidenced by our introduction of a childcare leave program in 1974, anticipating the legislation of such programs nearly 20 years later. In fact, a Toray subsidiary promoted a female employee to the position of president in 2003, and we noted the Advancement of Women Project in 2004 to redouble efforts to create a corporate culture conducive to the participation of female employees.

**Number of Women in Management Positions and Women as a Percentage of Workforce (Toray)**

<table>
<thead>
<tr>
<th>Position</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>100</td>
<td>103</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>Department manager</td>
<td>155</td>
<td>165</td>
<td>177</td>
<td>177</td>
<td>177</td>
</tr>
<tr>
<td>Election manager</td>
<td>138</td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td>Unit manager</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Figures for April of each year

Thanks to the consistent pursuit of these initiatives, both the number and proportion of women ranked at the level of unit manager or higher has continued to increase, with 5.84% of supervisory or managerial positions held by women as of April 2007.

**Initiatives to Balance Work and Family Life**
Toray strives to establish systems that help employees balance work and family life in order to both lay the groundwork for a corporate culture conducive to the advancement of women and empower both male and female employees to choose a variety of lifestyles.

In particular, we have exceeded legally mandated benefits for support systems related to childcare, family-care, and maternity protection, based on our commitment to keep systems responsive to a diverse range of employee needs and accessible to workers. Utilization of these programs by male employees is gradually becoming more common, and in FY 2006 three male employees took advantage of the childcare leave program.

In keeping with our goal of encouraging employee utilization of these systems, we provide information about new programs as well as program changes and benefits in internal company newsletters and on the company intranet.

**Utilization of Childcare and Family-Care Leave Systems (Toray)**

<table>
<thead>
<tr>
<th>Employees taking childcare leave</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
<th>Final year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees taking childcare leave</td>
<td>54 (0)</td>
<td>79 (0)</td>
<td>70 (0)</td>
<td>80 (4)</td>
<td>78 (3)</td>
<td></td>
</tr>
<tr>
<td>Employees taking family-care leave</td>
<td>4 (0)</td>
<td>2 (0)</td>
<td>2 (1)</td>
<td>4 (0)</td>
<td>3 (1)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures for June of each year

Related article
See pages 16 and 17 for more information about advancement of women and work-life balance.

**Initiatives Encouraging Diversity in Employment**
Toray Group works to build workplaces in which employees from different backgrounds can coexist with one another while making the most of their respective skills and performing their jobs in an engaged, energetic manner.

**Reemployment System**
As part of its efforts to encourage the participation of individuals over age 60, Toray concluded a labor-management agreement in 2001 and introduced a reemployment system that is open in principle to all employees who wish to continue working. The labor-management agreement concerning this reemployment system was revised in December 2005 to expand coverage to include employees in management and occupational specialist categories.

In November 2006 we finalized plans to progressively increase the maximum age for reemployment and concluded a new labor-management agreement. As a result, the reemployment period will be extended to age 65 by April 2013.

Employment of Disabled Persons
Toray has fulfilled its social obligations of employing disabled persons through achieving the legally required employment rate of 1.8%. Its efforts to provide a work environment in which disabled individuals find it easy to perform their jobs encompass “hardcore” steps such as providing barrier-free spaces as well as “software” aspects such as training at the time of hiring and refinements in the work environment based on suggestions and requests from disabled employees.

**Employment Ratio of Disabled Persons (Toray)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>1.91</td>
<td>1.94</td>
<td>1.97</td>
<td>1.98</td>
</tr>
</tbody>
</table>

Note: Figures for each year

Mid-career Recruitment and Employment of International Students
Toray promotes the mid-career recruitment of experienced individuals with specialized knowledge and skills and employment of international students who have graduated from overseas universities. We provide opportunities for these groups to make the most of their skills and personal qualities.

**Development and Promotion of Local Personnel Overseas**

To promote global management, Toray Group encourages the development of human resources at the local level, including promotion to executive positions. This approach groupifies our identification of the localization of management personnel at overseas subsidiaries and affiliates as one of our business strategies.

**Infrastructure for Developing and Promoting Local Personnel**

Positions deemed critical for the global management of Toray Group have been classified into four levels based on a Group-wide common standard, and head office is working with overseas subsidiaries and affiliates to develop and promote local staff in these positions, who are known as “National Core Staff”.

For example, we have specified the Group-wide skill requirements and code of conduct expected of “National Core Staff” in the form of the Toray Global Competency Model. Based on this we pursue career development by creating individually-focused long-term career development plans. Other priorities include the development of the Toray Global Database to facilitate information sharing.

Systems for Developing and Training Local Personnel

In order to implement global management, it is essential that core local personnel have a thorough understanding of Toray’s organizational philosophy and guidelines. Development and promotion initiatives include organizing training programs in Japan for core local staff at their respective levels and incorporating an off-site training plan into the individually-focused long-term career development plans.

We held the first Toray Group Executive Seminar in Japan in 2004 for local executives and board members in 2004 and the second seminar was held in 2006. The Toray head office also participated in training programs held in each country and region to help create networks among local participants and foster global leadership ability, including intercultural communication skills.

**FY 2006 Overseas Local Personnel Training Results (Toray Group)**

<table>
<thead>
<tr>
<th>Training in Japan</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toray Group Management School</td>
<td>16</td>
</tr>
<tr>
<td>Toray Group Senior Management Seminar</td>
<td>16</td>
</tr>
<tr>
<td>Toray Group Management Centre</td>
<td>13</td>
</tr>
<tr>
<td>Local Training (participated by Toray)</td>
<td>12</td>
</tr>
<tr>
<td>3rd Europe Senior Management Seminar</td>
<td>19</td>
</tr>
<tr>
<td>1st U.S. Senior Management Seminar</td>
<td>19</td>
</tr>
</tbody>
</table>

Toray Group CSR REPORT 2007

Three years ago when I was assigned to the secretariat of the Advancement of Women Project, I was extremely confused about how to tackle my new job.

When I asked people in the company for their impressions about “Advancement of Women” and what it should mean, everyone had their own ideas. Some women even criticized us for placing too much emphasis on women in this day and age.

However, everything came together after the General Manager of the Personnel & Industrial Relations Division, the project leader, explained to us all at the plants and at working team meetings that the purpose of the initiatives was to increase human resources competitiveness. By approaching this problem from the point of view of human resources competitiveness, it becomes clear that we must move beyond the current situation.

There are still too few women in the corporate society, and they continue to work under various types of pressure. I believe that reducing this pressure, if only slightly, and helping women build solid careers is exactly the kind of “innovation” we need to create a truly appealing company where men and women alike can pursue jobs they find personally and professionally fulfilling.
**Action Program (FY 2006)**

Toray Group will implement an internal approval process for CSR partners based on the results of surveys of CSR promotion efforts for procurement and purchasing. We will also encourage suppliers that do not meet our approval standards to improve their CSR programs.

**Action Program Results**

1. The Group began registering suppliers whose CSR activities rise to Toray Group standards as CSR Procurement Partners.
2. Procurement from CSR Procurement Partners during FY 2006 accounted for approximately 90% of total purchases of principal raw materials.
3. The Group conducted a survey of CSR promotion efforts at suppliers.

**Commitment**

It is necessary to approach a company’s social responsibility not only within the range of its own corporate operations but also throughout the entire value chain. Consequently, we believe that suppliers’ CSR measures, including environmental and social considerations, are important criteria in purchases of raw materials. In the Purchasing & Logistics Division, we see our mission as promoting CSR procurement throughout Toray Group.

**Basic Purchasing Policies**

1. Toray does its best to select suppliers and determine individual purchases fairly and on the basis of economic rationality with consideration given to price, quality, supply stability, technological capabilities, reliability, and other factors.
2. In selecting suppliers, Toray opens its doors to a wide range of companies inside and outside Japan. Toray does not rely on a small number of candidates or relations with, or members of its corporate group.
3. In making purchases, Toray complies with relevant laws and regulations relating to environmental preservation and fulfilling corporate social responsibilities (CSR) issues into account. Toray actively pursues green procurement and purchasing as part of its environmental efforts.
4. Toray works to maintain and improve the quality of purchased products through cooperation with its suppliers.
5. Toray works to uphold its corporate social responsibilities on a company-wide basis.

**Expanding Purchases from CSR Procurement Partners**

Toray believes that to achieve a sustainable society, it is important to undertake initiatives throughout the supply chain while building collaborative partnerships. As a concrete step toward strengthening of the CSR supply chain for our products, we conducted a survey to assess the status of CSR initiatives on the part of the approximately 2,800 suppliers from whom we regularly purchase raw materials and fuel, components, and packaging materials. We designated suppliers whose responses met our own standards as CSR Procurement Partners, and today we are working to increase the proportion of our overall purchasing from these suppliers.

**Implementing Green Procurement Guidelines**

Our Green Procurement Guidelines include our own list of banned and controlled chemical substances and require assessments of the environmental control status for items we procure. The results of a survey including controlled chemical substances conducted in December 2004 based on the Green Procurement Guidelines were applied to the RPS purchasing system in April 2005, and we provide customers with Specific Chemical Substance Content Information Sheets.

**Case Studies**

- **Reduction of CO2 emissions**
  - 50% reduction of CO2 emissions
- **Reduction of Product Losses**
  - 90% reduction of product losses
- **Reduction of Freight Costs**
  - 80% reduction of freight costs

**Initiatives with Distribution Partners**

**Basic Distribution Policies**

1. We shall select our transport and storage providers and determine individual agreements impartially based on factors such as economic rationality with consideration given to price, quality, supply stability, technological capabilities, reliability, and other factors.
2. We shall be open in selecting our transport and storage providers, rather than relying exclusively on companies with which we have done business in the past or companies affiliated with Toray Group.
3. We shall comply with relevant laws and regulations, consider environmental preservation, and fulfill our corporate social responsibilities in outsourcing our transport and storage operations.
4. We shall cooperate with our transport and storage providers in gauging and reducing the environmental impact of our transport and storage operations.

**Strengthening Cooperative Ties with Distribution Partners**

We have adopted a set of Basic Distribution Policies to guide continuing efforts to reduce the environmental impact of our domestic transport and storage operations. In addition to recommending that the transport and warehousing companies that act as our distribution partners acquire environmental management certifications such as ISO14001, Green Management, and Eco Stage, we have put into operation a system of joint initiatives such as a modal shift to reduce transport-related CO2 emissions.

**Basic Distribution Policies Briefing**

Toray has a Basic Distribution Policies Briefing for managing and executing from distribution partners with the goal of deepening their understanding of our Basic Distribution Policies and current issues. The session served as an opportunity for participants to reaffirm that Toray and its distribution partners are pursuing environmental and social measures from a common perspective by providing useful information for corporate management, including a lecture on building internal controls by a certified public accountant who attended as a guest lecturer.

**Reducing Transport-related CO2 Emissions**

Changes to the Rationalization in Energy Use Law enacted in April 2006 require businesses (Specified Consigner) outsourcing the transport of at least 30 million tons of freight per year to submit an energy conservation plan as well as regular reports detailing energy use.

To comply with these changes, Toray completed and began operating a system for gathering the requisite CO2 emissions data in FY 2006.

Toray has long undertaken a variety of initiatives to reduce transport-related CO2 emissions with the cooperation of distribution partners, including the use of larger transport vehicles. Going forward, we are committed to reducing CO2 emissions as a Specified Consigner through distribution innovations such as modal shift.

During FY 2006, we reduced CO2 emissions by approximately 800 tons by means of a modal shift away from truck transport.

**International Transport Initiatives**

Due to the globalization of our business, we have also been working to reduce the environmental impact of international shipping in the face of annual increases in shipments of products and raw materials, and the collection of packaging materials between countries. During FY 2005, efforts included a transition to reusable steel frames for raw carbon fiber textiles exported from Japan to Europe and the United States, and the adoption of a system for utilizing our domestic collection network to reuse core tube and steel frames for film products imported from Malaysia to Japan.

We plan to build similar systems for reusing packaging materials for products imported from other Asian countries.

**Initiatives for Improving Transport Quality**

In conjunction with its distribution partners, Toray launched a series of initiatives in FY 2006 to improve transport quality so as to avoid inconveniencing customers with freight losses or damages during product delivery.

Toray employes visiting worksites operated by distribution partners and worked to spread awareness by identifying potential problem areas in the handling of Toray products by using highly visible diagrams. This initiative succeeded in reducing product losses or damages during storage and transport in FY 2006 by 25% compared to the previous year.

**Examples of Key Initiatives to Reduce Transport-related CO2 Emissions (FY 2006)**

- **Reduction of Product Losses**
  - 90% reduction of product losses
- **Reduction of Freight Costs**
  - 80% reduction of freight costs

**Related Article**

See page 53 for more information about distribution safety initiatives.
CSR Guidelines
Pursue Social Initiatives

Action Program (FY 2006)
Tory Group will continue its program of autonomous social contribution activities in accordance with the Toray Group Social Initiative Policies, mainly through donations to the Toray Science Foundation. We will also support employee participation in volunteer activities.

Action Program Results
1. In keeping with the Toray Group Social Initiative Policies, the Group contributed at least 1% of its consolidated ordinary income in monetary and other gifts to social contribution activities during FY 2006.
2. Donations to relief efforts for the Noto Peninsula earthquake that occurred on March 25, 2007, were augmented by the volunteer efforts of employees from the Hokuriku Branch and Ishikawa Plant.

Commitment
As expressed in our Corporate Philosophy, the ultimate objective for our management is “contribution to society.” We believe that the selection of which businesses will form the backbone of a company’s management is responsible for determining the significance of that company’s existence. Toray Group is committed to developing its businesses under the concept of “safety, health, and environment” as we continue to support progress in areas such as science and technology, arts and culture, and sports.

Results of Social Contribution Activities in FY 2006
Toray Group’s ongoing program of social contribution activities included FY 2006 donations of about ¥1,040 million on a consolidated basis, or approximately 1.1% of its consolidated ordinary income. On a non-consolidated basis, Toray contributed about ¥770 million, or approximately 1.5% of its non-consolidated ordinary income.

Principal activities included donations to the Toray Science Foundation and Toray Science Foundations in Malaysia, Thailand, and Indonesia; donation to Shizuka Prefecture, to whom we provide water for irrigation, firefighting, and a water park; co-sponsorship of the Musée d’Orsay Exhibition; and disaster relief following earthquakes in central Java, Indonesia, and on the Noto Peninsula, Ishikawa Prefecture.

Pursue Social Initiatives

Grants, and its work continues to be highly regarded today. Two recipients of the Toray Science and Technology Prize have gone on to win the Nobel Prize.

Support for Cultural Events
Toray’s ongoing support for cultural activities includes support for the Musée d’Orsay Exhibition held at the Kobe City Museum and the Tokyo Metropolitan Art Museum (sponsored by Nikkei Inc.); performances of the Shanghai Quartet in Japan; activities designed to promote international exchange in arts and culture; performances of the Yokoza in Japan, a theater that has been giving marionette performances for over 370 years; activities supporting the training of a new generation to keep cultural traditions alive.

Tory Group Social Contribution Activities
Toray Group has made “For society: to establish ties and develop mutual trust as a responsible corporate citizen” one of the Corporate Missions included in its Management Philosophy, and we have created a legacy of ongoing social contribution activities through donations to Toray Science Foundations in Japan and ASEAN countries. Based on these efforts, we have adopted the Toray Group Social Initiative Policies to serve as a guide and model for these activities. These Policies determine that our commitment to invest 1% of our consolidated ordinary income in social contribution activities in accordance with our membership in the 1% Club established by the Japan Federation of Economic Organizations (Keidanren) in 1990.

1. Based on its Corporate Philosophy of “contributing to society through the creation of new value with innova-
tive ideas, technologies, and products,” we will contrib-
ute 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 improve-
ment of social welfare in local communities; international exchange through traditional culture, sports promotion, and especially the advancement of science.
3. Using company awards and other measures, we will create a culture that encourages employees to participate in soci-
ety in constructive ways like volunteer activities, all 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 finaliz-
ing them.
5. We will contribute funds amounting to about 1% of our consolidated ordinary income to social initiatives.

Major Activities in FY 2006
- Supported the Fourth Japan Science & Engineering Challenge 2006, a science and technology contest for high school students (sponsored by Shiseido).
- Supported Science Camp, a hands-on science and technology program for high school students who intend to pursue careers in science (sponsored by the Science and Technology Agency).
- Supported Master Class performances by the Shanghai Quartet.
- Supported the DCA JUNIOR Awards, in the Toray Digital Creation Awards (DCA).
- Supported the Sustainable Society Education Support Project (sponsored by Diamond, Inc.), a program that donated the book “The Future of Life: Osawa-Shiraishi" to elementary, middle, and high schools throughout Japan.
- Supported the 2006 Toray Cup (sponsored by the Japan Tennis Sherrying Committee), an event held in Ishikawa Prefecture that promotes international exchange among students from around the world.
- Supported the Toray Cup (sponsored by the Noto Peninsula, Ishikawa Prefecture) that promotes international exchange among students from around the world.

Sponsoring Crown Events
Although the Toray Cup Shanghai International Marathon (sponsored by the City of Shanghai) and the Toray Pan Pacific Open (Toray PPO) tennis tournament (sponsored by Toray) are conducted as part of our advertising program, the pur-
pose of such sponsorship is to give something back to society. The Toray PPO tennis tournament includes various activities, including exchanges between young Japanese and Korean tennis players and the presentation of rackets to people in Asian countries.

Participating in Volunteer Relief Efforts for the Noto Peninsula Earthquake
A total of 54 Toray employees—48 from the Ishikawa Plant, including the general manager, and 6 from the Hokuriku Branch, including the branch general manager—participated in volunteer activities sponsored by the Ishikawa Prefecture Disaster Relief Headquarters in the aftermath of the earthquake that struck the Noto Peninsula on March 25, 2007.

CSR Guidelines 1 2 3 4 5 6 7 8 9 10 Pursue Social Initiatives
## Environmentally Friendly Products and Technologies

The Toray Group pursues environmental design practices in an effort to contribute to environmental preservation by reducing the environmental load of its products.

### Business area: Textiles

<table>
<thead>
<tr>
<th>Product/technology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toray®/Tosafin®, Tabi®, Bioknit®</td>
<td>Environment friendly polyactic acid fiber made from corn or other plants.</td>
</tr>
<tr>
<td>Ecosler®</td>
<td>Bamboo-based fibers combining the superior features of natural bamboo with Toray’s technologies.</td>
</tr>
<tr>
<td>Faden®</td>
<td>Fiber made from plant-based cellulose. Also, the spinning process does not involve organic solvents, but does use the melt spinning method.</td>
</tr>
<tr>
<td>Armiss®</td>
<td>Plant-based fiber made from proteins derived from soybeans.</td>
</tr>
<tr>
<td>UNRef®</td>
<td>Non-halogen fire resistant polyester material using phosphorus flame retardants.</td>
</tr>
<tr>
<td>Warrenmer®</td>
<td>Moisture-absorbent, heat generating, insulating material achieved through special fiber structure processing.</td>
</tr>
<tr>
<td>Eco-Op® processes</td>
<td>Low-energy card fiber spinning method that reduces the amount of water needed for dying and eliminates the number of processes through consistent dying and heat treatments.</td>
</tr>
<tr>
<td>Fieldman®/hybridgrade™</td>
<td>Fiber line that largely breaks down into water and carbon dioxide to return to the natural environment. It accidentally left in the water or on the ground after use.</td>
</tr>
<tr>
<td>Recycle®</td>
<td>Biodegradable tree wrapping material that retains the natural environment over time.</td>
</tr>
<tr>
<td>Nylon-6 recycling</td>
<td>Recycled fiber made from used PET (polyethylene terephthalate) bottles and other materials.</td>
</tr>
<tr>
<td>Acrylic recycling</td>
<td>Recycled acrylic fiber scrap from spinners, knitters, and other manufacturers by cleaning to the MAX condition.</td>
</tr>
</tbody>
</table>

### Business area: Plastics and Chemicals

<table>
<thead>
<tr>
<th>Product/technology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecosler®</td>
<td>Advanced plastic made on polyactic acid made from plant-origin materials like corn.</td>
</tr>
<tr>
<td>Non-halogen fire resistant ABS resin, PET resin</td>
<td>Non-halogen fire-resistant plastics that do not generate harmful flammable compounds during incineration or disposal.</td>
</tr>
<tr>
<td>Automotive engineering plastics</td>
<td>Plastics that can reduce weight and improve fuel economy when used in automotive parts.</td>
</tr>
<tr>
<td>Eco Tep®</td>
<td>Recycled ABS (acrylonitrile butadiene styrene) expanded resin.</td>
</tr>
<tr>
<td>Eco Aurela®</td>
<td>Recycled PET (polyethylene terephthalate) resin.</td>
</tr>
<tr>
<td>Eco Tone®</td>
<td>Recycled PPS (polyphekylene sulfoxide) resin.</td>
</tr>
<tr>
<td>Ecocel®</td>
<td>PBT resin for injection molding that can serve as a substitute for thermoplastics and ceramics with exceptional friction and load.</td>
</tr>
<tr>
<td>Thixol®</td>
<td>Liquid polypropylene that can serve as a sound absorbing material for laminated glass.</td>
</tr>
<tr>
<td>Torangres®</td>
<td>Ultra-fine nonwoven fabric used in air filters and masks that trap microscopic particles.</td>
</tr>
<tr>
<td>Warp knit non-woven materials</td>
<td>A non-woven fabric made from polylactic acid fibers that can separate the oil coating of oil-contaminated wastewater and does not generate harmful gases when disposed.</td>
</tr>
</tbody>
</table>

### Business area: Environmental

<table>
<thead>
<tr>
<th>Environmental benefit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor reduction</td>
<td>Odor reduction technologies.</td>
</tr>
<tr>
<td>Energy reduction</td>
<td>Energy reduction technologies.</td>
</tr>
<tr>
<td>Water purification</td>
<td>Water purification technologies.</td>
</tr>
<tr>
<td>Air purification</td>
<td>Air purification technologies.</td>
</tr>
<tr>
<td>Bioresource conservation</td>
<td>Bioresource conservation technologies.</td>
</tr>
<tr>
<td>Other</td>
<td>Other technologies.</td>
</tr>
</tbody>
</table>

### Business area: Fibers

<table>
<thead>
<tr>
<th>Product/technology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lumen®*2, ZV</td>
<td>Non-halogen fire resistant PET fibers that do not generate harmful flammable compounds during incineration or disposal.</td>
</tr>
<tr>
<td>Steel sheet laminating films</td>
<td>Polyester films for laminating steel sheets as a replacement for PVC in building products.</td>
</tr>
<tr>
<td>Food can laminating films</td>
<td>PET film ideal for laminating cans as a replacement for chemical coatings or plating.</td>
</tr>
<tr>
<td>Film for water-repellent hybrid cans</td>
<td>Ultra-light polyethylene film that remains stable under the very high voltages required to improve hybrid can efficiency.</td>
</tr>
<tr>
<td>Solar control films</td>
<td>Polyester film ideal for use as shading for solar cells.</td>
</tr>
<tr>
<td>Transparent vacuum barrier film</td>
<td>PET film that does not generate chlorine or nitrogen-based gases or aluminum oxide when incinerated.</td>
</tr>
<tr>
<td>Ecosler®</td>
<td>Polylactic acid film made from plant-origin materials like corn.</td>
</tr>
</tbody>
</table>

### Business area: Carbon Nanostructured Materials

<table>
<thead>
<tr>
<th>Product/technology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toray® carbon fiber</td>
<td>PAN-based carbon fiber used in various power generator blades and composite materials like GRP in boats and ships, contributing to lightweight reduction for aircraft and automobiles.</td>
</tr>
<tr>
<td>Toray® prepping resin</td>
<td>Sheet-form carbon fiber used as a lightweight structural material for aircraft.</td>
</tr>
<tr>
<td>Toray® advanced carbon materials</td>
<td>Fabrication materials (CFRP).</td>
</tr>
<tr>
<td>Toray carbon paper</td>
<td>Electronic materials for fuel cells, which are expected to offer a close source of energy.</td>
</tr>
<tr>
<td>Toray® basic construction</td>
<td>Carbon fiber with a cost-effective performance and outstanding strength, enabling wide use in various fields.</td>
</tr>
<tr>
<td>Toray®/construction carbon</td>
<td>Excellent construction performance such as durability and stability under high temperatures.</td>
</tr>
</tbody>
</table>

### Business area: IT related Products

<table>
<thead>
<tr>
<th>Product/technology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Photoprint®</td>
<td>Photoresist polymers that can be developed using an environmentally friendly alkali aqueous solution instead of organic developing fluids.</td>
</tr>
<tr>
<td>Type K Type V Type copper-coated polyimide laminate</td>
<td>Flexible copper-coated polyimide laminate film that does not generate harmful flammable compounds during incineration or disposal.</td>
</tr>
<tr>
<td>Topical® LCD color filter</td>
<td>Color filter manufactured using environmentally friendly black matrix instead of harmful heavy metals.</td>
</tr>
<tr>
<td>Toray Waterleaf® Plate®</td>
<td>Filter printing plates that do not use any damaging water, which ends up as harmful after processing.</td>
</tr>
</tbody>
</table>

### Business area: Environmental treatment

<table>
<thead>
<tr>
<th>Environmental treatment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rematex®</td>
<td>Water treatment systems.</td>
</tr>
<tr>
<td>Ultradry®</td>
<td>Micron filtration systems like Neoprene/AR coated flexible water treatment systems.</td>
</tr>
<tr>
<td>Toray®</td>
<td>Toray® water treatment systems.</td>
</tr>
<tr>
<td>Air filter</td>
<td>Micron filtration systems that are disposable and can be used for drinking water treatment and ventilation.</td>
</tr>
<tr>
<td>Large Bag® &amp; Tough Den®-stitched</td>
<td>Water-permeable composite cloth Toray®</td>
</tr>
<tr>
<td>Activated carbon</td>
<td>Water-permeable composite cloth Toray®</td>
</tr>
<tr>
<td>Water-repellent coating</td>
<td>Water-repellent coating Toray®</td>
</tr>
</tbody>
</table>

### Business area: Others

<table>
<thead>
<tr>
<th>Others</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purel®</td>
<td>A coating system capable of applying films using only a slit to reduce material waste, production process, and plastic consumption.</td>
</tr>
<tr>
<td>Environmental measurement and surveying Toray®</td>
<td>Analyzing environmental problems and indicators for the environment in order to establish an environmentally sound corporate policy.</td>
</tr>
<tr>
<td>Analyzing and developing industrial materials</td>
<td>Analyzing and developing industrial materials for use in various fields of human life.</td>
</tr>
<tr>
<td>Environmental consulting</td>
<td>Environmental consulting services for evaluating environmental assessments and surveys and analysis of other natural and living environments.</td>
</tr>
</tbody>
</table>
Environmental Impact Overview

Environmental Effectivity Indicators

A variety of environmental efficiency indicators have been proposed recently to express the relationship between business activities and their environmental impact. Such indicators are considered to have the advantage of enabling fluctuations in business activities to be excluded from evaluations of environmental preservation results.

Toray Group calculates separate environmental efficiency indicators for principal environmental evaluation items. All indicators showed improvements for 2006.

\[ \text{Environmental efficiency index} = \frac{\text{Input}}{\text{Output}} \]

**GHG Emissions**

\[ \text{GHG emissions} = \sum_{\text{source}} \left( \text{CO}_2 + \text{CH}_4 + \text{N}_2\text{O} \right) \]

**Air Pollutants**

\[ \text{Air pollutants} = \sum_{\text{source}} \left( \text{SO}_2 + \text{NO}_x + \text{VOCs} \right) \]

**Atmospheric Emissions of Chemical Substances**

\[ \text{Atmospheric emissions} = \sum_{\text{source}} \left( \text{SO}_2 + \text{NO}_x + \text{VOCs} \right) \]

**Water Quality**

\[ \text{Water quality} = \sum_{\text{source}} \left( \text{BOD} + \text{COD} + \text{NH}_3 \text{-N} \right) \]
Environmental Data for 12 Toray Plants

Each of 12 Toray plants publishes an annual site report.

<table>
<thead>
<tr>
<th>Plant</th>
<th>General Manager</th>
<th>Principal manufactured products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shiga Plant</td>
<td>Yosuke Yasumura</td>
<td>Ecsaine; General Manager, Shiga Plant</td>
</tr>
<tr>
<td>Seta Plant</td>
<td>Yoji Yoshimura</td>
<td>Toraycon; Torayfan; General Manager, Seta Plant</td>
</tr>
<tr>
<td>Ehime Plant</td>
<td>Yusuke Ninagawa</td>
<td>Toptical; Eizo; General Manager, Ehime Plant</td>
</tr>
<tr>
<td>Okazaki Plant</td>
<td>Katsuo Katsuki</td>
<td>Anthrone; Torelina; General Manager, Okazaki Plant</td>
</tr>
<tr>
<td>Mishima Plant</td>
<td>Yoshi Okamora</td>
<td>Tetoron; Torayvin; General Manager, Mishima Plant</td>
</tr>
<tr>
<td>Chiba Plant</td>
<td>Masayuki Kawasaki</td>
<td>Filtryzer; Tetoron; General Manager, Chiba Plant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plant</th>
<th>General Manager</th>
<th>Principal manufactured products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagoya Plant</td>
<td>Koichi Tsunoda</td>
<td>Torayvino; Tsakata; General Manager, Nagoya Plant</td>
</tr>
<tr>
<td>Tokai Plant</td>
<td>Sadao Okamura</td>
<td>Feron; Tokai Pla; General Manager, Tokai Plant</td>
</tr>
<tr>
<td>Aichi Plant</td>
<td>Tsuneo Shionuma</td>
<td>Toraykon; Toptical; General Manager, Aichi Plant</td>
</tr>
<tr>
<td>Tsuchiura Plant</td>
<td>Masayuki Shionuma</td>
<td>Tetoron; Toptical; General Manager, Tsuchiura Plant</td>
</tr>
<tr>
<td>Gifu Plant</td>
<td>Seiichi Fuchigami</td>
<td>Torayfan; Artificial Interferon; General Manager, Gifu Plant</td>
</tr>
<tr>
<td>Ishikawa Plant</td>
<td>Shusuke Shimizu</td>
<td>Feron; Tetoron; General Manager, Ishikawa Plant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GHG Emissions</th>
<th>131,000 tons CO₂/year</th>
<th>5,908 tons CO₂/year</th>
<th>48,000 tons CO₂/year</th>
<th>151,000 tons CO₂/year</th>
<th>261,800 tons CO₂/year</th>
<th>26,908 tons CO₂/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM10</td>
<td>4 tons/year</td>
<td>0 tons/year</td>
<td>9 tons/year</td>
<td>8 tons/year</td>
<td>7 tons/year</td>
<td>87 tons/year</td>
</tr>
<tr>
<td>NOx</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>13 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
</tr>
<tr>
<td>SOx</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>23 tons/year</td>
<td>0 tons/year</td>
<td>36 tons/year</td>
<td>3 tons/year</td>
</tr>
<tr>
<td>Waste transfers</td>
<td>117 tons/year</td>
<td>0 tons/year</td>
<td>216 tons/year</td>
<td>0 tons/year</td>
<td>10 tons/year</td>
<td>3 tons/year</td>
</tr>
<tr>
<td>PRTR</td>
<td>0.6 tons/year</td>
<td>0 tons/year</td>
<td>5.7 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
</tr>
<tr>
<td>Wastewater</td>
<td>0.5 million m³/year</td>
<td>0 tons/year</td>
<td>3.5 million m³/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
</tr>
<tr>
<td>Waste transfers</td>
<td>3 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
</tr>
<tr>
<td>Wastewater</td>
<td>27.6 million m³/year</td>
<td>0 tons/year</td>
<td>35.5 million m³/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
</tr>
<tr>
<td>Waste</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
<td>0 tons/year</td>
</tr>
<tr>
<td>Principal manufactured products</td>
<td>Ecsaine; main-made cellulose</td>
<td>Toraylon; Polyethylene film</td>
<td>Torayvis; color fiber</td>
<td>Torayvino; Eicosane; toreme; nano-membrane module</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Plant names and general managers are current as of August 2007.
## External Commendations

### Environment and Social Responsibility

#### Toray

<table>
<thead>
<tr>
<th>Awarding Institution</th>
<th>Commendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shizuoka Prefectural Industrial Waste Management Association</td>
<td>Governor’s Award for Distinguished Service in Promoting Proper Industrial Waste Disposal</td>
</tr>
<tr>
<td>Japan Industrial Safety &amp; Health Association</td>
<td>Green Cross Award</td>
</tr>
<tr>
<td>Ishikawa Prefectural Community Welfare Council</td>
<td>Ishikawa Prefecture Governor’s Award (Volunteer Organization Category)</td>
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<tr>
<td>Waste &amp; Executive Committee</td>
<td>Awards Committee Chairperson’s Special Award</td>
</tr>
<tr>
<td>Makuhari Plant</td>
<td>Hidetsuki Utsunomiya (Ishikawa Plant)</td>
</tr>
<tr>
<td>Michio Nawa (Manufacturing Division)</td>
<td>Ishikawa Branch, Toaray Labor Union</td>
</tr>
<tr>
<td>Toyota Department, Chiba Plant</td>
<td></td>
</tr>
</tbody>
</table>

#### Japanese Subsidaries and Affiliates

<table>
<thead>
<tr>
<th>Awarding institution</th>
<th>Recipient company, plant, or individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fukushina Labour Bureau, Ministry of Health Labour and Welfare</td>
<td>Sada Aromatic Co., Ltd. (Koriyama Plant)</td>
</tr>
<tr>
<td>Governor of Shiga Prefecture</td>
<td>Toray Precision</td>
</tr>
<tr>
<td>Aichi Prefecture</td>
<td>Chihiro Hotel Restaurant “Narihira”/“Matsumi”</td>
</tr>
<tr>
<td>Chiba Prefectural Police Chief</td>
<td>Dow Carving Toray (Chiba Plant)</td>
</tr>
<tr>
<td>Kanazawa Chamber of Commerce and Industry</td>
<td>Utsumura Sanpo (Kanazawa Head Office)</td>
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</table>

#### Overseas Subsidaries and Affiliates

<table>
<thead>
<tr>
<th>Awarding institution</th>
<th>Recipient company, plant, or individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Labor and Social Welfare</td>
<td>Thaipany Synthetics (BKK, AYU)</td>
</tr>
<tr>
<td>Ministry of Labor and Social Welfare</td>
<td>Lucksby (Thailand) M1-1, M1-2, and M1-3</td>
</tr>
<tr>
<td>Ministry of Commerce, Industry and Energy</td>
<td>Toray Sawa</td>
</tr>
<tr>
<td>Korea Management Association Consulting Category Received at Korea Productivity Award</td>
<td>Toray Sawa</td>
</tr>
<tr>
<td>Korean Occupational Safety and Health Agency Award</td>
<td>Daimhin Precision</td>
</tr>
<tr>
<td>Zero Accidents 20 times Achievement</td>
<td>Toray Resin</td>
</tr>
</tbody>
</table>

#### Research and Technical Development

<table>
<thead>
<tr>
<th>Awarding Institution</th>
<th>Recipient company, plant, or individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan Society for Composite Materials</td>
<td>Advanced Composite Development Center and Composite Materials Research Laboratories</td>
</tr>
<tr>
<td>Society of Fiber Science and Technology</td>
<td>Fibers and Textile Research Laboratories</td>
</tr>
<tr>
<td>Japan Institute of Invention and Innovation</td>
<td>Chemicals Research Laboratories</td>
</tr>
<tr>
<td>Green &amp; Sustainable Chemistry Network</td>
<td>Composite Materials Research Laboratories</td>
</tr>
<tr>
<td>Chemical Society of Japan</td>
<td>Electronic Imaging Materials Research Laboratories</td>
</tr>
<tr>
<td>Information Science and Technology Association Japan</td>
<td>New Frontiers Research Laboratories</td>
</tr>
<tr>
<td></td>
<td>Tohoku Shindo Information &amp; Research Department</td>
</tr>
</tbody>
</table>

#### Awards Received by Japanese Subsidaries and Affiliates

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<thead>
<tr>
<th>Awarding institution</th>
<th>Recipient company, plant, or individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sada Aromatic Co., Ltd. (Koriyama Plant)</td>
<td>ומוממ</td>
</tr>
<tr>
<td>Toray Precision</td>
<td>ומוממ</td>
</tr>
</tbody>
</table>

#### Excellent Award on Safety, Occupational Health and Work Environment and Excellent Award on Labor Relation and Labor Welfare

The government of Thailand recognized the M1-1, M1-2, and M1-3-operated by Lucksby (Thailand) with the Excellent Award on Safety, Occupational Health and Work Environment as well as the Excellent Award on Labor Relations and Labor Welfare.

#### National Quality Management Presidential Award in Production Innovation

Toray Sawa received the National Quality Management Convention from Kanazawa Ministry of Commerce, Industry and Energy.

#### 2006 Japan Society for Composite Materials Award (Technical Award)

The Advanced Composite Development Center and Composite Materials Research Laboratories together received the 2006 Japan Society for Composite Materials Award (Technical Award) for work to develop short-cycle integrated RTM molding technology for large-scale CFRP.

#### 6th Green & Sustainable Chemistry Award (2006)

The Electronic Imaging Materials Research Laboratories was recognized with the 6th Green & Sustainable Chemistry Award (2006) for their work on development of the environment-friendly CTP waferless plate and printing system.
External Evaluation

Sustainable Management Rating for FY 2006

Since 2003, Toray Group has participated in the evaluation conducted by the Sustainable Management Rating Institute as a way to obtain an objective review of how well our activities meet and how closely we respond to society's needs.

As in the previous fiscal year, our FY 2006 evaluation was divided into 63 "Management Leaves" arranged on a Sustainable Management Tree. Leaves are grouped in threes (for strategy, organization and performance) and arranged on 21 small branches. These small branches are further arranged along three larger branches representing management (S), environment (E) and society (C). Each leaf is colored according to the evaluation score for the category it represents: dark green (superior), standard green (excellent), pale green (good), yellow (acceptable) or brown (unsatisfactory).

Following our high marks from FY 2005, we also received a strong evaluation overall for FY 2006 as a company approaching the sustainable management ideal. Seen by category, however, there were areas both where the evaluation improved over last year and where it declined. Causes for areas of decline are thought to be primarily the adoption of a strict interpretation of boundaries in evaluating global contributions.

The Toray Group is committed to working on these areas for improvement identified by external sources as we renew efforts to pursue CSR activities that meet the demands of society.

Inclusion of Toray Stock in Socially Responsible Investment Funds

Socially Responsible Investment (SRI) is an investment approach that seeks stable profits by identifying and evaluating companies not only through traditional financial analysis but also from the standpoint of CSR, looking at their social and regional contribution, environmental factors, corporate governance, legal compliance, corporate ethics, employment practices, human rights issues and treatment of consumers.

SRI funds select corporations for inclusion in their portfolios based on various investigations. The Toray Group actively responds to such investigations with the goal of having its stock incorporated into these funds. The table below lists socially responsible investment funds in Japan that include Toray in their portfolios.

<table>
<thead>
<tr>
<th>Name of Fund</th>
<th>Nickname</th>
<th>Operating Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daiwa SRI Fund</td>
<td>Daiwa Asset Management Co., Ltd.</td>
<td></td>
</tr>
<tr>
<td>Mitsubishi UFJ SRI Fund</td>
<td>Mitsubishi UFJ Asset Management Co., Ltd.</td>
<td></td>
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<tr>
<td>Sumitomo Mitsui Asset Management Co., Ltd.</td>
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<tr>
<td>Nomura Asset Management Co., Ltd.</td>
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<td></td>
</tr>
<tr>
<td>Japan Investment Trust Management Co., Ltd.</td>
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<tr>
<td>Daiwa Asset Management Co., Ltd.</td>
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<tr>
<td>STB Asset Management Co., Ltd.</td>
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<tr>
<td>Shinkyo Asset Management Co., Ltd.</td>
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<tr>
<td>AIG Global Investment Corp.</td>
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<tr>
<td>Asahi Life Asset Management Co., Ltd.</td>
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<tr>
<td>AIG-SAIKYO Japan CSR Fund</td>
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<tr>
<td>AIG Global Investment Corp.</td>
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<tr>
<td>Shinko Asset Management Co., Ltd.</td>
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<td>Shinkyo Asset Management Co., Ltd.</td>
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<td>Daiwa Asset Management Co., Ltd.</td>
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<tr>
<td>Asahi Life Asset Management Co., Ltd.</td>
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CSR Ranking

Name of Media

| Name of Ranking | Ranking
<table>
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<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Nomoroshikai Japan</td>
<td>July 4, 2007</td>
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Adoption of Toray Stock by Major Japanese SRI Funds

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<tr>
<th>Name of Fund</th>
<th>Nickname</th>
<th>Operating Company</th>
</tr>
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<tbody>
<tr>
<td>Daiwa SRI Fund</td>
<td>Daiwa Asset Management Co., Ltd.</td>
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<tr>
<td>Mitsubishi UFJ SRI Fund</td>
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<tr>
<td>Sumitomo Mitsui Asset Management Co., Ltd.</td>
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<tr>
<td>Nomura Asset Management Co., Ltd.</td>
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<tr>
<td>Japan Investment Trust Management Co., Ltd.</td>
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<tr>
<td>Daiwa Asset Management Co., Ltd.</td>
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<tr>
<td>STB Asset Management Co., Ltd.</td>
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<tr>
<td>Shinkyo Asset Management Co., Ltd.</td>
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<tr>
<td>AIG Global Investment Corp.</td>
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<td>Asahi Life Asset Management Co., Ltd.</td>
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<tr>
<td>AIG-SAIKYO Japan CSR Fund</td>
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<td>AIG Global Investment Corp.</td>
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<td>Daiwa Asset Management Co., Ltd.</td>
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<td></td>
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<tr>
<td>Asahi Life Asset Management Co., Ltd.</td>
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</table>

Third Party Comments

This English language report is a translation of the original report in Japanese on third-party review on Toray Group CSR Report 2007.

The objective of these comments is to express our independent view on the features, results, developments and future direction of key environmental and social initiatives described in the "Toray Group CSR Report 2007" (the "Report"). In preparing these comments, we performed the following procedures:

1. Interview with Mr. Norihito Satoh, Senior Vice President
2. Interview at CSR Operations Department and Environment and Safety Department
3. Visit to the Minohs plant
4. Reading of the final report and the Report

These comments do not express any conclusion from an independent perspective concerning whether the information in the Report is consistent in accordance with our policies and standards, nor constitute an assurance or attestation of any kind.

1. Promotion of CSR Activities

Corporate Social Responsibility ("CSR") is a key business priority for Toray Group, as expressed in the Group’s Mid-term Business Strategies, Project Innovation Toray 2010 (FY2010), where “CSR Innovation” constitutes one of its “Five Innovations”.

Following these guidelines, the Group takes actions every year to translate a group-wide three year action plan, CSR Roadmap, into practice. It also employs the Plan-Do-Check-Action (“PDCA”) cycle to optimize the effectiveness of the programs. With a combination of the PDCA cycle and the “CSR Line Activities”- a program designed to facilitate site-level CSR practices by all employees, each workplace identifies improvement opportunities and takes necessary actions.

As described above, Toray Group addresses wide-ranging CSR issues with a variety of programs, time horizons, and participatory levels. We noticed that further clarification is needed in some relationships between the group-wide issues identified in the CSR Roadmap and the corresponding action programs. We recommend that CSR Operations Department establish this June, take the lead in reviewing and reorganizing the Group’s programs, and prioritizing measures thereunder. Such practice would result in creating an enhanced CSR structure functioning more organically and effectively.

Another finding was that in fiscal 2006, some items in the CSR Roadmap failed to complete the plan, mainly in the “C (check)” phase of the PDCA cycle. We believe an effective checking process is a key to realizing continual improvement through the PDCA cycle, and thus recommend Toray Group review and revise, if needed, its evaluation methodology of CSR performance.

2. Measures to Combat Global Warming (p.12–13, and 27)

Toray Group has long strived to reduce greenhouse gas (“GHG”) emissions, putting global warming at the top of its agenda. With that in mind, the company’s outlook for the achievement of existing reduction targets, the Group set more challenging reduction targets in fiscal 2007, which cover the overseas group companies. Toward the new targets, the Group promotes energy conservation activities, from fuel switching and other emission reduction measures, rather than counting on carbon trading.

On the energy conservation front, Toray Group can draw upon a reservoir of high-quality technologies and expertise that it has steadily built up since the oil crises of the 1970s. A collection of real-life examples of potential or successful energy saving initiatives is available for relevant personnel to share information around the globe. In-house energy conservation specialists are also dispatched to overseas plants. To help achieve an ambitious target calling for an annual 2% reduction in unit energy consumption, Toray Group supports and encourages energy conservation efforts at its overseas plants.

In connection, we recommend that data of overseas group companies be included in the charts presenting historical changes in the GHG emissions and energy consumption levels at the Group’s domestic companies (p.12). The inclusion would enable a future Report to better communicate the Group’s worldwide efforts to combat global warming and outcomes.

Toray Group’s new GHG emission targets aim for a 6% reduction from the 1990 levels, compared with the 10% reduction targets in the previous and current plans. The Group’s target can still be called ambitious, especially considering that it is expected that GHG emissions resulting from growing production of carbon fibers reinforced plastic (“CFRP”) have been in high demand because use of CFRP makes automobiles and aircrafts lighter, leading to less energy use and less GHG emissions. However, manufacturers of CFRP are at a dilemma that more production will cause more GHG emissions. The manufacturing process entails high-temperature processing, and thus requires greater energy consumption. The Group needs to address this issue in light of growing public expectations for forward-looking companies to reduce their absolute GHG emissions through technological breakthroughs and other initiatives.

We hope the Toray Group, embracing innovation as in its corporate slogan, will continuously pursue innovative emission reduction measures with new ideas.
Global Reporting Initiative Guidelines Reference Chart

Chronology of CSR Initiatives

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Corporate Social Responsibility (CSR) Guidance published</td>
</tr>
<tr>
<td>2002</td>
<td>CSR in Practice: A Global Report on Corporate Social Responsibility published</td>
</tr>
<tr>
<td>2003</td>
<td>China’s CSR Guidelines published</td>
</tr>
<tr>
<td>2004</td>
<td>World Business Council for Sustainable Development (WBCSD) publish the “Global Sustainability Guidelines”</td>
</tr>
<tr>
<td>2005</td>
<td>UN Global Compact established</td>
</tr>
<tr>
<td>2006</td>
<td>Global Reporting Initiative (GRI) releases its first set of sustainability reporting guidelines</td>
</tr>
<tr>
<td>2007</td>
<td>GRI releases its second set of sustainability reporting guidelines</td>
</tr>
</tbody>
</table>

Business and CSR Activities

<table>
<thead>
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<th>Company</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Toyota</td>
<td>Environmental and Safety Initiatives announced</td>
</tr>
<tr>
<td>2009</td>
<td>Toyota</td>
<td>Launch of the Toyota Environmental Movement (TEM)</td>
</tr>
<tr>
<td>2010</td>
<td>Toyota</td>
<td>Release of the 2010 Toyota Environmental Report (TER)</td>
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<tr>
<td>2011</td>
<td>Toyota</td>
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</tr>
<tr>
<td>2012</td>
<td>Toyota</td>
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Economic Performance Indicators

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<th>Guideline</th>
<th>CSR Report Page</th>
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<tr>
<td>DC1</td>
<td>Capital Expenditures</td>
<td>52</td>
</tr>
<tr>
<td>DC2</td>
<td>EBIT</td>
<td>30</td>
</tr>
<tr>
<td>DC3</td>
<td>Operating Profit</td>
<td>30</td>
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<tr>
<td>DC4</td>
<td>Net Profit</td>
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Governance and management system

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<tr>
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<tbody>
<tr>
<td>LA1</td>
<td>Performance</td>
<td>16</td>
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<tr>
<td>LA2</td>
<td>Related</td>
<td>16</td>
</tr>
<tr>
<td>LA3</td>
<td>Performance measurement in key stakeholders</td>
<td>16</td>
</tr>
<tr>
<td>LA4</td>
<td>Transparency</td>
<td>16</td>
</tr>
<tr>
<td>LA5</td>
<td>Leadership</td>
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<tr>
<td>LA6</td>
<td>Management</td>
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</tr>
<tr>
<td>LA7</td>
<td>Training &amp; Education</td>
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<tr>
<td>LA8</td>
<td>Diversity &amp; Opportunity</td>
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</tr>
<tr>
<td>LA9</td>
<td>Sustainable Development</td>
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Environmental performance indicators

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<tbody>
<tr>
<td>EN1</td>
<td>Energy usage</td>
<td>12, 26</td>
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<tr>
<td>EN2</td>
<td>Water usage</td>
<td>58</td>
</tr>
<tr>
<td>EN3</td>
<td>Greenhouse gases</td>
<td>12, 26, 58</td>
</tr>
<tr>
<td>EN4</td>
<td>Air emissions</td>
<td>27</td>
</tr>
<tr>
<td>EN5</td>
<td>Noise emissions</td>
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</tr>
<tr>
<td>EN6</td>
<td>Noise metrics</td>
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</tr>
<tr>
<td>EN7</td>
<td>Noise regulations</td>
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</table>

Note: GRI (Global Reporting Initiative) Guidelines: Guidelines for sustainability reporting released by an international NGO headquartered in Amsterdam