

Toray Group Sustainability Vision

Toray Group provides innovative technologies and advanced materials that contribute to achieving SDGs by addressing global issues.

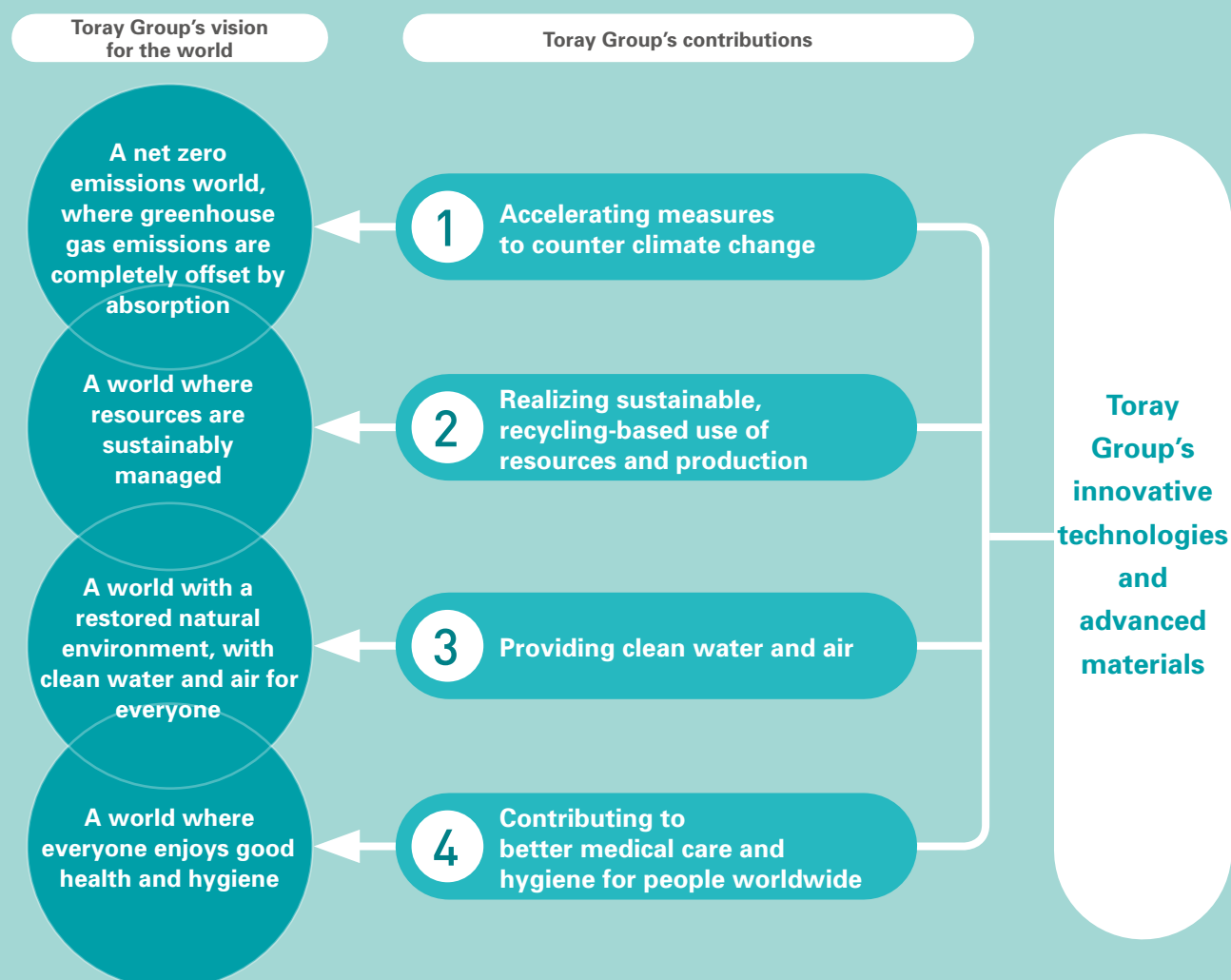
Formulation of Toray Group Sustainability Vision

Since Toray's founding in 1926, based upon our belief that materials can change our lives, we have delivered innovative technologies and advanced materials that provide solutions to various challenges the world faces regarding the balance between development and sustainability. Through this we have also been able to serve society, which is a foundation of our existence. This holds true for today as well. Many of the projects that Toray Group promotes under its Medium-term Management Program work to contribute solutions to global environmental issues and human longevity, and can be considered, by their very nature, to address sustainable development goals (SDGs). Given this, and with an ever-greater awareness of sustainability issues, we have formulated Toray Group Sustainability Vision that incorporates The World as Envisioned by Toray Group in 2050, and to achieve that, Toray Group Initiatives, as well as Quantitative Targets for Fiscal 2030.

As we look to the year 2050, and in consideration of the value that it is capable of providing to the world, Toray Group is aiming for 1) a net zero emissions world, where greenhouse gas emissions are completely offset by absorption; 2) a world where resources are sustainably managed; 3) a world with a restored natural environment, with clean water and air for everyone; and 4) a world where everyone enjoys good health and hygiene.

Formulation of KPIs and Contributing to Meeting SDGs and Other Global Objectives

To contribute to realizing the four above stated specific initiatives, Toray Group has formulated key performance indicators (KPIs) as it approaches fiscal 2030. By incorporating these into issues to be addressed by management, and given the organic growth generated, we will do our utmost to eliminate any negative impact on global sustainability, and in tandem with that, expand a supply of products that contribute solutions to problems, while setting our sights on accomplishing SDGs and other global objectives.





Quantitative Targets for Fiscal 2030 (The baseline year for quantitative targets is fiscal 2013)

- Supply four times more Green Innovation products (products that help to solve issues related to the global environment, resources, and energy)
(This will avoid eight times more CO₂ emissions in the value chain^{*1})
- Supply six times more Life Innovation products (products that enhance public health, improve the quality of medical care, and contribute to health maintenance and longevity)
- Triple the total annual volume of water treated using Toray's water treatment membranes^{*2}
- Reduce greenhouse gas emissions in production activities by 30% per unit of sales across the entire Toray Group by introducing renewable energy or taking other initiatives^{*3}
- Reduce water usage in production activities by 30% per unit of sales across the entire Toray Group

^{*1} For CO₂ emissions avoided in the value chain, Toray calculates the CO₂ emissions reduced throughout the value chain of products in accordance with the chemical sector guidelines of the Japan Chemical Industry Association, the International Council of Chemical Associations (ICCA), and the World Business Council For Sustainable Development (WBCSD).

^{*2} Toray calculates water treated with Toray's water treatment membranes by multiplying the amount of fresh water that its ultrafiltration water treatment membranes can produce per day, including reverse osmosis (RO), ultrafiltration (UF) and membrane separation bioreactors (MBR), by the number of membrane elements sold.

^{*3} In Japan, Toray works to surpass the reduction target set for the industrial sector by the Japanese government (absolute emissions reduced by 7%), which is based on the Paris Agreement. With the use of renewable energies and other zero emission power sources rising worldwide, Toray Group aims to employ zero-emission power sources at a rate equivalent to or better than the targets in each country by 2030.

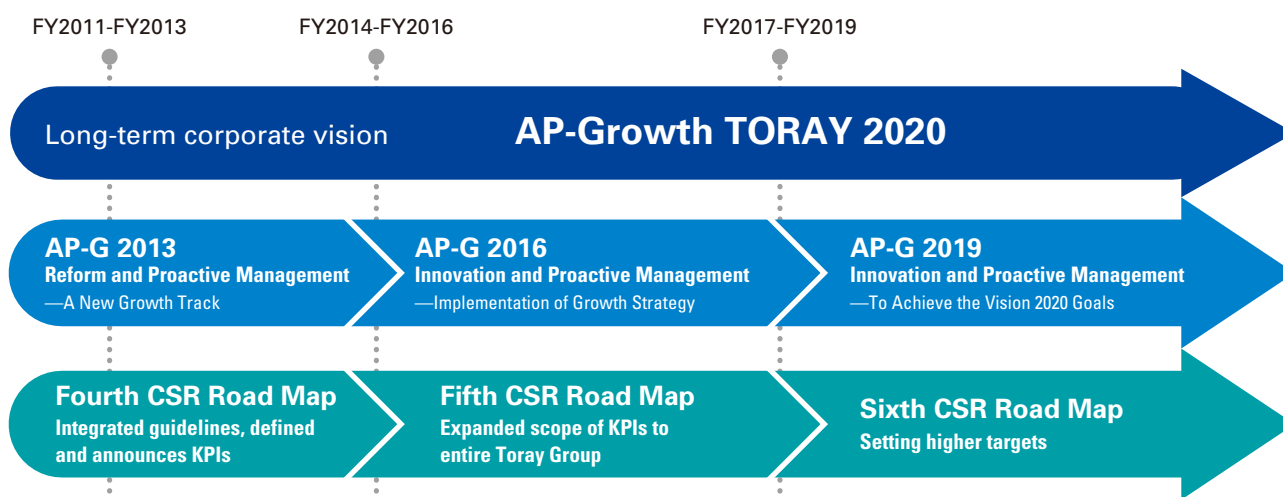
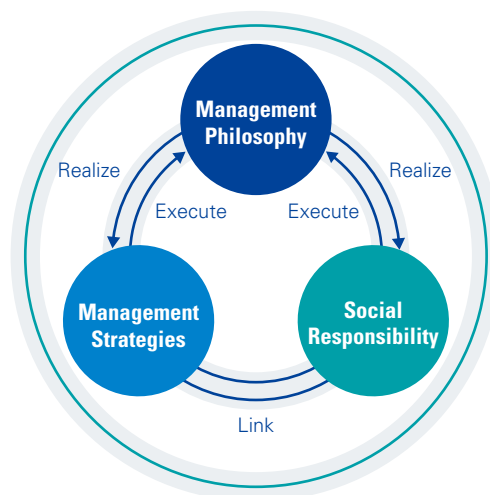
Sustainability in Toray Group

In order to achieve sustainable growth, corporations must do business in a way that earns the broad trust of stakeholders. To live up to its philosophy, Toray Group implements its management strategies hand-in-hand with its efforts to fulfill corporate social responsibilities.

Unification of Management Strategies and CSR

Toray Group is committed to making a proactive contribution to social development and environmental stewardship, providing high value to all stakeholders, and aims to continually increase its revenues and profits. Therefore, through its Medium-term Management Program Project AP-G 2019, it stresses the importance of practicing corporate social responsibility through a commitment to safety, accident prevention, environmental preservation, corporate ethics, and legal compliance. Meanwhile, the Group has set out the Sixth CSR Road Map, which covers the same time frame as Project AP-G 2019. The road map mandates the Group to expand its efforts to realize the creation of new value and implement more robust environmental, social and governance (ESG) practices. In addition, in fiscal 2015 Toray Group adopted its CSR materiality (material issues for CSR) which incorporated input from thought leaders, and reevaluated this process with the fiscal 2017 start of the Sixth CSR Road Map, setting forth KPIs and managing its progress every fiscal year.

Link Management Strategies and CSR



Pursuing Our Corporate Philosophy and SDG Initiatives

Since its foundation in 1926, Toray has upheld a corporate philosophy of “contributing to society through creating new value,” and developed innovative materials from a long-term perspective based on the concept of being a “entity for society” and of “people-centric management.” Through providing the materials, Toray has aimed to help solve social issues that include global environmental problems.

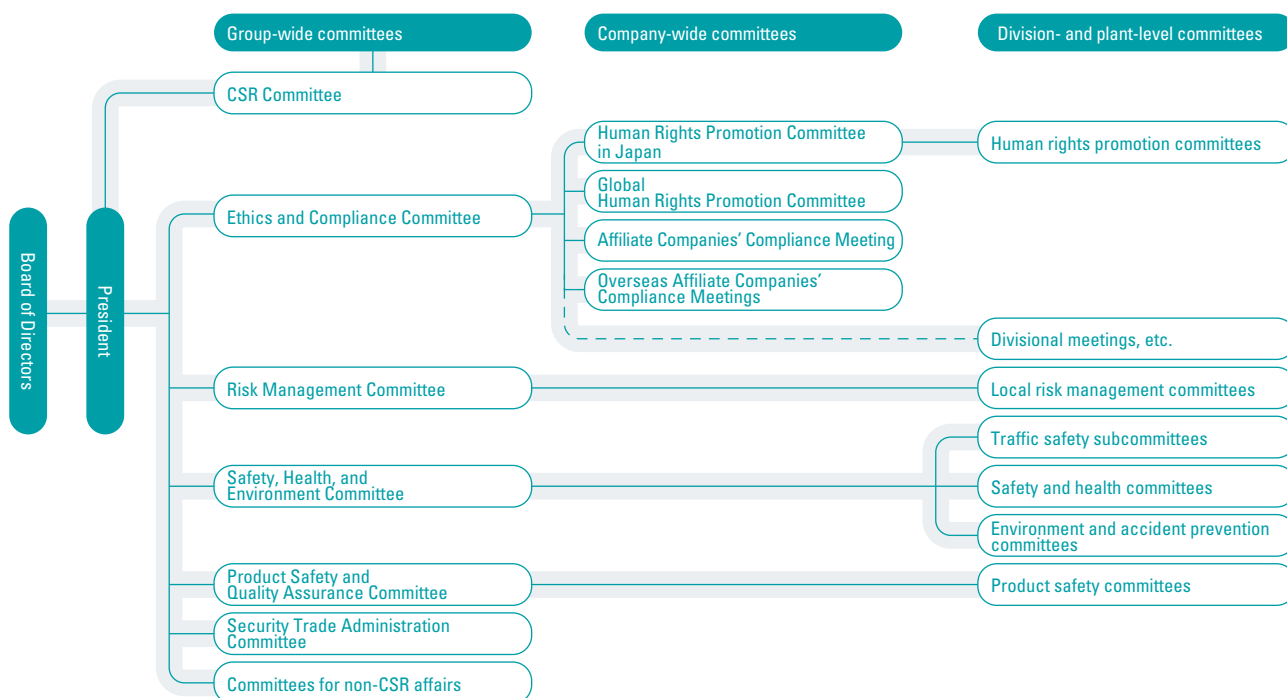
In addition, operating throughout the globe, Toray has expanded overseas businesses with the idea of contributing to each country’s industrial development, export growth, and increasing technological levels from a long-term perspective.

In this way, Toray Group’s initiatives taken to date are in keeping with finding solutions to global social problems that have been raised as sustainable development goals (SDGs). Based on its corporate philosophy, Toray Group aims in the years ahead to contribute further to solving social issues such as global environmental problems and realizing societies where people live long and healthy lives.

Organizational Structure for Corporate Social Responsibility

Toray Group's CSR Committee serves as a Group-wide deliberative organization for important issues concerning corporate social responsibility. The committee promotes CSR activities in cooperation with five other Group-wide committees, assigns tasks along with the themes in the CSR Guidelines to the five committees, and build a system for the Group as a whole promoting CSR.

Committee and Implementation Organization



SDGs and Toray's Initiatives

<ul style="list-style-type: none"> Green Innovation Businesses (trial introduction of tube-shaped planters Roll Planter™^{*1}) 	<ul style="list-style-type: none"> Research grants to young researchers through Toray Science Foundation and science foundations in three ASEAN countries and the Republic of Korea
<ul style="list-style-type: none"> Life Innovation Businesses Prevention of air pollution at plants (reduction of atmospheric emissions of chemical substances) 	<ul style="list-style-type: none"> Green Innovation Businesses (reinforcement of wooden roof with para-aramid fiber, Kevlar®^{*2})
<ul style="list-style-type: none"> Support for science education at schools Workshops at the Science Museum, Tokyo, Japan Support through the Science Education Award sponsored by Toray Science Foundation and science foundations in three ASEAN countries and the Republic of Korea 	<ul style="list-style-type: none"> Green Innovation Businesses (utilization of biological resources and promotion of product recycling) Reduction of waste from production sites
<ul style="list-style-type: none"> Promotion of women's active participation (Toray Industries, Inc.) Support for events to train female high school students in science and technology courses 	<ul style="list-style-type: none"> Green Innovation Businesses (curbing CO₂ emissions throughout the product lifecycle) Reduction of CO₂ emissions at the manufacturing stage
<ul style="list-style-type: none"> Green Innovation Businesses (securing safe drinking water with water treatment membranes, and other activities) Water management in plants 	<ul style="list-style-type: none"> Prevention of water pollution at plants Green Innovation Businesses (waterless printing technology)
<ul style="list-style-type: none"> Green Innovation Businesses (contribution to dissemination of renewable energy) 	<ul style="list-style-type: none"> Initiatives under the Toray Group Biodiversity Basic Policy Survey of bio-based raw material procurement Initiatives pursuant to Toray Group Basic Policy for Increasing Green Areas (greening activities at plants) Various environmental preservation activities at Headquarters, plants, etc.
<ul style="list-style-type: none"> Promotion of work-life balance Promotion of employment of the disabled and the elderly Respect for human rights in CSR Procurement Guidelines Establishment of Toray Group Policy for Human Rights 	

*1 Roll Planter™ is a registered trademark of Mitsukawa Co., Ltd.

*2 Kevlar® is a registered trademark of E. I. du Pont de Nemours and Company

Environmental Management Initiatives

Promoting Life Cycle Management

In addressing global environmental issues, it is vital to consider the entire life cycle of products and services in order to reduce environmental impact while also delivering improved economic and social value. To this end, Toray Group practices life cycle management. Life cycle management is the basis for Toray's Green Innovation products, and the Group has adopted life cycle assessment*¹ and Toray Eco-Efficiency Analysis (T-E2A)*² tool and is working to ensure these are employed thoroughly in all of its businesses.

*1 Life cycle assessment (LCA) is a method for quantitatively assessing resources that have gone into a product, its environmental burden, and the environmental impact the product has on the Earth and the ecosystem throughout the life cycle of the product.

*2 T-E2A is an environmental analysis tool developed by Toray. It produces a map of multiple products plotted along the axes of environmental impact and economic performance, enabling users to select the most environmentally friendly and economical products.

Progress on the Fifth Medium-Term Environmental Plan

Toray Group is now implementing its Fifth Medium-Term Environmental Plan, which runs from fiscal 2016 to fiscal 2020. The plan aims to further reduce the Group's environmental impact.

Amid further projected increases in production volumes for high-performance films and carbon fiber, the Group will continue to pursue environmental initiatives in order to achieve the challenging targets of the new plan.

Initiatives to Curb Global Warming

Toray has set its goal for the reduction of greenhouse gas emissions as "maintaining emissions at least 15% below the fiscal 1990 level, by fiscal 2020" and implements planned reduction measures. CO₂ emissions in fiscal 2017 increased by 18,000 tons from the previous fiscal year's level due to higher production in line with business expansion. Greenhouse gas emissions rose 1.1%, to 2.03 million tons from the previous fiscal year, although this was a reduction of 20.1% from the fiscal 1990 level, continuing to meet its reduction target.

Toray and its Group companies in Japan work to curb global warming with the goal of reducing greenhouse gas emissions by 15% on a per-unit-of-sales basis by fiscal 2020, compared to the fiscal 1990 level. Toray and its Group companies' emissions of greenhouse gas were down 1.1% in fiscal 2017 compared to the previous fiscal year. Greenhouse gas emissions per unit of sales improved 3.1 points compared to the previous fiscal year and were 23.5% below the base year.

Fiscal 2017 greenhouse gas emissions for Toray Group worldwide were 5.48 million tons-CO₂ equivalent, a decline of 2.4% compared to the previous fiscal year. All Toray Group manufacturing companies and plants will work to achieve the Group's goal of reducing the per-unit energy consumption rate by 2% each fiscal year and strive to reduce greenhouse gas emissions throughout the Group.

Energy Conservation Measures

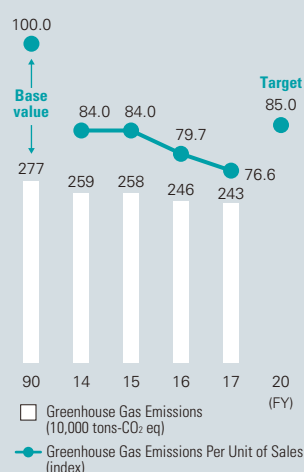
Toray has set a goal of reducing its per-unit energy consumption by 2% annually and vigorously works on energy conservation measures. In fiscal 2017, Toray increased energy consumption by 4% compared to the previous fiscal year mainly on account of higher production. However, it improved its per-unit energy consumption by 1.3% year on year as a result of energy conservation measures taken at each plant, energy conservation diagnostics performed by the Company's own energy efficiency specialists, and other initiatives. This was an improvement from the base year of 18.4%.

Utilizing Natural Energy and Converting to Natural Gas for Fuel

Toray Group is systematically switching to natural gas for fuel and deploying cogeneration systems with the goal of conserving energy. In addition, in fiscal 2016, as an initiative for effective use of renewable energy, Toray's Nagoya Plant installed a small hydroelectric system that generates power using the incoming industrial water pressure, and in fiscal 2017, Toray's Seta Plant installed a solar power generation system. Both systems have commenced operations.

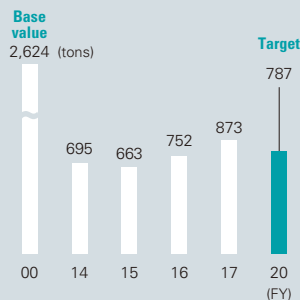


Greenhouse Gas Emissions and Greenhouse Gas Emissions Per Unit of Sales (Toray Group in Japan)

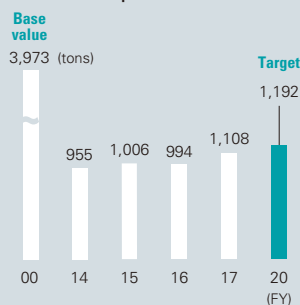




Atmospheric Emissions of PRTR Law-Specified Substances



VOC Atmospheric Emissions



Waste Recycling Rate

85.8%



Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances

As a corporate group that does business in the chemicals sector, Toray Group places the highest priority on reducing emissions of chemicals into the atmosphere in order to reduce its environmental impact.

In fiscal 2017, Toray Group's atmospheric emissions of PRTR Law-specified substances were 873 tons, which represented a 67% reduction compared to the base year of fiscal 2000. VOC atmospheric emissions amounted to 1,108 tons, a 72% reduction compared to fiscal 2000. The Group is executing reduction measures with the aim of achieving the objectives of the Fifth Medium-Term Environmental Plan.

Initiatives to Prevent Air and Water Pollution

Toray Group implements ongoing initiatives at production sites to reduce sulfur oxide (SOx) emissions by installing desulfurization equipment and switching to cleaner fuels, and reduce chemical oxygen demand (COD) by expanding wastewater treatment facilities.

Initiatives for Managing Water Resources

Toray Group has always been working through its water treatment business to provide solutions to water resource problems around the world. Toray Group practices the 3Rs (reduce, reuse, recycle) in consuming water resources, and monitors the quality of water that is released into public bodies of water. Additionally, at overseas-based Group companies located in drought-stricken regions in particular, we conduct recycling of cooling and effluent water and also work to reduce the volume of water used for industrial purposes.

In fiscal 2017, Toray Group used 228 million tons of water, an increase of 1% over the previous fiscal year. Compared to the amount used per unit of sales in fiscal 2001, set to an index value of 100, usage in fiscal 2017 stood at 54.0 points, an improvement of 5.5 points from the previous fiscal year.

Initiatives to Reduce Waste

Toray Group is carrying out zero emission initiatives as it works toward the realization of a sustainable, recycling-based world. Under the Fifth Medium-Term Environmental Plan, the Group worked to achieve its fiscal 2020 targets for rates of simply disposed waste^{*1}, landfill waste^{*2} and recycled waste^{*3}, which have been set as indicators for measuring progress toward attaining zero emissions.

^{*1} Simply disposed waste rate = (incineration + landfill) / total waste

^{*2} Landfill waste rate = landfill waste / total waste

^{*3} Recycling rate = (recycled resources + resources with monetary worth) / (total waste + resources with monetary worth)

Biodiversity Initiatives

Toray Group has positioned biodiversity, along with reducing greenhouse gas emissions, as an important theme regarding global environmental problems, and pursues biodiversity initiatives in accordance with a three-year action road map and sets its priorities based on the Group's Biodiversity Initiatives. Plants at Toray and Group companies in Japan operate greenery policies and plans through around 2020, guided by Toray Group Basic Policy for Increasing Green Areas^{*1}. The plans encompass initiatives to conserve green areas as much as possible, including healthy natural forests^{*2}, that have been protected since the plants began operating. These sustainable greenery conservation initiatives also help to conserve the environment for communities.

^{*1} Natural groves or forestation by species based on potential native vegetation

^{*2} Toray Group Basic Policy on Increasing Green Areas was established in 2012, evolving out of greenery policies that were first established in 1973.

Human Resource Development and Training



Committed to Human Rights

We at Toray Group believe respect for human rights is a mandatory management principle for ensuring the continuity of corporate activities and building positive relationships with all of the Group's stakeholders. Based on this principle, in December 2017 we formulated Toray Group Policy for Human Rights. The Group also works to promote and raise awareness of human rights, for instance by declaring its commitment to the respect of human rights in its Corporate Ethics and Legal Compliance Code of Conduct. In the Code, discrimination of any kind based on race, creed, skin color, gender, religion, nationality, language, physical characteristics, socioeconomic status, place of birth or any other personal characteristics is strictly forbidden in every process from recruiting and hiring to work placement, treatment, training, and retirement.

Since fiscal 2014, the Group has also been tackling the issue of discrimination based on gender identification and sexual orientation. In January 2017, the Group established a dedicated hotline for LGBT (sexual minority) issues, Nijiro Consultation Service.

Toray Group Policy for Human Rights

We at Toray Group believe that respect for human rights is a mandatory principle for corporate management. Therefore, we respect international standards such as the United Nations Universal Declaration of Human Rights and the International Labor Organization's standards in compliance with the laws and regulations of countries and regions where we operate, and will endeavor to fulfill our duty of respect for human rights as a good corporate citizen.

1. We will respect human rights, character and individuality of employees and eliminate harassment and discrimination in workplaces. Furthermore, we will prohibit child labor, forced labor and unfair low-wage labor.
2. We will strive to promote respect for human rights throughout the entire supply chain related to our business activities. In addition, we will not be complicit in infringing on the human rights.
3. We will endeavor to understand adverse human rights impacts associated with our business activities and to avoid or reduce such influences.
4. If it becomes evident that we have caused or contributed to adverse human rights impacts, we will promptly take appropriate actions.
5. We will promote educational activities about issues of human rights for every employee and foster a proper understanding of issues among them.

Training Expenditures per Employee

99,069 yen

Basic Policy on Human Resources Hiring

The success or failure of a company is decided by its people—employees shape its destiny. Guided by this concept, Toray Group, both in and outside of Japan, regards human resources as the most important management resources and considers securing and developing outstanding human resources capable of performing on a global stage as a fundamental management priority. Based on the following four goals, Toray Group is promoting human resource development.

- Development of fair-minded individuals who act with high ethical standards and a sense of responsibility
- Training of professionals with advanced expertise, technical skills and originality in problem solving
- Development of leaders who act with foresight and a sense of balance
- Development of individuals, professionals, and leaders who can play an active role in global business

To achieve these goals, Toray Group is taking deliberate measures to conduct a variety of training that will strengthen and raise an array of capabilities for employees at every level and field.



Women in Management Positions

4.6%



Percent of Companies Achieving Legally Mandated Employment Rate of Persons with Disabilities

60.0%



Percentage of Available Annual Paid Leave Used by Employees

88.4%

Diversity Promotion Initiatives

Fostering an Organizational Culture Conducive to the Career Advancement of Women

Toray has long advanced the creation of workplace environments in which women will feel comfortable in performing their duties. As of April 2018, women held 9.0% of unit manager or higher positions, and 4.6% of section manager or higher positions. In fiscal 2016, based on Japan's Act on Promotion of Women's Participation and Advancement in the Workplace, enacted in that same year, Toray developed an action plan to increase the percentage of female employees promoted to managerial positions by focusing on making and steadily implementing individualized career plans and raising awareness of career development. Under this action plan, Toray has set as its immediate target to ensure an average promotion rate for women that is at least 80% that of men*1 for the five-year period from fiscal 2016 to fiscal 2020. This figure is the Japanese Ministry of Health, Labour and Welfare's yardstick for determining whether or not excessive discrepancy exists based on gender.

*1 Promotion rate of women to managerial positions compared to that of men = Percentage of female employees promoted to managerial positions / Percentage of male employees promoted to managerial positions
Percentage promoted to managerial positions = Individuals promoted to managerial positions / No. of employees who were initially hired into the G Course who are eligible for promotion to managerial position that year

Employment of Persons with Disabilities

Toray Group hires and employs persons with disabilities, from those with physical challenges to persons with intellectual and mental challenges. The Group is making workplace improvements to remove physical barriers for persons with handicaps as well as instituting safety measures. Additionally, the Group provides comprehensive training upon work placement and gathers feedback from persons with disabilities to make workplace improvements.

Further, Toray meets Japan's legal minimum of 2.2% persons with disabilities, as do 60.0% of Toray Group companies in Japan. Group companies actively seek to hire persons with disabilities through public organizations and job placement agencies. However, some individual Group companies do not meet the mandated legal requirement, although the Group companies collectively meet the minimum. Toray will continue to focus on this issue moving forward.

Helping Employees Maintain Work-Life Balance

Toray has worked to further improve systems that help employees achieve a harmonious balance between work and family life by offering a wider variety of lifestyle options for both men and women. Toray has put in place systems that allow employees to work from home or have lower-hour work schedules for child care or care giving, and a coreless flex system for all Tokyo and Osaka head office employees.

As part of its commitment to workplace innovation to balance work and family life, Toray strives to create a comfortable environment throughout its work sites. Since fiscal 2008, (1) regular discussions are held in each workplace to raise awareness of different working styles; (2) working late at night or on holidays is in principle prohibited; (3) all lights are turned off at a certain time at night; and (4) Company-wide "no overtime days" take place one day each month. Toray has also been working on ongoing initiatives to cut overtime hours and to encourage employees to take annual paid leave. (Employees used 88.4% of available annual paid leave in fiscal 2017).

Employee Health

Toray views employee health management as a management priority. Strategic initiatives are now underway, including some undertaken in collaboration with the employee health insurance association. Toray is also addressing mental health. Since fiscal 2011 the Company has been independently implementing employee stress check-ups through an external provider, and has added content in accordance with revisions to Japan's Industrial Safety and Health Act. Group companies in Japan also implement similar employee stress check-ups. In recognition of these efforts, in February 2018 Toray was certified as a Health and Productivity Management Organization (White 500).

Sustainable Management System

Stakeholder Engagement

Toray Group has established Basic Policies to Promote Dialogue with Stakeholders. We are proactively communicating with various stakeholders in all aspects of our corporate activities.



Engaging with Stockholders and Investors

The Group actively communicates with institutional investors and securities company analysts by providing information materials when requested and holding same-day results briefings when quarterly earnings are announced. The Group also provides a wide variety of information about management policy and strategy as well as financial and earnings information through its annual report, IR presentation materials, and information pages on its website for stockholders and investors.

In fiscal 2017, Toray held four results briefings and held 676 meetings with investors and analysts.



Engaging with Customers

Toray believes that the customer comes first. We closely communicate with our customers, mainly through our marketing and sales departments, and periodically conduct customer satisfaction surveys. The results of these surveys are shared internally at Board meetings and through inhouse newsletters as we strive to provide even higher quality customer service.



Engaging with Business Partners

While providing materials and products as a manufacturer of advanced materials, Toray Group must engage in upstream management of its supply chains to better fulfill the needs of its customers, including the areas of production facilities and procured raw materials and resources. Accordingly, the Group has established its Basic Purchasing Policies and Basic Distribution Policies to emphasize this approach and ensure fair business activities. Throughout the Group we are promoting proper and fair transactions, adherence to laws, environmental preservation, respect for human rights, improvements in quality and other policies in initiatives with regard to corporate responsibility in procurement, purchasing, and distribution.



Engaging with Employees

The Group communicates with employees through in-house newsletters, intranet, company-wide bulletin boards and other media. To share information and deepen understanding of management and business topics, messages from the President, Japanese, English, and Chinese versions of in-house newsletters, and explanations of management and business topics and projects are made available via all types of media. In addition, in 2017, we established TORAY NAVI Lite, an intranet site geared toward Group companies in and outside of Japan, representing the construction of global infrastructure for the sharing of information.



Engaging with the Mass Media

Toray recognizes that public relations and corporate communication activities have a role in fulfilling responsibilities for information disclosure as well as influencing public opinion. Accordingly, Toray's Corporate Communications Department reports directly to the President, and actively engages with a wide range of media organizations, acting as the public's point of contact with the Company. Based on Toray's Information Disclosure Principles, the department provides fair and impartial information, even if it may cast the Company in a bad light, in a timely and appropriate manner.

In fiscal 2017, the Company issued 187 press releases and responded to 318 media requests for information.



Engaging with Local Communities

Toray Group strives to engage in more active dialogue with nearby residents in a variety of settings, including participating in events sponsored by local governments and inviting local residents onto plant grounds for summer festivals. Following Toray Group Social Initiative Policies, we aim for our social contribution activities to contribute to sustainable development while meeting the expectations of local communities. A specific example of this is the establishment of Toray Science Foundation in Japan, and similar foundations in Malaysia, Thailand, Indonesia and the Republic of Korea, which contribute to raising the level of science and technology in these countries. We also actively promote sports in Asia by co-sponsoring the Shanghai International Marathon.

External Evaluation

Toray was included in the following SRI indices as of March 31, 2018.

Dow Jones Sustainability Index Asia Pacific

Toray is included in the Asia Pacific Index of the Dow Jones Sustainability Indices (DJSI), an SRI index administered by U.S.-based Dow Jones and Switzerland-based RobecoSAM.



MSCI ESG Indexes

Toray is included in the MSCI ESG Indexes. MSCI provides institutional investors (from pension funds to hedge funds) across the globe with various tools to support investment decisions.



Ethibel Pioneer & Excellence Registers

Toray is included in the Ethibel Pioneer and Ethibel Excellence investment registers of Forum Ethibel, a Belgian non-profit organization that promotes socially responsible investment.



Morningstar Socially Responsible Investment Index (MS-SRI)

Toray is included in the Morningstar Socially Responsible Investment (MS-SRI) Index. Morningstar Japan K.K. selects 150 listed companies in Japan that have been assessed for outstanding social responsibility, indexing the prices of their shares. MS-SRI is the first SRI index in Japan.



Sompo Japan Nipponkoa Asset Management (SNAM) Sustainability Index

Toray is included in the SNAM Sustainability Index managed by Sompo Japan Nipponkoa Asset Management (SNAM). The SNAM Sustainability Index is an SRI index fund for pension funds and institutional investors that broadly invest in corporations that rate highly for environmental, social, and governance (ESG).