# TORAY GROUP
# CSR REPORT 2022

TORAY
Innovation by Chemistry

# TORAY SUSTAINABILITY VISION

# CONTENTS


**Message from the President** 03

**Response to Inappropriate Actions Relating to UL Certification in the Toray Resins Business (Updated on January 10, 2023)** 05

**Toray Group Corporate Social Responsibility** 10
- Toray Philosophy and CSR 12
- Management Strategies and CSR 18
- Long-Term Corporate Vision 20
- Medium-Term Management Program 23
- Toray Group Corporate Social Responsibility Initiatives 26
- CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022) 30
- Materiality 53
- External Evaluation 67

**Sustainability Vision** 69
- History 72
- The Future 84

**CSR Activity Report (CSR Guideline Activity Reports)** 95
- Corporate Governance 97
- Ethics and Compliance 104
- Safety, Accident Prevention, and Environmental Preservation 124
- Third-Party Assurance 187
- Product Quality and Safety 192
- Risk Management 206
- Communication 219
- Contributing Solutions to Social Issues through Business Activities 238
- Human Rights Promotion and Human Resources Development 265
- Facilitating CSR Initiatives Throughout the Supply Chain 296
- Social Contribution Activities as a Good Corporate Citizen 325

**Toray Group's Approach to Climate Change** 355

**Comments from Thought Leaders** 359

**Toray Group's Policies and Guidelines related to CSR** 363

**ESG Data** 365

**Comparative Tables with GRI Standards, SASB Standards, ISO 26000 Subjects, and ESG Topics** 374
- Comparative Table with GRI Standards 374
- Comparative Table with SASB Standards 385
- Comparative Table with ISO 26000 Subjects 389
- Comparative Table with ESG Topics 398

**Editorial Policy** 403

# Message from the President

**Contributing to society through the creation of new value with innovative ideas, technologies and products.**

**President, Toray Industries, Inc.**

Since its founding in 1926, the belief that corporations are public institutions has been a fundamental management principle for Toray Group. We have always aimed to contribute to society through our business activities, and in 1986, established our current corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products." In 2020, Toray organized its corporate philosophy and other management principles — the principles it had upheld since its founding — in the form of the Toray Philosophy and has been implementing these in its business activities.
Against this backdrop, regrettably, in fiscal 2021, Toray Industries, Inc. announced inappropriate actions at Toray related to certification of certain resin products by Underwriters Laboratories (UL). We deeply regret having allowed this situation to occur and sincerely apologize to all stakeholders for the concern and inconvenience caused. Guided by the recommendations in the report of the expert committee that investigated the matter, Toray senior management will continue to lead the implementation of definitive measures formulated by the board of directors to prevent any recurrence, making every effort to regain the trust of customers and the broader society.

The world faces many challenges that must be overcome to ensure global sustainability, including climate change, issues of resources and energy, food and water shortages that come with population growth, destruction of the natural environment, and safety and health concerns. However, our common goals and the issues that must be addressed to ensure a bright future for humankind are clear, as spelled out by such initiatives as the United Nations Sustainable Development Goals (SDGs) and the Paris Agreement. We believe our enduring mission is to make a unique contribution by leveraging our innovative advanced materials to provide fundamental solutions to the issues the world faces.

The Toray Group Sustainability Vision announced in 2018 outlines the following four perspectives of the world as envisioned by the Toray Group in 2050.

1. A net zero emissions world, where greenhouse gas emissions are completely offset by absorption—in other words, a net zero emissions, carbon-neutral world
2. A world where resources are sustainably managed
3. A world with a restored natural environment, with clean water and air for everyone
4. A world where everyone enjoys good health and hygiene

Toray Group has already developed advanced materials that are helping to build the world we envision, including carbon fiber used in aircraft and wind turbine blades; biomass fiber; and reverse osmosis membranes for the desalination of seawater. Cumulative shipment volumes of reverse osmosis membranes, in terms of the amount of water produced, have reached 105 million $m^3$/day, providing enough water to support daily use by 730 million people.
As part of our efforts to help build a carbon-neutral world, we are also developing technologies and expanding production facilities for hydrogen and fuel cell components, developing $CO_2$ separation membranes, and promoting fiber made from recycled PET bottles. By continuing to create innovative technologies and advanced materials such as these, we will contribute to the reduction of $CO_2$ emissions throughout the entire product lifecycle and to greenhouse gas absorption, thereby helping the world become carbon neutral by 2050. In addition, Toray Group itself aims to be carbon neutral by 2050, and we will do this by reducing the Group's greenhouse gas emissions and leveraging carbon recycling technologies.

At Toray Group, we aim to deliver sound, sustainable growth and have been working on that under our Medium-Term Management Program, Project AP-G 2022, since fiscal 2020. Corporate social responsibility (CSR) is positioned at the highest tier of the Toray management priorities, and our CSR Roadmap 2022 guides our systematic implementation of CSR activities over the medium-term. These activities focus on such themes as ethics and compliance; safety, accident prevention, and environmental preservation; and human rights promotion and human resources development.
Toray Group implements management strategies and CSR initiatives in an integrated manner and continues to realize its corporate philosophy.

September 2022

Updated on January 10, 2023

# Response to Inappropriate Actions Relating to UL Certification in the Toray Resins Business

Toray reiterates its sincere apology for the concern and inconvenience caused to all persons concerned with regard to inappropriate actions relating to UL certification in its resins business.
We take the occurrence of these actions extremely seriously. Going forward, the management team will take responsibility for ensuring that all executives and employees work together to thoroughly implement measures to prevent recurrence. We are determined to regain your trust and once again demonstrate what Toray can achieve.

Progress on Recurrence Prevention

Investigation Report from Expert Committee (in Japanese) PDF

List of Related Announcements

Updated on January 10, 2023

# Progress on Toray's Recurrence Prevention Measures in Response to Recommendations of the Expert Committee

In response to the recommendations in the expert committee report released on April 12, 2022, Toray is implementing a series of measures to prevent recurrence of this problem. Going forward, we will regularly release announcements on specific implementation plans and status updates.

## 1. Enhancing compliance awareness

| Recurrence prevention measures | Implementation plan | Status |
|---|---|---|
| (1) Improving compliance education | | |
| Promote thorough training group-wide concerning private-sector certification and standards based on the recommendations. | May 2022<br>Create education materials | May 2022 Completed |
| | June 2022<br>Introduce training | • June 2022 Started training in Quality Assurance Division<br>• June 2022 Introduced and ongoing in in-house training<br>• August 2022 Completed training in Quality Assurance Division<br>• November 2022 Implemented the Quality Assurance Compliance Month |
| (2) Incorporating quality assurance contribution into performance reviews | | |
| Update the human resources evaluation system with more emphasis on compliance contribution, including quality assurance efforts. | June 2022<br>Review evaluation content | June 2022 Completed |
| | 1st half FY 2022<br>Introduce updated system | • 1st half FY 2022 Started management by objectives<br>• September 2022 Completed evaluations for 1st half FY 2022<br>• 2nd half FY 2022 Started management by objectives |
| (3) Sharing recurrence prevention activities | | |
| Publicize the progress made with recurrence prevention measures on Toray corporate website. | May 2022<br>Launch special website | • May 2022 Launched special website<br>• June 2022 Launched in-house site<br>• Now in operation |

| Recurrence prevention measures | Implementation plan | Status |
|---|---|---|
| (4) Heightened and continued commitment by the senior management team | | |
| Ensure senior managers continually communicate to employees the importance of compliance while declaring their own personal compliance responsibility and mission. | April 2022<br>Introduce series of measures | • April 2022 Started<br>• Appropriately announce of top message<br>- Each executive committee (every month)<br>- Korea Conference (April, October)<br>- Americas Conference (April, October)<br>- China Conference (June, **December**) New<br>- Europe Conference (July)<br>- Ethics and Compliance Committee (July)<br>- Japanese Subsidiaries and Affiliated Companies Conference (August)<br>- ASEAN Conference (September) |
| | June 2022<br>Declare compliance commitment | • June 2022 Declared<br>• July 2022 Disclosed on in-house magazine<br>• December 2022 Declaration of personal behavior regarding compliance by executives New |

## 2. Establishing work procedures and an education system for UL-related operations

| Recurrence prevention measures | Implementation plan | Status |
|---|---|---|
| Document the proper operation procedures and the responsibilities and roles of the relevant personnel. Promote training on UL rules, and obtain third-party audits and verification of Toray's certification management system. | April 2022<br>Hold UL seminars | • April 2022 Held UL seminar<br>• May 2022 Held UL seminar in addition<br>• May 2022 Held CMJ seminar |
| | June 2022<br>Introduce operation procedure manual | • June 2022 Started operating FUS procedure manual<br>• July 2022 Started operating certification rule book |
| | July 2022<br>Launch certification management system | July 2022 Started certification qualification system |
| | 3rd quarter FY 2022<br>Conduct third-party audits | • October 2022 UL verification audit, C-CAP (customer corrective action process)<br>• November 2022 UL verification audit, C-CAP (#2nd)<br>• December 2022 UL verification audit, C-CAP (#3rd) New<br>• December 2022 UL verification audit, C-CAP pass/exemption New |

## 3. Transferring personnel between business divisions and other interaction

| Recurrence prevention measures | Implementation plan | Status |
|---|---|---|
| Implement personnel changes of quality assurance department managers across business divisions, and personnel changes across business divisions at the management level. | June 2022<br>Establish personnel transfer plan | June 2022 Changed director in charge |
| | 2nd quarter of FY 2022<br>and beyond Introduce series of measures | • November 2022 Started personnel transfer plan<br>• Ongoing execution |
| Conduct training sessions using this case as a teaching tool, attended by employees and executives from different business divisions. | April 2022<br>Start to include case studies in training sessions | • April 2022 Started<br>• Introduce in training sequentially<br>- Toray Trainee Program for section managers outside Japan (June)<br>- Special training of compliance (June)<br>- Newly appointed manager training (July, August, September, November)<br>- General manager training (August, October)<br>- Management skills development seminor for section managers (September, October, **December**) New<br>- Sales/Marketing Practical Seminars (September, **December**) New<br>- Workshop for Directors and Executive Board Members (November) |

## 4. Establishing a system to confirm UL compliance by the internal quality assurance organizations and/or external organizations

| Recurrence prevention measures | Implementation plan | Status |
|---|---|---|
| Document the specific role of the Quality Assurance Division for UL and other certification work, and obtain audits and verification that roles are being properly performed, from a third-party. | May 2022<br>Revise related guidelines | May 2022 Completed |
| | June 2022<br>Complete education | June 2022 Completed |
| | September 2022<br>Introduce revised guidelines | • August 2022 Operation guideline fixed<br>• September 2022 Operation guideline started to apply |
| | December 2022<br>Conduct third-party audits | November-December 2022 External audit completed New |

## 5. Strengthening the organizational structure of quality assurance organizations (Monitoring and supervision of quality assurance sections activities by Quality Assurance Division and other internal and/or external organizations)

| Recurrence prevention measures | Implementation plan | Status |
|---|---|---|
| Create mechanisms for the Quality Assurance Division to audit each of its departments, and receive operational audits of the entire Quality Assurance Division from an external organization. | June 2022<br>Complete to make standards | • June 2022 Completed standards of audit<br>• August 2022 Completed audit planning<br>• September 2022 Started audit in division<br>• December 2022-March 2023 Mutual audit in progress New |
| | December 2022<br>Conduct third-party audits | November-December 2022 External audit completed New |

## 6. Establishing system to ensure misconduct is reported to Toray administrative organizations and other parties

| Recurrence prevention measures | Implementation plan | Status |
|---|---|---|
| (1) Clarifying rules for cases in which employees become aware of misconduct or suspected misconduct | | |
| Clarify the obligation to report misconduct in the quality assurance and product safety management regulations. | May 2022<br>Revise the regulations | • May 2022 Completed<br>• Now in operation |
| (2) Establishing system to encourage use of whistleblowing hotline | | |
| Improve the guide on how to use the whistleblowing hotline, including by providing specific examples of reporting. | June 2022<br>Revise the regulations and guides | • June 2022 Completed<br>• June 2022 Publicized on in-house magazine |
| (3) Improved and continued internal surveys (Toray Group-wide surveys) by quality assurance organizations | | |
| Ensure that all employee responses, including comment box details, be sent directly to the Quality Assurance Division. In Group-wide surveys, clearly state that violations of private-sector certification rules fall within the scope of the survey. | June 2022<br>Improve survey method | • June 2022 Survey contents fixed<br>• July 2022 Survey collecting method fixed<br>• October 2022 Survey procedure fixed |
| | 3rd quarter FY 2022<br>Start the surveys | • October-November 2022 Survey implementation<br>• December 2022-January 2023 Survey results being aggregated New |

# Toray Group Corporate Social Responsibility

**Toray Group strategically practices social responsibility guided by its three-year CSR Road Map, aiming to achieve sustainable growth while helping to build a more sustainable world.**

## Report from the Chief CSR Officer

**As Chief CSR Officer, I make every effort to promote CSR initiatives that ensure the sustainable development of Toray Group and society as a whole, ensure the appropriate disclosure of information, and to continue to meet the expectations of our stakeholders.**

**Hideki Hirabayashi**
Senior Vice President,
Chief CSR Officer,
Toray Industries, Inc.

Toray Group has from the beginning lived up to the management principle of "realizing that corporations are public institutions of society and contributing to society through our business." Toray Group positions CSR efforts as one of its highest management priorities and implements its management strategies and CSR initiatives in an integrated manner, striving to ensure the sustainable development of the Group and helping to build a sustainable world.

Toray Group's CSR Guidelines, our guiding principles for delivering on our social responsibilities, lay out such broad themes as: corporate governance; ethics and compliance; safety, accident prevention, and environmental preservation; product quality and safety; contributing solutions to social issues through business activities; human rights promotion and human resources development; and facilitating CSR initiatives throughout the supply chain. Based on the guidelines, we establish a three-year CSR Roadmap mandating specific initiatives and KPIs. We pursue organization-wide CSR systematically using the plan-do-check-action (PDCA) cycle.
As social issues become increasingly diverse and complex, we will continue to enhance our CSR initiatives, disclose information in an appropriate manner that meets international information disclosure standards, and do our utmost to meet the expectations of our stakeholders.

Toray Group Corporate Social Responsibility

# Toray Philosophy and CSR

Under a corporate philosophy of “contributing to society through the creation of new value with innovative ideas, technologies and products,” Toray Group has from the beginning pledged to have a positive impact on society through its business. The Group’s CSR activities embody the corporate philosophy positioned at the highest tier of the Toray Philosophy.

**Related Information**

> Toray Philosophy

# Toray Philosophy

The Toray Group was established in 1926, based on the principle of “realizing that corporations are public institutions of society and contributing to society through our business.” Ever since, the Toray Group has aimed to be a corporate entity respected by society.
In 1955, Toray clearly established this commitment as a Company Principle. Then, in 1986, the 60th anniversary of our founding, the company’s Management Philosophy framework was formalized with the Corporate Philosophy as its paramount concept. Since then, the Management Philosophy has been passed down, with some revisions. Accompanying the May 2020 announcement of the Long-Term Corporate Vision, TORAY VISION 2030, the Toray Group organized the principles it has followed since the beginning in the form of the Toray Philosophy.
In addition to our traditional Management Philosophy (which includes the Corporate Philosophy, Corporate Missions, Corporate Guiding Principles), the Toray Philosophy includes the Corporate Slogan (which simply expresses Toray’s stance on embodying the Corporate Philosophy), the Vision (which represents the direction the Group is headed), the Corporate Culture (which includes values and management perspectives that have been maintained since the company’s founding), and the President’s Principles.

## Corporate Philosophy

**Contributing to society through the creation of new value with innovative ideas, technologies and products**

## Corporate Missions

**For our customers**
To provide new value to our customers through high-quality products and superior services

**For our employees**
To provide meaningful work and fair opportunities

**For our shareholders**
To practice sincere and trustworthy management

**For society**
To establish ties and develop mutual trust as a responsible corporate citizen

## Corporate Guiding Principles

**Safety and Environment**
Placing top priority on safety, accident prevention and environmental preservation in order to protect the safety and health of employees, customers and local communities and contribute to building a sustainable society

**Ethics and Fairness**
Acting with fairness, high ethical standards and a strong sense of responsibility while complying with laws, regulations and social norms to earn trust and meet social expectations

**Customer-Focus**
Providing solutions of high value to customers, and pursuing customer satisfaction and the world's highest level of quality

**Innovation**
Achieving continuous innovation in all corporate activities, and aiming for dynamic evolution and growth

**Strong *Genba-Ryoku* (Workplace Competency)**
Learning from one another and making self-driven efforts to leverage technologies and expertise in order to strengthen workplace competency, which is the foundation of our corporate activities

**Cooperation and Co-creation**
Forming integrated internal linkages and strategic alliances with external partners, and evolving together with society by creating new value

**Emphasis on Human Resources**
Providing motivating work environments where employees can demonstrate their abilities, and building a vibrant corporate culture

**Information Disclosure**
Appropriately disclosing corporate information and enhancing communication with stakeholders in order to maintain management transparency

**Respect for Human Rights**
Fulfilling our responsibility to respect human rights as a good corporate citizen

## Corporate Slogan

# Innovation by Chemistry

Innovation is how the Toray Group delivers on its corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products.” When we say “innovation”, we mean not only development of radically new technologies but also innovation across every other facet of our corporate activity.

We use the word “Chemistry” with two meanings. The first is the science that forms the basis for the advanced materials which we supply. This allows us to create new value and support the development of a sustainable world while maintaining good relationships with everyone who encounters the Toray Group, including customers, employees, shareholders, suppliers, consumers, and local communities. “Chemistry” also means collaboration and rapport. In this spirit, Toray Group companies and business sites around the world work together as-one to deliver innovation.

# Toray Group Sustainability Vision

The Toray Group Sustainability Vision outlines the world as envisioned by the Toray Group in 2050, as well as the challenges that must be undertaken to achieve that goal. It also includes KPIs to be achieved by fiscal 2030 as important milestones.

The vision indicates that the Toray Group's mission is to deliver innovative technologies and advanced materials that provide real solutions to the challenges the world faces with balancing development and sustainability. These challenges include population growth, aging demographics, climate change, water scarcity, and resource depletion.

"We are convinced that the Toray Group can continue to grow without negatively impacting global sustainability. We will do our utmost to address global issues, including the goals of the Paris Agreement and the United Nations Sustainable Development Goals (SDGs), while working closely with our business partners worldwide"—this declaration forms the foundation for TORAY VISION 2030 and indicates the future direction of the Group.

**Toray Group Sustainability Vision**

## Corporate Culture

**Contributing to society through business activities**

The Toray Group has grown through tireless effort, based on a sound understanding of its social responsibilities. Our management foundation has always been rooted in a spirit of public service. This aspiration is reflected in our corporate philosophy of "Contributing to society through the creation of new value with innovative ideas, technologies and products." We are committed to creating innovative materials and new value that help to solve the challenges the world faces, such as global environmental issues, resource and energy issues, and contributing to a world where people everywhere can live long, healthy lives.

**People-centric management**

Since the beginning, the Toray Group has been striving to foster a good sense of social responsibility and high motivation among employees by building a vibrant workplace. The Toray Group holds to the philosophy that the success or failure of a company is decided by its people, and that employees shape its destiny. This approach is widely shared at Toray Group sites worldwide, and the Toray Philosophy is being practiced globally, while respecting regional differences in customs and social concepts.

**Management from a long-term perspective**

Over the decades, the Toray Group has passed down the key phrase, “The deeper, the newer,” and it has become a core part of our heritage. It expresses our determination to dig deep into things and pursue them to their ultimate limit, and our conviction that this always results in new discoveries and inventions. While taking a long-term perspective, Toray ascertains major social issues based on current public needs, and then pursues R&D to create innovative technologies and advanced materials that help solve those issues, while developing and growing its businesses.

**Pioneering spirit**

The Toray Group has always placed great emphasis on R&D as a driving force for corporate growth. By tirelessly pursuing R&D and improving production technology, we have turned superior technology and advanced science into ways to better people’s lives. In addition, the Toray Group has boldly taken on challenges in other areas. Each person at the Toray Group approaches their work with a pioneering spirit. We work together while respecting one another’s individuality and independence, and this collective strength leads to great results.

## President’s Principles

The President’s Principles are core action guidelines that shape how all the people of the Toray Group approach their work.

**Stay focused on the basics, search for ideal approaches, identify the right steps, and then carry them out**

Thoroughly review the facts, clarify current problems and their root causes, and identify tasks and actions to take to create the ideal situation. By doing so, it soon becomes clear what should be done next. In order to solve a problem, we need to get all the relevant people involved, to coordinate everybody, and to take charge of implementing the solution. We need to respond appropriately to changing circumstances and produce results with a sense of urgency.

**All solutions can ultimately be found in the *Genba* (workplace)**

When problem solving, it is important to ascertain and analyze the current situation, organize the facts, and thoroughly investigate the causes. When we focus on the *Genba* and ascertain and analyze the roots causes, it soon becomes clear what needs to be done.

**Consider what is best for the company**

Living up to the corporate philosophy is the top priority in all actions. Based on the idea that everyone is striving to do the right thing, employees with different positions and opinions should have in-depth discussions. In this way, we should take action to achieve “total optimization” for the company or society as a whole, rather than “individual optimization” for a single person or organization. In addition, it is vital that we create a system that helps connect the two.

**Have the integrity to do the right thing in the right way**

When faced with various pressures and temptations, the key is to maintain integrity (truth and honesty) and sincerity (serious and enthusiastic devotion) with a firm conviction and unwavering will to stay on the path you have determined to be right. This is the strong spirit of the Toray Group, and what builds an even stronger Toray Group is each employee in the *Genba* (workplace) doing the right thing in the right way.

Toray Group Corporate Social Responsibility

# Management Strategies and CSR

In order to achieve sustainable growth, corporations must do business in a way that earns the broad trust of stakeholders. Toray Group implements its management strategies and CSR initiatives in an integrated manner, striving to live up to its corporate philosophy, which outlines the principles and values the Group has upheld since the beginning, as well as its reason for being. The Group also seeks to achieve the world envisioned by Toray Group in 2050, which is outlined in the Toray Group Sustainability Vision, ensuring the sustainable development of Toray Group and society as a whole.

Toray Group will strive to accurately ascertain changes in industrial trends over the next decade or so. In May 2020, the Group announced the Long-Term Corporate Vision, TORAY VISION 2030—Achieving sound, sustainable growth and creating social value. The vision will serve as a group-wide compass for achieving sound, sustainable growth, while pursuing business model transformation.

Toray Group also announced the Medium-Term Management Program, Project AP-G 2022 "Resilience and Proactive Management"—Sustainable Growth and New Development. The program covers the three years from fiscal 2020 through fiscal 2022. While maintaining the Group's basic strategy of business expansion through active investment, the Group has also been working on structural reforms and reinforcing the Group's financial structure, initiatives that are designed to facilitate the growth strategy.

With each Medium-Term Management Program, Toray Group also draws up a CSR roadmap. A three-year plan for the Group's efforts on CSR, this roadmap lays out specific initiatives and KPIs. In September 2020, the Group announced the new CSR Roadmap 2022. Under the roadmap, the Group is now facilitating systematic, organization-wide CSR initiatives.

By taking an integrated approach to social responsibility and business growth, Toray Group has positioned itself to make important contributions by helping to solve social issues. The goal is to remain a corporate group of high value to all stakeholders.

**Related Information**

Toray Group Sustainability Vision PDF

> Long-Term Corporate Vision

> Medium-Term Management Program

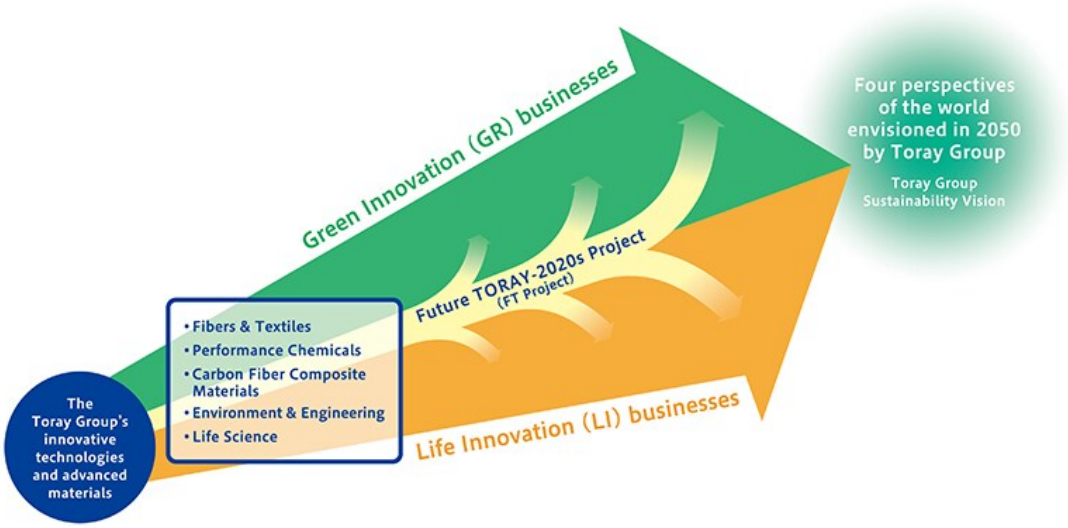
# Long-Term Corporate Vision

## TORAY VISION 2030
## —Achieving sound, sustainable growth and creating social value

Since its foundation, Toray Industries, Inc. has been driven by its core values of contributing to society through business activities, management from a long-term perspective, and people-centric management. Based on these values, the Toray Group has established the Long-Term Corporate Vision, TORAY VISION 2030 (VISION 2030) with the aim of providing new value to society by focusing on the four priorities to build the world envisioned by the Toray Group as set out in the Toray Group Sustainability Vision. KPIs for fiscal 2030 are milestones for realization of the world as envisioned by the Toray Group in 2050. VISION 2030 will be achieved by pursuing co-creation with the customers and business partners that make up the supply chain, all with a materials-oriented approach. The Toray Group will strive to accurately ascertain changes in industrial trends and to achieve sound, sustainable growth while pursuing business model transformation.

### Growth Model for Achieving the Toray Group Sustainability Vision

The Toray Group's mission is to deliver innovative technologies and advanced materials that provide real solutions to the challenges the world faces in balancing development and sustainability. The Toray Group will expand its business in all segments not only by meeting rising demand, but also by creating new demand, especially in Green Innovation (GR) businesses, which help solve global environmental, resource and energy issues, and Life Innovation (LI) businesses, which enhance healthcare and hygiene.
In creating and expanding into new businesses, the Toray Group aims to generate one trillion yen in sales from all new businesses by 2030 by focusing resources, with an emphasis on both quality and quantity, on large-scale themes that can be expected to form individual business domains in the 2020s and accelerating development and business model construction under the Future TORAY-2020s Project (FT Project).




| Green Innovation Businesses | Life Innovation Businesses |
|---|---|

## Toray Group's Long-Term Strategies

The Toray Group will strive to accurately ascertain changes in industrial trends impacted by aging populations, environmental issues, and technological innovation, and to achieve sound, sustainable growth while pursuing business model transformation.

"Sound, sustainable growth" means facilitating our basic strategy of business expansion by carrying out active investment and maximizing the value we create over the medium to long term across the Toray Group. The key to this is strengthening competitiveness by pursuing continuous business model innovation and total cost reduction and strengthening the management foundation to enable investment in growth driven by efficiently invested capital and financial strength.

### Long-term strategies to achieve "sound, sustainable growth"

**1. Global expansion in growth business fields**

- Promote GR businesses that help solve global environmental issues as well as resource and energy issues
- Promote LI businesses that contribute to better medical care and hygiene for people worldwide and support a society where people everywhere can live long, healthy lives

**2. Strengthening competitiveness**

- Create new value through business advancement and high added value creation, thereby providing solutions with a materials-oriented approach to customers and society
- Pursue dramatic cost reductions by setting challenging targets as well as strive to reduce environmental impact

**3. Strengthening the management foundation**

- Improve cash flow and capital efficiency, and balance financial soundness and growth investment
- Reform and revitalize the business and organizational structures of low-growth and low-profitability businesses

## KPIs for Fiscal 2030

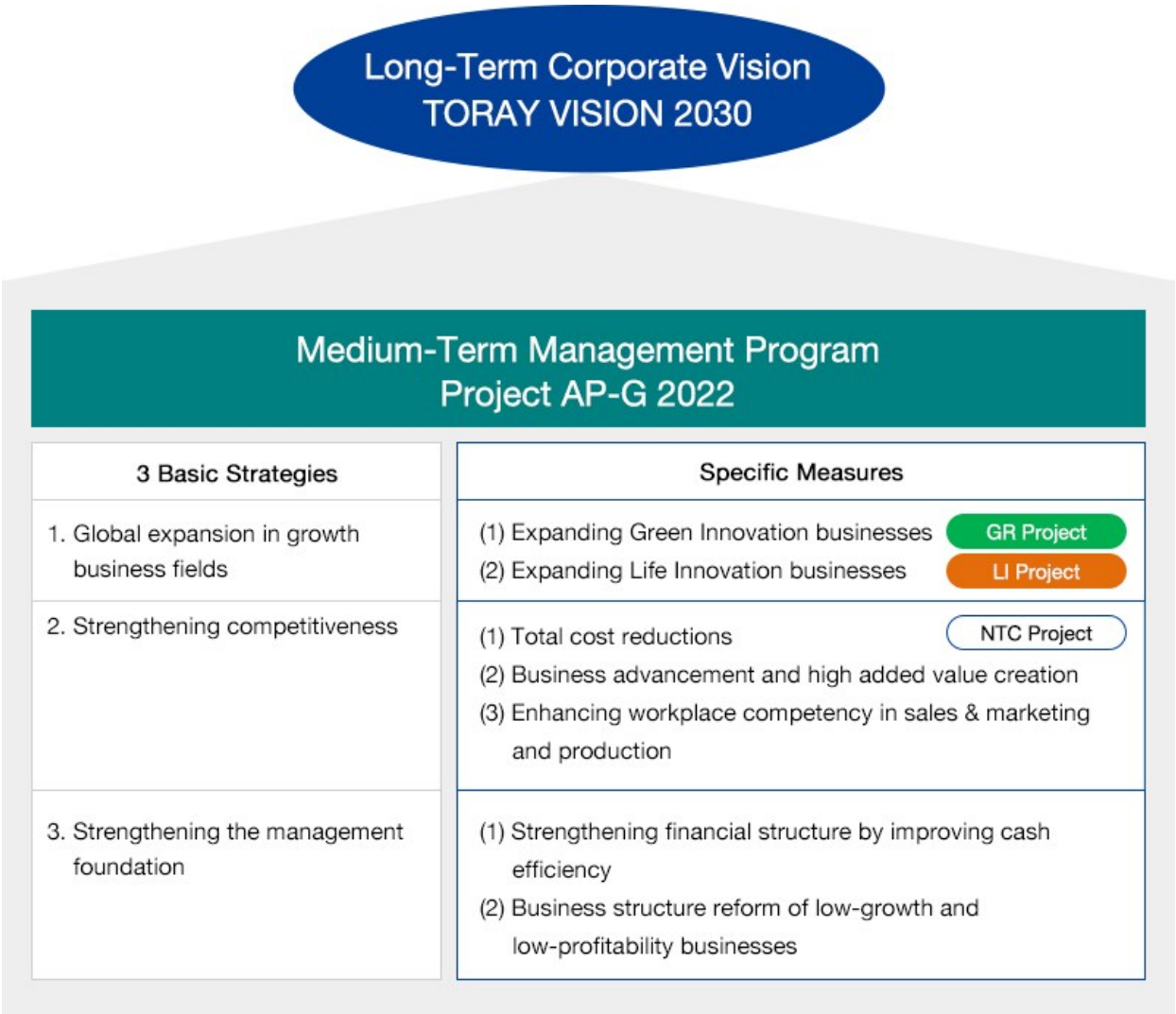
| | FY 2013 Actual (baseline year) (J-GAAP) | FY 2030 Targets (compared to FY 2013) (IFRS) |
|---|---|---|
| Sales of Green Innovation (GR) products | 463.1 billion yen | 4-fold |
| Sales of Life Innovation (LI) products | 119.6 billion yen | 6-fold |
| Contribution to $CO_2$ reduction in value chain | 38.45 million tons | 8-fold |
| Water filtration throughput contribution of Toray's water treatment membranes | 27.23 million tons/day | 3-fold |
| Greenhouse gas emissions per unit of sales in production activities | 337 tons/100 million yen | 30% reduction |
| Water usage per unit of sales in production activities | 15,200 tons/100 million yen | 30% reduction |

**› Long-Term Corporate Vision, TORAY VISION 2030**
**Medium-Term Management Program, Project AP-G 2022**
**(IR Seminar Materials)**

# Medium-Term Management Program

## Project AP-G 2022
## "Resilience and Proactive Management"
## —Sustainable Growth and New Development

Under the Medium-Term Management Program, Project AP-G 2022 (AP-G 2022), a three-year business plan for fiscal 2020 to fiscal 2022, the Toray Group will maintain the basic strategy of business expansion through active investment. The Group will maximize the value it creates over the medium to long term by promoting structural reforms while also reinforcing its financial structure, which will facilitate its growth strategy. It will also build a resilient business foundation that will drive sustainable growth into the future. The aim is to achieve sound, sustainable growth as set out in the Long-Term Corporate Vision, TORAY VISION 2030.
Regarding the anticipated business environment over the coming years, major changes are expected due to aging populations, environmental issues, and technological innovation which create business opportunities. However, there is a risk that existing business areas will contract. For this reason, the Toray Group will strive to accurately grasp changes in industrial trends and to achieve sustainable growth by pursuing business model transformation.
Addressing these trends, AP-G 2022 calls for global expansion in growth business fields, strengthening competitiveness, and strengthening the management foundation as basic strategies. The Toray Group will continue to expand Green Innovation (GR) and Life Innovation (LI) businesses and strengthen competitiveness, while increasing awareness of the balance among profit, cash flow, and asset efficiency in business operations to ensure financial soundness. We will also work on business structure reform for low-growth and low-profitability businesses to formulate a new growth track.
The Toray Group will promote the Green Innovation Business Expansion Project (GR Project), the Life Innovation Business Expansion Project (LI Project), and the New Total Cost Reduction Project (NTC Project) as group-wide projects to ensure execution of these strategies.




## KPIs for Fiscal 2022

### 1. Financial KPIs

| | FY 2019 Actual | | FY 2022 Target (IFRS) |
|---|---|---|---|
| | (J-GAAP) | (IFRS) | |
| Net Sales / Revenue | 2,214.6 billion yen | 2,091.2 billion yen | 2,600.0 billion yen |
| Operating Income / Core Operating Income | 131.2 billion yen | 125.5 billion yen | 180.0 billion yen |
| Operating Income to Net Sales / Core Operating Income to Revenue | 5.9% | 6.0% | 7% |
| ROA | 4.8% | - | About 7% |
| ROE | 5.0% | - | About 9% |
| Free Cash Flow (over 3 years) | -58.1 billion yen | - | 120 billion yen or more |
| D/E ratio | 0.86 | 0.89 | Around 0.8 (guideline) |
| Dividend Payout Ratio | - | - | About 30% |

Exchange rate for AP-G 2022 target: 105 yen / US$

ROA = Operating Income / Total Assets, Core Operating Income / Total Assets

ROE = Net Income Attributable to Owners of Parent, Profit Attributable to Owners of Parent / Owners' Equity

## 2. Sustainability KPIs

| | FY 2013 Actual (baseline year) (J-GAAP) | FY 2019 Actual (compared to FY 2013) (J-GAAP) | FY 2022 Target (compared to FY 2013) (IFRS) |
|---|---|---|---|
| Sales of Green Innovation (GR) products | 463.1 billion yen | 820.1 billion yen | 1,000.0 billion yen |
| Sales of Life Innovation (LI) products | 119.6 billion yen | 223.2 billion yen | 300.0 billion yen |
| Contribution to $CO_2$ reduction in value chain | 38.45 million tons | 5.1-fold | 5.3-fold |
| Water filtration throughput contribution of Toray's water treatment membranes | 27.23 million tons /day | 1.9-fold | 2.4-fold |
| Greenhouse gas emissions per unit of sales in production activities | 337 tons /100 million yen | 12% reduction | 20% reduction |
| Water usage per unit of sales in production activities | 15,200 tons /100 million yen | 23% reduction | 25% reduction |

**› Long-Term Corporate Vision, TORAY VISION 2030**
**Medium-Term Management Program, Project AP-G 2022**
**(IR Seminar Materials)**

Toray Group Corporate Social Responsibility

# Toray Group Corporate Social Responsibility Initiatives

## CSR Guidelines

Toray Group has established CSR Guidelines to govern its CSR initiatives. Intended to be comprehensive, they cover aspects from corporate governance to social contribution. The CSR Guidelines consist of ten themes, each of which is assigned an implementation leader.

| CSR Guidelines |
| --- |
| **1. Corporate Governance**<br>Continually revise management systems, strengthen internal controls as part of efforts to fulfill the company's social responsibilities. |
| **2. Ethics and Compliance**<br>Ensure all executives and employees uphold a sense of responsibility, fairness and high ethical standards, and act with a keen sense of compliance to maintain the trust of society. |
| **3. Safety, Accident Prevention, and Environmental Preservation**<br>Ensure the safety and health of society and employees, and protect the environment in all business processes, from procuring raw materials and manufacturing to the supply and disposal of products. |
| **4. Product Quality and Safety**<br>Provide safe, highly reliable products by striving to enhance management systems for product quality assurance and safety, and disclose appropriate information. |
| **5. Risk Management**<br>Under normal conditions, assess and analyze risks, and strive to mitigate and prevent them from materializing; and in the event of a crisis that could have a significant impact on management activities, strive to prevent damage from increasing, by bringing the situation quickly under control and normalizing conditions with a prompt and appropriate response. |
| **6. Communication**<br>Disclose corporate information in an active, fair and straightforward manner to maintain management transparency; and disclose information appropriately to encourage dialogue and cooperation with stakeholders including customers, employees, stockholders, business partners, consumers, mass media, and other parties. |

| CSR Guidelines |
| --- |
| **7. Contributing Solutions to Social Issues through Business Activities**<br>Leverage innovation to address global-scale environmental issues such as climate change and provide solutions for various social issues such as the need to improve the quality of medical care, the need to reduce the burden on medical staff, health maintenance and longevity, and personal safety, thereby helping to build a more sustainable world. |
| **8. Human Rights Promotion and Human Resources Development**<br>Respect human rights, provide safe and healthy workplaces for employees, secure and train personnel, and diversify while striving to protect employment. |
| **9. Facilitating CSR Initiatives Throughout the Supply Chain**<br>Promote CSR initiatives in areas including environmental preservation and human rights throughout the entire supply chain by working closely with suppliers, processing vendors, customers and distribution companies. |
| **10. Social Contribution Activities as a Good Corporate Citizen**<br>Proactively participate in local communities and the larger society in order to contribute to development in a way betting a good corporate citizen. |

## CSR Roadmap

Every three years Toray Group draws up a CSR roadmap based on its CSR Guidelines. This serves as the Group's medium-term plan for executing CSR initiatives. Under this roadmap, specific action goals as well as key performance indicators (KPIs) are set to quantitatively monitor yearly progress.

**Related Information**

Click here for the CSR Roadmap 2022, which covers the period from fiscal 2020 to fiscal 2022.

## "CSR Guideline Activities" and "CSR Line Activities"

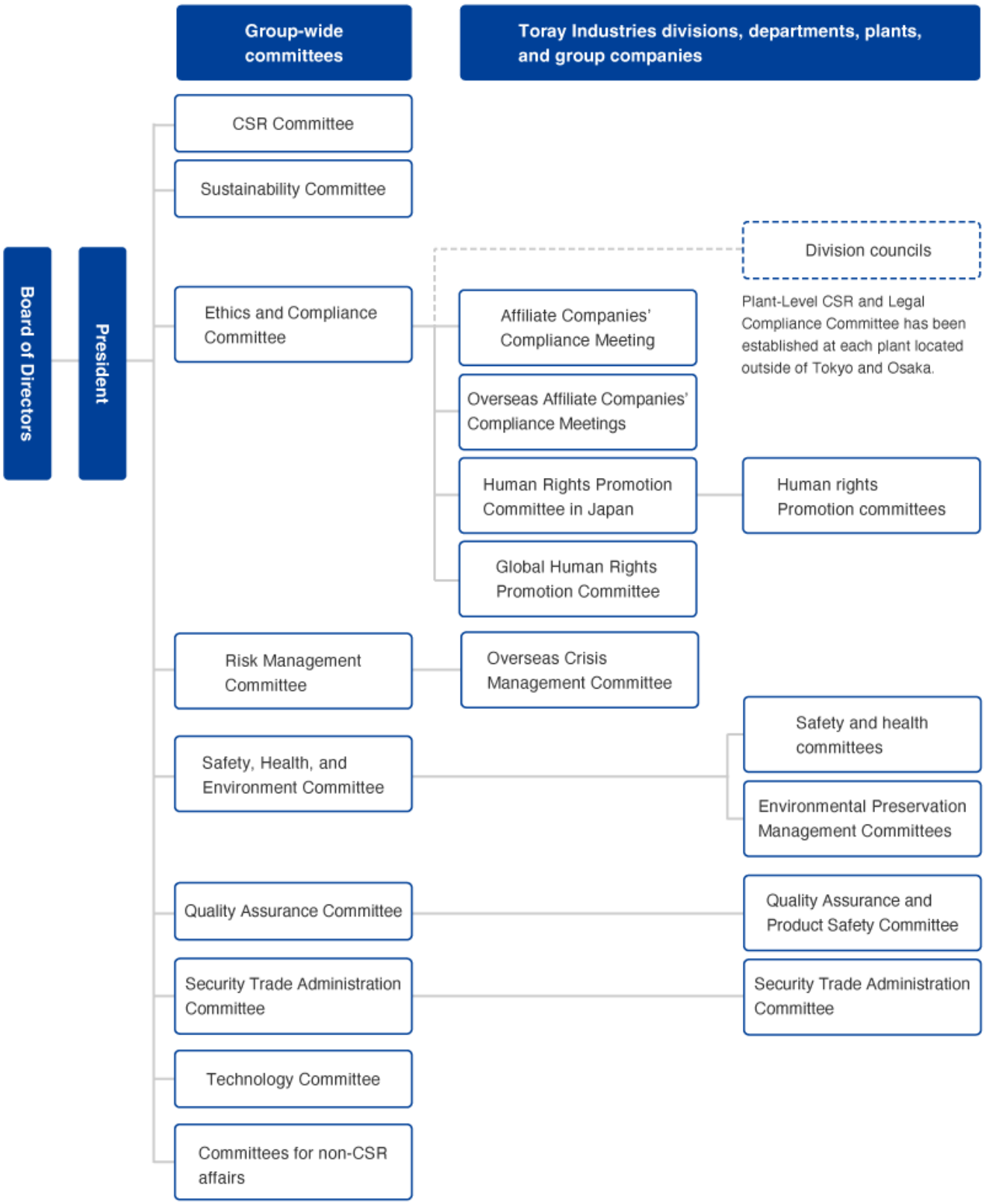
Toray Group implements "CSR Guideline activities" (group-wide CSR activities) and "CSR line activities" (workplace-driven CSR activities) in parallel. The former are driven by the entire organization based on the CSR Guidelines, while the latter are pursued by individual divisions.

## Organizational Structure for Social Responsibility

Toray Group's CSR Committee (headed by the chief CSR officer) serves as a group-wide deliberative organization for important issues concerning social responsibility. The committee is aligned with seven other group-wide committees and works to promote CSR activities. The issues discussed by the CSR Committee are reported to the Board of Directors.

In addition, each group company has its own CSR-related committee and committee meetings, comprising a structure for promoting CSR throughout the entire Toray Group.

## Committee and Implementation Organization




**Related Information**

The following page reports on the prevalence of CSR activities at Toray Group.

> Communication with Employees

# CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)

In 2020, Toray Group released its new CSR roadmap for fiscal 2020 through 2022. Instead of calling it the “Seventh CSR Roadmap,” the Group named it the “CSR Roadmap 2022” to better clarify its connection with the Medium-Term Management Program, Project AP-G 2022.
The CSR Roadmap 2022 includes three perspectives: (1) Achieving the Toray Group Sustainability Vision, (2) Remaining a highly valuable corporate group, and (3) Enhancing the Toray Group’s CSR activities. Based on these three perspectives, the Group has set action goals, mapped out major initiatives, and determined key performance indicators (KPIs) for each of the ten themes in its CSR Guidelines. Toray Group is committed to making constant progress in the area of CSR.

For more information on the CSR Roadmap 2022, refer to the PDF file below.

CSR Roadmap 2022 (FY 2020 - FY 2022)

The CSR Roadmap 2022 is directly linked to TORAY VISION 2030 and Project AP-G 2022. These management strategies are designed to ensure the Group lives up to its corporate philosophy, which includes the principles and values it has upheld since the beginning, and which is also its reason for being and purpose. The new roadmap also aims to achieve sustainable development for the Group and society as a whole, as well as the Toray Group Sustainability Vision, ensuring that Toray Group remains a highly valuable corporate group that is respected by society.
The relationship between CSR, the Toray Group Sustainability Vision, the Toray Philosophy, and our management strategies is illustrated by the following diagram.



(PDF:2.2MB) PDF

## CSR Roadmap 2022 KPI List

Toray Group sets KPIs and quantitatively manages annual progress on its main initiatives for each of the ten themes in its CSR Guidelines.

| | KPI (Key Performance Indicators) | Targets | | | Reporting Scope |
|---|---|---|---|---|---|
| | | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| 1 Corporate Governance | ❶ Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number) | 8 times | 8 times | 8 times | ※1 |
| | ❷ Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%) | 90% | 90% | 90% | ※1 |
| 2 Ethics and Compliance | ❶ Number of major violations of laws or ordinances | 0 | 0 | 0 | ※1 |
| | ❷ Implementing internal legal audits of group companies, group companies improving problems found in internal legal audits in the previous year (%) | Audits: Conduct at Toray Industries, Inc. and its group companies in and outside Japan<br>Percent that improved: 100% for all audits by the following fiscal year | | | ※1 |

(PDF:84KB) PDF

## Relationship between the CSR Guidelines and SDGs/ESG Categories

The relationship between each theme of the Toray Group CSR Guidelines and the SDGs/ESG categories is shown in this comparative table.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 GOOD HEALTH AND WELL-BEING | | | ● | | | | ● | | | ● |
| 4 QUALITY EDUCATION | | | | | | | | ● | | ● |
| 5 GENDER EQUALITY | | | | | | | | ● | ● | ● |
| 6 CLEAN WATER AND SANITATION | | | ● | | | | ● | | | ● |
| 7 AFFORDABLE AND CLEAN ENERGY | | | ● | | | | ● | | | |
| 8 DECENT WORK AND ECONOMIC GROWTH | | | ● | | | | | ● | ● | ● |

(PDF:87KB) PDF

# CSR Roadmap 2022 (FY 2020 - FY 2022)

The CSR Roadmap 2022 is directly linked to TORAY VISION 2030 and Project AP-G 2022. These management strategies are designed to ensure the Group lives up to its corporate philosophy, which includes the principles and values it has upheld since the beginning, and which is also its reason for being and purpose. The new roadmap also aims to achieve sustainable development for the Group and society as a whole, as well as the Toray Group Sustainability Vision, ensuring that Toray Group remains a highly valuable corporate group that is respected by society.

The relationship between CSR, the Toray Group Sustainability Vision, the Toray Philosophy, and our management strategies is illustrated by the following diagram.

Figure 1. The relationship between CSR, the Toray Group Sustainability Vision, the Toray Philosophy, and our management strategies

By setting specific goals for each theme of our CSR Guidelines, listing as “main initiatives” what needs to be done to achieve the goals, and setting KPIs from the following three perspectives, the CSR Roadmap 2022 aims for measurable achievements.

## Three Perspectives for CSR Roadmap 2022

| | |
|---|---|
| (1) | **Achieving the Toray Group Sustainability Vision**<br>Achieve the Toray Group Sustainability Vision, with a direct link to the TORAY VISION 2030 and Project AP-G 2022, thereby contributing to the sustainable development of Toray Group and society as a whole |
| (2) | **Remaining a highly valuable corporate group**<br>Taking into account the expectations of the international community, address issues such as safety, ethics and compliance, human rights promotion and human resources development, and social contribution, in order to remain a corporate group that is highly valuable to all stakeholders |
| (3) | **Enhancing the Toray Group’s CSR activities**<br>Encourage each employee of Toray Group to embrace the Toray Philosophy and foster greater awareness of CSR, further deepening initiatives across Toray Group to create the ideal situation |

By systematically implementing the CSR Roadmap 2022, build a foundation for the sustainable development of Toray Group and society as a whole based on the CSR perspective.

# 1 Corporate Governance

【Implementation leader】
General Manager of Corporate Strategic Planning Division
（Department responsible for implementation: Corporate Strategic Planning Division）

**Continually revise management systems, strengthen internal controls as part of efforts to fulfill the company's social responsibilities.**

## CSR Roadmap goals

(1) Further improve governance by ensuring that Board of Directors operates in a manner that contributes to the enhancement of corporate value over the medium to long term.
(2) Perform monitoring based on the Basic Policy for Internal Control Systems, in accordance with Japan's Companies Act.

## Main initiatives

| | | KPI |
|---|---|---|
| (1) | Regularly hold Toray Group Business Strategy Discussion sessions at Board of Directors meetings | 1-❶ |
| (2) | Consider the appropriate form of Toray head office involvement in the execution of business at each group company from the viewpoint of balancing the effectiveness of group-wide governance with the dynamic decision-making of subsidiaries | — |
| (3) | Expand the opportunities for training, etc., needed for directors and corporate auditors to acquire the knowledge necessary for their responsibilities (excluding execution) and to fulfill their roles appropriately | — |
| (4) | Operate an effective internal control system | 1-❷ |

# 2 Ethics and Compliance

【Implementation leader】
General Manager of
Legal & Compliance Division
（Department responsible for implementation: Compliance Department）

**Ensure all executives and employees uphold a sense of responsibility, fairness and high ethical standards, and act with a keen sense of compliance to maintain the trust of society**

## CSR Roadmap goals

(1) No major cases throughout the Toray Group of non-compliance with or violation of bribery regulations, antitrust laws, etc
(2) Implement monitoring to raise ethical and compliance awareness throughout Toray Group
(3) Enhance awareness-raising and educational activities relating to corporate ethics and compliance

## Main initiatives

| | | KPI |
|---|---|---|
| (1) | Aim for no major cases of non-compliance with or violations of laws and regulations | 2-❶ |
| (2) | Practice appropriate transactions based on free, fair, and transparent market competition | — |
| (3) | Prohibit any association with organized criminal groups or other anti-social forces and take a firm stance against them | — |
| (4) | Conduct internal legal audits and improve problems found in the audits | 2-❷ |
| (5) | Appropriately operate a whistle-blowing system [Related Main initiative] 8-(3) | — |
| (6) | Thoroughly disseminate the Ethics & Compliance Code of Conduct | — |
| (7) | Provide information and implement education on major laws and regulations and other compliance-related matters | 2-❸ |

## Related Materiality for CSR

- Corporate ethics and legal compliance

# 3 Safety, Accident Prevention, and Environmental Preservation

【Implementation leader】
General Manager of Manufacturing Division（Dept. responsible for implementation: Environment & Safety Dept.）: Main initiatives (1)-(5)、(8)-(13)、General Manager of Engineering Division（Dept. responsible for implementation: Second Engineering Dept.）: Main initiatives(6)(7)

**Ensure the safety and health of society and employees, and protect the environment in all business processes, from procuring raw materials and manufacturing to the supply and disposal of products**

## CSR Roadmap goals

(1) Place the highest priority on safety, thoroughly uphold the basic rules, and strive to prevent disasters and accidents
(2) Reduce environmental impact by working to fulfill the Medium-Term Environmental Plan
(3) Pursue environmental and biodiversity preservation on the basis of policies on water resources and biodiversity

## Main initiatives

| | Safety | KPI |
|---|---|---|
| (1) | Aim for zero major accidents | 3-❶ |
| (2) | Achieve world's best standard for safety management | 3-❷ |
| (3) | Create a comfortable working environment to ensure the safety and health of employees and to raise the level of safety and health | — |
| | **Accident Prevention** | |
| (4) | Aim for zero fire and explosion accidents | 3-❸ |
| | **Environmental Prevention** | |
| (5) | Aim for zero environmental accidents | 3-❹ |
| (6) | Reduce greenhouse gas emissions per unit of revenue [Related initiatives] 7-(3)(5)(6), 9-(3)(4) | 3-❺ |
| (7) | Reduce water consumption per unit of revenue | 3-❻ |
| (8) | Reduce atmospheric VOC[1] emissions | 3-❼ |
| (9) | Aim for a high waste recycling rate [Related main initiatives] 7-(5)(6) | 3-❽ |
| (10) | Conduct a survey of palm oil contained in raw materials and switch to certified products | 3-❾ |
| (11) | Systematically adopt renewable energy [Related main initiatives] 7-(6) | — |
| (12) | Reduce atmospheric emissions of substances subject to the PRTR Act[2] | — |
| (13) | Pursue the greening of each site in consideration of the regulations of each country and region and harmony with the surrounding environment [Related main initiatives] 10-(4) | — |

[1] Volatile organic compounds
[2] Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

## Related Materiality for CSR

- Ensuring safety and disaster preparedness
- Initiatives for managing water resources
- Addressing resource and energy issues
- Reducing greenhouse gas emissions
- Addressing substances with negative environmental impact
- Conserving biodiversity

# 4 Product Quality and Safety

【Implementation leader】
General Manager of Quality Assurance Div.
（Dept. responsible for implementation:
Quality Assurance Planning & Administration Dept.、
Product Safety Planning & Administration Dept.）

**Provide safe, highly reliable products by striving to enhance management systems for product quality assurance and safety, and disclose appropriate information.**

## CSR Roadmap goals

(1) Achieve zero product accidents
(2) Enhance the group-wide framework for product safety and quality assurance

## Main initiatives

| | | KPI |
|---|---|---|
| (1) | Aim for zero product accidents | 4-❶ |
| (2) | Establish a system to audit effectiveness of improvement and continuity of Toray Group's overall quality assurance framework | — |
| (3) | Introduce a group-wide quality control system with fraud prevention features | — |
| (4) | Prepare and build a quality assurance system that covers quality assurance and quality control functions in each business | — |
| (5) | Provide quality assurance and product safety education | 4-❷ |

## Related Materiality for CSR

- Ensuring product quality and safety

# 5 Risk Management

【Implementation leader】
General Manager of Corporate Strategic Planning Division
（Department responsible for implementation: Corporate Strategic Planning Division）

**Under normal conditions, assess and analyze risks, and strive to mitigate and prevent them from materializing; and in the event of a crisis that could have a significant impact on management activities, strive to prevent damage from increasing, by bringing the situation quickly under control and normalizing conditions with a prompt and appropriate response**

## CSR Roadmap goals

(1) Strengthen corporate risk management throughout the Toray Group and mitigate risks
(2) Instill greater risk management among employees by rolling out risk management education throughout the Toray Group

## Main initiatives

| | | KPI |
|---|---|---|
| (1) | Follow up on Toray's priority risks | 5-❶ |
| (2) | Conduct periodic risk management (priority risk mitigation activities through a three-year cycle) and routine risk management (observing trends in and outside Japan, and establish a group-wide system to respond to risks that may have a significant impact on management, as identified through research and analysis, as "specified risks"); and in the event of a group-wide crisis, respond appropriately in accordance with the Risk Management Regulations | — |
| (3) | Regarding major earthquakes in Japan, prepare and regularly review business continuity plans for key products, and conduct regular drills to establish a group-wide emergency response headquarters | — |
| (4) | Regarding information security risks, monitor and bolster the contents of communications and enhance education and training on the risk of cyberattacks and information leakage | — |
| (5) | Provide risk management education | 5-❷ |

# 6 Communication

【Implementation leader】
General Manager of General Administration & Communications Div.
（Department responsible for implementation: Corporate Communication Dept.）

**Disclose corporate information in an active, fair and straightforward manner to maintain management transparency; and disclose information appropriately to encourage dialogue and cooperation with stakeholders including customers, employees, stockholders, business partners, consumers, mass media, and other parties**

## CSR Roadmap goals

(1) Reflect results of dialogue and collaboration with each stakeholder group in management activities in a timely and appropriate manner
(2) Reflect information obtained through dialogue and collaboration with each stakeholder group in management decisions in a timely and appropriate manner

## Main initiatives

| | | KPI |
|---|---|---|
| (1) | Actively dispatch information on the Toray Philosophy and use education to ensure it is embraced throughout the Group | — |
| (2) | Strengthen the dissemination of information via websites | 6-❶ |
| (3) | Facilitate exchange of opinions between management and employees | 6-❷ |
| (4) | Facilitate communication between management and stockholders and investors | 6-❸ |
| (5) | Encourage communication with mass media | 6-❹ |
| (6) | Work to utilize various tools and strengthen systems in order to effectively disseminate information and promote dialogue in response to digitalization and globalization | — |

# 7 Contributing Solutions to Social Issues through Business Activities

【Implementation leader】
Director in charge of Global Environment Business Strategic Planning Dept. and Life Innovation Business Strategic Planning Dept.
（Department responsible for implementation: Global Environment Business Strategic Planning Dept., Life Innovation Business Strategic Planning Dept.）

**Leverage innovation to address global-scale environmental issues such as climate change and provide solutions for various social issues such as the need to improve the quality of medical care, the need to reduce the burden on medical staff, health maintenance and longevity, and personal safety, thereby helping to build a more sustainable world.**

## CSR Roadmap goals

Help address social issues by developing innovative materials and new technologies, focusing on the fields of Green Innovation and Life Innovation

## Main initiatives

| | | KPI |
|---|---|---|
| (1) | Increase revenue from Green Innovation products | 7-❶ |
| (2) | Increase revenue from Life Innovation products | 7-❷ |
| (3) | Expand contribution to $CO_2$ reduction in the value chain [Related main initiatives] 3-(6)、9-(3)(4) | 7-❸ |
| (4) | Expand water filtration throughput contribution by Toray's water treatment membranes [Related main initiatives]3-(7) | 7-❹ |
| (5) | Conduct a wide variety of product research and technology development to help build a low-carbon, circular economy [Related main initiatives]3-(6)(7)(9) | — |
| (6) | Contribute to the utilization of biomass in and recycling of plastic products, the spread of renewable energy and hydrogen, and the reuse of water resources [Related main initiatives]3-(6)(7)(9)(11) | — |
| (7) | Contribute to countermeasures to public health risks, including infectious diseases, by developing and upgrading materials and products for protective clothing and personal protective equipment, as well as materials to protect environmental hygiene including of air and water | — |

## Related Materiality for CSR

- Contributing to the solution of environmental issues through business activities
- Contributing to health maintenance and longevity through business activities
- Initiatives for managing water resources

# 8 Human Rights Promotion and Human Resources Development

【Implementation leader】
General Manager of
Personnel & Industrial Relations Division
（Department responsible for implementation:
Personnel Dept., Life Industrial Relations Dept.）

**Respect human rights, provide safe and healthy workplaces for employees, secure and train personnel, and diversify while striving to protect employment.**

## CSR Roadmap goals

(1) Respect for human rights and fair promotion based on ability throughout the Toray Group by eliminating discrimination based on race, gender, education, nationality, religion, and physical attributes

(2) Ensure work environments take into consideration employees' health and build a vibrant and rewarding workplace culture group-wide, working systematically to secure and train personnel

## Main initiatives

| Human Rights Promotion | | KPI |
|---|---|---|
| (1) | Implement human rights education and training | 8-❶ |
| (2) | Achieve the legally mandated employment rate of persons with disabilities | 8-❷ |
| (3) | Operate a whistle-blowing system and consultation service at each Toray Group company to promptly and appropriately respond to problems in an effort to reduce human rights risks [Related main initiatives]2-(5)、9-(2) | — |
| **Human Resources Development** | | |
| (4) | As part of career develop initiatives for core staff, use the career path worksheets included in the new personnel information system | 8-❸ |
| (5) | Systematically hire, develop, and appoint core staff outside Japan | — |
| (6) | Create workplace environments in which women will feel comfortable performing their duties | — |
| (7) | Support the return to work from long-term childcare leave | 8-❹ |
| (8) | Reduce the number of employees who exceed non-statutory working hours | 8-❺ |
| (9) | Encourage the use of annual paid leave by labor union members | 8-❻ |

## Related Materiality for CSR

- Respecting human rights
- Securing and developing human resources
- Creating a positive workplace

# 9 Facilitating CSR Initiatives Throughout the Supply Chain

【Implementation leader】
General Manager of Purchasing & Logistics Division（Department responsible for Implementation: Purchasing & Logistics Planning & Administration Dept.）

**Promote CSR initiatives in areas including environmental preservation and human rights throughout the entire supply chain by working closely with suppliers, processing vendors, customers and distribution companies.**

## CSR Roadmap goals

To ensure socially responsible procurement by the Toray Group, request major suppliers and business partners to practice CSR and work with suppliers to promote greater awareness of human rights, social, and environmental issues

## Main initiatives

| | | KPI |
|---|---|---|
| (1) | Request suppliers to practice CSR, including by conducting CSR surveys and audits, and having them make pledges, and strive to understand the status of each company's CSR initiatives | 9-❶❷ |
| (2) | Address issues in the supply chain such as human rights challenges and conflict mineral issues [Related main initiatives] 8-(3) | — |
| (3) | Reduce $CO_2$ emissions intensity from distribution activities [Related main initiatives]3-(6)、7-(3) | 9-❸ |
| (4) | Promote modal shift[3] across distances of 500 km or more [Related main initiatives]3-(6)、7-(3) | 9-❹ |
| (5) | Continually work to reduce the environmental impact and improve the quality of distribution activities | — |
| (6) | In accordance with the Declaration of Voluntary Activities for the White Logistics Movement,[4] contribute to sustainable logistics, for instance by selecting logistics companies that are engaged in working style reform, etc. | — |

[3] The shifting of freight transportation by truck or other vehicle to railways and ships, which have a smaller environmental impact
[4] A movement aimed at ensuring stable logistics function necessary for people's lives and for industrial activities while also contributing to economic growth in response to the shortage of truck drivers

## Related Materiality for CSR

- Managing social and environmental impact of suppliers

# 10 Social Contribution Activities as a Good Corporate Citizen

【Implementation leader】
General Manager of General Administration & Communications Div.
（Department responsible for implementation: CSR Operations Dept.）

**Proactively participate in local communities and the larger society in order to contribute to development in a way betting a good corporate citizen.**

## CSR Roadmap goals

(1) As a member of society, implement social contribution activities that help to solve the global issues addressed by the SDGs and other initiatives
(2) Voluntarily and continuously engage in the priority areas of “science and technology promotion,” “environment and communities,” and “health and welfare”

## Main initiatives

| | | KPI |
|---|---|---|
| (1) | Implement social contribution activities at the appropriate scale | 10-❶ |
| (2) | Actively engage in social contribution activities that are distinctive of Toray Group, focusing on science and technology promotion | — |
| (3) | Promote social contribution activities in collaboration with stakeholders such as local communities and non-profit organizations | — |
| (4) | Educate employees in Toray Group in order to instill the significance of social contribution, and encourage each site to continually participate voluntarily and actively in social contribution activities [Related main initiatives]3-(13) | 10-❷ |
| (5) | Develop a wide range of educational support activities such as sending employees to teach science, environmental, and career education classes at schools | 10-❸ |
| (6) | Support the improvement and development of science and technology and the promotion of science education through the activities of Toray science foundations in and outside Japan | — |
| (7) | Share information with internal and external stakeholders on Toray Group’s social contribution activities via websites and other means | — |

# CSR Roadmap 2022 KPI List

Reporting Scope：※1: Toray Group Companies、※2: Toray Industries, Inc.

| | KPI (Key Performance Indicators) | Targets | | | Reporting Scope |
|---|---|---|---|---|---|
| | | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| 1 Corporate Governance | ❶ Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number) | 8 times | 8 times | 8 times | ※ 1 |
| | ❷ Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%) | 90% | 90% | 90% | ※ 1 |
| 2 Ethics and Compliance | ❶ Number of major violations of laws or ordinances | 0 | 0 | 0 | ※ 1 |
| | ❷ Implementing internal legal audits of group companies, group companies improving problems found in internal legal audits in the previous year (%) | Audits: Conduct at Toray Industries, Inc. and its group companies in and outside Japan<br>Percent that improved: 100% for all audits by the following fiscal year | | | ※ 1 |
| | ❸ Group companies providing information and implementing education on major laws and regulations and other compliance-related matters (%) | 100% | 100% | 100% | ※ 1 |
| 3 Safety, Accident Prevention, and Environmental Preservation | ❶ Number of major accidents | 0 | 0 | 0 | ※ 1 |
| | ❷ Achieve world's best standard for safety management (not exceeding 0.05 frequency rate for occupational accidents resulting in lost work time) | No more than 0.05 | No more than 0.05 | No more than 0.05 | ※ 1 |
| | ❸ Number of fire and explosion accidents | 0 | 0 | 0 | ※ 1 |
| | ❹ Number of environmental accidents | 0 | 0 | 0 | ※ 1 |
| | ❺ Reduction of greenhouse gas emissions per unit of revenue (%) | At least 20% lower than fiscal 2013 (Fiscal 2022) | | | ※ 1 |
| | ❻ Water usage per unit of revenue (%) | At least 25% lower than fiscal 2013 (Fiscal 2022) | | | ※ 1 |
| | ❼ Reduction of atmospheric VOC emissions (%) | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | ※ 1 |
| | ❽ Waste recycling rate (%) | At least 86% | At least 86% | At least 86% | ※ 1 |
| | ❾ Conduct a survey of palm oil contained in raw materials (%) | Usage survey of certifiied products : 100% | Decision making (Yes/No) of shifting to certified raw materials : 100% (Fiscal 2022) | | ※ 2 |
| 4 Product Quality and Safety | ❶ Number of product accidents | 0 | 0 | 0 | ※ 1 |
| | ❷ Group companies implementing product quality assurance and safety education (%) | 100% | 100% | 100% | ※ 1 |
| 5 Risk Management | ❶ Group companies conducting follow-up on the Toray Group's priority risks (%) | 100% | 100% | 100% | ※ 1 |
| | ❷ Group companies implementing risk management education (% achieved compared to the plan at the beginning of the fiscal year) | 100% | 100% | 100% | ※ 1 |

| | KPI (Key Performance Indicators) | Targets | | | Reporting Scope |
|---|---|---|---|---|---|
| | | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| 6 Communication | ❶ Number of corporate website page views (per month) | 1 million page views | 1 million page views | 1 million page views | ※ 2 |
| | ❷ Interviews conducted to exchange opinions within the company (rate of progress) | 40% | 60% | 80% | ※ 1 |
| | ❸ Interviews with key investors in which management participates (number) | Cumulative total of 80 | Cumulative total of 80 | Cumulative total of 80 | ※ 1 |
| | ❹ News releases (number) | 200 | 200 | 200 | ※ 1 |
| 7 Contributing Solutions to Social Issues through Business Activities | ❶ Revenue of Green Innovation products (IFRS) | 1,000 billion yen（Fiscal 2022） | | | ※ 1 |
| | ❷ Revenue of Life Innovation products (IFRS) | 300 billion yen（Fiscal 2022） | | | ※ 1 |
| | ❸ Contribution to $CO_2$ reduction in value chain[3] | 5.3 times compared to fiscal 2013（Fiscal 2022） | | | ※ 1 |
| | ❹ Contribution of Toray water treatment products[4] | 2.4 times compared to fiscal 2013（Fiscal 2022） | | | ※ 1 |
| 8 Human Rights Promotion and Human Resources Development | ❶ Group companies implementing human rights education and training (%) | 100% | 100% | 100% | ※ 1 |
| | ❷ Group companies that have achieved legally mandated employment rate of persons with disabilities (%) | 100% | 100% | 100% | Toray Group（Japan） |
| | ❸ Career development of core staff using the new personnel information system (% of staff using a career path worksheet) | 20% | 30% | 100% | ※ 2 |
| | ❹ Employees returning to work from childcare leave (%) | 100% | 100% | 100% | Employees of Toray Industries, Inc. |
| | ❺ Reduction in employees who exceed 45 hours/month of non-statutory working hours (%) | Year-on-year reduction | Year-on-year reduction | Year-on-year reduction | ※ 2 |
| | ❻ Available annual paid leave used by labor union members (%) | About 90% | About 90% | About 90% | ※ 2 |
| 9 Facilitating CSR Initiatives throughout the Supply Chain | ❶ Group companies requesting their suppliers to practice CSR (%) | At least 80% | At least 90% | At least 95% | ※ 1 |
| | ❷ Suppliers confirming the status of CSR initiatives as requested by Toray Group (%) | At least 70% | At least 70% | At least 70% | ※ 1 |
| | ❸ Reduction in $CO_2$ emissions intensity from distribution activities (year-on-year) | 1% | 1% | 1% | Toray Group（Only specified consigners） |
| | ❹ Modal shift to sea or rail for transport across distances for 500 km or more (%) | 40%（Fiscal 2022 target） | | | ※ 2 |
| 10 Social Contribution Activities as a Good Corporate Citizen | ❶ Social contribution expenditure (% change from average expenditure over last six years) | 100% or higher | 100% or higher | 100% or higher | ※ 1 |
| | ❷ Social contribution activities (number) | 2,500 or more | 2,500 or more | 2,500 or more | ※ 1 |
| | ❸ Beneficiaries of educational support activities such as science classes for schools and career education (number) | 15,000 or more | 15,000 or more | 15,000 or more | ※ 1 |

[3] Toray calculates the $CO_2$ 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).
[4] 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.

# Relationship between CSR Guidelines and SDGs and ESG Categories

| SDGs and ESG Categories \ CSR Guideline | | 1 Corporate Governance | 2 Ethics and Compliance | 3 Safety,Accident Prevention, and Environmental Preservation | 4 Product Quality and Safety | 5 Risk Management | 6 Communication | 7 Contributing Solutions to Social Issues through Business Activities | 8 Human Rights Promotion and Human Resources Development | 9 Facilitating CSR Initiatives Throughout the Supply Chain | 10 Social Contribution Activities as a Good Corporate Citizen |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDGs | 1 NO POVERTY | | | | | | | | | | ● |
| | 2 ZERO HUNGER | | | | | | | ● | | | ● |
| | 3 GOOD HEALTH AND WELL-BEING | | | ● | | | | ● | | | ● |
| | 4 QUALITY EDUCATION | | | | | | | | ● | | ● |
| | 5 GENDER EQUALITY | | | | | | | | ● | ● | ● |
| | 6 CLEAN WATER AND SANITATION | | | ● | | | | ● | | | ● |
| | 7 AFFORDABLE AND CLEAN ENERGY | | | ● | | | | ● | | | |
| | 8 DECENT WORK AND ECONOMIC GROWTH | | | ● | | | | | ● | ● | ● |
| | 9 INDUSTRY,INNOVATION AND INFRASTRUCTURE | | | ● | | | | ● | | | ● |
| | 10 REDUCED INEQUALITIES | | | | | | | | ● | ● | |
| | 11 SUSTAINABLE CITIES AND COMMUNITIES | | | ● | | ● | | | | | ● |
| | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | | | ● | ● | | ● | ● | | ● | ● |
| | 13 CLIMATE ACTION | | | ● | | ● | ● | ● | | | ● |
| | 14 LIFE BELOW WATER | | | ● | | | | ● | | | ● |
| | 15 LIFE ON LAND | | | ● | | | | ● | | | ● |
| | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS | ● | ● | | | | | | ● | | |
| | 17 PARTNERSHIPS FOR THE GOALS | | | | | | ● | | | | ● |
| ESG Categories | E Environment | | | ● | | | | ● | | ● | ● |
| | S Social | | | ● | ● | | ● | ● | ● | ● | ● |
| | G Governance | ● | ● | | ● | ● | | | | | |

## Progress on CSR Roadmap 2022 KPIs in Fiscal 2021

| CSR Guidelines | CSR Roadmap goals | Key performance indicators | Reporting Scope[1] |
|---|---|---|---|
| 1 Corporate Governance<br><br>Continually revise management systems, strengthen internal controls as part of efforts to fulfill the company's social responsibilities. | (1) Further improve governance by ensuring that Board of Directors operates in a manner that contributes to the enhancement of corporate value over the medium to long term.<br>(2) Perform monitoring based on the Basic Policy for Internal Control Systems, in accordance with Japan's Companies Act. | ❶ Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number) | ❶ Toray Group |
| | | ❷ Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%) | ❷ Toray Group |
| 2 Ethics and Compliance<br><br>Ensure all executives and employees uphold a sense of responsibility, fairness and high ethical standards, and act with a keen sense of compliance to maintain the trust of society | (1) No major cases throughout the Toray Group of non-compliance with or violation of bribery regulations, antitrust laws, etc<br>(2) Implement monitoring to raise ethical and compliance awareness throughout Toray Group<br>(3) Enhance awareness-raising and educational activities relating to corporate ethics and compliance<br><br>Related Materiality for CSR<br>● Corporate ethics and legal compliance | ❶ Number of major violations of laws or ordinances | ❶ Toray Group |
| | | ❷ Implementing internal legal audits of group companies, group companies improving problems found in internal legal audits in the previous year (%) | ❷ Toray Group |
| | | ❸ Group companies providing information and implementing education on major laws and regulations and other compliance-related matters (%) | ❸ Toray Group |
| 3 Safety, Accident Prevention, and Environmental Preservation<br><br>Ensure the safety and health of society and employees, and protect the environment in all business processes, from procuring raw materials and manufacturing to the supply and disposal of products | (1) Place the highest priority on safety, thoroughly uphold the basic rules, and strive to prevent disasters and accidents<br><br>(2) Reduce environmental impact by working to fulfill the Medium-Term Environmental Plan<br><br>(3) Pursue environmental and biodiversity preservation on the basis of policies on water resources and biodiversity<br><br>Related Materiality for CSR<br>● Ensuring safety and disaster preparedness<br>● Reducing greenhouse gas emissions<br>● Initiatives for managing water resources<br>● Addressing substances with negative environmental impact<br>● Addressing resource and energy issues<br>● Conserving biodiversity | ❶ Number of major accidents | ❶ Toray Group |
| | | ❷ Achieve world's best standard for safety management (not exceeding 0.05 frequency rate for occupational accidents resulting in lost work time) | ❷ Toray Group |
| | | ❸ Number of fire and explosion accidents | ❸ Toray Group |
| | | ❹ Number of environmental accidents | ❹ Toray Group |
| | | ❺ Reduction of greenhouse gas emissions per unit of revenue (%) | ❺ Toray Group |
| | | ❻ Water usage per unit of revenue (%) | ❻ Toray Group |
| | | ❼ Reduction of atmospheric VOC emissions (%) | ❼ Toray Group |
| | | ❽ Waste recycling rate (%) | ❽ Toray Group |
| | | ❾ Conduct a survey of palm oil contained in raw materials (%) | ❾ Toray Industries, Inc. |

| | Targets | | | Results | | Implementation leader[3] |
|---|---|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Fiscal 2021 | Degree of success[2] | |
| | ❶ 8 times | ❶ 8 times | ❶ 8 times | ❶ 8 times | ❶ ○ | Yasuo Suga<br>Senior Vice President<br>(Member of the Board),<br>Corporate Strategic Planning Division,<br>Quality Assurance Division,<br>HS Business Development Dept.,<br>Toray Industries, Inc. |
| | ❷ 90% | ❷ 90% | ❷ 90% | ❷ 95% | ❷ ○ | |
| | ❶ 0 | ❶ 0 | ❶ 0 | ❶ 1 | ❶ × | Yoshio Yamamoto<br>Vice President,<br>Legal & Compliance Division,<br>Compliance Dept.,<br>Toray Industries, Inc. |
| | ❷ Audits: Conduct at Toray Industries, Inc. and its group companies in and outside Japan<br>Percent that improved: 100% for all audits by the following fiscal year | | | ❷ 100% | ❷ ○ | |
| | ❸ 100% | ❸ 100% | ❸ 100% | ❸ 100% | ❸ ○ | |
| | ❶ 0 | ❶ 0 | ❶ 0 | ❶ 0 | ❶ ○ | Kazuyuki Adachi<br>Senior Vice President<br>(Member of the Board),<br>Purchasing & Logistics Division,<br>Manufacturing Division,<br>Toray Industries, Inc. |
| | ❷ No more than 0.05 | ❷ No more than 0.05 | ❷ No more than 0.05 | ❷ 0.38 | ❷ × | |
| | ❸ 0 | ❸ 0 | ❸ 0 | ❸ 6[4] | ❸ × | |
| | ❹ 0 | ❹ 0 | ❹ 0 | ❹ 4[5] | ❹ × | |
| | ❺ At least 20% lower than fiscal 2013 (Fiscal 2022) | | | ❺ 20.6% | ❺ N.A. | |
| | ❻ At least 25% lower than fiscal 2013 (Fiscal 2022) | | | ❻ 28.3% | ❻ N.A. | |
| | ❼ At least 70% lower than fiscal 2000 | ❼ At least 70% lower than fiscal 2000 | ❼ At least 70% lower than fiscal 2000 | ❼ 77.6% | ❼ ○ | |
| | ❽ At least 86% | ❽ At least 86% | ❽ At least 86% | ❽ 85.9% | ❽ △ | |
| | ❾ Usage survey of certifiied products : 100% | ❾ Decision making (Yes/No) of shifting to certified raw materials : 100% (Fiscal 2022) | | ❾ 100% | ❾ N.A. | |

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2 The degree of success is defined as follows ： ○ means the target was fully met; △ means the target was 50% met or better; and × means the target was less than 50% met. "N.A." means no targets were specified for the fiscal year under review.

3 Names and job titles of implementation leaders are current as of March 31 2022.

4 For further detail, see the "Occupational Safety and Accident Prevention Activities" page of the "Safety, Accident Prevention and Environmental Preservation" section of the report.

5 For further detail, see the "Environmental Risk Management" page of the "Safety, Accident Prevention and Environmental Preservation" section of the report.

6 For further detail, see the "Initiatives for Quality Assurance and Product Safety" page of the "Product Quality and Safety" section of this report.

## Progress on CSR Roadmap 2022 KPIs in Fiscal 2021

| CSR Guidelines | CSR Roadmap goals | Key performance indicators | Reporting Scope[1] |
|---|---|---|---|
| 4 Product Quality and Safety<br><br>Provide safe, highly reliable products by striving to enhance management systems for product quality assurance and safety, and disclose appropriate information. | (1) Achieve zero product accidents<br><br>(2) Enhance the group-wide framework for product safety and quality assurance<br><br>Related Materiality for CSR<br>● Ensuring product quality and safety | ❶ Number of product accidents | ❶ Toray Group |
| | | ❷ Group companies implementing product quality assurance and safety education (%) | ❷ Toray Group |
| 5 Risk Management<br><br>Under normal conditions, assess and analyze risks, and strive to mitigate and prevent them from materializing; and in the event of a crisis that could have a significant impact on management activities, strive to prevent damage from increasing, by bringing the situation quickly under control and normalizing conditions with a prompt and appropriate response | (1) Strengthen corporate risk management throughout the Toray Group and mitigate risks<br><br>(2) Instill greater risk management among employees by rolling out risk management education throughout the Toray Group | ❶ Group companies conducting follow-up on the Toray Group's priority risks (%) | ❶ Toray Group |
| | | ❷ Group companies implementing risk management education (% achieved compared to the plan at the beginning of the fiscal year) | ❷ Toray Group |
| 6 Communication<br><br>Disclose corporate information in an active, fair and straightforward manner to maintain management transparency; and disclose information appropriately to encourage dialogue and cooperation with stakeholders including customers, employees, stockholders, business partners, consumers, mass media, and other parties | (1) Reflect results of dialogue and collaboration with each stakeholder group in management activities in a timely and appropriate manner<br><br>(2) Reflect information obtained through dialogue and collaboration with each stakeholder group in management decisions in a timely and appropriate manner | ❶ Number of corporate website page views (per month) | ❶ Toray Industries, Inc. |
| | | ❷ Interviews conducted to exchange opinions within the company (rate of progress) | ❷ Toray Group |
| | | ❸ Interviews with key investors in which management participates (number) | ❸ Toray Group |
| | | ❹ News releases (number) | ❹ Toray Group |
| 7 Contributing Solutions to Social Issues through Business Activities<br><br>Leverage innovation to address global-scale environmental issues such as climate change and provide solutions for various social issues such as the need to improve the quality of medical care, the need to reduce the burden on medical staff, health maintenance and longevity, and personal safety, thereby helping to build a more sustainable world. | (1) Help address social issues by developing innovative materials and new technologies, focusing on the fields of Green Innovation and Life Innovation<br><br>Related Materiality for CSR<br>● Contributing to the solution of environmental issues through business activities<br>● Contributing to health maintenance and longevity through business activities<br>● Initiatives for managing water resources | ❶ Revenue of Green Innovation products (IFRS) | ❶ Toray Group |
| | | ❷ Revenue of Life Innovation products (IFRS) | ❷ Toray Group |
| | | ❸ Contribution to $CO_2$ reduction in value chain | ❸ Toray Group |
| | | ❹ Contribution of Toray water treatment products | ❹ Toray Group |

| | Targets | | | Results | | Implementation leader[3] |
|---|---|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Fiscal 2021 | Degree of success[2] | |
| | ❶ 0 | ❶ 0 | ❶ 0 | ❶ 2[6] | ❶ × | Yasuo Suga<br>Senior Vice President<br>(Member of the Board),<br>Corporate Strategic Planning Division,<br>Quality Assurance Division,<br>HS Business Development Dept.,<br>Toray Industries, Inc. |
| | ❷ 100% | ❷ 100% | ❷ 100% | ❷ 100% | ❷ ○ | |
| | ❶ 100% | ❶ 100% | ❶ 100% | ❶ 100% | ❶ ○ | Yasuo Suga<br>Senior Vice President<br>(Member of the Board),<br>Corporate Strategic Planning Division,<br>Quality Assurance Division,<br>HS Business Development Dept.,<br>Toray Industries, Inc. |
| | ❷ 100% | ❷ 100% | ❷ 100% | ❷ 100% | ❷ ○ | |
| | ❶ 1 million page views | ❶ 1 million page views | ❶ 1 million page views | ❶ 1.09 million page views | ❶ ○ | Hideki Hirabayashi<br>Senior Vice President,<br>CSR & Investor Relations,<br>Legal & Compliance Division,<br>General Administration & Communications Division,<br>Tokyo Head Office,<br>Toray Industries, Inc. |
| | ❷ 40% | ❷ 60% | ❷ 80% | ❷ 42% | ❷ △ | |
| | ❸ Cumulative total of 80 | ❸ Cumulative total of 80 | ❸ Cumulative total of 80 | ❸ Cumulative total of 125 | ❸ ○ | |
| | ❹ 200 | ❹ 200 | ❹ 200 | ❹ 138 | ❹ △ | |
| | ❶ 1,000 billion yen（Fiscal 2022） | | | ❶ 832.2 billion yen | ❶ N.A. | Koichi Abe<br>Executive Vice President<br>(Representative Member of the Board),<br>Intellectual Property Division,<br>Global Environment Business Strategic Planning Dept.,<br>Life Innovation Business Strategic Planning Dept.,<br>Technology Center,<br>Toray Human Resources Development Center,<br>Toray Industries, Inc. |
| | ❷ 300 billion yen（Fiscal 2022） | | | ❷ 308.4 billion yen | ❷ N.A. | |
| | ❸ 5.3 times compared to fiscal 2013 (Fiscal 2022) | | | ❸ 8.0 times | ❸ N.A. | |
| | ❹ 2.4 times compared to fiscal 2013 (Fiscal 2022) | | | ❹ 2.2 times | ❹ N.A. | |

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## Progress on CSR Roadmap 2022 KPIs in Fiscal 2021

| CSR Guidelines | CSR Roadmap goals | Key performance indicators | Reporting Scope[1] |
|---|---|---|---|
| 8 Human Rights Promotion and Human Resources Development<br><br>Respect human rights, provide safe and healthy workplaces for employees, secure and train personnel, and diversify while striving to protect employment. | (1) Respect for human rights and fair promotion based on ability throughout the Toray Group by eliminating discrimination based on race, gender, education, nationality, religion, and physical attributes<br><br>(2) Ensure work environments take into consideration employees' health and build a vibrant and rewarding workplace culture group-wide, working systematically to secure and train personnel<br><br>Related Materiality for CSR<br>● Respecting human rights<br>● Creating a positive workplace<br>● Securing and developing human resources | ❶ Group companies implementing human rights education and training (%) | ❶ Toray Group |
| | | ❷ Group companies that have achieved legally mandated employment rate of persons with disabilities (%) | ❷ Toray Group (Japan) |
| | | ❸ Career development of core staff using the new personnel information system (% of staff using a career path worksheet) | ❸ Toray Industries, Inc. |
| | | ❹ Employees returning to work from childcare leave (%) | ❹ Employees of Toray Industries, Inc. |
| | | ❺ Reduction in employees who exceed 45 hours/month of non-statutory working hours (%) | ❺ Toray Industries, Inc. |
| | | ❻ Available annual paid leave used by labor union members (%) | ❻ Toray Industries, Inc. |
| 9 Facilitating CSR Initiatives Throughout the Supply Chain<br><br>Promote CSR initiatives in areas including environmental preservation and human rights throughout the entire supply chain by working closely with suppliers, processing vendors, customers and distribution companies. | (1) To ensure socially responsible procurement by the Toray Group, request major suppliers and business partners to practice CSR and work with suppliers to promote greater awareness of human rights, social, and environmental issues<br><br>Related Materiality for CSR<br>● Managing social and environmental impact of suppliers | ❶ Group companies requesting their suppliers to practice CSR (%) | ❶ Toray Group |
| | | ❷ Suppliers confirming the status of CSR initiatives as requested by Toray Group (%) | ❷ Toray Group |
| | | ❸ Reduction in $CO_2$ emissions intensity from distribution activities (year-on-year) | ❸ Toray Group (Only specified consigners) |
| | | ❹ Modal shift to sea or rail for transport across distances for 500 km or more (%) | ❹ Toray Industries, Inc. |
| 10 Social Contribution Activities as a Good Corporate Citizen<br><br>Proactively participate in local communities and the larger society in order to contribute to development in a way betting a good corporate citizen. | (1) As a member of society, implement social contribution activities that help to solve the global issues addressed by the SDGs and other initiatives<br><br>(2) Voluntarily and continuously engage in the priority areas of "science and technology promotion," "environment and communities," and "health and welfare" | ❶ Social contribution expenditure (% change from average expenditure over last six years) | ❶ Toray Group |
| | | ❷ Social contribution activities (number) | ❷ Toray Group |
| | | ❸ Beneficiaries of educational support activities such as science classes for schools and career education (number) | ❸ Toray Group |

| | Targets | | | Results | | Implementation leader[3] |
|---|---|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Fiscal 2021 | Degree of success[2] | |
| | ❶ 100% | ❶ 100% | ❶ 100% | ❶ 100% | ❶ ○ | Shigeki Taniguchi<br>Senior Vice President,<br>Human Resources Division,<br>Toray Industries, Inc. |
| | ❷ 100% | ❷ 100% | ❷ 100% | ❷ 48.4% | ❷ × | |
| | ❸ 20% | ❸ 30% | ❸ 100% | ❸ 100% | ❸ ○ | |
| | ❹ 100% | ❹ 100% | ❹ 100% | ❹ 99.0% | ❹ △ | |
| | ❺ Year-on-year reduction | ❺ Year-on-year reduction | ❺ Year-on-year reduction | ❺ 112.2% | ❺ × | |
| | ❻ About 90% | ❻ About 90% | ❻ About 90% | ❻ 89.6% | ❻ ○ | |
| | ❶ At least 80% | ❶ At least 90% | ❶ At least 95% | ❶ 87% | ❶ △ | Osamu Tsuneki<br>Vice President,<br>Purchasing & Logistics Division,<br>Toray Industries, Inc. |
| | ❷ At least 70% | ❷ At least 70% | ❷ At least 70% | ❷ 87% | ❷ ○ | |
| | ❸ 1% | ❸ 1% | ❸ 1% | ❸ 3.9% | ❸ ○ | |
| | ❹ 40% (Fiscal 2022 target) | | | ❹ 27% | ❹ N.A. | |
| | ❶ 100% or higher | ❶ 100% or higher | ❶ 100% or higher | ❶ 86% | ❶ △ | Hideki Hirabayashi<br>Senior Vice President,<br>CSR & Investor Relations,<br>Legal & Compliance Division,<br>General Administration & Communications Division,<br>Tokyo Head Office,<br>Toray Industries, Inc. |
| | ❷ 2,500 or more | ❷ 2,500 or more | ❷ 2,500 or more | ❷ 1,710 | ❷ △ | |
| | ❸ 15,000 or more | ❸ 15,000 or more | ❸ 15,000 or more | ❸ 11,331 | ❸ △ | |

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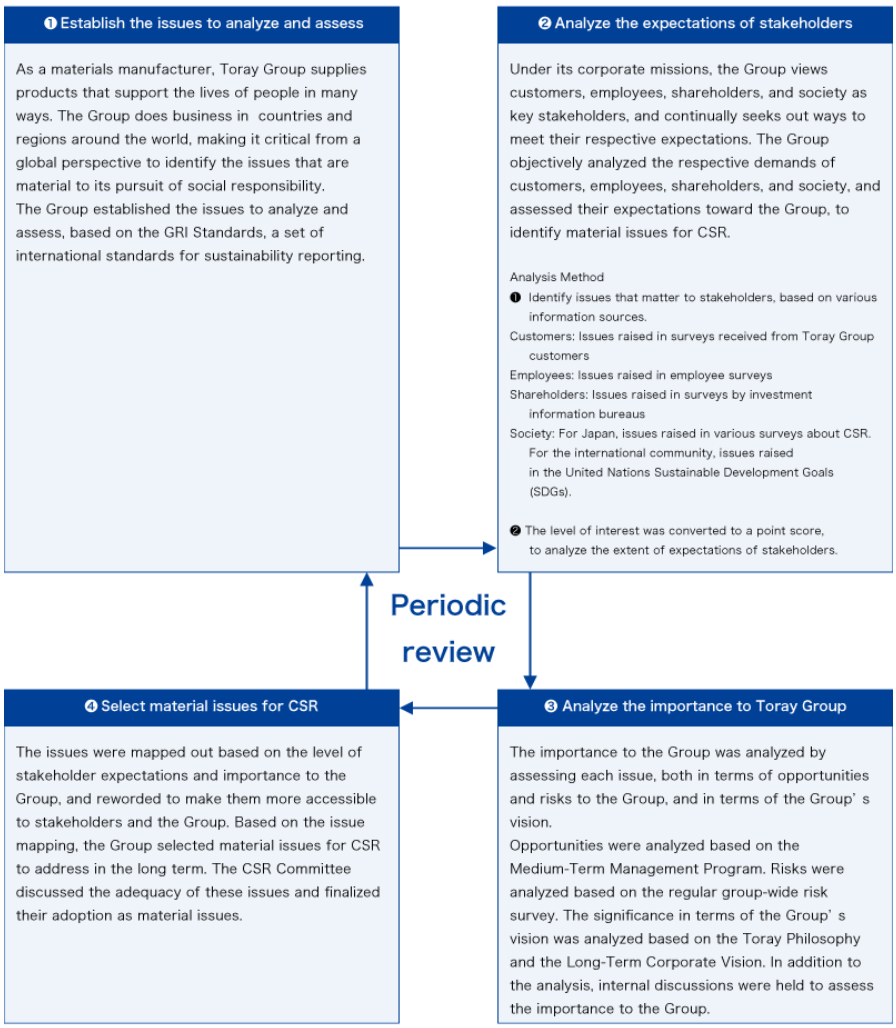
Toray Group Corporate Social Responsibility

# Materiality

In fiscal 2015, Toray Group selected material issues for CSR based on the GRI G4 Guidelines, which are a set of international sustainability reporting guidelines. In fiscal 2017, the Group reevaluated the material issues before launching its Sixth CSR Roadmap.

## Materiality Assessment Cycle

Toray Group regularly implements the following process to reevaluate its material issues for CSR, while incorporating recommendations from external thought leaders.

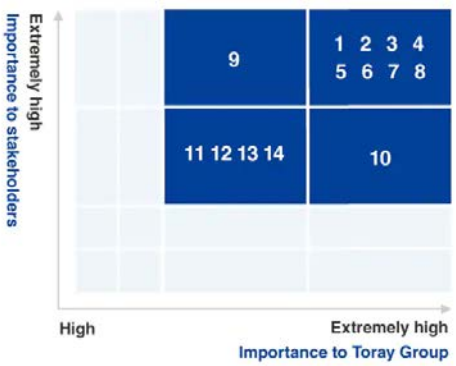


## Updated Material Issues and Key Performance Indicators Reflected in the CSR Roadmap

Toray Group addresses the material issues for CSR with specific initiatives under its CSR roadmap. The Group has outlined relationships between material issues, the CSR Guidelines, and roadmap goals in its CSR Roadmap 2022 to facilitate its efforts.

Toray Group's CSR initiatives reflect local circumstances in each country and region, but the Group also pursues shared, group-wide initiatives, which are managed with group-wide targets. Under the CSR Roadmap 2022, the Group has also set group-wide KPIs, and uses the Plan-Do-Check-Act (PDCA) cycle to drive progress on its efforts.

### Toray Group Materiality Matrix




1 Contributing to the solution of environmental issues through business activities
2 Contributing to health maintenance and longevity through business activities
3 Addressing resource and energy issues
4 Reducing greenhouse gas emissions
5 Addressing substances with negative environmental impact
6 Corporate ethics and legal compliance
7 Ensuring safety and disaster preparedness
8 Ensuring product quality and safety
9 Initiatives for managing water resources
10 Managing social and environmental impact of suppliers
11 Respecting human rights
12 Creating a positive workplace
13 Securing and developing human resources
14 Conserving biodiversity

## Materiality View of CSR Roadmap

The relationships between materiality, associated CSR Roadmap main initiatives, KPIs, and progress achieved are described in this table.

**(PDF:1,436KB)** PDF

## Materiality View of CSR Roadmap

| Materiality | Main initiatives of CSR Roadmap 2022 | KPIs of CSR Roadmap 2022 |
|---|---|---|
| 1 **Contributing to the solution of environmental issues through business activities** | Increase revenue from Green Innovation products | Revenue of Green Innovation products (IFRS) |
| | Expand contribution to $CO_2$ reduction in the value chain[3] | Contribution to $CO_2$ reduction in value chain |
| | Expand water filtration throughput contribution by Toray's water treatment membranes[4] | Contribution of Toray water treatment products |
| | Conduct a wide variety of product research and technology development to help build a low-carbon, circular economy | 2 |
| | Contribute to the utilization of biomass in and recycling of plastic products, the spread of renewable energy and hydrogen, and the reuse of water resources | |
| 2 **Contributing to health maintenance and longevity through business activities** | Increase revenue from Life Innovation products | Revenue of Life Innovation products (IFRS) |
| | Contribute to countermeasures to public health risks, including infectious diseases, by developing and upgrading materials and products for protective clothing and personal protective equipment, as well as materials to protect environmental hygiene including of air and water | |
| 3 **Addressing resource and energy issues** | Reduce greenhouse gas emissions per unit of revenue | Reduction of greenhouse gas emissions per unit of revenue (%) |
| | Reduce water consumption per unit of revenue | Water usage per unit of revenue (%) |
| | Aim for a high waste recycling rate | Waste recycling rate (%) |
| | Systematically adopt renewable energy | |

| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Activities of Fiscal 2021 | | | Related SDGs |
|---|---|---|---|---|---|---|---|
| | Targets | | | Results | Degree of success[1] | Related initiatives | |
| | 1,000 billion yen (Fiscal 2022) | | | 832.2 billion yen | N.A. | Green Innovation Business Expansion Project | 2 ZERO HUNGER, 3 GOOD HEALTH AND WELL-BEING, 6 CLEAN WATER AND SANITATION, 7 AFFORDABLE AND CLEAN ENERGY, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION, 14 LIFE BELOW WATER, 15 LIFE ON LAND |
| | 5.3 times compared to fiscal 2013 (Fiscal 2022) | | | 8.0 times | N.A. | Green Innovation Business Expansion Project | |
| | 2.4 times compared to fiscal 2013 (Fiscal 2022) | | | 2.2 times | N.A. | Green Innovation Business Expansion Project | |
| | | | | | | Approach to Green Innovation Products | |
| | | | | | | Realizing a Circular Economy | |
| | 300 billion yen (Fiscal 2022) | | | 308.4 billion yen | N.A. | Life Innovation Business Expansion Project | 2 ZERO HUNGER, 3 GOOD HEALTH AND WELL-BEING, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION |
| | | | | | | Life Innovation Business Expansion Project | |
| | At least 20% lower than fiscal 2013 (Fiscal 2022) | | | 20.6% | N.A. | Conserving Energy and Reducing Greenhouse Gas Emissions | 3 GOOD HEALTH AND WELL-BEING, 6 CLEAN WATER AND SANITATION, 7 AFFORDABLE AND CLEAN ENERGY, 8 DECENT WORK AND ECONOMIC GROWTH, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 11 SUSTAINABLE CITIES AND COMMUNITIES, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION, 14 LIFE BELOW WATER, 15 LIFE ON LAND |
| | At least 25% lower than fiscal 2013 (Fiscal 2022) | | | 28.3% | N.A. | Initiatives for Managing Water Resources | |
| | At least 86% | At least 86% | At least 86% | 85.9% | △ | Initiatives to Reduce Waste | |
| | | | | | | Conserving Energy and Reducing Greenhouse Gas Emissions | |

**Notes：** 1 The degree of success is defined as follows: ○ means the target was fully met; △ means the target was 50% met or better; × means the target was less than 50% met. "N.A." means no targets were specified for the fiscal year under review.

2 ▒ : No KPI set in CSR Roadmap 2022

3 Toray calculates the $CO_2$ 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).

4 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.

5 Volatile organic compounds

6 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

7 The shifting of freight transportation by truck or other vehicle to railways and ships, which have a smaller environmental impact

8 A movement aimed at ensuring stable logistics function necessary for people's lives and for industrial activities while also contributing to economic growth in response to the shortage of truck drivers

**Materiality View of CSR Roadmap**

| Materiality | Main initiatives of CSR Roadmap 2022 | KPIs of CSR Roadmap 2022 |
|---|---|---|
| 4 **Reducing greenhouse gas emissions** | Reduce greenhouse gas emissions per unit of revenue | Reduction of greenhouse gas emissions per unit of revenue (%) |
| | Aim for a high waste recycling rate | Waste recycling rate (%) |
| | Systematically adopt renewable energy | |
| 5 **Addressing substances with negative environmental impact** | Reduce greenhouse gas emissions per unit of revenue | Reduction of greenhouse gas emissions per unit of revenue (%) |
| | Reduce atmospheric VOC[5] emissions | Reduction of atmospheric VOC emissions (%) |
| | Aim for a high waste recycling rate | Waste recycling rate (%) |
| | Systematically adopt renewable energy | |
| | Reduce atmospheric emissions of substances subject to the PRTR Act[6] | |

| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Activities of Fiscal 2021 | | | Related SDGs |
|---|---|---|---|---|---|---|---|
| | Targets | | | Results | Degree of success[1] | Related initiatives | |
| | At least 20% lower than fiscal 2013 (Fiscal 2022) | | | 20.6% | N.A. | Conserving Energy and Reducing Greenhouse Gas Emissions | |
| | At least 86% | At least 86% | At least 86% | 85.9% | △ | Initiatives to Reduce Waste | |
| | | | | | | Conserving Energy and Reducing Greenhouse Gas Emissions | |
| | At least 20% lower than fiscal 2013 (Fiscal 2022) | | | 20.6% | N.A. | Conserving Energy and Reducing Greenhouse Gas Emissions | |
| | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | 77.6% | ○ | Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances | |
| | At least 86% | At least 86% | At least 86% | 85.9% | △ | Initiatives to Reduce Waste | |
| | | | | | | Conserving Energy and Reducing Greenhouse Gas Emissions | |
| | | | | | | Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances | |

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8 A movement aimed at ensuring stable logistics function necessary for people's lives and for industrial activities while also contributing to economic growth in response to the shortage of truck drivers

## Materiality View of CSR Roadmap

| Materiality | Main initiatives of CSR Roadmap 2022 | KPIs of CSR Roadmap 2022 |
|---|---|---|
| 6 Corporate ethics and legal compliance | Aim for no major cases of non-compliance with or violations of laws and regulations | Number of major violations of laws or ordinances |
| | Practice appropriate transactions based on free, fair, and transparent market competition | |
| | Prohibit any association with organized criminal groups or other anti-social forces and take a firm stance against them | |
| | Conduct internal legal audits and improve problems found in the audits | Implementing internal legal audits of group companies, group companies improving problems found in internal legal audits in the previous year (%) |
| | Appropriately operate a whistle-blowing system | |
| | Thoroughly disseminate the Ethics & Compliance Code of Conduct | |
| | Provide information and implement education on major laws and regulations and other compliance-related matters | Group companies providing information and implementing education on major laws and regulations and other compliance-related matters (%) |
| 7 Ensuring safety and disaster preparedness | Aim for zero major accidents | Number of major accidents |
| | Achieve world's best standard for safety management | Achieve world's best standard for safety management (not exceeding 0.05 frequency rate for occupational accidents resulting in lost work time) |
| | Create a comfortable working environment to ensure the safety and health of employees and to raise the level of safety and health | |
| | Aim for zero fire and explosion accidents | Number of fire and explosion accidents |
| | Aim for zero environmental accidents | Number of environmental accidents |
| | Reduce greenhouse gas emissions per unit of revenue | Reduction of greenhouse gas emissions per unit of revenue (%) |
| | Reduce water consumption per unit of revenue | Water usage per unit of revenue (%) |
| | Reduce atmospheric VOC emissions | Reduction of atmospheric VOC emissions (%) |
| | Aim for a high waste recycling rate | Waste recycling rate (%) |
| | Systematically adopt renewable energy | |
| | Reduce atmospheric emissions of substances subject to the PRTR Act | |
| | Pursue the greening of each site in consideration of the regulations of each country and region and harmony with the surrounding environment | |

| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Activities of Fiscal 2021 | | | Related SDGs |
|---|---|---|---|---|---|---|---|
| | Targets | | | Results | Degree of success[1] | Related initiatives | |
| | 0 | 0 | 0 | 1 | × | Ethics and Compliance | |
| | | | | | | Establishing a Corporate Culture of Total Respect for Ethics and Compliance | |
| | | | | | | Establishing a Corporate Culture of Total Respect for Ethics and Compliance | |
| | Audits: Conduct at Toray Industries, Inc. and its group companies in and outside Japan Percent that improved: 100% for all audits by the following fiscal year | | | 100% | ○ | Establishing a Corporate Culture of Total Respect for Ethics and Compliance | |
| | | | | | | Establishing a Corporate Culture of Total Respect for Ethics and Compliance | |
| | | | | | | Establishing a Corporate Culture of Total Respect for Ethics and Compliance | |
| | 100% | 100% | 100% | 100% | ○ | Establishing a Corporate Culture of Total Respect for Ethics and Compliance | |
| | 0 | 0 | 0 | 0 | ○ | Occupational Safety and Accident Prevention Activities | |
| | No more than 0.05 | No more than 0.05 | No more than 0.05 | 0.38 | × | Occupational Safety and Accident Prevention Activities | |
| | | | | | | Occupational Safety and Accident Prevention Activities | |
| | 0 | 0 | 0 | 6 | × | Occupational Safety and Accident Prevention Activities | |
| | 0 | 0 | 0 | 4 | × | Environmental Risk Management | |
| | At least 20% lower than fiscal 2013 (Fiscal 2022) | | | 20.6% | N.A. | Conserving Energy and Reducing Greenhouse Gas Emissions | |
| | At least 25% lower than fiscal 2013 (Fiscal 2022) | | | 28.3% | N.A. | Initiatives for Managing Water Resources | |
| | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | 77.6% | ○ | Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances | |
| | At least 86% | At least 86% | At least 86% | 85.9% | △ | Initiatives to Reduce Waste | |
| | | | | | | Conserving Energy and Reducing Greenhouse Gas Emissions | |
| | | | | | | Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances | |
| | | | | | | Biodiversity Initiatives | |

**Notes：** 1 The degree of success is defined as follows: ○ means the target was fully met; △ means the target was 50% met or better; × means the target was less than 50% met. "N.A." means no targets were specified for the fiscal year under review.

2 ▒ : No KPI set in CSR Roadmap 2022

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4 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.

5 Volatile organic compounds

6 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

7 The shifting of freight transportation by truck or other vehicle to railways and ships, which have a smaller environmental impact

8 A movement aimed at ensuring stable logistics function necessary for people's lives and for industrial activities while also contributing to economic growth in response to the shortage of truck drivers

**Materiality View of CSR Roadmap**

| Materiality | Main initiatives of CSR Roadmap 2022 | KPIs of CSR Roadmap 2022 |
|---|---|---|
| 8 **Ensuring product quality and safety** | Aim for zero product accidents | Number of product accidents |
| | Establish a system to audit effectiveness of improvement and continuity of Toray Group's overall quality assurance framework | |
| | Introduce a group-wide quality control system with fraud prevention features | |
| | Prepare and build a quality assurance system that covers quality assurance and quality control functions in each business | |
| | Provide quality assurance and product safety education | Group companies implementing product quality assurance and safety education (%) |
| 9 **Initiatives for managing water resources** | Reduce water consumption per unit of revenue | Water usage per unit of revenue (%) |
| | Aim for a high waste recycling rate | Waste recycling rate (%) |
| | Expand water filtration throughput contribution by Toray's water treatment membranes | Contribution of Toray water treatment products |
| | Conduct a wide variety of product research and technology development to help build a low-carbon, circular economy | |
| | Contribute to the utilization of biomass in and recycling of plastic products, the spread of renewable energy and hydrogen, and the reuse of water resources | |

| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Activities of Fiscal 2021 | | | Related SDGs |
|---|---|---|---|---|---|---|---|
| | Targets | | | Results | Degree of success[1] | Related initiatives | |
| | 0 | 0 | 0 | 2 | × | Initiatives for Quality Assurance and Product Safety | |
| | | | | | | Product Quality and Safety | |
| | | | | | | Initiatives for Quality Assurance and Product Safety | |
| | | | | | | Product Quality and Safety | |
| | 100% | 100% | 100% | 100% | ○ | Initiatives for Quality Assurance and Product Safety | |
| | At least 25% lower than fiscal 2013 (Fiscal 2022) | | | 28.3% | N.A. | Initiatives for Managing Water Resources | |
| | At least 86% | At least 86% | At least 86% | 85.9% | △ | Initiatives to Reduce Waste | |
| | 2.4 times compared to fiscal 2013 (Fiscal 2022) | | | 2.2 times | N.A. | Green Innovation Business Expansion Project | |
| | | | | | | Approach to Green Innovation Products | |
| | | | | | | Realizing a Circular Economy | |

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|---|---|---|
| 10 **Managing social and environmental impact of suppliers** | Request suppliers to practice CSR, including by conducting CSR surveys and audits, and having them make pledges, and strive to understand the status of each company's CSR initiatives | Group companies requesting their suppliers to practice CSR (%) |
| | | Suppliers confirming the status of CSR initiatives as requested by Toray Group (%) |
| | Address issues in the supply chain such as human rights challenges and conflict mineral issues | |
| | Reduce $CO_2$ emissions intensity from distribution activities | Reduction in $CO_2$ emissions per unit of sales from distribution activities (year-on-year) |
| | Promote modal shift[7] across distances of 500 km or more | Modal shift to sea or rail for transport across distances for 500 km or more (%) |
| | Continually work to reduce the environmental impact and improve the quality of distribution activities | |
| | In accordance with the Declaration of Voluntary Activities for the White Logistics Movement[8], contribute to sustainable logistics, for instance by selecting logistics companies that are engaged in working style reform, etc. | |
| 11 **Respecting human rights** | Implement human rights education and training | Group companies implementing human rights education and training (%) |
| | Achieve the legally mandated employment rate of persons with disabilities | Group companies that have achieved legally mandated employment rate of persons with disabilities (%) |
| | Operate a whistle-blowing system and consultation service at each Toray Group company to promptly and appropriately respond to problems in an effort to reduce human rights risks | |
| 12 **Creating a positive workplace** | As part of career develop initiatives for core staff, use the career path worksheets included in the new personnel information system | Career development of core staff using the new personnel information system (% of staff using a career path worksheet) |
| | Systematically hire, develop, and appoint core staff outside Japan | |
| | Create workplace environments in which women will feel comfortable performing their duties | |
| | Support the return to work from long-term childcare leave | Employees returning to work from childcare leave (%) |
| | Reduce the number of employees who exceed non-statutory working hours | Reduction in employees who exceed 45 hours/month of non-statutory working hours (%) |
| | Encourage the use of annual paid leave by labor union members | Available annual paid leave used by labor union members (%) |

| Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Activities of Fiscal 2021 | | | Related SDGs |
|---|---|---|---|---|---|---|
| Targets | | | Results | Degree of success[1] | Related initiatives | |
| At least 80% | At least 90% | At least 95% | 87% | △ | Socially Responsible Procurement Initiatives at Toray Group | |
| At least 70% | At least 70% | At least 70% | 87% | ○ | Socially Responsible Procurement Initiatives at Toray Group | |
| | | | | | Socially Responsible Procurement Initiatives at Toray Group | |
| 1% | 1% | 1% | 3.9% | ○ | Toray Group Distribution Initiatives | |
| 40% (Fiscal 2022 target) | | | 27% | N.A. | Toray Group Distribution Initiatives | |
| | | | | | Toray Group Distribution Initiatives | |
| | | | | | Toray Group Distribution Initiatives | |
| 100% | 100% | 100% | 100% | ○ | Human Rights Activity Report | |
| 100% | 100% | 100% | 48.4% | × | Promoting Diversity | |
| | | | | | Human Rights Activity Report | |
| 20% | 30% | 100% | 100% | ○ | Securing and Developing Human Resources to Create New Value | |
| | | | | | Securing and Developing Human Resources to Create New Value | |
| | | | | | Promoting Diversity | |
| 100% | 100% | 100% | 99.0% | △ | Creating a Positive Workplace for Employees | |
| Year-on-year reduction | Year-on-year reduction | Year-on-year reduction | 112.2% | × | Creating a Positive Workplace for Employees | |
| About 90% | About 90% | About 90% | 89.6% | ○ | Creating a Positive Workplace for Employees | |

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5 Volatile organic compounds

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8 A movement aimed at ensuring stable logistics function necessary for people's lives and for industrial activities while also contributing to economic growth in response to the shortage of truck drivers

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| Materiality | Main initiatives of CSR Roadmap 2022 | KPIs of CSR Roadmap 2022 |
|---|---|---|
| 13 Securing and developing human resources | As part of career develop initiatives for core staff, use the career path worksheets included in the new personnel information system | Career development of core staff using the new personnel information system (% of staff using a career path worksheet) |
| | Systematically hire, develop, and appoint core staff outside Japan | |
| | Create workplace environments in which women will feel comfortable performing their duties | |
| | Support the return to work from long-term childcare leave | Employees returning to work from childcare leave (%) |
| | Reduce the number of employees who exceed non-statutory working hours | Reduction in employees who exceed 45 hours/month of non-statutory working hours (%) |
| 14 Conserving biodiversity | Reduce greenhouse gas emissions per unit of revenue | Reduction of greenhouse gas emissions per unit of revenue (%) |
| | Reduce atmospheric VOC emissions | Reduction of atmospheric VOC emissions (%) |
| | Aim for a high waste recycling rate | Waste recycling rate (%) |
| | Conduct a survey of palm oil contained in raw materials and switch to certified products | Conduct a survey of palm oil contained in raw materials (%) |
| | Systematically adopt renewable energy | |
| | Reduce atmospheric emissions of substances subject to the PRTR Act | |

| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | Activities of Fiscal 2021 | | | Related SDGs |
|---|---|---|---|---|---|---|---|
| | Targets | | | Results | Degree of success[1] | Related initiatives | |
| | 20% | 30% | 100% | 100% | ○ | Securing and Developing Human Resources to Create New Value | 4 QUALITY EDUCATION, 5 GENDER EQUALITY, 8 DECENT WORK AND ECONOMIC GROWTH, 10 REDUCED INEQUALITIES, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |
| | | | | | | Securing and Developing Human Resources to Create New Value | |
| | | | | | | Promoting Diversity | |
| | 100% | 100% | 100% | 99.0% | △ | Creating a Positive Workplace for Employees | |
| | Year-on-year reduction | Year-on-year reduction | Year-on-year reduction | 112.2% | × | Creating a Positive Workplace for Employees | |
| | At least 20% lower than fiscal 2013 (Fiscal 2022) | | | 20.6% | N.A. | Conserving Energy and Reducing Greenhouse Gas Emissions | 3 GOOD HEALTH AND WELL-BEING, 6 CLEAN WATER AND SANITATION, 7 AFFORDABLE AND CLEAN ENERGY, 8 DECENT WORK AND ECONOMIC GROWTH, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 11 SUSTAINABLE CITIES AND COMMUNITIES, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION, 14 LIFE BELOW WATER, 15 LIFE ON LAND |
| | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | 77.6% | ○ | Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances | |
| | At least 86% | At least 86% | At least 86% | 85.9% | △ | Initiatives to Reduce Waste | |
| | Usage survey of certifiied products : 100% | Decision making (Yes/No) of shifting to certified raw materials : 100% (Fiscal 2022) | | 100% | N.A. | Biodiversity Initiatives | |
| | | | | | | Conserving Energy and Reducing Greenhouse Gas Emissions | |
| | | | | | | Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances | |

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# External Evaluation

## Evaluations from the Perspective of Socially Responsible Investment

### Dow Jones Sustainability Index Asia Pacific

Toray Industries is included in the Asia Pacific Index of the Dow Jones Sustainability Indices (DJSI). The DJSI are stock indices from S&P Global that evaluate corporate performance in terms of sustainability.

Member of
Dow Jones
Sustainability Indices
Powered by the S&P Global CSA

### The Sustainability Yearbook 2022

Toray Industries is among the 716 global leaders in sustainability listed in The Sustainability Yearbook 2022 published by S&P Global.

Sustainability Yearbook
Member 2022
S&P Global

### FTSE 4Good Index / FTSE Blossom Japan Index / FTSE Blossom Japan Sector Relative Index

Toray Industries is included in the “FTSE4Good Index Series” and the “FTSE Blossom Japan Index Series” developed by FTSE Russell, a wholly owned subsidiary of the London Stock Exchange Group. The Company is also included in the newly created FTSE Blossom Japan Sector Relative Index.

FTSE4Good
FTSE Blossom Japan
FTSE Blossom Japan Sector Relative Index

### MSCI Japan ESG Select Leaders Index AAA Rating / MSCI Japan ESG Select Leaders Index

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

Notes:

1 The use by Toray Industries, Inc. of any MSCI ESG Research LLC or its Affiliates ("MSCI") data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of Toray Industries, Inc. by MSCI. MSCI services and data are the property of MSCI or its information providers, and are provided 'as-is' and without warranty. MSCI names and logos are trademarks or service marks OF MSCI.

2 The inclusion of Toray Industries, Inc. in any MSCI Index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of Toray Industries, Inc. by MSCI or any of its affiliates. The MSCI indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

### CDP Water Security A List Company

Toray Industries was recognized as a Water Security A List company, the highest rating, by CDP, a global non-profit organization, for the fourth consecutive year. In 2022, the Company was given a A- rating on climate change performance.

## External Evaluation of Information Disclosure to Investors

In the "Investor Relations" section of its corporate website, Toray Industries provides information about its management policies, strategies, financial data and results for stockholders and investors. In an effort to disclose information fairly, the Company promptly posts financial data and presentation materials, including English translations, used in its briefings for institutional investors. In fiscal 2021, Toray's publications were evaluated externally by a number of organizations, as shown below.

| Organization details | Evaluations |
|---|---|
| Daiwa Investor Relations Co., Ltd. | Award for outstanding website in 2021<br>Excellence Award in Sustainability Category |
| Nikko Investor Relations Co., Ltd. | 2021 All Japanese Listed Companies' Website Ranking<br>(AAA Website in overall ranking and AAA Website in sector ranking) |
| GOMEZ | Silver Prize (top in textile sector) in IR Site Ranking 2021 |

# Sustainability

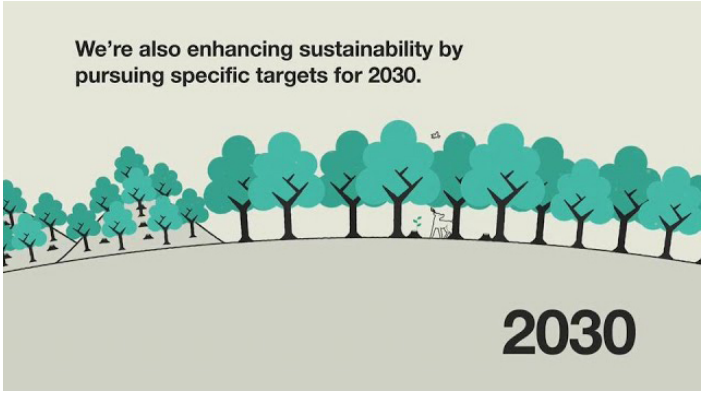
TORAY SUSTAINABILITY VISION

## Providing Innovative Technologies and Advanced Materials to Help Address Global Issues

At the Toray Group, we consider sustainability to be the most important global issue of the 21st century. Today, climate change, water scarcity, and resource depletion are just some of the mounting environmental challenges facing the planet. With the global population expected to increase to some ten billion people by 2050 and aging demographics on the increase worldwide, an interlinked web of global issues are posing ever-graver problems.

Since Toray's founding in 1926, we have always believed that materials can change lives, true to our fundamental corporate principle of contributing to society. At the Toray Group, we make it our mission to deliver innovative technologies and advanced materials that provide real solutions to the challenges the world faces with balancing development and sustainability.

We are convinced that Toray can continue to grow without negatively impacting global sustainability. By delivering on our corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products," we will do our utmost to address global issues, including the goals of the Paris Agreement and the United Nations Sustainable Development Goals (SDGs), while working closely with our business partners worldwide.




Produced by Bloomberg Media Studios

The Future

## Four Perspectives of the World as Envisioned by the Toray Group in 2050

### Net zero emissions

**A net zero emissions world, where greenhouse gas emissions are completely offset by absorption**

### Sustainably managed resources

**A world where resources are sustainably managed**

### Restored natural environment

**A world with a restored natural environment, with clean water and air for everyone**

### Healthier lives

**A world where everyone enjoys good health and hygiene**

The Future

History

## Companies are Public Institutions

Since our founding, we at Toray have assumed the role of a public institution and have executed our corporate activities with the foremost goal of contributing to society. Below, we introduce initiatives taken throughout Toray's history that anticipated the modern sustainability movement, while examining our insights and the historical context.

History

## Message from the President

Our corporate philosophy makes our commitment explicit: “Contributing to society through the creation of new value with innovative ideas, technologies and products.” At Toray Group, we are living up to this mission by delivering innovative technologies and advanced materials that provide truly effective solutions to the challenges the world faces when it comes to balancing development and sustainability.

## Toray Group Corporate Social Responsibility

Toray Group strategically practices social responsibility guided by its three-year CSR Road Map, aiming to achieve sustainable growth while helping to build a more sustainable world.

### Green Innovation Business

Learn about the Toray Group's Green Innovation business, which is helping solve global environmental issues through the use of advanced materials and innovative technologies.

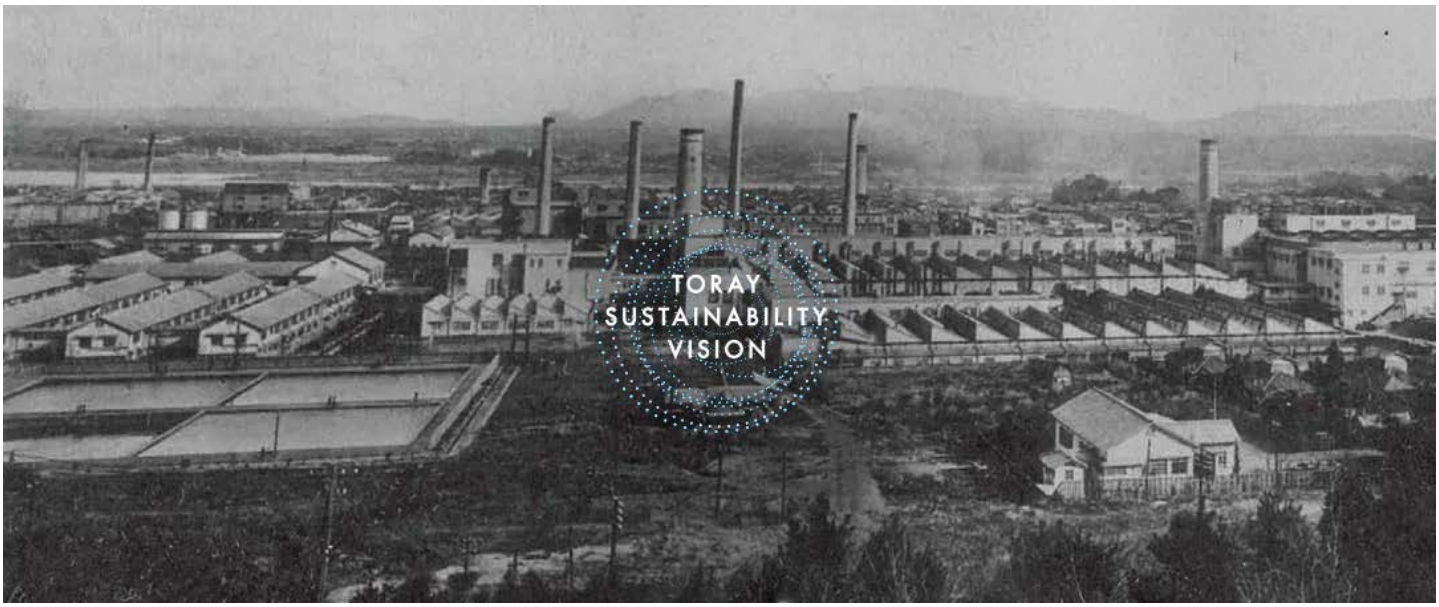
### Life Innovation Business

Learn about the Toray Group's Life Innovation business, which is contributing to improving people's health through the use of advanced materials and innovative technologies.

## Related Information

Toray Group Sustainability Vision PDF
A MATERIALS WORLD

# History




## Companies are Public Institutions

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1926

# Our founder's slogan was "To generate major benefits for the nation and the economy."

## Context

**The time was between the First and Second World Wars.**

Japan was in the process of transforming from an agricultural to an industrial nation but suffered from a lack of foreign exchange reserves and products for export. To complicate matters, on September 1, 1923, the Great Kanto Earthquake struck 1.9 million people in what is still the greatest natural disaster in Japanese history. This ushered in a period of extended stagnation for the Japanese economy.

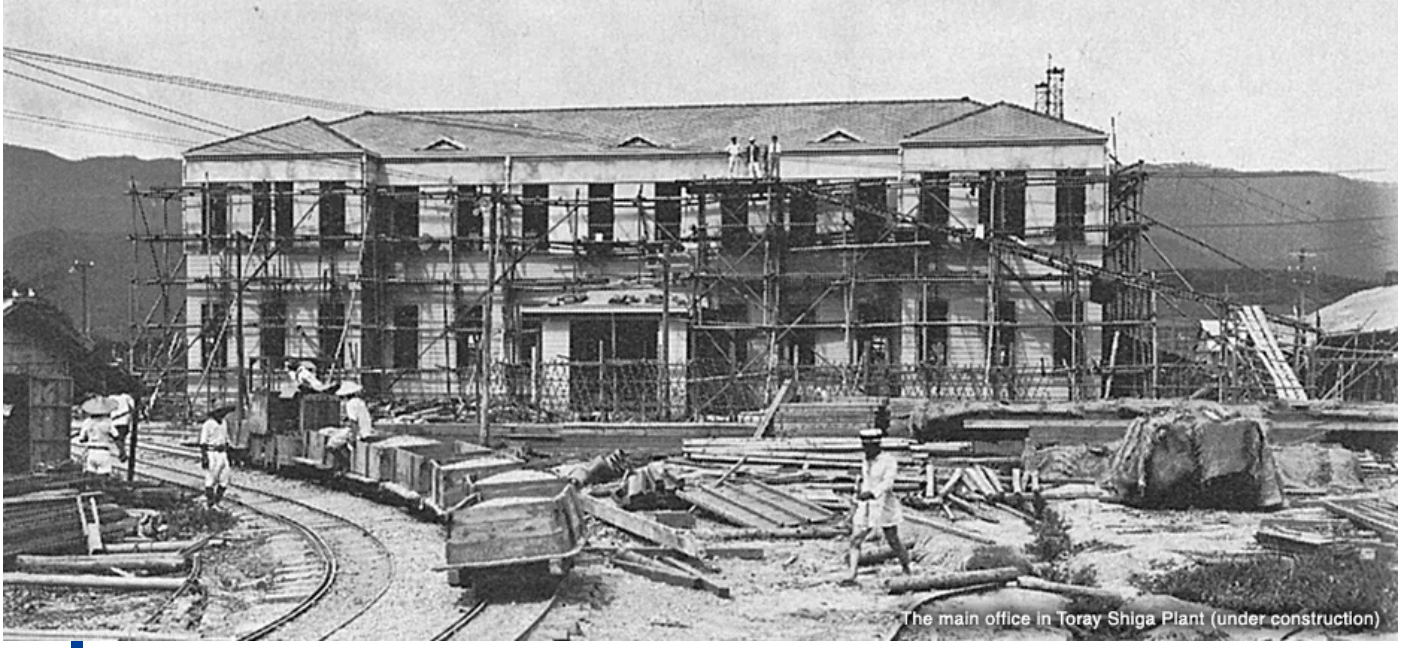
## TORAY'S Episode

**Toyo Rayon's founding objective was to spur major development of the nation and the economy.**

At the time, Japan relied heavily on imports of wool and raw cotton for its clothing. Yunosuke Yasukawa, Toyo Rayon's first chairman and the managing director of what was then Mitsui & Co., believed that by achieving domestic production of rayon made from locally sourced pulp, Japan would be able to reduce its dependence on foreign imports, provide better clothing for the nation, and secure much-needed foreign currency. Following Toyo Rayon's founding in 1926, newly-hired technicians acquired technical knowledge and skills from foreign engineers, while the company dedicated itself to improving equipment and facilities, and to developing new products.

### Toray Insights

1. **We will develop the rayon business to become a major contributor to the nation and the economy, both by achieving self-sufficiency in clothing production and in helping secure foreign currency.**
2. **Through young Japanese technicians' early adoption of technical knowledge from foreign engineers and the in-house development of products, facilities, and equipment, we will establish our own production technology and secure competitive strength internationally.**
3. **Based on the belief that "the plant should be a place for the cultivation of human character," our first Shiga Plant manager, Asahiko Karashima (later our second chairman) has focused on educating and nurturing the abilities of our employees while creating a model plant that possesses both the latest technology and high moral standards.**
4. **From establishing a company to scouting for locations, we understand the necessity of examining and paying sufficient attention to labor and waste issues surrounding the manufacturing and chemical industries.**


The main office in Toray Shiga Plant (under construction)

1951

# DuPont introduces American nylon technology

## Context

**After Japan's defeat in the Pacific War, the country set out to rebuild its economy.**

Three years and eight months after the outbreak of the Pacific war in December 1941, the Second World War finally ended with Japan's defeat in August 1945. Following the war, the Supreme Commander of the Allied Powers (GHQ) led efforts to democratize Japan, and the Japanese economy, after suffering the devastating ravages of war, set out on the road to recovery.

## TORAY'S Episode

**Began a technology partnership with DuPont following the development of original nylon processing technology.**

Toyo Rayon succeeded in the synthesis and melt spinning of nylon 6 fiber in 1941 but did not begin plans for its mass production until after the war. In 1951, Toyo Rayon concluded a patent licensing agreement with America's DuPont and began full-scale production of nylon fiber.

### Toray Insights

1. After getting started with nylon production, we can expand our portfolio to include polyester and other fibers.
2. We have entered into a technical partnership with DuPont, as we have both been independently developing Nylon 6, and will begin turning our attention to the export market thanks to the added value achieved through high-order processing.
3. We have realized the essential importance of collaborating with customers on each application of new materials in order to develop products, improve quality, and open new markets.

Signing of technical agreement with DuPont

1955

# Established the company motto, "Toyo Rayon contributes to communities"

## Context

**After making a miraculous recovery, the Japanese economy entered a period of rapid economic growth.**

In 1954, the Japanese economy launched into a period of remarkable growth. At the time, people were hungry for prosperity, and economic development became the nation's top priority. Globally, this period saw the beginning of the Cold War, as capitalist and communist nations began their battle for global dominance.

## TORAY'S Episode

In 1955, Toyo Rayon expressly laid out a company motto reflecting the management philosophy passed down since its founding. This was revisited in 1986, after which a new corporate motto of "Contributing to society through the creation of new value with innovative ideas, technologies and products." was established. In 1960, Toyo Rayon set up a foundation to promote and support basic science in Japan. In 1993 and 1994, it established independent science foundations in three Southeast Asian nations, where the company had expanded early on.

### Toray Insights

1. **From the start, Toyo Rayon's main business objective has been to improve people's quality of life by helping develop the nation and the economy; increasing profit has been the means to achieve this.**
2. **The dramatic expansion of Toray's achievements is due to the support it has received from communities in recognition of its efforts to implement its corporate principle of "contributing to society."**
3. **As a resource-poor nation, Japan will prosper only if its manufacturing industry is further developed and primary importance is placed on promoting and developing the country's science and technology.**

Toyo Rayon Science Foundation First Award Presentation Ceremony (Mar.1961)

Malaysia Toray Science Foundation Inaugural Ceremony (Nov. 1993)

# Establishing a corporate culture of active engagement in R&D

## Context

**With the rise of mass consumerism, Japan emerged as a dominant economic power.**

Companies from developed nations laid the technical foundation of the manufacturing industries that supported Japan's postwar recovery. Furthermore, the manufacturing industry was able to build its export competitiveness under a fixed exchange rate of 360 yen to the dollar. By 1986 Japan had grown to just below the US as the world's second largest economy by nominal GDP.

## TORAY'S Episode

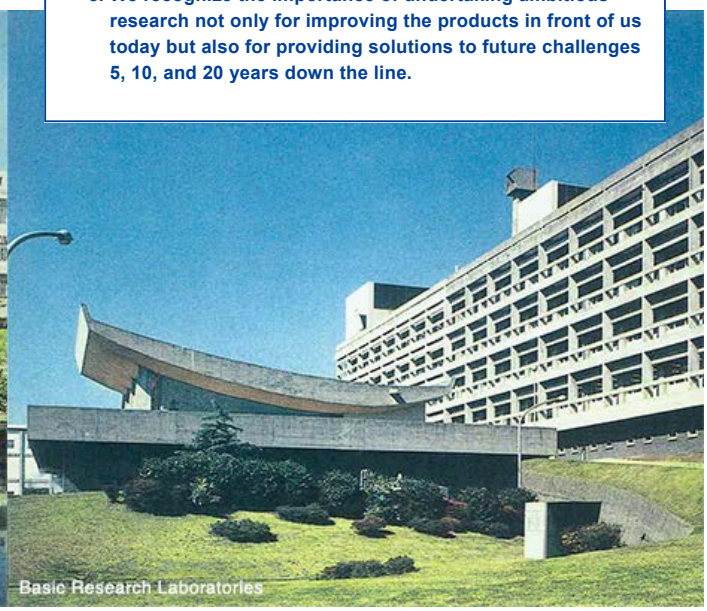
### A robust R&D infrastructure for developing new products through original technology

Toray's management understood the essential nature of producing new products and technologies based on the results of its own research and technical developments. To achieve this, the company made sure not to rely on technologies borrowed from the West or other companies and circumvented competition from domestic and international firms by differentiating its products and services.
In 1956, Toray established the Central Research Laboratory in Otsu (Shiga Prefecture) and, in 1962, its Basic Research Laboratory in Kamakura (Kanagawa Prefecture). From here, it devoted itself to developing new products. At the Basic Research Laboratory, Toray anticipated strong results from the creative research and technical developments it achieved based on fundamentals in independent research.

### Toray Insights

1. **We have realized the importance of creating new growth businesses through independent basic research in order for Toray to continue to grow.**
2. **As a manufacturing company, strengthening core technologies and basic research is a pivotal and ongoing management issue. Japan's national prosperity also depends on its ability to produce industrial products, making R&D vitally important to the country as a whole.**
3. **We recognize the importance of undertaking ambitious research not only for improving the products in front of us today but also for providing solutions to future challenges 5, 10, and 20 years down the line.**

Central Research Laboratories


Basic Research Laboratories

# New endeavors in the Neo-Plastic Age

## Context

**Dramatic economic growth for both the Japanese and global economies.**

The global economy during the 1960's experienced a period of remarkable growth that lasted until the Nixon and Oil shocks of 1971 and 1973, respectively. In Japan, household appliances, automobiles and other consumer durables became widespread in society giving birth to an era of mass consumption. Following the Tokyo Olympics in 1964, the Japanese economy temporarily stagnated after a round of investments in infrastructure but rebounded shortly thereafter, leading to a wave of economic

## TORAY'S Episode

**Toray's plastics business blossoms into the company's 2nd operational pillar.**

Along with Toray's original development of nylon and acrylic fibers, the company licensed polyester technology from the U.K. firm ICI in 1957. With this agreement, Toray became one of the world's leading manufacturers of all three major types of synthetic fiber in the 1960's.
This period saw a rapid growth in plastics with the expansion of the household appliance and automotive industries. Against this backdrop, Toray found success with a business model of guaranteed quality backed by constant exploration of new materials and applications.

### Toray Insights

1. **We recognize that "materials, which form the base of all products, have the power to intrinsically change society."**
2. **As a materials manufacturer, Toray pioneers new markets and applications alongside its clients, while offering new and innovative materials with a mission to meet the demands of both its customers and society.**

Signing of technical agreement about polyester with ICI (Feb. 1957)

Polyester Film Lumirror™

1960 -

# Establishing an overseas manufacturing subsidiary through technology transfers

## Context

**Countries around the world pursued economic growth through the development of their textile industries.**

In the 1960's, America pressured the Japanese textile industry - heavily dependent on US exports - to restrict its international output. Conversely, developing nations hoping to achieve economic independence pursued economic growth through the development of their manufacturing industries. Many countries began implementing industrialization policies. Some looked to Japan, hoping to transfer its fiber and textile technologies given the rapid growth the country had displayed over the past several decades.

## TORAY'S Episode

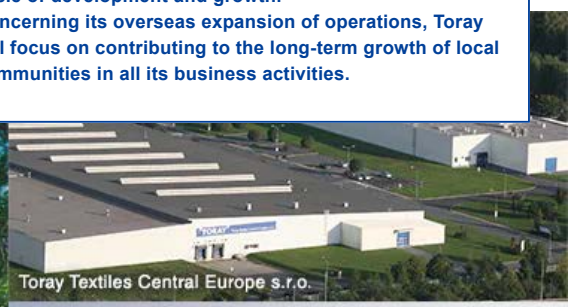
**Toray's first joint venture in Thailand in 1963 and the transfer of its technology.**

Toray established its first joint venture in Thailand with a business that provided integrated spinning, weaving and dyeing of polyester-rayon fabric. Toray's original objective in setting up this venture was to secure a place to export its staple polyester fiber but began overseas production of yarn and raw fiber at about the same time.

### Toray Insights

1. **While considered a sunset industry by some, we believe that globally the fibers and textiles trade is growing and intend to further expand our business.**
2. **We will continue to create advanced materials through innovative, cutting-edge research and technical developments, while building a business centered on high value-added products. We will also achieve dramatic reductions in costs by developing transformative operational processes.**
3. **To best address matters such as demand and competitive pricing, we will carry out production at the most suitable overseas locations and develop product applications according to local needs. Profit received through our global operations will be reinvested in the research and development of new innovative processes and the next generation of advanced materials, creating an on-going cycle of development and growth.**
4. **Concerning its overseas expansion of operations, Toray will focus on contributing to the long-term growth of local communities in all its business activities.**

Thai Toray Textile Mills Public Company Limited


Toray Textiles Central Europe s.r.o.

Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd.

1970

# Toyo Rayon Co., Ltd. renamed Toray Industries, Inc.

## Context

**Japan and the world find the limits of economic growth.**

Within an ongoing climate of rapid economic growth, Japan faced a financial recession in 1964 and 1965. Among companies in the fibers and textiles industry this was known as the "Nylon shock." In the 1970's the global economy suffered two additional shocks with the Nixon and oil crises that occurred in 1971 and 1973.

## TORAY'S Episode

**A two-pronged strategy of internationalization and diversification**

After surviving the Nylon shock, Toray foresaw the eventual maturation of the domestic textile market and began taking measures to expand and develop its overseas operations. The company further sought to diversify into new businesses. To mark this occasion, Toray rebranded with a new name, Toray Industries, Inc., and accelerated the internationalization of its fibers and textiles operations, while diversifying into plastics and other new ventures.

### Toray Insights

1. We are beginning plans to expand our plastics business in addition to our core synthetic fiber business.
2. Toray is gaining wide recognition with its Toray Nylon and Toray Tetoron product lines.
3. As part of our corporate redesign, Toray is launching an internal organization for developing new businesses, while simultaneously accelerating the expansion of our overseas fibers and textiles business.

P.T. Indonesia Toray Synthetics

1980 -

# Expansion of Toray's carbon fiber business for the next generation of aircraft structures.

## Context

**Fluctuation in exchange rates due to Japan-US trade frictions and international compromise.**

In 1980, Japan sunk into its longest recession since World War Two, which lasted for three years. It began with the second oil shock brought on by the Iranian revolution. Domestic demand stagnated, but with a booming American economy, Japan expanded its US-bound exports, helping to rekindle the economy. At the same time, this sparked trade tensions between the US and Japan. At the 1985 G7 summit, the Plaza Accord was signed, further exacerbating the yen's appreciation.

## TORAY'S Episode

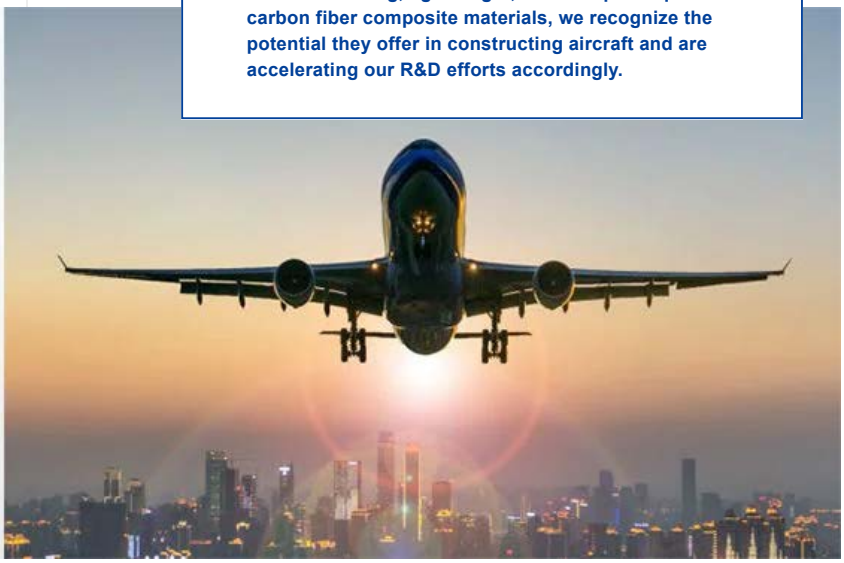
**Developing strong and heat-resistant high-performance carbon fibers.**

After successfully developing polyacrylonitrile-based carbon fiber, Toray initiated its test production in quantities of a few hundred grams per month in 1970. Thanks to a boost from the "black shaft" revolution, Toray's production saw stable growth early on that translated into the fiber's adoption as a primary structural material in aircraft in the 1980's. Today, the Toray Group manufactures its carbon fiber around the globe in Japan, France, America, and Korea, earning it the number 1 spot globally in terms of both quality and quantity.

### Toray Insights

1. **Cultivating and expanding a new core business on top of our plastics, fibers, and textiles operations is essential to Toray's long-term ongoing growth.**
2. **Toray's polyacrylonitrile-based carbon fiber is increasingly being used as a light-weight material with the potential to reduce the environmental burden of textiles.**
3. **Given the strong, lightweight, and rust-proof qualities of carbon fiber composite materials, we recognize the potential they offer in constructing aircraft and are accelerating our R&D efforts accordingly.**

Carbon Fiber TORAYCA™



2000 -

# Increased orders for reverse osmosis (RO) membranes used at water treatment facilities

## Context

**Many regions still lack access to clean water in the 21st century.**

Research and development of membranes for reverse osmosis began in the 1960's, with many envisioning their application in seawater desalination. In recent years, membrane treatment methods have proven to offer much lower treatment costs than conventional evaporation methods, leading to large plants placing constant orders for these transformative membranes. In combination with other functional membranes, reverse osmosis membranes are also helping solve the challenge of wastewater reclamation.

## TORAY'S Episode

**Toray's functional membranes give around 400 million people access to clean water.**

Toray began its research on reverse osmosis membranes in the 1960's and started developing its water treatment membrane business in the 1980's. Today, as part of its integrated system proposals, Toray has developed a lineup of membranes with functions covering reverse osmosis, ultrafiltration, microfiltration, and more. Toray currently supplies membranes to 70 countries worldwide, which collectively are capable of processing 60 million tons of water a day. This is equivalent to the amount of water used by around 400 million people.

### Toray Insights

1. **The dramatic increase in global population has created the threat of water shortages around the world. Recognizing that access to clean water is a pressing issue humanity must address, we have initiated early measures to tackle this challenge.**
2. **From the start, we have advanced R&D that aims to make seawater desalination a reality and have led comprehensive efforts to improve Toray's manufacturing efficiency. With current bases positioned in Japan, America, Europe, China, Korea, and the Middle East, our seawater desalination plants will begin taking orders on a global scale.**
3. **Toray will provide pivotal support in national projects to develop large-scale, high-efficiency desalination plants.**

Reverse-osmosis Membrane Elements ROMEMBRA™

Photo provided by Sembcorp Industries

Seawater Desalination Plant

Current

# A century since Toray's founding: looking ahead to the next hundred years

## Context

**With a long-term plan in place, Toray continues pursuing future challenges.**

The 20th century was defined by war. Even today, regional conflicts continue to unfold, trade wars escalate between superpowers, and even talk of conflict in space begins. Against this backdrop, the United Nations has taken the lead in efforts to address global challenges through international collaboration in order to ensure the continued well-being of humanity and the environment. For its part, Toray has established a long-term plan in continuing to pursue new challenges moving forward.

## TORAY'S Episode

**Believing perseverance is power, Toray maintains a steady management philosophy.**

Toray has focused special attention on basic research to create innovative products. While some products take as much as fifty or sixty years to find market success, Toray's tenacious investments in R&D have borne fruit in a rich and broad portfolio. With a management philosophy that perseverance is power, Toray has continued to honor its dividend policy towards its shareholders, while providing consistent support to sports and culture through long-term sponsorships of worldwide women's tennis tournaments, the Shanghai International Marathon, and more.

### Toray Insights

1. **Toray will engage in research activities inspired by the twin slogans of "long-term continuity" and "the deeper, the newer." Centered on its core technologies, Toray will pursue research and technical developments with long-term objectives firmly in mind.**
2. **We intend to contribute to society directly through our business activities and will work to solve social and environmental issues concerning the planet and the health and longevity of human society through the power of materials.**

New Frontiers Research Laboratories

Toray Pan Pacific Open Tennis Tournament

R&D Innovation Center for the Future

# The Future

## Four Perspectives of the World as Envisioned by the Toray Group in 2050

### Net zero emissions

A net zero emissions world, where greenhouse gas emissions are completely offset by absorption

### Sustainably managed resources

A world where resources are sustainably managed

### Restored natural environment

A world with a restored natural environment, with clean water and air for everyone

### Healthier lives

A world where everyone enjoys good health and hygiene

# 5 Commitments for 2030

**Supplying Green Innovation Products**

**4fold**

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 $CO_2$ emissions in the value chain.※1

**Supplying Life Innovation Products**

**6fold**

Supply six times more Life Innovation products (products that enhance public health, improve the quality of medical care, and contribute to health maintenance, longevity, and personal safety).

**Annual Water Filtration Throughput**

**3fold**

Triple the total annual volume of water treated using Toray's water treatment membranes. ※2

**Reducing GHG Emissions**

**30%Reduction**

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

**Reducing Water Consumption per Unit of Sales**

**30%Reduction**

Reduce water usage in production activities by 30% per unit of sales across the entire Toray Group.

# Progress against the Commitments for 2030

| | Achieved FY2013 | Achieved FY2021 | | Target FY2030 (Compared to FY2013) |
|---|---|---|---|---|
| | | | Compared to FY2013 | |
| **Green Innovation product sales** | 463.1 billion yen | 832.2 billion yen | 1.8times | 4times |
| **Contribution to $CO_2$ reduction in value chain** | 38.45 million tons | 306.22 million tons | 8.0 times | 8times |
| **Life Innovation product sales** | 119.6 billion yen | 308.4 billion yen | 2.6 times | 6times |
| **Contribution to water treatment (conversion to water volume)** | 27.23 million tons | 61.00 million tons | 2.2 times | 3times |
| **Greenhouse gas emission per unit of sales** | 3.37 thousand tons /billion yen | 2.67 thousand tons /billion yen | 21% reduction | 30% reduction |
| **Water usage per unit of sales** | 152 thousand tons /billion yen | 109 thousand tons /billion yen | 28% reduction | 30% reduction |

**The baseline year for quantitative targets is fiscal 2013.**

※1 For $CO_2$ emissions avoided in the value chain, Toray calculates the $CO_2$ 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 38%), which is based on the Paris Agreement. With the use of renewable energies and other zero emission power sources rising worldwide, the Toray Group aims to employ zero-emission power sources at a rate equivalent to or better than the targets in each country by 2030.

# Four Perspectives of the World as Envisioned by the Toray Group in 2050

## Net zero emissions

Green Innovation

Towards 2050

## A net zero emissions world, where greenhouse gas emissions are completely offset by absorption

ACTIONS

### Accelerating measures to counter climate change

In order to keep the air temperature from rising by more than 2°C due to global warming, we must become carbon neutral by 2050. Being carbon neutral means that the amount of greenhouse gases such as carbon dioxide that we are emitting is equivalent to the amount being absorbed. In addition to reducing the amount of carbon dioxide emitted during the product manufacturing stage, the Toray Group will utilize materials and technologies associated with energy conservation and new and renewable forms of energy to work toward creating a new-energy society. This can be achieved by reducing product weight in order to reduce fuel consumption, thereby improving carbon dioxide emissions throughout the entire product lifecycle, leveraging renewable energies such as wind power, which does not produce carbon dioxide, and utilizing hydrogen and electric vehicles.

AFFORDABLE AND CLEAN ENERGY

CLIMATE ACTION

### Curbing $CO_2$ emissions throughout the life cycle of products

Toray provides lightweight and strong carbon fiber that can reduce the weight of aircraft and automobiles, to improve fuel economy and reduce $CO_2$ emissions.

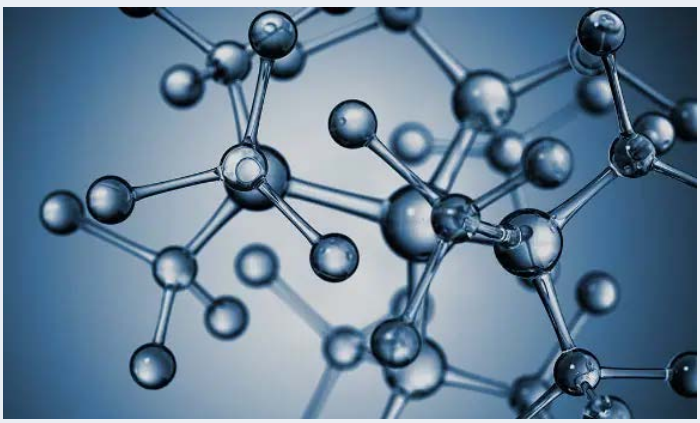
### Building a renewable energy economy

Toray supplies materials for use in renewable energy technologies including wind and solar energy, and in hydrogen conversion, storage, and fuel cells.

### Reducing $CO_2$ emissions in manufacturing

Toray actively strives to reduce $CO_2$ emissions in manufacturing, through process improvements that conserve energy, use renewable energy and reduce the use of coal.

## A Materials World



### Material benefits: how carbon fiber is reducing our environmental footprint

A MATERIALS WORLD #04

Carbon fiber is a “wonder” material, adding exceptional strength without weight to aircraft, wind turbines and cars. New technologies devoted to improving its production and recycling mean even greater environmental benefits lie ahead.

READ MORE

### The materials that are building a renewable energy economy

A MATERIALS WORLD #05

To halt the rise of harmful greenhouse gas emissions, we need to convert as many sectors of the economy to renewable energy as quickly as possible. Advanced materials are improving the efficiency of the renewable energy industry while helping other sectors, such as transport, adapt to electrification.

READ MORE

Green Innovation Website

# Four Perspectives of the World as Envisioned by the Toray Group in 2050

## Sustainably managed resources

Green innovation

**Towards 2050**

## A world where resources are sustainably managed

**ACTIONS**

### Realizing sustainable, recycling-based use of resources and production

In order to create a sustainable society, we must transition to a so-called recycling-based society — a society managed in a sustainable manner that makes effective use of, and recycles, our limited resources. Specifically, this involves using our limited resources sustainably by reducing our use of fossil fuels such as oil, reducing and reusing waste plastic, effectively using and reusing water resources, and making effective use of carbon dioxide. This transition to a recycling-based society will also contribute to resolving the issues of global warming and marine plastic waste. The Toray Group will contribute to creating this recycling-based society by developing and commercializing bioplastics that use plants and other biological resources, promoting the recycling of textiles, camera film and resin products, and reducing waste at the production stage.

RESPONSIBLE CONSUMPTION AND PRODUCTION

**Using non-fossil resources (bioresources)**

Toray works to reduce the world's dependency on fossil fuel resources by manufacturing non-edible plant-based fibers and developing materials and fuels using biotechnologies and membrane separation technology.

**Promoting product recycling**

Toray facilitates recycling of its diverse products including fibers, resins, films, and carbon fiber.

**Reducing waste at production sites**

Toray implements measures to use resources more effectively, practices recycling, and works to reduce waste.

## A Materials World

### Moral fiber: sugar cane replaces petroleum to make eco-friendly polyester fabrics

A MATERIALS WORLD #02

The development of plant-based polyester could help save the earth by changing what we wear, while significant sales figures suggest consumers are all too happy to make the switch to eco-apparel.

READ MORE

### Sweet success for biomass technologies

A MATERIALS WORLD #03

The need for more sustainable manufacturing processes has led to exciting innovations in the development of new biotechnologies, notably in the global production of sugar.

READ MORE

Green Innovation Website

# Four Perspectives of the World as Envisioned by the Toray Group in 2050

## Restored natural environment

Green innovation | life innovation

**Towards 2050**

### A world with a restored natural environment, with clean water and air for everyone

**ACTIONS**

### Providing clean water and air

Population growth, the development of the agricultural and livestock industry, and industrialization have led to water and air pollution becoming global issues. We can only create a sustainable society if we solve these problems and provide a greener world where everyone has access to safe water and air, and where people can live in harmony with nature. The Toray Group is committed to bringing about such a world by reducing and controlling the amount of water used in our manufacturing processes, actively preventing air and water pollution, keeping the water supply safe using water treatment membrane technology, and improving the indoor air environment using high-performance air filters. We are also focusing on environmental education, to raise awareness around environmental issues in the younger generation.

CLEAN WATER AND SANITATION

LIFE BELOW WATER

LIFE ON LAND

**Providing safe water using membrane technologies**

Toray supplies water treatment technologies for the desalination, purification, and reuse of water to address water scarcity and reduce environmental impacts.

**Managing water usage at plants and preventing air and water pollution**

Toray pursues greater reuse of water, purification of exhaust ventilation and wastewater, and appropriate management of chemical substances at its plants. In areas where water resources are particularly scarce, Toray takes additional steps to curb water intake.

**Providing ultrafine filter fibers for cleaner air**

Toray supplies proprietary ultrafine fiber non-woven fabrics that remove particulates from the air, delivering cleaner air around the world.

**Inspiring interest in the environment**

Toray supports education to raise awareness of environmental issues such as water scarcity.

## A Materials World

### Turn of the tide: tackling water scarcity with technology and common purpose

A MATERIALS WORLD #07

As the world's water crisis intensifies, governments, business and communities are uniting to protect clean water sources, use them more responsibly, and even create new drinking water from the sea.

READ MORE

Green Innovation Website

### Membrane innovation turns seawater into freshwater

A MATERIALS WORLD #08

The global water crisis is being tackled with new technologies – with encouraging results. Specialized water-purification membranes can separate the salt from seawater and deliver clean water to millions of people worldwide.

READ MORE

Life Innovation Website

# Four Perspectives of the World as Envisioned by the Toray Group in 2050

## Healthier lives

life innovation

**Towards 2050**

## A world where everyone enjoys good health and hygiene

**ACTIONS**

### Contributing to better medical care and hygiene for people worldwide

Innovative diagnostic technologies and curative medicines are required in both developed and developing countries, but these bring with them the challenges of increased medical costs and an increased burden on healthcare sites. In the 21st century, the most significant challenges facing society are raising the healthcare and public sanitation services required to maintain a healthy and independent way of life, and providing high-quality medical care.

In order to create a world in which all people can live a healthy and hygienic life, Toray will focus on business pursuits that contribute to health and longevity, improve the quality of care, reduce the burden on medical sites, and increase human safety. We will promote the Life Innovation (LI) business expansion project, which aims to promote good health through the use of cutting-edge materials and innovative technologies.

GOOD HEALTH AND WELL-BEING

**Contributing to better public health by preventing infection, and more**

Toray supplies advanced material products such as protective clothing to help secure human health.

**Improving the quality of medical care with innovative technologies and advanced materials**

Toray supplies DNA microarrays for early diagnosis of diseases and innovative drugs that support people's health.

**Contributing to longevity**

Toray manufactures advanced clothing that can monitor biological information and aging assistive products that support longevity and enhance the quality of life.

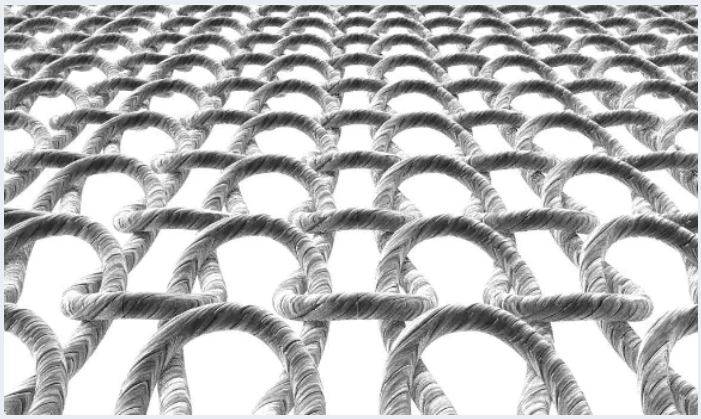
## A Materials World

### Synthetic innovation helps translate nature's greatest narrative: our genes

A MATERIALS WORLD #09

Our genes are the blueprints of life – and advanced technology is enabling experts to analyze them in dynamic new ways. The result: earlier detection of diseases and a healthier outlook for future generations.

READ MORE



### Long-life fabric gains new meaning as wearable tech promotes wellbeing for an aging world

A MATERIALS WORLD #11

Technologies associated with "performance fabrics" are advancing all the time, meaning a step up in quality of life and health for everyone – from athletes to seniors

READ MORE

Life Innovation Website

# CSR Activity Report (CSR Guideline Activity Reports)

Toray Group has established CSR Guidelines to govern its CSR initiatives. Intended to be comprehensive, they cover aspects from corporate governance to social contribution. The CSR Guidelines consist of ten themes, each of which is assigned an implementation leader.
The Group also establishes a CSR roadmap every three years to ensure that all of its efforts to live up to the CSR Guidelines move forward in a systemic and organized manner. Each CSR roadmap defines targets for specific initiatives and establishes key performance indicators (KPIs) to ensure that progress is quantitatively managed each year.

In line with the Medium-Term Management Program, Project AP-G 2022, the CSR Roadmap 2022 covered the period from fiscal 2020 through fiscal 2022 and facilitated CSR activities based on the ten themes of the CSR Guidelines, listed below.
The roadmap defines, in principle, KPIs for the entire Toray Group and charts the course for everything the Group does to fulfill its corporate social responsibilities. In addition to initiatives for which KPIs have been set, the roadmap also describes important initiatives not associated with KPIs for each of the CSR guidelines, in order to further promote CSR initiatives.

> Click here for the comparative table of CSR activity report items with ESG topics

| CSR Guidelines | |
|---|---|
| **1 Corporate Governance**<br>Continually revise management systems, strengthen internal controls as part of efforts to fulfill the company's social responsibilities. | > Read more |
| **2 Ethics and Compliance**<br>Ensure all executives and employees uphold a sense of responsibility, fairness and high ethical standards, and act with a keen sense of compliance to maintain the trust of society. | > Read more |
| **3 Safety, Accident Prevention, and Environmental Preservation**<br>Ensure the safety and health of society and employees, and protect the environment in all business processes, from procuring raw materials and manufacturing to the supply and disposal of products. | > Read more |
| **4 Product Quality and Safety**<br>Provide safe, highly reliable products by striving to enhance management systems for product quality assurance and safety, and disclose appropriate information. | > Read more |

| CSR Guidelines | |
|---|---|
| **5 Risk Management**<br>Under normal conditions, assess and analyze risks, and strive to mitigate and prevent them from materializing; and in the event of a crisis that could have a significant impact on management activities, strive to prevent damage from increasing, by bringing the situation quickly under control and normalizing conditions with a prompt and appropriate response. | Read more |
| **6 Communication**<br>Disclose corporate information in an active, fair and straightforward manner to maintain management transparency; and disclose information appropriately to encourage dialogue and cooperation with stakeholders including customers, employees, stockholders, business partners, consumers, mass media, and other parties. | Read more |
| **7 Contributing Solutions to Social Issues through Business Activities**<br>Leverage innovation to address global-scale environmental issues such as climate change and provide solutions for various social issues such as the need to improve the quality of medical care, the need to reduce the burden on medical staff, health maintenance and longevity, and personal safety, thereby helping to build a more sustainable world. | Read more |
| **8 Human Rights Promotion and Human Resources Development**<br>Respect human rights, provide safe and healthy workplaces for employees, secure and train personnel, and diversify while striving to protect employment. | Read more |
| **9 Facilitating CSR Initiatives Throughout the Supply Chain**<br>Promote CSR initiatives in areas including environmental preservation and human rights throughout the entire supply chain by working closely with suppliers, processing vendors, customers and distribution companies. | Read more |
| **10 Social Contribution Activities as a Good Corporate Citizen**<br>Proactively participate in local communities and the larger society in order to contribute to development in a way betting a good corporate citizen. | Read more |

CSR Activity Report (CSR Guideline Activity Reports)

# Corporate Governance

**Continually revise management systems, strengthen internal controls as part of efforts to fulfill the company's social responsibilities.**

## Basic Approach

From the outset, one of Toray Group's managerial principles has been that the purpose of a company is to contribute to society. The Group has developed the Toray Philosophy that incorporates this principle.
The Toray Philosophy is structured with the following components: the Corporate Philosophy, Corporate Missions, and Corporate Guiding Principles. The Corporate Missions specify the Group's commitment "To practice sincere and trustworthy management," and the Corporate Guiding Principles stipulate the Group's commitment to "Acting with fairness, high ethical standards and a strong sense of responsibility while complying with laws, regulations and social norms to earn trust and meet social expectations."
In establishing its corporate governance structure, the Group seeks to fulfill these philosophies as its basic policy.

**Related Policies**

> Basic Policy on Corporate Governance

**Related Information**

> Corporate Governance

Corporate Governance Report PDF

## Structure

Toray Industries, Inc. operates as a company with a Board of Corporate Auditors and Board of Directors. The Board of Directors, which includes outside directors, decides on the business execution and supervises the execution of duties by the directors. The Board of Corporate Auditors includes outside auditors and independently audits the execution of duties by the directors, separately from the Board of Directors and the executing organization. This framework is designed to secure the transparency and fairness of decisions made by the Board of Directors. In addition, there is a Governance Committee, which serves as a voluntary advisory body to the Board of Directors. The Governance Committee deliberates on all matters relating to corporate governance, enhancing the effectiveness of governance by the Board of Directors.

Toray Group operates in a broad spectrum of business fields at a global level. Business management and decision-making, as well as oversight, require assessment of a wide variety of risks from multiple perspectives based on expertise related to the day-to-day operations of the Group's worksites. To that end, the composition of the Board of Directors is designed to ensure that members bring a diverse range of perspectives to management oversight and decision-making based on their expertise in the Group's businesses. Meanwhile, outside directors are elected to the Board to ensure transparency and fairness, to ensure oversight from an even broader perspective, and to obtain appropriate managerial advice from a medium- to long-term perspective.

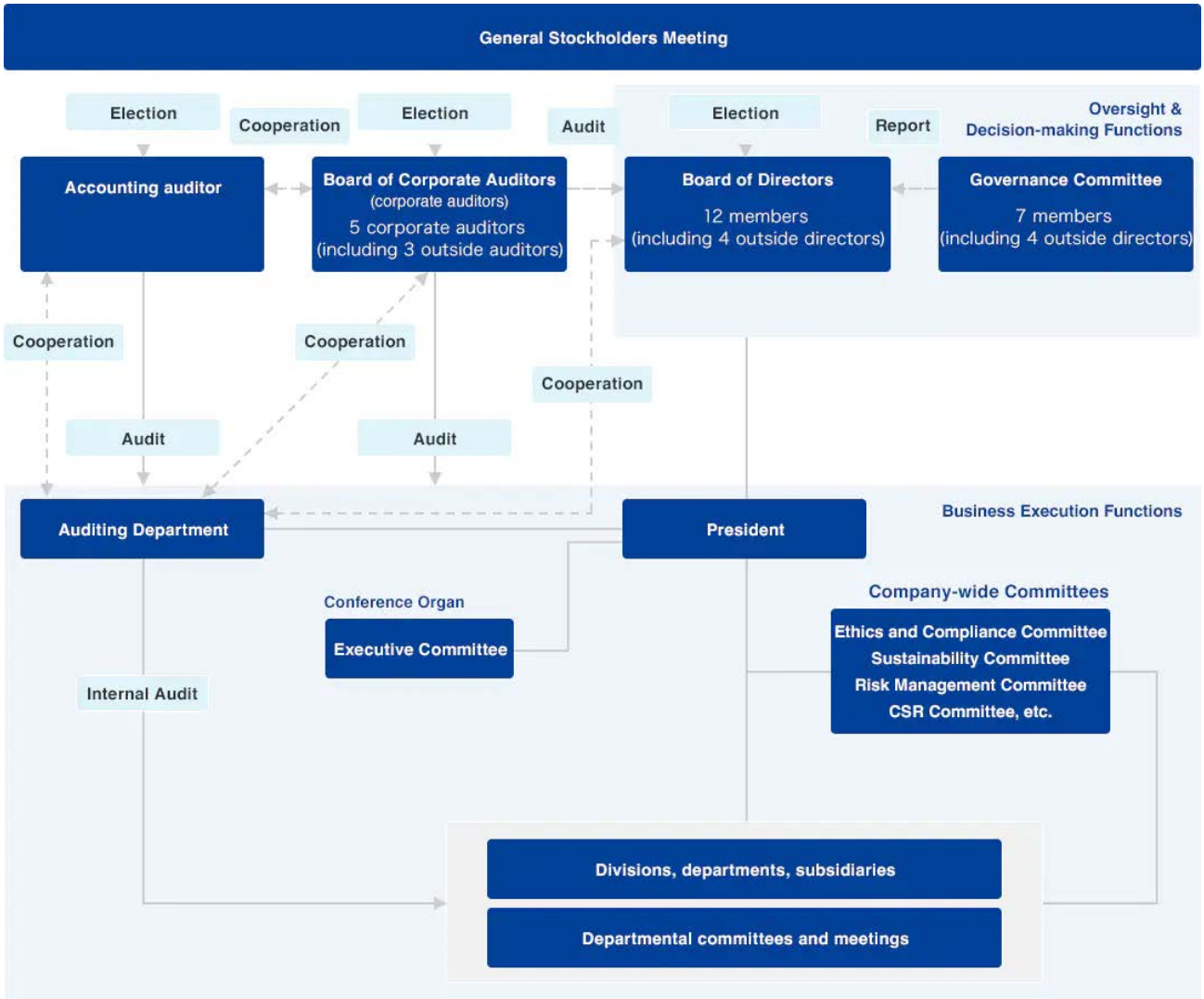
The Board of Corporate Auditors is entirely independent of the Board of Directors. Based on professional expertise in finance, accounting, and law, as well as an understanding of the Group's businesses, the Board of Corporate Auditors exercises oversight over directors' execution of their duties. The Governance Committee consists of three internal members of the Board, and four outside directors, and an outside director serves as a chairperson. In fiscal 2021, the Board of Directors held 14 meetings[1] and the Board of Corporate Auditors held 11 meetings[2].

1 For each director's attendance, please refer to pages 10 and 11 of Notice of the 141st Ordinary General Meeting of Stockholders.
https://www.toray.com/global/ir/pdf/sto/sto_051.pdf

2 For each auditor's attendance, please refer to page 47 of Annual Securities Report -141st Period
https://www.toray.co.jp/ir/pdf/lib/lib_a587.pdf

## Toray Group's Corporate Governance Structures and Skill Matrix

As of July 2022




| | Name | Business operations | | | | Corporate | | Strategic |
|---|---|---|---|---|---|---|---|---|
| | | Management Experience | Global Business | Technology/ Manufacturing/ R&D | Sales and marketing | Legal/Intellectual property/ Risk Management | Accounting/ Finance | |
| Member of the Board | Akihiro Nikkaku | ○ | ○ | | | | | |
| | Mitsuo Ohya | ○ | | | ○ | | | |
| | Satoru Hagiwara | ○ | | ○ | | | | |
| | Kazuyuki Adachi | | ○ | ○ | | | | |
| | Minoru Yoshinaga | | ○ | ○ | | | | |
| | Yasuo Suga | ○ | | | | | | ○ (DX) |
| | Kazuhiko Shuto | | ○ | | ○ | | | |
| | Masahiko Okamoto | | ○ | | | | ○ | |
| | Kunio Ito | | | | | | ○ | ○ (ESG) |
| | Ryoji Noyori | | | ○ | | | | ○ (Science and technology) |
| | Susumu Kaminaga | ○ | | | | | | ○ (Business Strategies) |
| | Kazuo Futagawa | | | | | ○ | | ○ (Policy science) |
| Corporate Auditor | Toru Fukasawa | | ○ | | | | ○ | |
| | Yoshiyuki Tanaka | | ○ | ○ | | | | |
| | Toshio Nagai | | | | | ○ | | |
| | Kazuya Jono | | | | | | ○ | |
| | Hiroyuki Kumasaka | | | | | | ○ | |

The skill matrix above is not an exhaustive list of all the experience and knowledge possessed by individual, but presents the fields that the Company wishes each individual for promoting strategies.

# CSR Roadmap 2022 Targets

## CSR Roadmap goals

1. Further improve governance by ensuring that Board of Directors operates in a manner that contributes to the enhancement of corporate value over the medium to long term.
2. Perform monitoring based on the Basic Policy for Internal Control Systems, in accordance with Japan's Companies Act.

## Main initiatives and Key Performance Indicators

| | KPI |
|---|---|
| (1) Regularly hold Toray Group Business Strategy Discussion sessions at Board of Directors meetings | 1-❶ |
| (2) Consider the appropriate form of Toray head office involvement in the execution of business at each group company from the viewpoint of balancing the effectiveness of group-wide governance with the dynamic decision-making of subsidiaries | - |
| (3) Expand the opportunities for training, etc., needed for directors and corporate auditors to acquire the knowledge necessary for their responsibilities (excluding execution) and to fulfill their roles appropriately | - |
| (4) Operate an effective internal control system | 1-❷ |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| 1-❶ Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number) | 8 times | 8 times | 8 times | 8 times |
| 1-❷ Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%) | 90% | 90% | 90% | 95% |

Reporting scope : Toray Group

## Looking to the Future

Toray Industries' Board of Directors conducted a "Questionnaire Survey to Evaluate the Effectiveness of the Board of Directors in the Fiscal Year Ended March 31, 2022." The survey had among 17 respondents, comprising all of the Board members and corporate auditors. Additional interviews were also conducted with seven outside directors and outside corporate auditors to hear their opinions in relation to their responses to the questionnaire. In order to ensure transparency and objectivity, the Company contracted a third-party organization to collect and tabulate the questionnaires and conduct the interviews.

Analysis and evaluation of the effectiveness of the Board of Directors based on the above process concluded that the Board had generally fulfilled its roles and responsibilities in fiscal 2021. With regard to the matter of "diversity on the Board of Directors," however, discussions continue to be held on the issue of appointing human resources who will contribute to the realization of the Toray Philosophy, based on the premise of ensuring quality. In terms of "further activating Board of Directors discussions, " specific measures for improvement are being taken in fiscal 2022 and beyond, continuing from fiscal 2021, to further improve the effectiveness of the supervisory function of the Board of Directors.

With respect to the opinions, etc., received from the members of the Board and corporate auditors in the course of evaluating the effectiveness of the Board of Directors, the Governance Committee will hold in-depth discussions based on those opinions with a view to further improving the effectiveness of the Board of Directors, as necessary.

CSR Activity Report (CSR Guideline Activity Reports) - Corporate Governance

# Ensuring Proper Business Conduct and Transparency

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)

## Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number)

■Reporting scope
Toray Group

■Target in fiscal 2021
8 times

Result in fiscal 2021

**8 times**

## Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%)[1]

■Reporting scope
Toray Group

■Target in fiscal 2021
90%

Result in fiscal 2021

**95 %**

1 To evaluate the effectiveness of internal control relating to the Board of Directors, a questionnaire is given to all 17 directors and corporate auditors. It covers each of the nine items in the Basic Policy on Internal Control System set in accordance with the provisions of the Companies Act of Japan.
In this way, internal control effectiveness is evaluated by all directors and corporate auditors, and then monitored as a KPI of the internal control system to be shared with stakeholders.

The Toray Industries Board of Directors holds regular Toray Group Business Strategy Discussion sessions to confirm the direction of and progress on management strategies for Toray Group sustainable growth and creation of medium- to long-term corporate value. Eight discussion sessions were held in fiscal 2021.
In addition, Toray Industries provides information on Japan's Corporate Governance Code revisions to its directors so that they have all of the knowledge needed to appropriately execute their duties and fulfill their role. Dialogue between outside directors and the Company's vice presidents is also regularly pursued, as well.
Toray Industries operates a Basic Policy on Corporate Governance based on Japan's Corporate Governance Code, and regularly publishes a Corporate Governance Report, which also summarizes the status of internal control systems.
Toray Group maintains and improves group governance by establishing group-wide rules and regulations concerning ethics and compliance, efficient execution of duties, preservation and management of information, risk management, and other matters, in addition to holding regular meetings to receive direct reports on the management status of subsidiaries.

Toray Industries has set a KPI for “Board of Directors’ positive assessment of the implementation of the Basic Policy for Internal Control Systems.” The result for fiscal 2021 was 95%, surpassing the target of 90%.

**Related Information**

> Basic Policy on Corporate Governance

Corporate Governance Report PDF

> Basic Policy on Internal Control System

> Information Disclosure Principles

Click here for the main initiatives for CSR Guideline 1, “Corporate Governance” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports)

# Ethics and Compliance

**Ensure all executives and employees uphold a sense of responsibility, fairness and high ethical standards, and act with a keen sense of compliance to maintain the trust of society**

## Basic Approach

Toray Group's corporate philosophy is "Contributing to society through the creation of new value with innovative ideas, technologies and products."

To deliver on this commitment, Toray Group is contributing to society by leveraging innovative technologies and advanced materials to tackle important global issues. This efforts requires that the Group earn and maintain the trust of diverse stakeholders by ensuring that its business activities comply with the laws and regulations of the countries where it does business, and by always acting with integrity.

Top management is taking the initiative by giving the highest priority to securing compliance, and by requiring that the Group and its suppliers facilitate ethics and compliance practices.

## Related Policies

### Internal Rules for Ethics and Compliance

Toray Industries, Inc. has established a set of internal rules for ethics and compliance, together with related standards and procedures. These internal rules set out the framework for practicing corporate ethics and legal compliance, and they are designed to foster a healthy corporate culture. The rules also outline how to respond to issues, identify causes and prevent recurrence, as well as initiatives to be taken by group companies in and outside Japan.

**Ethics & Compliance Code of Conduct**

Toray Group has established the Ethics & Compliance Code of Conduct as an important rule which every Toray Group executive and employee must comply with.

> Ethics & Compliance Code of Conduct

## Structure

Toray Industries has established an Ethics and Compliance Committee, which is chaired by the president with membership comprising the Company's vice-presidents. At this committee, management and workers come together to consider and discuss policies related to corporate ethics and compliance. The status of the whistle-blowing system in Toray Group, including number of reports (consultations) received through hotlines and the outline of the cases, are reported to directors by the Ethics and Compliance Committee.
In fiscal 2021, the Ethics and Compliance Committee convened twice to deliberate on and discuss the results of fiscal 2020 initiatives, action plans for fiscal 2021, and the progress of implementation thus far. The committee also discussed individual measures such as the implementation of Compliance Month and collaboration with safety activities.
In each workplace, Toray Group is shifting away from a top-down approach to compliance measures, with the general manager of the division or department taking the lead on initiatives. Instead, a middle-up/middle-down approach starts with mid-level employees, who formulate and carry out the activities deemed necessary in their workplace and then report to top management with feedback based on their experience with the implemented activities.
In initiatives for group companies around the world, Toray Group has established the Affiliate Companies' Compliance Meeting and the Overseas Affiliate Companies' Compliance Meetings under the Ethics and Compliance Committee. Through these committees, the Group is promoting compliance activities in each company, country and region.

## CSR Roadmap 2022 Targets

**CSR Roadmap goals**

1. No major cases throughout the Toray Group of non-compliance with or violation of bribery regulations, antitrust laws, etc
2. Implement monitoring to raise ethical and compliance awareness throughout Toray Group
3. Enhance awareness-raising and educational activities relating to corporate ethics and compliance

## Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| (1) Aim for no major cases of non-compliance with or violations of laws and regulations | 2-❶ |
| (2) Practice appropriate transactions based on free, fair, and transparent market competition | - |
| (3) Prohibit any association with organized criminal groups or other anti-social forces and take a firm stance against them | - |
| (4) Conduct internal legal audits and improve problems found in the audits | 2-❷ |
| (5) Appropriately operate a whistle-blowing system | - |
| (6) Thoroughly disseminate the Ethics & Compliance Code of Conduct | - |
| (7) Provide information and implement education on major laws and regulations and other compliance-related matters | 2-❸ |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| **2-❶ Number of major violations of laws or ordinances** | 0 | 0 | 0 | 1[1] |
| **2-❷ Implementing internal legal audits of group companies, group companies improving problems found in internal legal audits in the previous year (%)** | Audits: Conduct at Toray Industries, Inc. and its group companies in and outside Japan<br>Percent that improved: 100% for all audits by the following fiscal year | | | Improvement rate: 100%[2] |
| **2-❸ Group companies providing information and implementing education on major laws and regulations and other compliance-related matters (%)** | 100% | 100% | 100% | 100% |

Reporting scope : Toray Group

1 Toray Industries, Inc. announced that inappropriate actions at Toray related to certification of certain resin products by Underwriters Laboratories (hereinafter, "UL"), a global third-party safety science organization headquartered in the United States, had taken place. This fact was announced on January 31, 2022, and on the same day, the Company formed an expert committee to conduct a thorough investigation and study the root cause. On April 8, the Company received the committee report that sets out the findings of the investigation along with recommended measures to prevent recurrence.
In response to this situation, Toray Group is focused on further strengthening compliance and is doing its utmost to prevent recurrence and restore trust in the Group.
> For more information on the Toray response to this matter, please refer to:
Response to Inappropriate Actions Relating to UL Certification in the Toray Resins Business

2 No problems found in the previous year's audit

**Related Materiality for CSR**

- Corporate ethics and legal compliance

Click here for a PDF summary of materiality-related CSR Roadmap 2022 main initiatives, KPIs and progress (PDF: 1.6MB). PDF

## Looking to the Future

With the slogan “Have the Integrity to Do the Right Thing in the Right Way,” since fiscal 2018, Toray has been promoting initiatives including the following four principles for taking more effective action to ensure compliance.

**Compliance Action Principles**

- **B** : Be fair, be honest and have Integrity
- **E** : Encourage respect and communication
- **A** : Adopt a genba[3] approach – Look to the facts!
- **R** : Responsibility as a member of our excellent company

3 Genba is the Japanese word for “actual worksite.”

Under the name “Mission BEAR,” taking its acronym from the first word of each principle, Toray Group companies establish action plans and execute initiatives in line with the actual conditions of each company.

Toray Group performs regular follow-up to check the progress of each group company. Outstanding initiatives are shared with other companies in the Group, which are encouraged to independently enhance their compliance activities.

In fiscal 2021, Toray Industries continued to assist compliance initiatives at group companies and actively share compliance-related best practices such as Compliance Month, as well as sharing and utilizing compliance awareness survey results and collaboration with plant safety activities. Through these efforts, the Company strengthens the Group’s overall risk response by emphasizing factors unique to each region and type of business while reinforcing integrity driven corporate culture.

CSR Activity Report (CSR Guideline Activity Reports) - Ethics and Compliance

# Establishing a Corporate Culture of Total Respect for Ethics and Compliance

## Toray Group Ethics & Compliance Code of Conduct

CSR Roadmap 2022
Main Initiatives (6)(7)

The Ethics & Compliance Code of Conduct was updated in June 2022, and is an important set of rules that must be followed by every Toray Group executive and employee, including contracted, part-time and dispatched workers. This code of conduct is subject to periodic review by the Ethics and Compliance Committee, which is chaired by the president with membership comprising the Group's vice-presidents, and the results are reported to the directors. All of the employees are fully informed of this code of conduct., along with the Group's internal whistle-blowing system and promotion framework for ethics and compliance.

Download (521.3KB) PDF

## Distribution rate of the Toray Group Ethics & Compliance Code of Conduct

CSR Roadmap 2022
Main Initiatives (6)(7)

| | |
|---|---|
| **Distribution rate of the Toray Group Ethics & Compliance Code of Conduct** | **100%**<br>Toray Group |

Toray Group translates and distributes its code of conduct in eight languages (English, Chinese, Korean, Thai, Malay, Indonesian, Spanish, and Hungarian) to ensure that Toray Group employees around the world understand the content.

# Major Contents of Toray Group Ethics & Compliance Code of Conduct

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(6)(7)

## 1. Compliance for safety and the environment

### (1) Working environment

We must protect the health and safety of ourselves and our co-workers by maintaining safe equipment, working conditions and working procedures. Besides following related laws and company rules, we should continue to take an active part in safety initiatives, with the aim of reducing workplace accidents to zero. Also, we should be mindful of the importance of close communication in promoting mental health in the workplace. Showing respect for others helps to create a positive and healthy work environment for all.

### (2) Caring for the environment

We must follow all laws and company rules that relate to the environment, disaster prevention and the handling of chemical substances, based on the principle that we must leave the environment in a better state.

We should strive to reduce the impact that our business activities, products and services have on the environment, while also promoting diversity and sustainable use of resources.

## 2. Compliance for quality

### (1) Safe and satisfactory products

We must always act according to the law and in the interests and spirit of product safety to ensure that we continue to make safe and satisfactory products in response to requirements of our customers. Also, we must understand the requirements of our customers appropriately, and design, manufacture and provide products in response to such requirements. If a problem should arise, we must respond quickly.

### (2) Quality data management

We must obtain, forward, store and confirm quality data in agreed ways, and correctly inform customers of the data as necessary to ensure that we continue to keep our promise to customers. We as a company do not permit quality data falsification.

## 3. Compliance for human rights

### (1) Respect for the character and individuality of employees

We must respect the individuality of every Toray Group employee and must not engage in spiteful treatment or discrimination.

We must respect the privacy of other employees and handle personal information with the utmost care.

### (2) Preventing harassment and discrimination

We as Toray Group do not tolerate any form of harassment or discrimination, including sexual harassment and power harassment.

### (3) Respect for the human rights of all stakeholders

We will not infringe on human rights or be complicit in infringing on the human rights. We must respect international human rights norms and act consistently with the Toray Group Policy for Human Rights.

## 4. Compliance for fair business activities

### (1) Competing fairly

We must not participate in cartels or other illegal concerted practices, unfair treatment of business partners, or any conduct violating competition laws of each country/region.

We must not give or receive bribes both in relation to public officials and other business partners, or participate in any other form of corrupt practice. We must follow relevant laws and company rules in making political contributions and charitable donations.

We must accurately communicate information about the quality, functions and price of our products and services so as not to mislead our business partners and end users.

### (2) Fair transaction and asset management

All transactions including purchase, sales and payment of expense must be done appropriately in accordance with the law and general accounting principles.

All company assets such as inventories and fixed assets must be controlled, used and maintained for business purpose only.

### (3) International trade control and security trade administration

We must follow the relevant laws and regulations and comply with appropriate import and export procedures and trade controls when purchasing, exporting or importing products, machines, materials and samples, or when sharing our technology overseas, to avoid violation of sanctions imposed by the United Nations and governments such as the United States.

### (4) Compliance with applicable laws in general

We must acknowledge that a violation of laws and regulations could undermine trust in the company, and comply with any and all laws and regulations including those related to;

- Insider trading
- Shut off of any relationship with antisocial forces
- Conflicts of interest

## 5. Compliance for intellectual property

### (1) Respect for intellectual property rights of others

We must ensure that we do not infringe intellectual property rights of others, either intentionally or as the result of insufficient investigation.

## 6. Compliance for information management

### (1) Information management

When we become aware of confidential information owned by either Toray Group or others, we must not disclose, publicize or use such information for unauthorized purposes both during and after our employment at Toray Group.

When handling personal information as part of our work, we must follow company policies for protecting such information and manage such information carefully and appropriately.

### (2) Reporting and public disclosures

We must make disclosures as required by law and follow the Toray Group's Information Disclosure Principles with the aim of providing full, fair, accurate and timely reports and public disclosures about our business.

## Major violations of laws or ordinances

CSR Roadmap 2022
Main Initiatives (1)

### Number of major violations of laws or ordinances

■Reporting scope
Toray Group

■Target in fiscal 2021
0

**Result in fiscal 2021**

**1**[1]

1 Toray Industries, Inc. announced that inappropriate actions at Toray related to certification of certain resin products by Underwriters Laboratories (hereinafter, “UL”), a global third-party safety science organization headquartered in the United States, had taken place. This fact was announced on January 31, 2022, and on the same day, the Company formed an expert committee to conduct a thorough investigation and study the root cause. On April 8, the Company received the committee report that sets out the findings of the investigation along with recommended measures to prevent recurrence.
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## Ethics and Compliance Education

CSR Roadmap 2022
Main Initiatives (6)(7)

### Group companies providing information and implementing education on major laws and regulations and other compliance-related matters (%)

■Reporting scope
Toray Group

■Target in fiscal 2021
100%

**Result in fiscal 2021**

**100%**

Toray Industries posts links to information on CSR and legal compliance on its corporate intranet. Toray Group circulates important information about legal and compliance matters that are highly relevant to its business in Japan and other countries. Group companies implement workshops to examine these matters and study cases of corporate misconduct in an effort to foster discussion in the workplace.
Since fiscal 2012, Toray Industries has provided online training courses on Toray ethics and legal compliance for all executives and employees, including contracted, part-time and dispatched workers. In addition to training designed to instill an understanding of the Ethics and Compliance Code of Conduct and whistleblowing system, the Company sets specific course themes for each year on such topics as anti-corruption/bribery, human rights, and harassment. In fiscal 2021, the Company provided training on the Whistleblower Protection Act, which was revised in June 2022. Participation in this course was 98.4% of targeted employees. In a survey of participants who took part in the online course, 57.9% responded that they "understand" the content of the Ethics and Compliance Code of Conduct, and 41.7% responded that they "understand to some extent." Toray Industries will continue to disseminate information

and provide education to ensure that ethics and legal compliance is even more fully understood moving forward. Group companies in Japan are using these materials to implement their own training.

## Expanding the Whistle-Blowing System

CSR Roadmap 2022
Main Initiatives (5)

Toray Industries established the Corporate Ethics and Legal Compliance Helpline as a whistle-blowing system in fiscal 2003 and expanded the system to include all Toray Group companies in Japan in fiscal 2010. In 2022, the Company revised its internal rules in accordance with revisions to the Whistleblower Protection Act that went into effect in June of the same year. Executives, employees who have been retired for a year or less, and business partners were added as users of the whistleblowing system, and a provision regarding the designation of those who respond to reports to the whistleblowing system (whistleblowing report responders) was also added.

The Company ensures that employees have access to alternative means of reporting and consulting such as via internal contact points at its offices and plants or directly to the secretariat of the Ethics and Compliance Committee via email or a dedicated form on the corporate intranet.

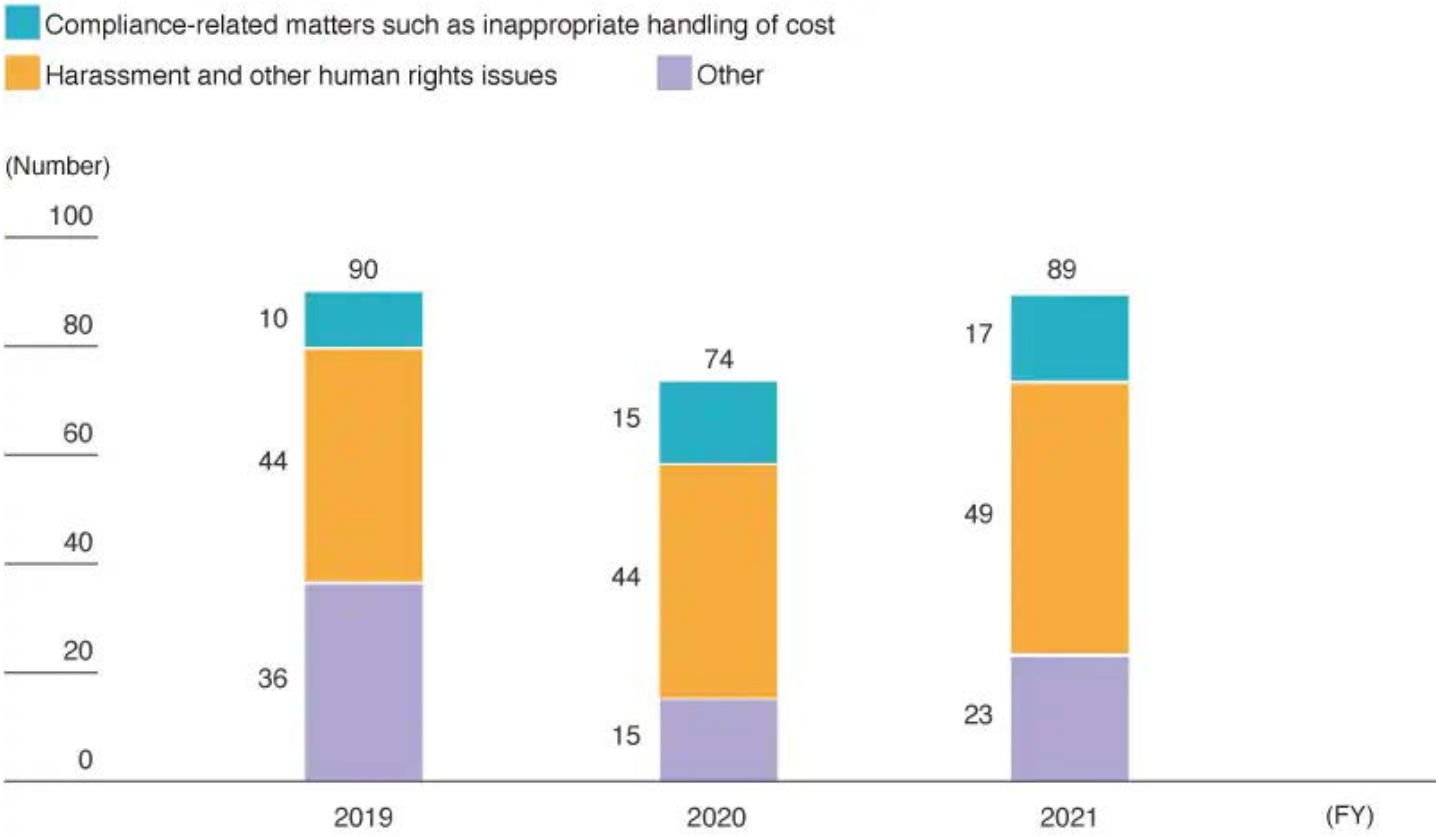
In addition, each Toray Group company in Japan has established a Helpline contact point. Moreover, Toray Industries has also created an external Helpline contact point shared by all group companies in Japan to make it easier for employees to report and consult.

Each group company outside Japan has also established a Helpline contact point (internal, outside, or regional contact points). These Helpline contact points have been in operation at all companies since fiscal 2017. Toray Group has worked to resolve reported issues, while carefully confirming circumstances in interviews and investigations, based on the laws, customs, and other regulations of each country and region.

Since fiscal 2016, Toray Industries has also maintained an additional whistle-blowing system for group companies to directly report serious misconduct such as violations of antitrust laws and bribery, and it is working to inform all Toray Group companies about the system.

In fiscal 2021, Toray Industries and its group companies received a total of 89 whistleblowing reports and consultations. The facts were investigated with complete discretion to protect against any risk of negative impact on the individual reporting to or consulting with the hotline. If a problem was identified, efforts were made to solve the problem and measures were taken in accordance with the internal rules of each company, such as employment rules.

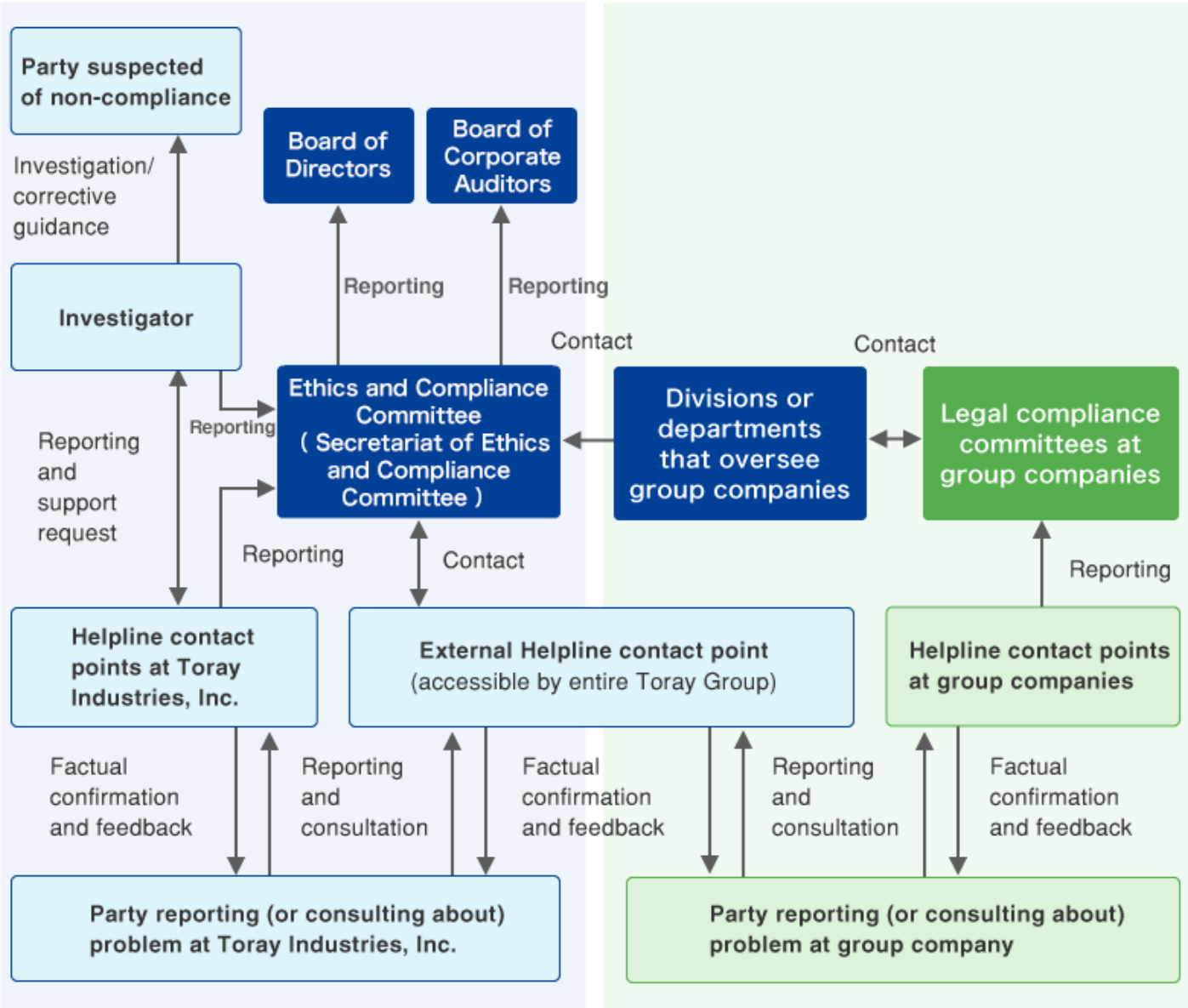
**Number and Subject of Reports (Consultations) Across Toray Group**




The number of reports (consultations) and the details of the cases are reported to the Board of Directors and the Board of Corporate Auditors by the Ethics and Compliance Committee.

| | |
|---|---|
| **Group companies in and outside Japan that have established a whistle-blowing system** | **100%** |

**Corporate Ethics and Legal Compliance Helpline System (Toray Industries, Inc. and its Group Companies in Japan)[2]**




2 In addition to the above avenues, Toray Industries, Inc. receives reports on and addresses serious misconduct at all group companies in and outside Japan.

# Implementing Internal Legal Audits

CSR Roadmap 2022
Main Initiatives (4)

## Implementing internal legal audits of group companies, group companies improving problems found in internal legal audits in the previous year (%)

**■Reporting scope**
Toray Group

**■Target**
Audits: Conduct at Toray Industries, Inc. and its group companies in and outside Japan
Percent that improved: 100% for all audits by the following fiscal year

**Result in fiscal 2021**

**Improvement rate: 100%**

(No problems found in the previous year's audit)

In fiscal 2021, Toray Industries undertook an internal legal and compliance audit of designated divisions of Toray Industries and designated group companies in Japan to ensure compliance with the highly important antitrust laws, anti-bribery regulations, insider trading regulations, and contract signing rules. Although no inappropriate transactions were found under any of the audit items, the Company plans to continue working to ensure thorough awareness of legal compliance through educational activities and the dissemination of information in media such as company magazines.

Click here for the main initiatives for CSR Guideline 2, “Ethics and Compliance” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Ethics and Compliance

# Ensuring Tax Compliance

## Toray Group Tax Policy

CSR Roadmap 2022
Main Initiatives (1)

With the release of a policy by the Organisation for Economic Co-operation and Development (OECD) to combat base erosion and profit shifting (BEPS), the complexity of taxation rules worldwide is steadily increasing. Due also to the growing importance of corporate governance related to taxation in Japan, Toray Group recognizes the necessity of highly transparent tax practices and corporate social responsibility. Therefore, the Group has enhanced its tax compliance efforts based on the Toray CSR Guidelines.
To ensure that this initiative can be taken to an even higher level, the Group has once again clarified the basic taxation compliance approach that each employee should take, and established the Toray Group Tax Policy, which was approved by the Board of Directors in April 2020.
Under the responsibility of the general manager of the Finance and Controller's Division[1], Toray Group will continue striving to improve its tax compliance while building its tax governance structure, centered on the Tax Department, to enhance corporate value.

1 As of July 2022, a corporate vice president (member of the board) serves as the general manager of the Finance and Controller's Division.

**Toray Group Tax Policy** (Established April 2020)

Toray Group will continue to uphold the following tax policy and strive to improve its tax compliance while building its tax governance structure, to enhance corporate value.

**Basic Policy**

1. Toray Group makes efforts to pay taxes appropriately by complying with the tax laws of each country and international taxation rules.
2. Toray Group makes efforts to enhance corporate value and maximize shareholder value while minimizing tax risks and optimizing tax expenses.
3. Toray Group will not conduct arbitrary tax avoidance using tax havens or other methods.
4. Toray Group establishes good relationships with the tax authorities of each country.

**Tax Compliance**

Toray Group employees (including executives) recognize that complying with tax laws and rules is the best way to minimize tax risks and enhance corporate value. The Group conducts trainings so that employees can ensure tax compliance.

**Tax Governance**

Toray Group clarifies and implements tax rules within the Group to manage tax expenses and aim for an appropriate tax burden.
The Group makes efforts to establish good relationships with tax authorities in each country on matters that require cooperation.

## Other Initiatives

CSR Roadmap 2022
Main Initiatives (1)

Transfer pricing is becoming more important as global trade increases. Toray Group therefore strives to allocate income appropriately by calculating transfer pricing using the arm's length principle. Moreover, the Group does not carry out tax planning strategies with the intention of inappropriately reducing Group taxes.

Click here for the main initiatives for CSR Guideline 2, “Ethics and Compliance” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Ethics and Compliance

# Improving Security Trade Controls

## Watching the Latest Trends and Management Strategies for Security Trade Controls

CSR Roadmap 2022
Main Initiatives (1)

Concerns about the spread of conventional mass weapons of destruction and changes in the international security balance necessitate risk management addressing security trade controls.
Toray Industries, Inc. convenes a Security Trade Administration Committee comprising officers of divisions that are involved in exports and technology transfer. In fiscal 2021, the committee decided on measures to implement for the fiscal year after considering pressing risks based on recent international circumstances and regulatory trends. The committee members also convene a Divisional Security Trade Administration Committee that communicates corporate measures and implements supplementary programs, such as precautions to be taken by departments and group companies under its supervision.

## Practically Addressing Risks

CSR Roadmap 2022
Main Initiatives (1)(7)

Toray Group performs risk management of security trade controls with regard to the export of all products, devices, materials, and samples, as well as the transfer of technologies outside Japan. Particularly strict management is necessary for TORAYCA™ carbon fiber and its composite materials, semiconductor coating agents, and water treatment membranes, which are listed as restricted items requiring export permission from the Japanese Minister of Economy, Trade and Industry.
The following measures to enhance risk management associated with security trade controls have been implemented based on conditions in and outside of Japan.

**(1) Enhanced employees' capacity for accurate judgment within Toray Industries' divisions and group companies**
In order to avoid the risk of COVID-19 infection, the Company's conventional training system was restructured, with highly specialized on-the-job training converted to web conferencing and basic level specialized training conducted via e-learning. Toray Industries provided the necessary practical knowledge to mid-level employees who play a central role in security trade control. Training was also given to newly appointed managers to promote appropriate management on the front lines. (A total of 13 courses were held with 1,544 employees participating in the web conference courses and 3,130 employees taking part in the e-learning courses.) The Company also conducted a series of advanced courses for employees with specialized expertise to practice classifications. (A total of three courses were held with 634 employees participating in the web conference courses.)

In addition, the Company systematically encourages employees to take the various qualification exams authorized by the Center for Information on Security Trade Controls in Japan. In fiscal 2021, 177 Toray Group employees passed the exam, bringing the cumulative number of Toray Group employees who have passed the exam to 4,334 persons.

| | |
|---|---|
| **Cumulative number of Toray Group employees who have passed the exam authorized by the Center for Information on Security Trade Controls in Japan** | **4,334 persons** |

**(2) Conducted regular audits**

Toray Industries carried out paper audits and onsite audits of group companies, and provided individualized guidance based on the results to help group companies make improvements.

**(3) Enhanced information sharing and reporting**

Toray Industries integrated and centralized information on concerns such as suspicious trade inquiries, reported or consulted with the appropriate authorities as required, and took the appropriate measures. The Company also shared suspicious trade information at various company meetings, and took steps to improve its risk management.

**(4) Improved inspection systems**

Toray Industries has fully linked its security trade control system with its backbone sales system in order to prevent erroneous shipments due to human error. In order to improve management efficiency through use of the linked system, support was given to outstanding initiatives and the successful cases were shared with other departments.

Click here for the main initiatives for CSR Guideline 2, “Ethics and Compliance” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Ethics and Compliance

# Antitrust Compliance and Corruption/Bribery Prevention

CSR Roadmap 2022
Main Initiatives (1)(2)(6)(7)

**1. Compliance with Antitrust Laws**

The Toray Group Ethics & Compliance Code of Conduct, revised in June 2022, stipulates the rules that all Toray Group executives and employees must follow regarding antitrust laws. Educational materials on antitrust laws have also been prepared in Japanese and English for all group employees. The Group has an Antitrust Law Compliance Program that is utilized by departments in Japan, along with Antitrust Law Red Cards that can be carried as a guide by employees.

In fiscal 2021, there were no legal actions taken against Toray Group due to anticompetitive activities, antitrust actions, or monopolistic practices.

**2. Corruption and Bribery Prevention**

In January 2020, the Group issued Anti-Bribery Regulations to clearly prohibit corrupt relationships with public officials and business partners. Approval and reporting rules were also established concerning the provision (or receiving) of money and other items to (from) public officials and business partners. Similar rules have been implemented at group companies worldwide.

The Ethics & Compliance Code of Conduct stipulates the guidelines that all Toray Group executives and employees must follow to avoid involvement in corruption and bribery. Guidelines and educational materials on related corruption and bribery prevention have also been prepared in Japanese and English for all Group employees and shared throughout the Group.

In March 2020, Toray Industries, Inc. conducted e-learning on the anti-bribery guidelines for all executives and employees, including contracted, part-time and dispatched workers, with 6,849 people taking the training. Group companies in Japan use similar teaching materials to provide education.

In fiscal 2021, there were no legal actions taken against Toray Group due to corruption and bribery prevention.

Click here for the main initiatives for CSR Guideline 2, “Ethics and Compliance” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Ethics and Compliance

# Protection of Personal Information

CSR Roadmap 2022
Main Initiatives (1)

In order to comply with Japan's Act on the Protection of Personal Information, Toray Industries, Inc. has established Regulations for the Management of Personal Information, together with a management framework and practices to ensure each department manages personal information appropriately. Audits are regularly conducted into the management conditions in each department.
In fiscal 2021, the Company received no complaints concerning personal information and there were no data breaches.
Major Toray Group companies in and outside Japan also appropriately manage personal information in accordance with the management systems and methods set forth in the rules and regulations of each company.

Click here for the main initiatives for CSR Guideline 2, "Ethics and Compliance" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Ethics and Compliance

# Ethics Review Committee on Research Involving Human Biological Subjects

CSR Roadmap 2022
Main Initiatives (1)

Toray Industries, Inc. has established an ethics review committee to comprehensively review the propriety of research involving human subjects in relation to ethics, science, protection of personal information, and other matters. The committee reviews human genome and genetic research, clinical research, and epidemiological research that uses samples collected from the human body and medical information from donors. The ethics review committee includes members from outside the Company and conducts rigorous reviews in accordance with the Ethical Guidelines for Life Science and Medical Research Involving Human Subjects issued by the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Health, Labour and Welfare, and the Ministry of Economy, Trade and Industry.

## Ethics Review Committee on Research Involving Human Biological Subjects

This committee reviews the objectives of human genome and genetic analysis, epidemiological and clinical research (referred to as research involving human biological subjects including specimens and information acquired from them) conducted at Toray Industries, as well as the medical, scientific, legal, and ethical propriety and the feasibility of plans for such research.

Member of Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 57KB) PDF

Minutes of 1st Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 87KB) PDF

Minutes of 2nd Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 83KB) PDF

Minutes of 3rd Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 85KB) PDF

Minutes of 4th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 85KB) PDF

Minutes of 5th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 88KB) PDF

Minutes of 6th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 85KB) PDF

Minutes of 7th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 85KB) PDF

Minutes of 8th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 85KB) PDF

Minutes of 9th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 85KB) PDF

Minutes of 10th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 85KB) PDF

Minutes of 11th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 86KB) PDF

Minutes of 12th Ethics Review Committee on Research Involving Human Biological Subjects (PDF : 83KB) PDF

Click here for the main initiatives for CSR Guideline 2, “Ethics and Compliance” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Ethics and Compliance

# Disclosure of Information Regarding the Ethical Treatment of Laboratory Animals

CSR Roadmap 2022
Main Initiatives (1)(7)

Toray Industries, Inc. aims to contribute to the human development and health enhancement through the creation of pharmaceuticals and medical devices. The Company believes that animal testing is necessary and required for safety and efficacy verification in the development of new pharmaceuticals and medical devices. This testing must be carried out with respect for animal life, considering the 3R principles for animal experiments; Refinement (minimization of pain), Reduction (reducing the number of animals used), and Replacement (use of alternatives to animals).

In order to ensure that animal testing is conducted ethically, Toray Industries has established in-house rules in accordance with the Act Concerning Humane Treatment and Management of Animals, the Standard for Care and Management of Laboratory Animals and Alleviation of Pain, the Guidelines for Proper Implementation of Animal Experiments, and other relevant guidelines.

The Company has also set up the Animal Care and Use Committee, which carries out ethical and scientific review of the adequacy of plans, potential alternative methods, and details of experimental designs involved in all animal testing conducted at the Company. All staff involved in animal testing receive training in standards of care and biannual training on the ethics of the use of animals in research to ensure appropriate conduct of animal testing based on the 3R principles.

In addition, the Animal Care and Use Committee carries out periodic self-monitoring and evaluation of the regulations and systems in place, the committee actions, facility maintenance, and animal testing to verify that each test is conducted appropriately.

Toray Industries' Basic Research Center has continually received certification from the Assessment and Accreditation Center for Laboratory Animal Care and Use, Japan Pharmaceutical Information Center[1] since 2012.

1 For a list of facilities certified by the Assessment and Accreditation Center for Laboratory Anime Care and Use, Japan Pharmaceutical Information Center, click here.

Click here for the main initiatives for CSR Guideline 2, "Ethics and Compliance" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports)

# Safety, Accident Prevention, and Environmental Preservation

**Ensure the safety and health of society and employees, and protect the environment in all business processes, from procuring raw materials and manufacturing to the supply and disposal of products.**

## Basic Approach to Environmental Preservation

Corporate efforts to help realize a sustainable society have become increasingly vital in recent years. Toray Group established its Medium-Term Environmental Plan in fiscal 2000 to strengthen and enhance initiatives for reducing environmental impact. The Group has set key performance indicators (KPIs) to reduce greenhouse gas emissions per unit of sales in order to fight global warming, as well as to reduce atmospheric emissions of certain chemical substances (PRTR substances and VOCs, etc.) and waste. These efforts have continued during the course of all five Medium-Term Environmental Plans up until fiscal 2020.
Currently, the Group has transitioned from initiatives based on the Medium-Term Environmental Plan to those rooted in the Toray Group Sustainability Vision and the Challenge 30 Project, a company-wide project for engaging in specific activities. Furthermore, targets have been set, and initiatives are underway based on the CSR Roadmap 2022, a medium-term CSR plan.
Under the Toray Group Sustainability Vision announced in July 2018, the Group aims to achieve two targets per unit of revenue by 2030: a 30% reduction in greenhouse emissions and a 30% reduction in water usage. The Group is also promoting a Challenge 30 Project, a company-wide project to tackle specific activities related to these targets. To achieve these two targets, three-year KPIs have been included in CSR Roadmap 2022, the Group's medium-term CSR plan. Under this plan, the Group has also set KPIs relating to atmospheric VOC emission reduction and waste recycling rate improvement, which the Group had been working on until fiscal 2020 under the Medium-Term Environmental Plan. From fiscal 2021, Toray strengthened its management of priority-focus companies and factories, namely those have a particularly large environmental impact. Targets have also been set as KPIs for new initiatives such as switching to certified palm oil use as a raw material.

* Refer to the following activity reports for more information on basic approaches and policies regarding safety and disaster prevention, as well as for issue awareness and policies regarding individual environmental issues.

## Related Policies

**Ten Basic Environmental Rules** (Established January 2000 and revised June 2011)

1. **Prioritize environmental preservation**
   We shall comply with all laws, regulations, and agreements in all of our business activities. Taking biodiversity into consideration, we shall place the highest priority on environmental preservation in the manufacture, handling, use, sale, transport, and waste disposal of products.
2. **Prevent global warming**
   We shall promote energy conservation and work to reduce our unit energy consumption and our carbon dioxide emissions.
3. **Achieve zero emissions of environmental pollutants**
   We shall strive continuously to reduce our emissions with the ultimate goal of achieving zero emissions of hazardous chemical substances and waste materials into the environment.
4. **Use safer chemical substances**
   We shall collect, maintain, and provide information on the health and environmental effects of the chemical substances we handle while striving to use safer chemical substances.
5. **Promoting Recycling**
   We shall develop recycling technologies for products, containers, and packaging and cooperate with society in promoting the recovery and reuse of such items.
6. **Improve the level of environmental management**
   We shall work to maintain and improve the level of our environmental management while working to upgrade our environmental management technology and skills, performing self auditing, and taking other measures.
7. **Contribute to society through environmental improvement technologies and products**
   We shall meet the challenge of developing new technologies and shall contribute to society through environmental improvement technologies as well as products that place a low burden on the environment.
8. **Improve the environmental management of our overseas businesses**
   In our overseas business activities, we shall place top priority on complying with local laws and regulations, and further, we shall manage those businesses in accordance with the management standards of the Toray Group.
9. **Improve employees' environmental awareness**
   We shall strive to improve our employees' awareness of environmental issues through environmental education, social activities, internal communications activities, and other means.
10. **Share environmental information with society**
    We shall deepen mutual understanding of Toray Group environmental policies and practices by widely publicizing our environmental preservation efforts and their results in environmental reports and other publications directed at local communities, investors, and the media.

## Safety, Health, Accident Prevention and Environmental Preservation Management

### Action Policy and Main Activities

Toray Group operates a policy for safety, health, accident prevention, and environmental activities. The policy is revised every year to reflect the results from the previous fiscal year, and specifies the main activities to implement in each policy area.

### Safety, Health, Accident Prevention, and Environment Activity Policy of Toray Group in 2021

| Action policy | | Main activities |
|---|---|---|
| Safety | Pursue zero occupational accidents | • Thoroughly practice 3S/5S[1]<br>• Thorough elimination of similar accidents |
| Healthier lives | Emphasize occupational health management | • Enhance and strengthen mental health management<br>• Rigorous chemical substance management |
| Accident prevention | Pursue zero fire accidents | • Enhance Fire Prevention Project Part Ⅱ activities |
| | Enhance crisis management for natural disaster risks | • Strengthen response capabilities for large-scale earthquakes<br>• Improve response abilities for wind and flood damage |
| Environment | Pursue zero environmental accidents | • Thorough elimination of similar accidents |
| | Promote Sustainability Vision | • Promote Challenge 30 Project<br>• Make efforts to reduce environmental impact<br>• Address the problem of marine plastic waste |

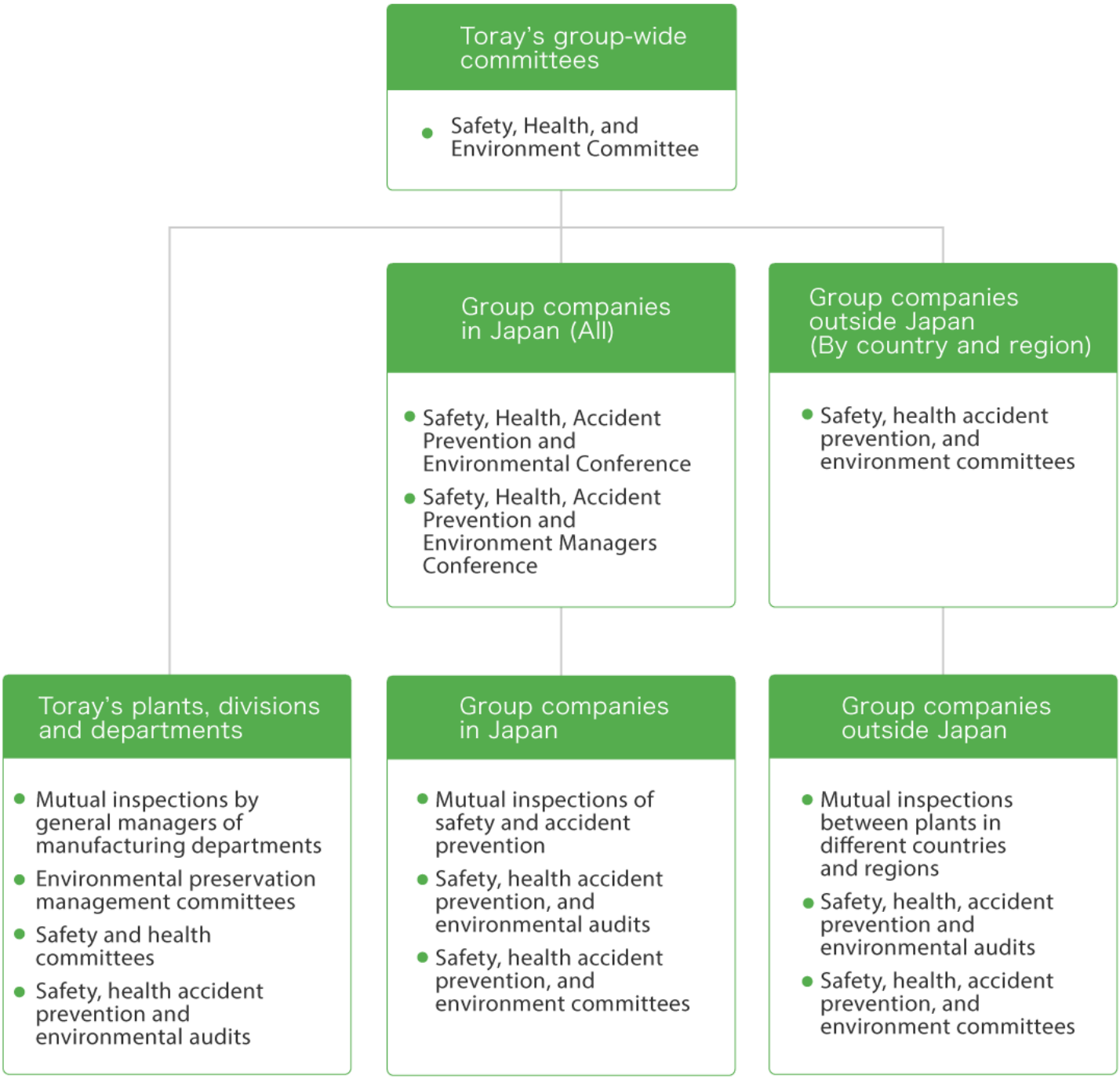
1 3S/5S: 3S stands for seiri (sort), seiton (set in order), and seiso (shine). Adding seiketsu (standardize) and shitsuke (sustain) to 3S make up 5S.

## Structure

### Safety, Health, Accident Prevention, and Environmental Preservation Promotion System

Toray Industries, Inc. places a group-wide committee, namely the Safety, Health, and Environment Committee, at the top of its system for safety, health, accident prevention, and environmental preservation (see chart below). The committee meets annually.
The committee discusses and sets policies and strategies for the entire Toray Group and its Responsible Care initiatives. The chair of the committee has absolute responsibility and authority over these matters. Progress on the issues determined by the committees is managed in the business divisions and plants using the PDCA cycle.

### Safety, Health, Accident Prevention, and Environmental Preservation Promotion System (Fiscal 2021)



## Audits and Follow-Up Measures

Toray Group conducts annual audits to objectively assess and improve the execution and management of safety, health, accident prevention, and environmental initiatives at offices and plants of group companies. Internal audits are conducted using a standardized audit checklist, and encompass visits and production floor guidance provided by directors and managers from other group companies.
In fiscal 2021, audits were conducted for all 13 plants and one research laboratory at Toray Industries, 27 plants operated by 27 group companies in Japan, and 82 plants operated by 63 group companies outside Japan. The audits focused on the following areas: thoroughly practice 3S/5S; comprehensive measures to prevent similar accidents; re-inspection of fire prevention control ducts; measures to prevent leakage of plastics such as resin pellets into wastewater; and thorough measures to prevent environmental accidents. The audits helped to secure systematic improvements by identifying and addressing facility issues and issues relating to management.

## ISO 14001 Certification

Toray Group is pursuing the acquisition of ISO 14001, the certification for environmental management system, by all of its group companies, offices, and plants. Toray Industries had completed accreditation for all 13 of its plants by the end of 2000. By fiscal 2021, 36 plants at 23 group companies in Japan and 68 plants at 48 group companies outside Japan were certified.
In fiscal 2021, two plants at TFCC in China and TRMX in Mexico, newly acquired ISO 14001 certification. The Gunsan Plant at TAK in South Korea also acquired certification for the first time. The Advanced Materials Research Center, which is already ISO 14001 certified, was added to the scope of certification, increasing the total by four plants.

**Related Information**
> Sites with ISO 14001 Certification

### Responsible Care Program

Under Responsible Care programs, chemical companies pursue voluntary management of chemical substances, transparent disclosure, and communication with the public. Companies committed to Responsible Care take safety, health, and environmental measures across the entire product lifecycle—from development, manufacturing, distribution and consumer use to the disposal—and then disclose the results of their efforts.
Toray Industries implements its program in accordance with the Responsible Care Global Charter.[2] In fiscal 2021, the Company set priority issues: promoting the Sustainability Vision and rigorous chemical substance management.

2 The Responsible Care Global Charter was originally established in 2005 to encourage companies to take concrete action that is understandable to external stakeholders. The Charter was revised in 2014, and Toray Industries was a signatory to both the original and revised Charter.

### Compliance Status Regarding Worldwide Chemical Substance Regulations

All business divisions of Toray Industries, as well as its group companies in and outside Japan, have chemical substance management systems in place for securing compliance with relevant regulations worldwide, such as Japan's Chemical Substances Control Law and the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in Europe. As a part of this compliance effort, the Group registers chemical substances registration in accordance with national laws and regulations. The Group also reports production and import volumes, manages substances of high concern, a category that includes substances of very high concern (SVHC) under REACH, and studies the use of alternative substances. In 2021, in addition to responding to the new UK-REACH registration system in the post-Brexit UK, and the KKIDK regulation in Turkey, the Group revised its safety data sheets (SDS) for Toray products sold in Japan to achieve compliance with new JIS requirements.

### Further Improving Chemical Substance Management in Toray Group

To better respond to increasingly stricter regulations worldwide, Toray Group is working to enhance its chemical substance management by utilizing management systems and improving in-house training. Since 2019, the Toray Chemicals Management System (TCMS) has been used to centrally manage product substance content as well as legal and regulatory information. TCMS is also used to check the registration status of chemical substances in destination countries, and to tabulate volumes of exports to countries outside Japan. In 2021, the Group conducted online employee training concerning product SDS preparation, as well as a new chemical substance notification system related to the Japan's Industrial Safety and Health Act and the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture. This has helped to raise the knowledge levels of relevant employees involved in frontline operations.

## CSR Roadmap 2022 Targets

**CSR Roadmap goals**

1. Place the highest priority on safety, thoroughly uphold the basic rules, and strive to prevent disasters and accidents
2. Reduce environmental impact by working to fulfill the Medium-Term Environmental Plan
3. Pursue environmental and biodiversity preservation on the basis of policies on water resources and biodiversity

## Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| **Safety** | |
| (1) Aim for zero major accidents | 3-❶ |
| (2) Achieve world's best standard for safety management | 3-❷ |
| (3) Create a comfortable working environment to ensure the safety and health of employees and to raise the level of safety and health | - |
| **Accident Prevention** | |
| (4) Aim for zero fire and explosion accidents | 3-❸ |
| **Environmental Prevention** | |
| (5) Aim for zero environmental accidents | 3-❹ |
| (6) Reduce greenhouse gas emissions per unit of revenue | 3-❺ |
| (7) Reduce water consumption per unit of revenue | 3-❻ |
| (8) Reduce atmospheric VOC[3] emissions | 3-❼ |
| (9) Aim for a high waste recycling rate | 3-❽ |
| (10) Conduct a survey of palm oil contained in raw materials and switch to certified products | 3-❾ |
| (11) Systematically adopt renewable energy | - |
| (12) Reduce atmospheric emissions of substances subject to the PRTR Act[4] | - |
| (13) Pursue the greening of each site in consideration of the regulations of each country and region and harmony with the surrounding environment | - |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| 3-❶ Number of major accidents | 0 | 0 | 0 | 0 |
| 3-❷ Achieve world's best standard for safety management (not exceeding 0.05 frequency rate for occupational accidents resulting in lost work time) | No more than 0.05 | No more than 0.05 | No more than 0.05 | 0.38 |
| 3-❸ Number of fire and explosion accidents | 0 | 0 | 0 | 6 |
| 3-❹ Number of environmental accidents | 0 | 0 | 0 | 4 |
| 3-❺ Reduction of greenhouse gas emissions per unit of revenue (%) | At least 20% lower than fiscal 2013 (Fiscal 2022) | | | 20.6% |
| 3-❻ Water usage per unit of revenue (%) | At least 25% lower than fiscal 2013 (Fiscal 2022) | | | 28.3% |
| 3-❼ Reduction of atmospheric VOC emissions (%) | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | At least 70% lower than fiscal 2000 | 77.6% |
| 3-❽ Waste recycling rate (%) | At least 86% | At least 86% | At least 86% | 85.9% |
| 3-❾ Conduct a survey of palm oil contained in raw materials (%) | Usage survey of certified products : 100% | Decision making (Yes/No) of shifting to certified raw materials : 100% (Fiscal 2022) | | 100% |

Reporting scope : Toray Group (3-❶, 3-❷, 3-❸, 3-❹, 3-❺, 3-❻, 3-❼ and 3-❽)
Toray Industries, Inc. (3-❾)

3 Volatile organic compounds
4 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

### Related Materiality for CSR

- Ensuring safety and disaster preparedness
- Reducing greenhouse gas emissions
- Initiatives for managing water resources
- Addressing substances with negative environmental impact
- Addressing resource and energy issues
- Conserving biodiversity

Click here for a PDF summary of materiality-related CSR Roadmap 2022 main initiatives, KPIs and progress (PDF: 1.6MB). PDF

## Looking to the Future

Toray Group will continue to carry out safety, accident prevention and environmental preservation activities based on international frameworks such as ISO 14001 and Responsible Care as well as the Group's medium- and long-term and single-year goals. The Group is committed to protecting the health and safety of employees and the public and reducing its environmental impact.

**CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation**

# Occupational Safety and Accident Prevention Activities

Toray Group pursues its own safety activities using occupational health and safety management systems (such as OHSAS 18001 and ISO 45001). In addition, officers and other employees audit all group companies and plants every year and evaluate and seek improvements in the status of their management of safety and health, accident prevention and environment from a standardized perspective. In addition, best practices are shared at sites throughout the Group to enhance the entire Group's performance.

Employees are key stakeholders of Toray Group. Needless to say, ensuring their safety is the prerequisite to their capacity to make the most of their potential. Officers and employees work together to implement persistent safety initiatives with the goal of zero accidents, out of respect for humanity and the sanctity of life.

To raise the awareness, every year, Toray Group creates a group-wide safety slogan. In 2021, the aim was for each and every employee of Toray Group to give top priority to safety, pursue the goal of zero accidents, raise safety awareness before work, and commit to the basics of avoiding the dangers in work about to be performed.

Due to the potentially serious impact of an accident not only within the company but on surrounding communities, the Group acts with strong determination to prevent accidents such as fires and explosions, making accident prevention a top priority. Toray Group sets up safety and health committees and works to ensure the safety and health of its employees through united efforts of labor and management, based on occupational safety and health laws in the countries in which it operations. These efforts help to ensure a pleasant working environment.

**2021 Safety Slogan**

Safety is Our First Priority. We Pursue Zero Accidents.
—Raise Awareness and Commit to the Basics

Every year, company presidents and plant managers from Toray Industries and its group companies around the world meet at the Toray Group Safety Meeting. At the meeting, safety action policies and main activities are shared to set a common course, activities at worksites are reported, and safety awards are given to raise awareness of safety. In 2021, the meeting was held online with Toray plants and its group companies in Japan, with the Tokyo Head Office of Toray Industries serving as the main venue, in order to prevent the spread of COVID-19.
Furthermore, the Safety Summit, on-site safety lecture by Toray Industries directors, and other events are held on a national and regional basis, and at each group company and plant of the Group. These efforts promote a common awareness of the Toray Group safety slogan, policies, and main activities, enabling centralized management of safety activities across the Group.
In addition, representatives of the senior management and labor unions at Toray Industries hold regular meetings. They discuss issues related to safety and health, establish a shared understanding of the issues, and engage in forward-looking discussions to improve the workplace environment. Safety and health committee meetings are also held at each business site (plant) every month, with the participation of the site head, managers and labor union representatives concerned. They share safety activity policies, and give and receive instructions to prevent recurrence of occupational accidents that have recently occurred in Toray Group, while also reporting and discussing other matters related to occupational safety and health.

2021 Toray Group Safety Meeting at Tokyo Head Office

## Examples of Workplace Initiatives in Fiscal 2021

### General Safety Summit Held at Toray Mishima Plant

Toray Industries' Mishima Plant holds a safety summit every year with about 60 group companies and subcontractors that operate on its premises. In fiscal 2021, as part of thorough measures to prevent the spread of COVID-19, the number of in-person attendees at the convention venue was reduced to about one-third of that in previous years. Accordingly, approximately 150 people attended, including those who participated through video conferencing.
Awards were presented to various departments and companies for safety performance and to recognize outstanding safety examples. Keynote reports were presented, along with safety activity presentations, including those from subcontractors. Finally, the participants collectively pledged to achieve zero accidents, as part of a formal safety declaration.
Going forward, everyone working at Mishima Plant will continue to promote safety activities based on a shared commitment under the theme of "positive interactions."

Formal safety declaration

**Company-wide Safety Summit Held at Toyo Logistics Service**

Toyo Logistics Service, a Toray Group company holds a traditional safety ceremony and a Company-wide Safety Summit every year.
In 2021, the summit took place via video conferencing. Safety promotion committee members from each site reported on the safety activities they had carried out over the past year. There were presentations on the status of various safety activities in the areas of transport, warehousing, and office work, which also provided ideas to other safety promotion committees for their own future safety activities. Going forward, Toyo Logistics Service will maintain these activities while making a united effort to achieve the company-wide slogan, Our Goal—Zero Accidents.

Traditional Shinto ceremony to pray for safety

Company representatives in front of Omi Shrine (Shiga Prefecture) after the ceremony

## Toray Group Safety Record

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)

### Number of major accidents

| ■Reporting scope | ■Target in 2021 (calendar year) |
|---|---|
| Toray Group | 0 |

**Result in 2021**

**0**

### Number of fire and explosion accidents

| ■Reporting scope | ■Target in 2021 (calendar year) |
|---|---|
| Toray Group | 0 |

**Result in 2021**

**6**

## Achieve world's best standard for safety management

**(not exceeding 0.05 frequency rate for occupational accidents resulting in lost work time)**

**■Reporting scope**
Toray Group

**■Target in 2021 (calendar year)**
No more than 0.05

**Result in 2021**

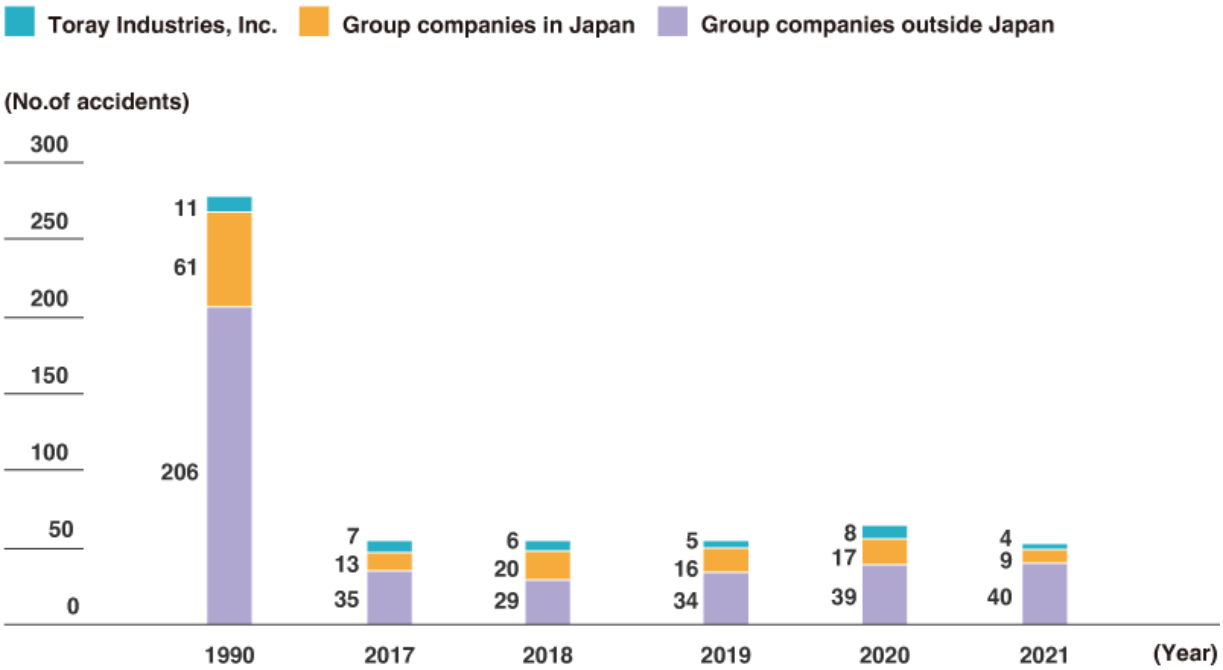
**0.38**

Toray Industries has collected data on all occupational accidents since 1980, and for Toray Group since 1990. Both the number of occupational accidents and frequency of occupational accidents resulting in lost work time have declined, compared with when the data was first collected. The frequency rate for occupational accidents resulting in lost work time for Toray Group overall in 2021 was 0.38. Although this is a positive result compared with that of Japan's manufacturing industry (1.31), it fell far short of the target of 0.05 or lower. One reason for this is that group companies had many accidents resulting in lost work time. Accordingly, the Group is working to strengthen safety management at those group companies with support and guidance from Toray's main plant in Japan.
Toray Group will continue to identify the root cause of each accident to prevent reoccurrence, and avoid similar accidents based on the lessons learned in these accidents. Additionally, the Group will raise employee awareness of the need to practice safety first at all times.
Toray Group believes that safety activities depend upon a repetition of simple things. It is important to commit to the basics of safety and for everyone, without exception, to practice the basics at all times. The first step is to work on the comprehensive implementation of the 5S's—*seiri* (sort), *seiton* (set in order), *seiso* (shine), *seiketsu* (standardize) and *shitsuke* (sustain). Through these activities, all employees learn to adopt *seiketsu* and *shitsuke*. *Seiketsu* fosters employees' motivation to keep the workplace standardized and clean, and *shitsuke* raises employees' awareness to adhere to the rules. They also take the time to reconsider movement pathways to make work safer. Managers repeatedly go around worksites, praising good behavior in an effort to raise workplace morale.
Next, the Group works to eliminate accidents in routine activities. Managers strive to maintain a sense of alertness in the workplace by continually reminding people to act with safety first, considering what the consequences (accidents) could be under any and all circumstances. In addition, if an occupational accidents does occur, an accident report is sent out to the entire Toray Group. In an effort to eliminate similar accidents, the unit heads and unit chiefs of each workplace take a leading role in discussing the report with workplace team members, imagining the cause of the accident as a specific danger in their own workplace, in order to raise everyone's safety awareness and ensure commitment to the basics.
In terms of fire and explosion accidents, there were three such accidents within Toray Group in 2021 – two at companies in Japan, and one overseas. The accidents involved electrical fire and ignition of impregnated insulation material. As part of measures to help prevent electrical fires, the Group conducted a comprehensive inspection of electrical outlets and lithium-ion batteries. It also distributed a Checklist for Preventing Electrical Fires and Toray Group Electrical Fire Case Studies to increase awareness. Each company, site and plant continues to identify electrical fire risks and implement mitigation measures while conducting daily inspections. As for measures to prevent fires in impregnated insulating material, the Group distributed a Checklist to Prevent Spontaneous Combustion Due to Heat Accumulation in Insulating Materials. Accordingly, Toray has implemented appropriate accident prevention measures and management based on accident prevention training and similar fire prevention activities.

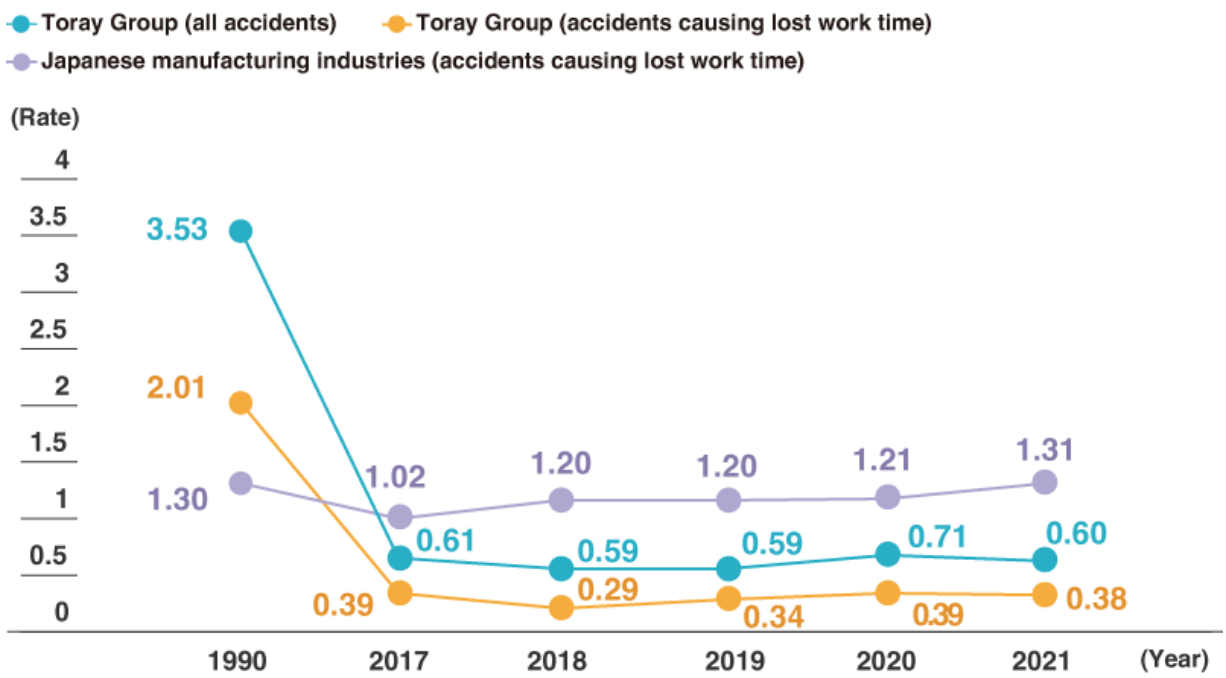
In an effort to eliminate similar fire-related accidents, the Group has a system to enable Group companies to rapidly share critical information on fire-related accidents. The Group uses knowledge gained from previous accidents to adopt effective fire prevention strategies and implement unified accident prevention management standards.

Example of work made safer by improving movement pathways through a change in layout

**Number of Occupational Accidents[1]: Toray Group (Lost work time and non-lost work time)**



## Occupational Accident Frequency Rate[2]: Toray Group




1 Data for Japan includes non-regular employees (part-time employees, contract employees, casual part-timers, and dispatched workers). Data from outside of Japan does not include temporary staff.

2 Occupational accident frequency rate: The number of fatalities and injuries at worksites per one million cumulative working hours.

## Fiscal 2021 Example of External Recognition of Toray's Safety Performance

### Gunsan Plant of Toray Advanced Materials (South Korea) Attains Highest Level in Process Safety Management Implementation Evaluation

The Gunsan Plant of Toray Advanced Materials Korea Inc. received the highest certification, Level P, in the process safety management performance evaluation conducted by South Korea's Ministry of Employment and Labor. This evaluation is a government-sanctioned system that represents the highest authority in South Korea in the field of safety management. To help prevent serious industrial accidents, the system targets facilities using potentially hazardous equipment. The Gunsan Plant has been awarded Level P certification for its systematic safety management and prompt emergency response capabilities. This makes it the only plant in North Jeolla Province to have received this certification.
According to the head of the company's chemical division, the plant was awarded Level P certification for its basic policy of always putting safety first and its record of more than 2,000 days without accidents. The dedicated safety efforts of the company's executives and employees were also key. The Gunsan Plant intends to keep improving its safety management capabilities while striving to become the safest factory in South Korea.

Examination and inspection of the plant's process safety management

# Identifying Danger (Hazards), Evaluating Risk, and Accident Surveys

CSR Roadmap 2022
Main Initiatives (1)(2)(3)

### 1. Identifying danger (hazards) and evaluating risk

Toray Group has a system whereby employees report any potential risks in the workplace to managers and the managers provide feedback on countermeasures and improvements. Before starting work, hazard prediction information, near miss reports, and safety proposals are shared with employees to confirm and mitigate risks. Company inspectors also carry out audits to review the system for preventing occupational accidents and the status of the implementation of countermeasures. If there are any problems, the inspectors give instructions for improvements.

### 2. Accident investigation

In the event of an occupational accident, the emergency response review meeting and the countermeasure meeting are convened to clarify the chain of events leading up to the accident, identify the cause, and decide on and execute countermeasures. In addition, information about the accident is shared throughout the Group and measures taken to prevent a reoccurrence.

### 3. Prioritized risk reduction activities

In 2020, 28% of Toray Group occupational accidents were caused by violations of basic safety rules. In the first half of 2021, employees all across Toray Group conducted activities to reduce these accidents by ensuring rule compliance. As a result, the ratio of rule-violation accidents in 2021 decreased to 11%. Additionally, in the first half of 2021, many accidents occurred due to insufficient operation management. Therefore, in the second half of 2021, the Group implemented thorough safety confirmation measures to be taken before starting operations, which resulted in a certain level of accident reduction.
In this way, the Group is analyzing accident occurrences from various perspectives and promoting the necessary improvements. It also implements plan-do-check-action (PDCA) cycles to reduce risks.

**Causes of Occupational Accidents (Both Requiring and Not Requiring Work Absence) at Toray Group in 2020 / 2021**

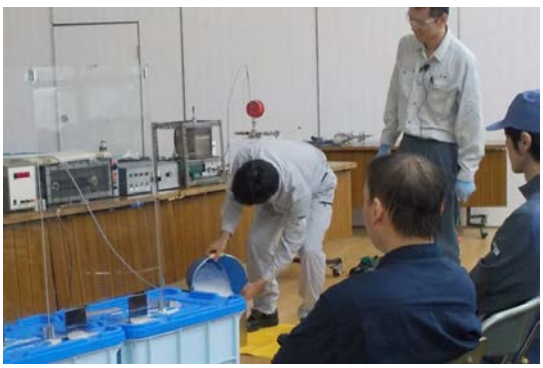
## Enhancing Safety and Accident-Prevention Training

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)

As part of their safety and accident prevention training, Toray Group companies and plants provide workshops and hands-on simulations to sensitize employees to dangers and hazards. Safety simulators enable workers to experience the dangers of electrocution, residual pressure, and getting caught in rollers. Virtual reality (VR) technology is also used to realistically simulate accidents at worksites. In the area of accident prevention, the Group conducts simulation training to teach employees about the risk of fires and explosions, and provides training on the fundamentals of accident prevention.
Additionally, the Group publishes on familiar topics regarding safety and accident prevention in its in-house magazine, *People*, in an effort to spread understanding of the fundamentals of accident prevention.

Simulation training at Mishima Plant (Toray Industries, Inc.)

Simulation training at Nagoya Plant (Toray Industries, Inc.)



Demonstrating the danger of fires and explosions at Gifu Plant (Toray Industries, Inc.)

### Examples of Workplace Initiatives in fiscal 2021

#### Safety and Quality Training Held at Toray Films Europe S.A.S. (France)

Toray Films Europe S.A.S. has been holding one-day safety and quality training for production employees for many years. In 2021, the training was held five times in November and December, and all 166 applicable employees participated in one of the sessions.
The training was delivered in a workshop format in collaboration with an external training company that develops educational games. Using playing cards, the participants engaged in discussion on workplace safety and how to deal with unforeseen circumstances. After a quick safety quiz, the participants split into groups. As a team building exercise, they created posters with safety slogans based on safety themes assigned to them. The resulting posters were finished off from a design perspective and put up in the workplace.

**Confined Space Workshop Held at Toray Composite Materials America, Inc.**

The Decatur Plant in Alabama invited an NPO to come in and provide training and facilitate discussions on working in confined spaces. As the working environment in the plant includes numerous confined spaces, it poses various hazards in particular, such as electrical accidents, entanglement accidents, and dangerous environments (flammable gas, etc.). In many cases, it has been difficult to make determinations about confined-space operations that require permission.

Workshop participants discussed various topics such as the difference between confined space operations that require permission, and unnecessary work in confined spaces. They talked about cases where permission should be required, and cases where a rescue plan needs to be prepared. They also covered the duties of confined-space operation performers and observers. The workshop provided a good opportunity for participants to clear up uncertainties and deepen their knowledge about confined-space operations that could arise during the course of their regular work.

Leader of the Confined Space Workshop

## Implementing Safety Management Together with Subcontractors

CSR Roadmap 2022
Main Initiatives (1)(2)(3)

Toray Industries implements uniform safety activities for its own work as well as subcontracted work that is subcontracted to on-site Toray affiliates[3] and Group companies. Monthly occupational health and safety committees and regular safety and liaison meetings are used to discuss the implementation status of safety activities and enhance communication with subcontractors, to ensure that all parties are aligned in the implementation of safety activities. Employees conduct on-site monitoring of operations in practice such as those involving forklifts and sharp-edged objects, and use the results to generate recommendations for necessary improvements that enhance safety and ease of work. Subcontractors also submit their requests for work and equipment improvements, to increase physical safety.

On-site monitoring of actual work (Meinan Service Inc.)

3 Toray affiliates: Toray Industries' subsidiaries that provide ancillary services for plant operations

## Safety Management Implemented by Subcontractors

CSR Roadmap 2022
Main Initiatives (1)(2)(3)

Safety meeting at Tokai Plant (Toray Industries, Inc.)

Toray Group recognizes its duty to ensure the safety of the many subcontractors working at its sites. As colleagues working in the same workplace, subcontractors are made aware of, and expected to comply with, Toray Group rules. Subcontractors also participate in monthly meetings of occupational safety and health committees. Regular safety and liaison meetings are conducted to gain input from subcontractors, and are used to communicate the Group's policies and to make sure all measures are implemented. In addition, the Group educates subcontractors who work on a short-term basis about Toray Group rules before work commences and manages safety thoroughly. At plants, Toray and subcontractors work together on safety initiatives, including safety posters, slogan contests and safety suggestions.

## Preparing for Accidents through Fire-Prevention Drills

CSR Roadmap 2022
Main Initiatives (4)

All companies and plants in Toray Group are making efforts to improve their accident-prevention capabilities by carrying out fire-fighting drills specifically intended for fires and explosions. These drills include practice using water hoses, rescuing the injured, responding to a chemical leak, and giving emergency notification to authorities and local residents.

Since 2012, Group companies and plants have been conducting annual drills on setting up a company-wide emergency headquarters in response to a large-scale earthquake. The drills also involve checking on employees and monitoring facilities damage and supply chains. In 2021, the drills were conducted online, presuming telecommuting and suspension of transportation services. In addition to conducting drills for the initial response to a large-scale earthquake, Group plants in seaside locations conduct drills of the evacuations that would be needed if a tsunami were triggered by a large-scale earthquake.

Safety confirmation team during an evacuation drill (Toray KP Films Inc.)

Firefighting training (Toray Medical Co., Ltd.)

## Examples of Workplace Initiatives in fiscal 2021

### Firefighting Training at Toray Corporate Business Research, Inc.

Toray Corporate Business Research, Inc. participated in a fire drill held for the entire building, and also conducted its own fire drill, with the participation of 16 employees.
The firefighting drill for the entire building was based on the premise of a severe earthquake (Japanese seismic intensity of "upper 6"), and personnel followed the instructions given over the building's emergency broadcast system. The drill included donning helmets and taking cover under desks.
In addition, representatives from each tenant company evacuated to the first floor, received training on the indoor fire-fighting equipment from the building facility manager, and practiced using the fire extinguishers. For the firefighting training conducted independently by Toray Corporate Business Research, the scenario was a fire that has broken out after an earthquake.
The central roles were played by individuals in charge of external emergency notification, initial fire extinguishing, and evacuation guidance. The practice drill involved calling 119 (emergency services), performing initial fire extinguishing and mechanical smoke exhaust operation, notifying the management office, and providing evacuation guidance. The participants found that even when they knew the initial emergency response procedure, it was easy to get confused while actually carrying it out.
Going forward, the company will continue to raise the awareness of every employee concerning safety and disaster prevention.

Participants being briefed by the building manager

### Disaster Response Drill Conducted at Toray WBD Membrane Technology (JS) Co., Ltd. (China)

Toray WBD Membrane Technology (JS) Co., Ltd. carried out a disaster response drill with the aim of enhancing the disaster prevention awareness and self-protection capabilities of all employees, while ensuring human safety and property preservation. In addition to evacuation guidance methods, employees received training on the handling fire extinguishers and fire hydrants, and everyone tried their hand at deploying a fire extinguisher. This drill was a very important opportunity for the participants to practice an evacuation in the event of a fire or earthquake.

Disaster response drill participants

Fire extinguisher training

## Initiatives for Improving Fire-Prevention Capabilities

CSR Roadmap 2022
Main Initiatives (4)

In 2021, as one of the regularly held activities for the Fire Prevention Project Part II, Toray Group in Japan conducted its FP[4] key person certification training for the strengthening of fire prevention. As a result, 236 people were newly certified. These key persons will play a pivotal role on the frontlines by promoting disaster prevention inspections along with measures to prevent fires, explosions, and other accidents. Toray Group's internal accident prevention experts provided support and guidance in identifying the root cause and taking countermeasures to prevent reoccurrence of those fire accidents and near misses for which the experts decided onsite audits and investigations were necessary.
The Group's earthquake measures seek to mitigate damage, while placing utmost priority on saving the lives of employees and preventing impacts on local communities. The Toray Group Business Continuity Plan (BCP) for a Large-Scale Earthquake outlines the emergency response to an earthquake and subsequent activities to maintain and restore business operations, as well as the Group's duties and normal readiness. In particular, for critical products, the Group develops BCPs that encompass supply chains and continually works to reduce risks.

4 FP : Fire Prevention

## Distribution Safety Initiatives

CSR Roadmap 2022
Main Initiatives (1)(4)

Toray Industries is working to ensure safe distribution in its operations. In an effort to manage safety when transporting hazardous substances, the Company concludes security agreements with certain customers, raw material manufacturers, and shipping companies to designate their specific safety responsibilities and roles with regards to safety.

## Initiatives to Reduce Health Effects of Chemical Substances on Employees

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)

In consideration of the health risks to the Company's employees and contract employees, Toray Group is implementing the following initiatives for the handling of chemical substances.

1. **Study the actual handling of chemical substances**
   Toray Group collects annual data on the volume of chemical substances handled by offices and plants of Group companies and volume in their possession. Furthermore, the Group clearly indicates the danger of mutagenicity for each chemical substance as stipulated in the Industrial Safety and Health Act, and discloses the risks.
2. **Implement chemical substance risk assessments**
   Toray Group implements risk assessments using working environment measurements for the chemical substances that it handles, as well as using ECETIOC's Targeted Risk Assessment (TRA) tool and control banding. The risk assessment results are used to protect the health of employees by implementing comprehensive measures to prevent worker exposure to organic solvents and dust where it is required.
3. **Conduct follow-up through internal audits**
   Toray Group conducts an annual safety, health, accident prevention, and environmental audit, to objectively evaluate the methods for handling chemical substances and working conditions. The audit is used to identify any oversights or unattended issues and implement necessary improvements.

4. **Other**

Toray Group endeavors to maintain and improve working conditions by conducting working environment measurements and on-site monitoring of actual work in accordance with the risk level of handled substances. It also conducts medical checkups to continually follow-up on the health status of employees. To prevent health issues among workers, the Group conducts training on the dangerousness of handled chemicals, and prepares and keeps records of the on-site monitoring of actual work.

## Health Effects and Response to Asbestos

CSR Roadmap 2022
Main Initiatives (3)

Toray Group has manufactured and imported building materials containing asbestos in the past. In addition, certain buildings and facilities were constructed using such materials and thermal insulation containing asbestos. Starting in 2005, when asbestos-related health hazards became a social concern in Japan, Toray took action to address the issue of its own asbestos-containing facilities. The health program offers medical examinations to current and former employees who handled even small amounts of asbestos and wish to undergo an examination. Toray Group is working in good faith with individuals diagnosed with asbestos-related health issues by assisting with their applications for workers' compensation and providing an ongoing program of medical examinations. The Group has not been contacted about health issues by residents living near affected plants.
The cumulative health impacts on former and current Toray Group employees as of March 31, 2022 are as follows.

Certified occupational accidents arising from handling asbestos (Toray Group): 111 (102)
Certified health victims based on Japan's Act on Asbestos Health Damage Relief (Toray Group): 8 (8)
Medical examination recipients involving asbestos (Toray Group): 4,041
Note: Figures in parentheses refer to fatalities.

Click here for the main initiatives for CSR Guideline 3, “Safety, Accident Prevention, and Environmental Preservation” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Conserving Energy and Reducing Greenhouse Gas Emissions

Seeking to help build sustainable, low-carbon societies, Toray Group pursues initiatives for reducing greenhouse gas emissions.
In the Toray Group Sustainability Vision announced in July 2018, the Group set out the target of reducing greenhouse gas emissions[1] from production activities per unit of revenue by 30% compared with the baseline year of fiscal 2013 across the entire Toray Group worldwide as a quantitative target for fiscal 2030. In addition, in its CSR Roadmap 2022, the Group has set out an interim target of reducing greenhouse gas emissions per unit of revenue[1] Group-wide by 20% compared with fiscal 2013. Toward this end, the Group is working to reduce $CO_2$ emissions during manufacturing by conserving energy with improved manufacturing processes, increasing utilization of renewable energy, and reducing coal consumption.

1 Scope 1 and Scope 2 emissions.

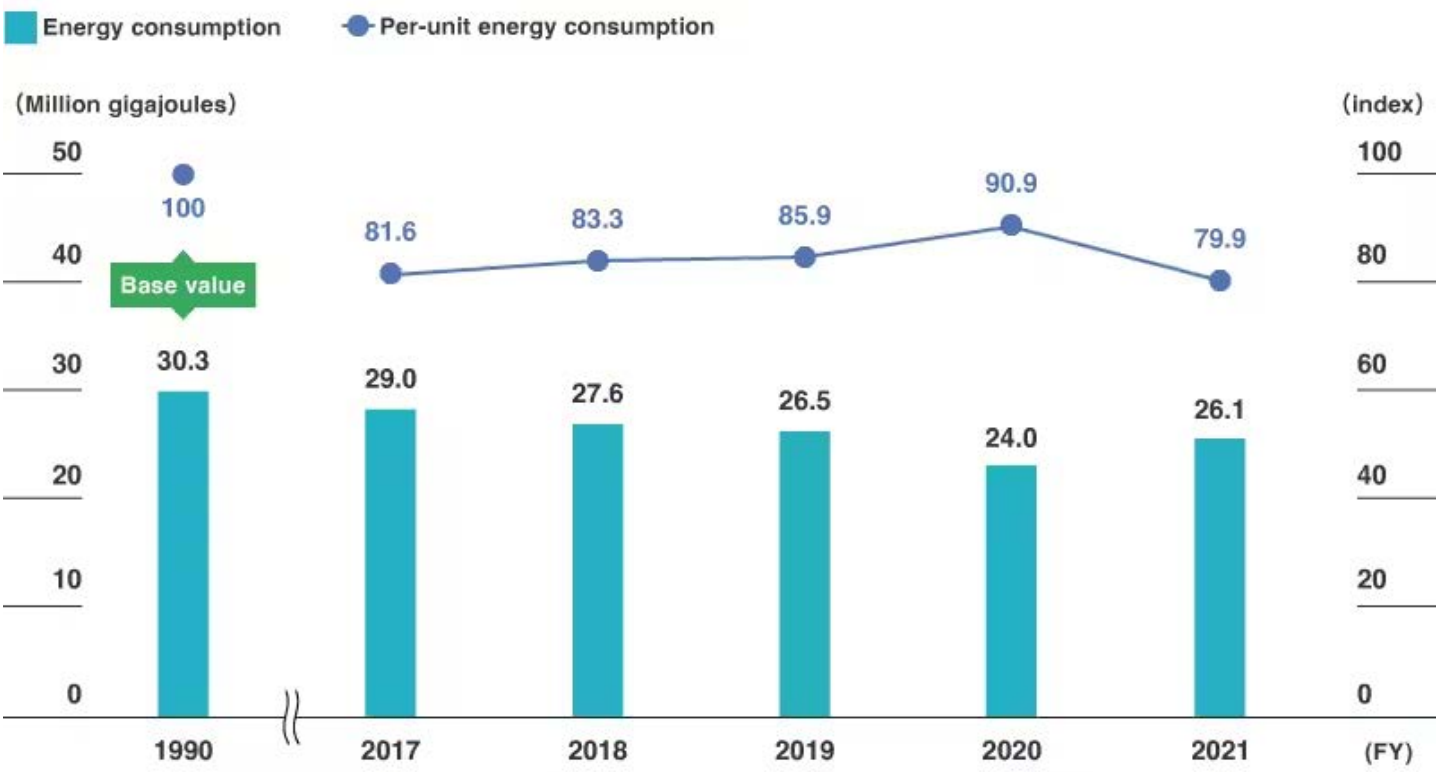
## Energy Conserving Activities

CSR Roadmap 2022
Main Initiatives (6)

Toray Group sets annual energy-conserving targets for each company and plant, and promotes group-wide energy-conserving activities.
It also checks the progress of its energy-conserving measures on a monthly basis.
Toray Industries is promoting energy-conserving activities with a goal of reducing its per-unit energy consumption[2] by 2% annually.
In fiscal 2021, production volumes recovered and energy consumption increased by 8.6% year on year.
Meanwhile, per-unit energy consumption improved 12.1% year on year due to production volume recovery.
Moreover, per-unit energy consumption also improved 20.1% compared with fiscal 1990, the baseline year set for reduction of per-unit energy consumption.

2 Energy consumption per converted production volume

### Energy Consumption and Per-unit Energy Consumption Index (Toray Industries, Inc.)[3]




3 The energy consumption shown in this graph does not include renewable energy.

As part of its proactive energy-conserving activities, Toray Group organizes energy-conserving teams to help carry out annual energy-conserving diagnostics at plants in Toray Industries and its group companies around the world. In fiscal 2021, these activities were conducted at two of Toray Industries' plants and at three group company plants in Japan. As a result, the Group reduced greenhouse gas emissions by about 3,400 tons-$CO_2$ equivalent.

Review of energy conserving diagnostics via web conference

## Greenhouse Gas Emissions (Toray Group)

CSR Roadmap 2022
Main Initiatives (6)

### Reduction of greenhouse gas emissions per unit of revenue (%)

**■Reporting scope**
Toray Group

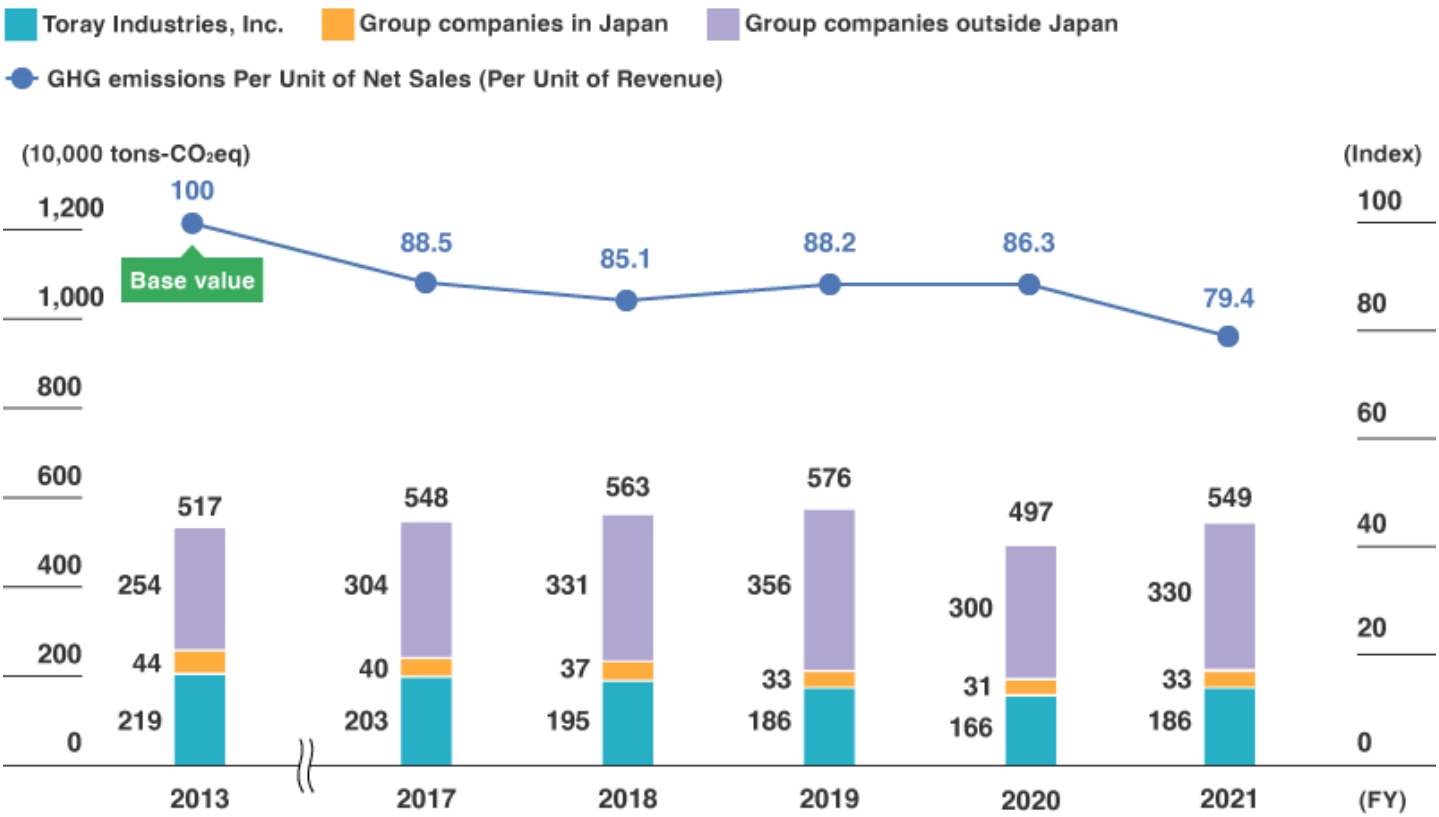
**■Target**
At least 20% lower than fiscal 2013 (Fiscal 2022)

**Result in fiscal 2021**

**20.6%**

Toray Group's greenhouse gas emissions reduction target has been established in the CSR Roadmap 2022. The Group as a whole is implementing systematic reduction measures with the goal of achieving a 20% reduction of greenhouse gas emissions per unit of revenue by fiscal 2022, compared to fiscal 2013.
Overall greenhouse emissions for Toray Group in fiscal 2021 increased by 10.5% year on year to 5.49 million tons-$CO_2$ equivalent due to a recovery in production volumes. On the other hand, in terms of per unit of revenue, the Group reduced emissions by 20.6% compared to fiscal 2013, which was set as the base year in the Sustainability Vision and CSR Roadmap 2022. This reduction was due to efforts to reduce greenhouse gas emissions (energy-conserving through process improvement, utilization of renewable energy, and reduction of coal use, etc.), as well as an increase in sales revenue. Accordingly, the Group was able to contain greenhouse gas emissions resulting from higher production volumes.

**Greenhouse Gas Emissions and Greenhouse Gas Emissions Per Unit of Net Sales (Per Unit of Revenue) (Toray Group)**




Note: Per unit of net sales until fiscal 2019, as Japanese GAAP was used until then, and per unit of revenue from fiscal 2020 onwards, as International Financial Reporting Standards (IFRS) have been adopted since then.

**Greenhouse Gas Emissions Throughout the Value Chain of Toray Industries, Inc. (Scopes 1, 2, and 3)**

Toray Industries calculates three types of emissions; Scope 1 (direct emissions from plants, offices, and vehicles, etc. owned by the Company), Scope 2 (indirect emissions resulting from the production of electricity and other energy consumed by the Company), and Scope 3 (other indirect emissions).

### Annual Scope 1 and 2 Emissions (Toray Industries, Inc.)

### Toray Industries Scope 3 Emissions

(10,000 tons-$CO_2$eq)

| | |
|---|---|
| Category1: Purchased goods and services | 231.5 |
| Category2: Capital goods | 9.2 |
| Category3: Fuel and energy related activities | 19.0 |
| Category4: Upstream transportation and distribution | 4.3 |
| Category5: Waste generated in operations | 2.0 |
| Category6: Business travel | 1.3 |
| Category7: Employee commuting | 0.2 |
| Total | 267.5 |

Note: Toray is currently working to identify and calculate Scope 3 emissions for all of Toray Group.

**Related Information**

Toray Industries has obtained third-party assurance of its greenhouse gas emissions from LRQA Limited for Scope 1 and 2 emissions, as well as for Scope 3 emissions (categories 2, 3 and 4).

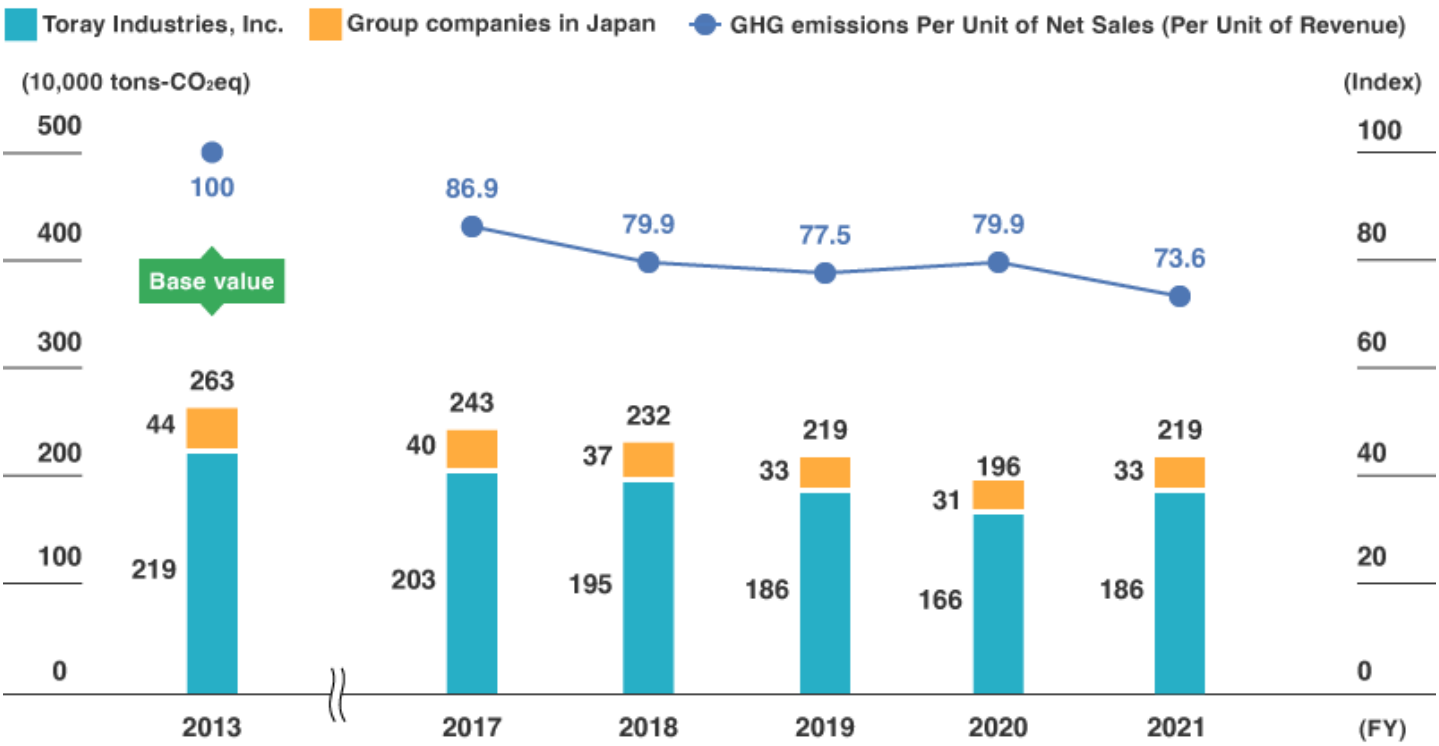
> Third-Party Assurance

# Greenhouse Gas Emissions (Toray Industries and Its Group Companies in Japan)

CSR Roadmap 2022
Main Initiatives (6)

Due to a recovery of production volumes, greenhouse gas emissions at Toray Industries and its group companies in Japan increased by 11.7% in fiscal 2021 compared to the previous fiscal year. Meanwhile, greenhouse gas emissions per unit of revenue improved by 7.9% compared to the previous fiscal year, due to efforts to reduce emissions and an increase in sales revenue. This resulted in a 26.4% reduction compared to fiscal 2013.

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




Note: Per unit of net sales until fiscal 2019, as Japanese GAAP was used until then, and per unit of revenue from fiscal 2020 onwards, as International Financial Reporting Standards (IFRS) have been adopted since then.

# Installing Renewable Energy Systems

CSR Roadmap 2022
Main Initiatives (6)(11)

Toray Group is systematically installing renewable energy systems. It installed and started to operate solar power generation systems at Toray Plastics Precision (Zhongshan) Ltd. in fiscal 2020, as well as at Toray Industries Seta Plant No. 3 and at Toray Precision Co., Ltd. in fiscal 2021. In addition, the Tokai Plant of Toray Industries began co-combusting sludge fuel, which is carbon neutral, as boiler fuel from fiscal 2017.

Solar power equipment at Toray Industries Seta Plant No. 3

Solar power equipment at Toray Precision Co., Ltd.

| Renewable energy generated in fiscal 2021 | 102,496 MWh |
|---|---|

Toray Group has installed solar power generation facilities at the following plants:

**Toray Industries, Inc.**

- Seta Plant
- Ehime Plant
- Mishima Plant
- Okazaki Plant
- Nasu Plant

**Group companies in Japan**

- Toray Textiles, Inc.
- Toyo Plastic Precision Co., Ltd.
- Toray Advanced Film Co., Ltd.
- Toray Fine Chemicals Co., Ltd.
- Soda Aromatic Co., Ltd.
- Toray Carbon Magic Co., Ltd.
- Toray Construction Co., Ltd.
- Toray Engineering Co., Ltd.
- Toray Engineering Central Co., Ltd.
- Toray Engineering West Co., Ltd.
- Toray Precision Co., Ltd.
- Toyo Jitsugyo Co., Ltd.

**Group companies outside Japan**

- Toray Membrane USA, Inc.
- Toray Plastics (America), Inc.
- Thai Toray Synthetics Co., Ltd.
- Penfabric Sdn. Berhad
- Toray Fibers (Nantong) Co., Ltd.
- Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd.
- Toray Plastics Precision (Zhongshan) Ltd.
- Toray Advanced Materials Korea Inc.

### Effective Use of 100% Renewable Electricity at the Headquarters of Toray Industries

Toray Industries signed a green power supply service[4] agreement with Mitsui Fudosan Co., Ltd. for the Toray head office located in Tokyo's Nihonbashi Mitsui Tower.
By utilizing, through Mitsui Fudosan, the environmental value of the wind power facilities that Electric Power Development Co., Ltd. operates, Toray's head office has effectively used 100% renewable energy since April 2022. On a global basis, the estimated annual reduction in greenhouse gas emissions should be around 1,500 tons-$CO_2$.

4 Green power supply service: A unique service developed by Mitsui Fudosan that uses non-fossil fuel energy certificates to provide electricity to the tenants of its office buildings, which is effectively generated using 100% renewable energy.

## Initiatives to Protect the Ozone Layer

Toray Industries ceased using chlorofluorocarbons (CFCs) in all manufacturing processes and stopped purchasing CFCs for use in refrigeration equipment in 1994. The Company finished upgrading refrigeration equipment using CFCs in fiscal 2019.

**Related Information**

For disclosure of information related to climate change in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), refer to Toray Group's Approach to Climate Change.

Click here for the main initiatives for CSR Guideline 3, "Safety, Accident Prevention, and Environmental Preservation" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances

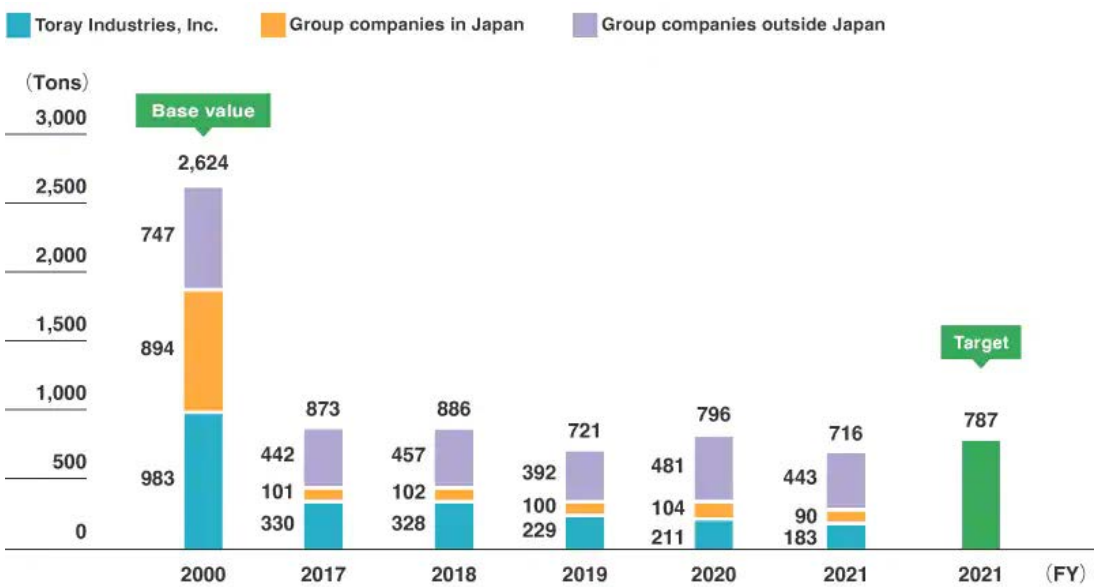
As a corporate group that does business in the chemicals sector, Toray Group places the highest priority on reducing emissions of chemicals into the atmosphere in order to reduce its environmental impact.
Working to achieve its targets for reducing atmospheric emissions of volatile organic compounds (VOCs) and substances specified under Japan's Pollutant Release and Transfer Register Law (PRTR Law), for fiscal 2020 and beyond, the Group has been focusing on making reductions at group companies and plants with high atmospheric emissions. The Group will follow their progress and continue making efforts to achieve a reduction of at least 70% annually until fiscal 2022, compared to fiscal 2000.

## Reducing Atmospheric Emissions of PRTR Law-Specified Substances

CSR Roadmap 2022
Main Initiatives (12)

In fiscal 2021, Toray Group's atmospheric emissions of PRTR Law-specified substances were 716 tons, which represented a 72.7% reduction compared to the base year of fiscal 2000, achieving the target of a 70% reduction compared with the base year.
Going forward, the Group will continue aiming for steady target achievement. It will conduct follow-ups twice a year to ensure achievement of its numerical reduction targets for plants subject to priority management due to high PRTR substance atmospheric emissions.

### Atmospheric Emissions of PRTR Law-Specified Substances



# Reduction of Atmospheric VOC Emissions

CSR Roadmap 2022
Main Initiatives (8)

## Reduction of atmospheric VOC emissions (%)

■Reporting scope
Toray Group

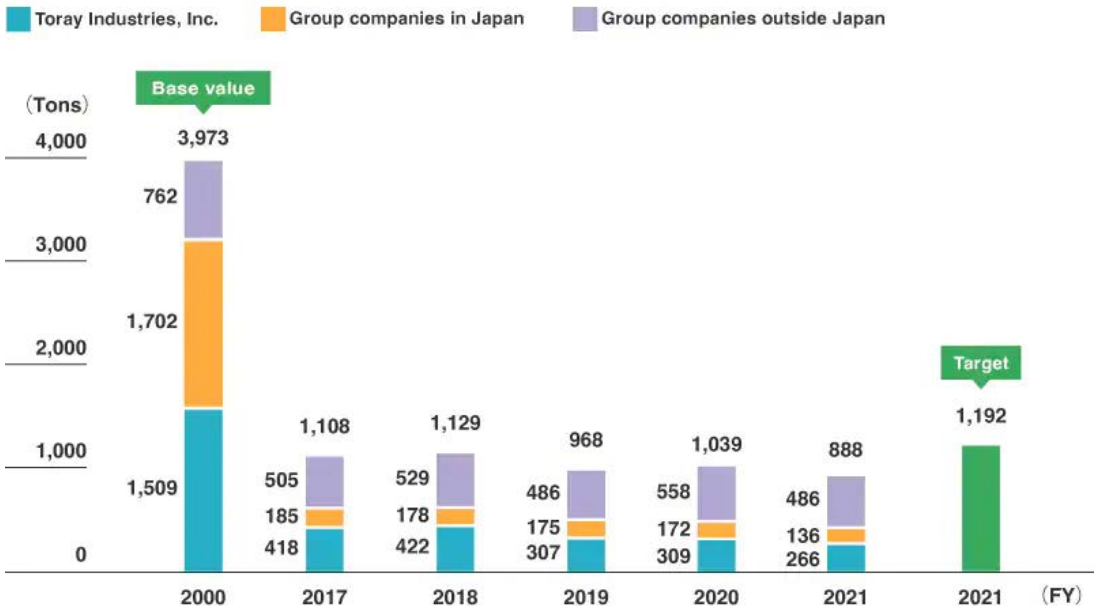
■Target in fiscal 2021
At least 70% lower than fiscal 2000

**Result in fiscal 2021**

**77.6%**

In fiscal 2021, Toray Group's atmospheric VOC emissions were 888 tons, down 14.5% (151 tons) compared to the previous fiscal year.
The emissions were 77.6% below the base year of fiscal 2000, achieving the fiscal 2020 target of a 70% reduction compared to the base year.
The main reason for the decrease in PRTR substance and VOC emissions was the improvement in emissions capture at Toray Battery Separator Film Korea Limited. This was due to optimization of operating conditions for the adsorption recovery equipment performing target substance capture.

### Atmospheric VOC Emissions




Click here for the main initiatives for CSR Guideline 3, "Safety, Accident Prevention, and Environmental Preservation" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

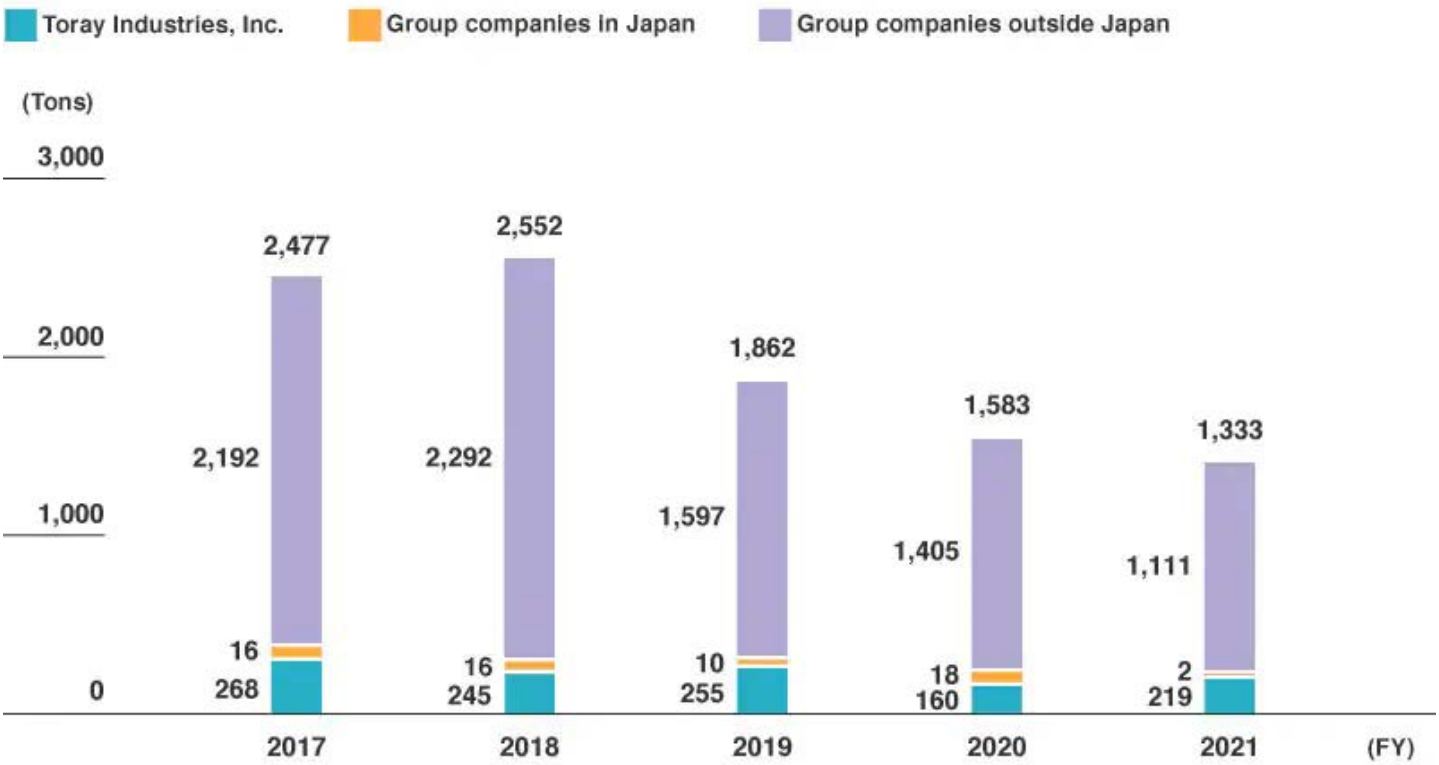
# Initiatives to Prevent Air and Water Pollution

Toray Group works continuously on environmental conservation measures at its production sites. Ongoing initiatives that it will continue include reducing sulfur oxide (SOx) emissions by installing desulfurization equipment and switching to cleaner fuels, and reducing biochemical oxygen demand (BOD) and chemical oxygen demand (COD) through stable operation and expansion of wastewater treatment facilities.

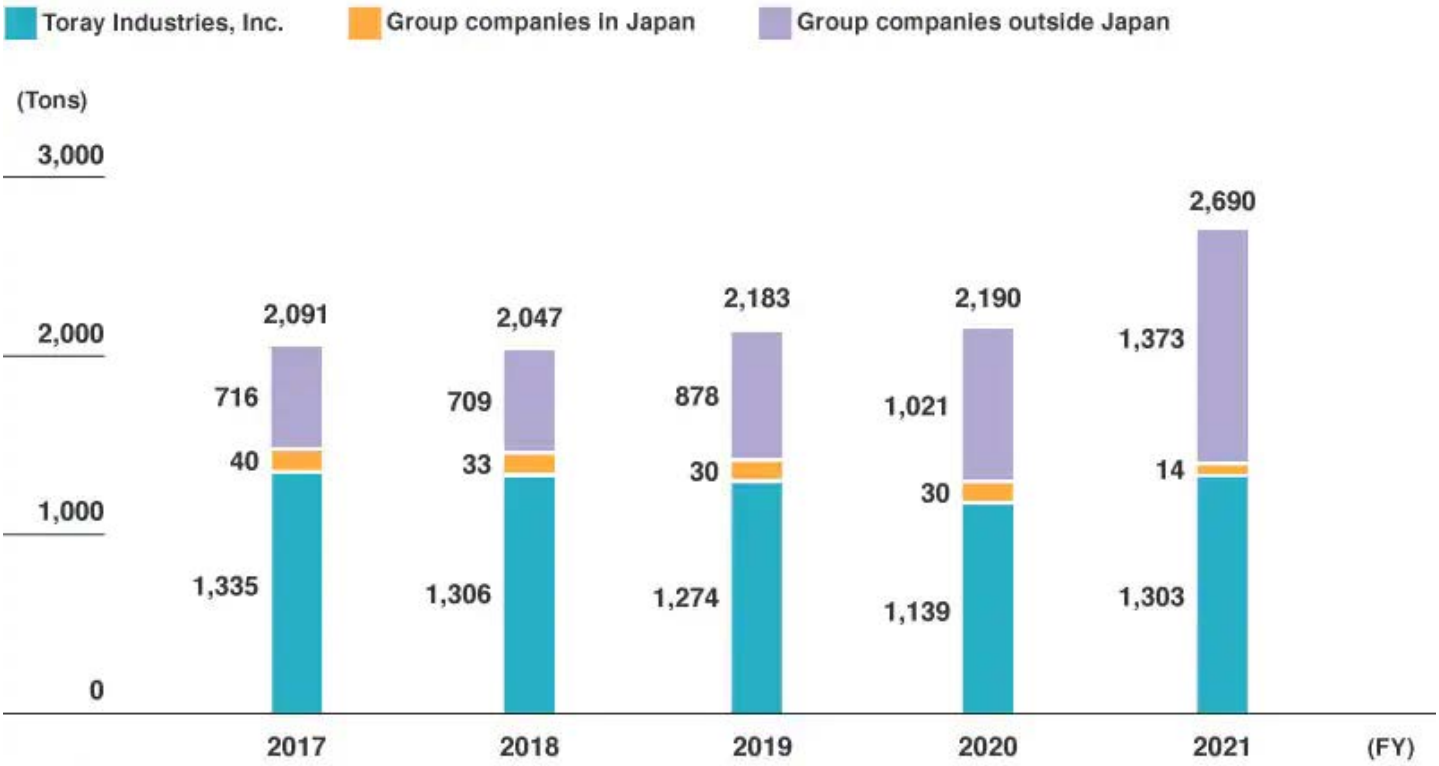
## Air Emission Management

In fiscal 2021, Toray Group recorded 1,333 tons of SOx emissions (down 16% year on year), 2,690 tons of nitrogen oxide (NOx) emissions (up 23% year on year), and 315 tons of dust emissions (up 61% year on year). The year-on-year reduction in SOx emissions was due to the downsizing of coal-fueled boilers at group companies outside of Japan. The year-on-year increase in the other two air pollutants was due to higher production volumes based on business recovery associated with the COVID-19 pandemic.

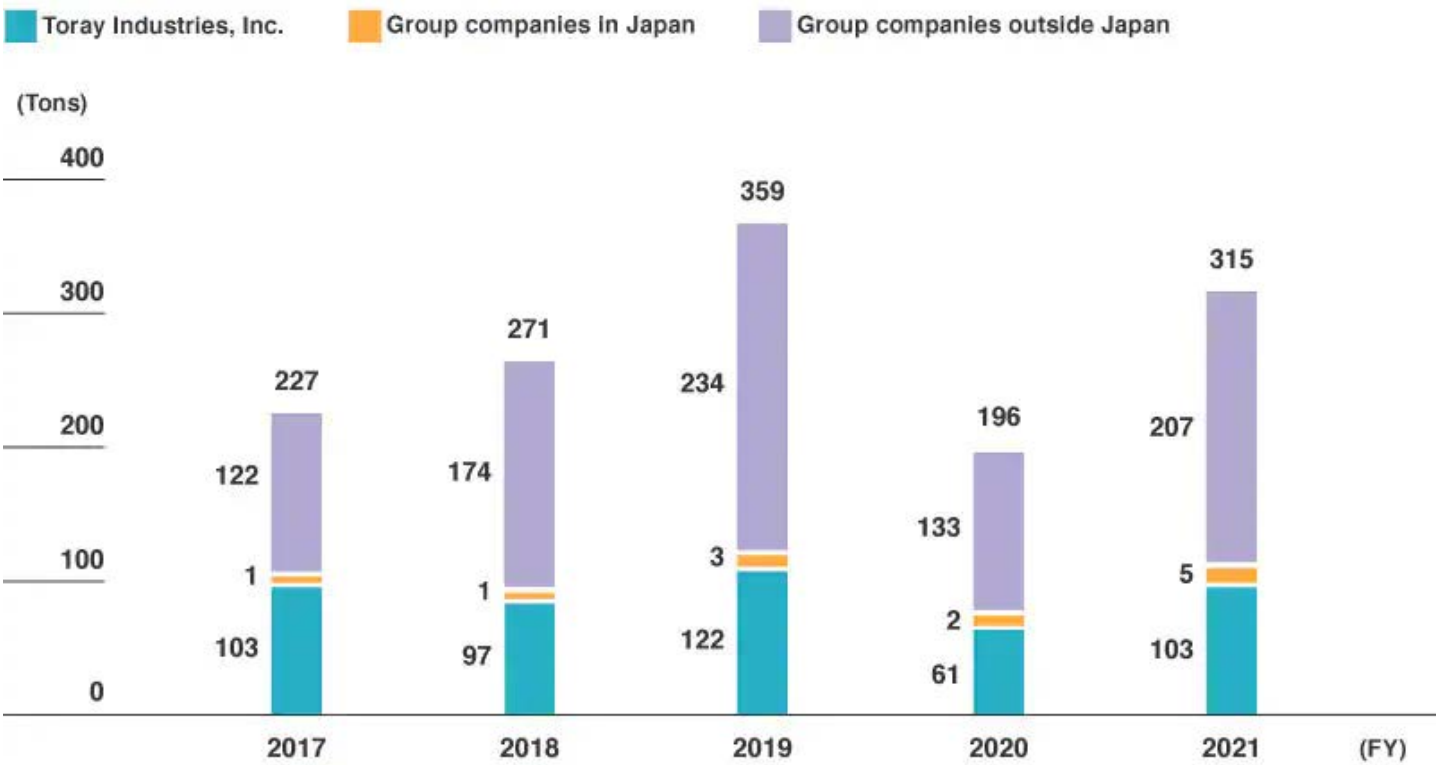
**Atmospheric Emissions (SOx)**



## Atmospheric Emissions (NOx)




## Atmospheric Emissions (Dust)

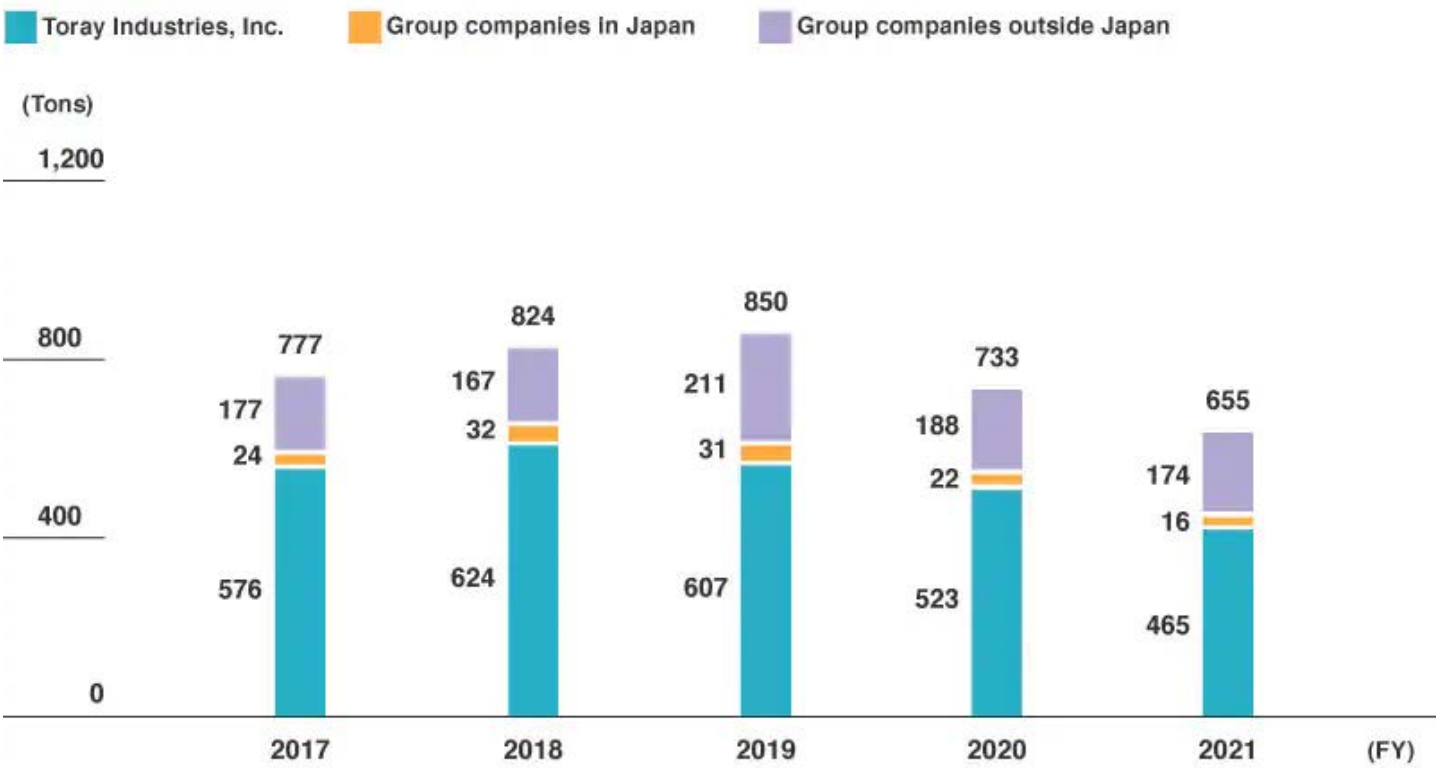


## Wastewater Quality Management

Toray Group monitors and complies with regulations concerning BODs, CODs, and nitrogen in countries and regions where it operates plants and implements water quality management for plant wastewater. Plants with high effluent loads are reducing effluents by installing wastewater treatment facilities (activated sludge method) that utilize the activated sludge method and other techniques. The Group is committed to remaining in compliance with regulations through everyday facilities operation management and regular self-testing of water quality.

In fiscal 2021, Toray Group recorded 655 tons of BOD emissions (down 10.7% year on year) and 2,138 tons of COD emissions (up 9.9% year on year). This year, BOD emissions fell due to more efficient operation of wastewater treatment facilities. However, COD emissions increased due to higher production volumes based on business recovery associated with the COVID-19 pandemic.

**Water Emissions (BOD)**



**Water Emissions (COD)**

The Group brings together wastewater managers every year to share and discuss strategies for enhancing wastewater management at production sites. The fiscal 2021 meeting was attended by 36 persons from Toray Industries' plants and 24 persons from group companies in Japan.

**CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation**

# Initiatives for Managing Water Resources

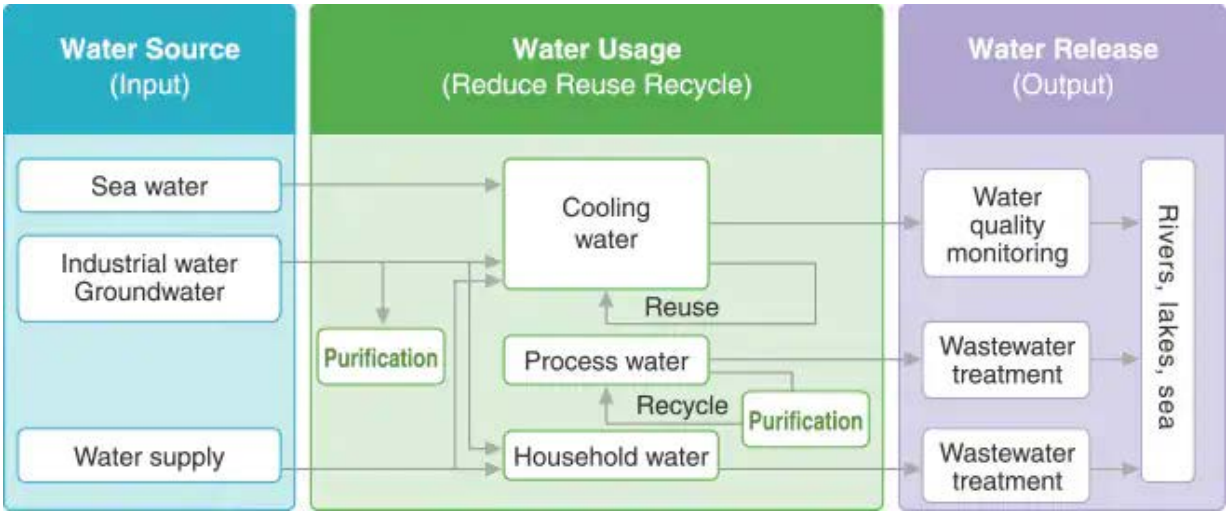
Toray Group is working to provide solutions to water resources problems around the world, based on the following policies. In its own operations, the Group effectively uses and recycles water and properly manages water resources.

1. Toray Group recognizes that water is one of the most important resources for humanity, and that people are confronting problems related to water resources in many areas of the world.
2. Toray Group is committed to helping to solve global water resources problems through its products, technologies and services.
3. Toray Group continuously monitors the state of regional water resources, and conducts appropriate management of water resources, such as avoiding excessive water withdrawal so as to share these precious resources with the local communities where the Group operates.

Toray Group operates a variety of businesses around the world, and depending on the location, it may be greatly affected by water withdrawal restrictions. Its assessment, therefore, is that the Group faces a large risk regarding limits on water usage.
Accordingly, Toray Group uses the Aqueduct Water Risk Atlas, a water risk assessment tool provided by the World Resources Institute (WRI), to identify locations of high stress through water stress surveys in regions around the world where the Group's manufacturing sites and offices are located. In addition, the amount of water used in business activities in each region is monitored annually using a questionnaire from Toray Industries. Toray Group has determined that approximately 4.5% of its entire water withdrawals at all sites, including plants and offices, comes from regions where water stress is assessed to be high or extremely high.

As stated in its Sustainability Vision, Toray Group has set a target for reducing water usage per-unit of revenue by 2030. The Group understands the effects of water stress and promotes the 3Rs (reduce, reuse, recycle) for water resources through improvement of manufacturing processes, water-saving activities, and utilization of recycled water.
The Group fully understands local regulations regarding effluent and constantly monitors water quality, such as COD, before releasing effluent from its plants into public bodies of water.
Moreover, the Group reuses cooling water and recycles wastewater, especially at group companies outside Japan located in drought areas, and strives to reduce the amount of new water withdrawals taken from outside as industrial water.

### Water Resource Management by Toray Group




**Related Information**

See the following page for information on how Toray Group handles water hazard risks (floods, storm surges, etc.).

> Business Continuity Plan Initiatives

## Water Usage Management

CSR Roadmap 2022
Main Initiatives (7)

### Water usage per unit of revenue (%)

**■Reporting scope**
Toray Group

**■Target**
At least 25% lower than fiscal 2013 (Fiscal 2022)

**Result in fiscal 2021**

**28.3%**

In fiscal 2021, Toray Group used 224 million tons of water, approximately 100,000 tons more than the previous fiscal year. Compared to the amount used per unit of revenue in fiscal 2013, set to an index value of 100, usage in fiscal 2021 was 71.7 points, down 10.7 points from the previous fiscal year. In fiscal 2021, although the total volume of water used increased due to higher production volumes based on business recovery associated with the COVID-19 pandemic, water usage actually decreased per unit of revenue, thanks to robust improvement in sales revenue.

**Related Information**

> Environmental Data (Water Usage)

### Comparative Water Usage Per Unit of Net Sales (Per Unit of Revenue)* (Toray Group)

| (FY) | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| Comparative Water Usage Per Unit of Net Sales (Per Unit of Revenue) | 84.9 | 90.0 | 82.5 | 77.9 | 77.1 | 82.4 | 71.7 |

* Per unit of net sales until fiscal 2019, as Japanese GAAP was used until then, and per unit of revenue from fiscal 2020 onwards, as International Financial Reporting Standards (IFRS) have been adopted since then.

Click here for the main initiatives for CSR Guideline 3, “Safety, Accident Prevention, and Environmental Preservation” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Initiatives to Reduce Waste

Toray Group is making effective use of resources as it works toward the realization of a sustainable, recycling-based world. It has set numerical targets for waste recycling rates[1] and is working to achieve them group-wide.

1 Waste recycling rate = (recycled resources + resources with monetary worth) / (total waste + resources with monetary worth)

## Results in Fiscal 2021

CSR Roadmap 2022
Main Initiatives (9)

### Recycling Rate

**Waste recycling rate (%)**

■Reporting scope
Toray Group

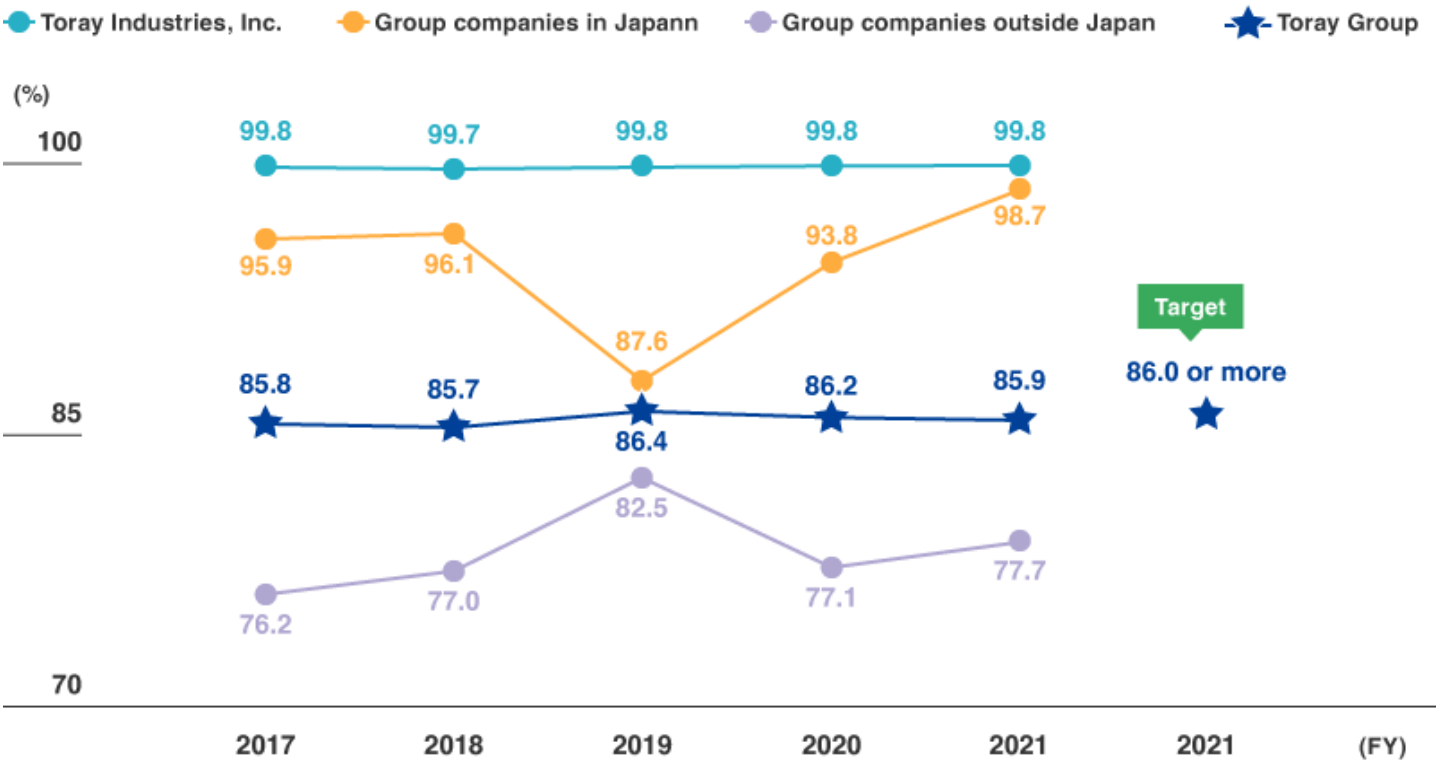
■Target in fiscal 2021
At least 86%

**Result in fiscal 2021**

**85.9%**

The recycling rate for Toray Group was 85.9%, down by 0.3 percentage points year on year, and the Group did not achieve its target of 86% or higher. This stemmed from an increase in waste disposal due to equipment troubles at group companies outside Japan.
Going forward, Toray will strive to achieve this target by promoting recycling and focusing intently on group companies outside Japan that generate particularly large amounts of waste.

## Recycling Rate (Toray Group)




Click here for the main initiatives for CSR Guideline 3, “Safety, Accident Prevention, and Environmental Preservation” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Environmental Risk Management

## Number of environmental accidents

| ■Reporting scope | ■Target in fiscal 2021 |
| --- | --- |
| Toray Group | 0 |

**Result in fiscal 2021**

**4**

## Compliance with Environmental Laws and Accidents in Fiscal 2021

CSR Roadmap 2022 Main Initiatives (5)

In fiscal 2021, four environmental accidents occurred within Toray Group, some of which were minor.
These were all accidents in which exhaust gas or wastewater emissions exceeded standards for air or water quality. After promptly contacting the local governments, the plants involved confirmed, through analytical investigations and reviews of the surroundings based on internal rules, that the impact on the environment was extremely minor.
The causes of these accidents included the exceeding of exhaust gas standards due to the use of fuel with a high concentration of nitrogen oxides, chemical leaks due to inadequate management of dikes, and wastewater spills due to the pumping of liquids in amounts that exceeded the capacity of wastewater treatment equipment. To prevent recurrences, the Group will thoroughly review fuel management methods, modify equipment, and conduct employee education.
The Group received eight complaints and requests from residents near its facilities concerning noise and odor, which were seriously examined and addressed by implementing improvements.

**Environmental Accidents in Fiscal 2021 (Toray Group)**

| | |
|---|---|
| Administrative disposition due to violations of laws or ordinances[1]<br>1 Serious environmental accidents resulting in improvement orders | 0 |
| Accidents (environmental accidents, etc.)[2]<br>2 Environmental accidents for which improvement guidance and recommendations are issued | 1 |
| Slight but temporary exceeding of standard values[3]<br>3 Environmental accidents for which improvement guidance and recommendations are not issued by local government | 3 |
| Complaints/requests (noise, odor, etc.) | 8 |

## Preventing Soil and Groundwater Pollution

CSR Roadmap 2022
Main Initiatives (5)

Toray Group constructs protective embankments around its facilities and storage tanks for hazardous chemicals, and takes precautions to ensure that none of these dangerous substances leak or discharge into the surrounding area or contaminate the soil onsite. In fiscal 2021, remediation using wells to clean up groundwater pollution continued at Toray Monofilament Co., Ltd., and remediation to address soil pollution continued at Toray Industries' Nagoya Plant. Toray Group will continue these ongoing remediation efforts and voluntary surveys to monitor soil and groundwater pollution.

Click here for the main initiatives for CSR Guideline 3, “Safety, Accident Prevention, and Environmental Preservation” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Environmental Accounting

## Fiscal 2021 Environmental Accounting Report (Toray Industries)

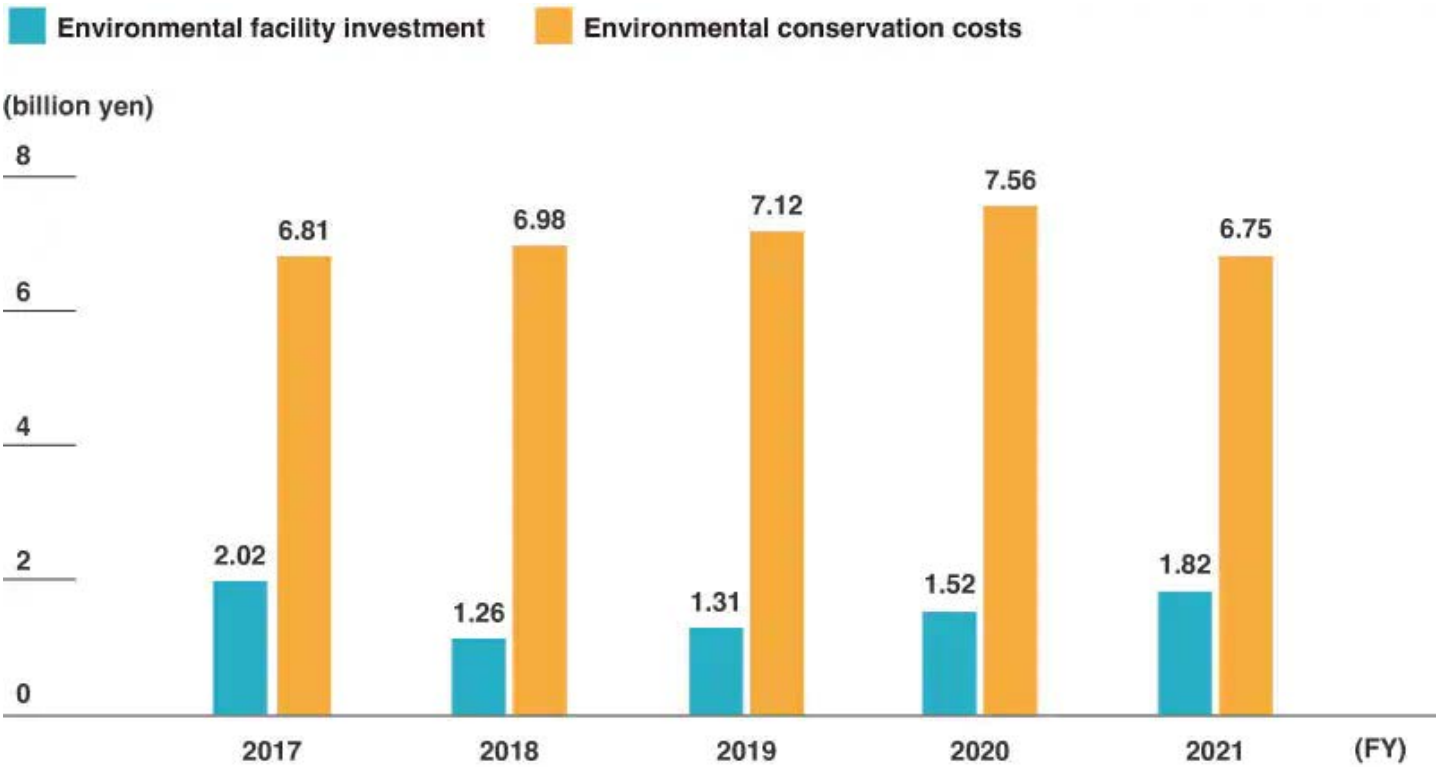
Toray Industries, Inc. has been practicing environmental accounting since 1999, to track investments and gauge their cost effectiveness.
In fiscal 2021, the Company's environment-related investment amounted to 1.82 billion yen, up 0.3 billion yen compared to the previous year. Cost totaled 6.75 billion yen, down 0.81 billion yen compared to the previous year.

### Fiscal 2021 Environmental Accounting Report (Toray Industries, Inc.)

| Expenses | | | | |
|---|---|---|---|---|
| Item | | Subcategory and description | Investment (million yen) | Cost (million yen) |
| Business area costs | Pollution prevention costs | Air (including CFC countermeasures) | 329 | 1,974 |
| | | Water quality | 488 | 2,186 |
| | | Noise and vibration | 13 | 10 |
| | | Greening | 1 | 180 |
| | | Odors and other | 88 | 156 |
| | Global environment conservation costs | Energy conservation and combating global warming | 186 | 93 |
| | Resource recycling costs | Industrial waste reduction, recycling, disposal, and PCB waste disposal services | 29 | 1,252 |
| Upstream and downstream costs | | Product recycling | 686 | 167 |
| | | Container and package recycling | 0 | 0 |
| Management activity costs | | Indirect labor costs, ISO certification and maintenance, environmental communications, and education | 0 | 515 |
| Social initiative costs | | Regional initiatives, support for organizations, etc. | 0 | 79 |
| Environmental remediation costs | | SOx fines, soil purification, etc. | 0 | 133 |
| Total | | | 1,818 | 6,746 |

| Effectiveness | | |
|---|---|---|
| Item | | Amount (million yen) |
| Financial effects | Reduction in energy costs | 93 |
| | Reduction in industrial waste disposal costs | 39 |
| | Sale of valuable recycled resources with monetary value | 601 |
| Quantitative environmental effects | Reduction of greenhouse gas emissions | 5,600 tons-$CO_2$eq |

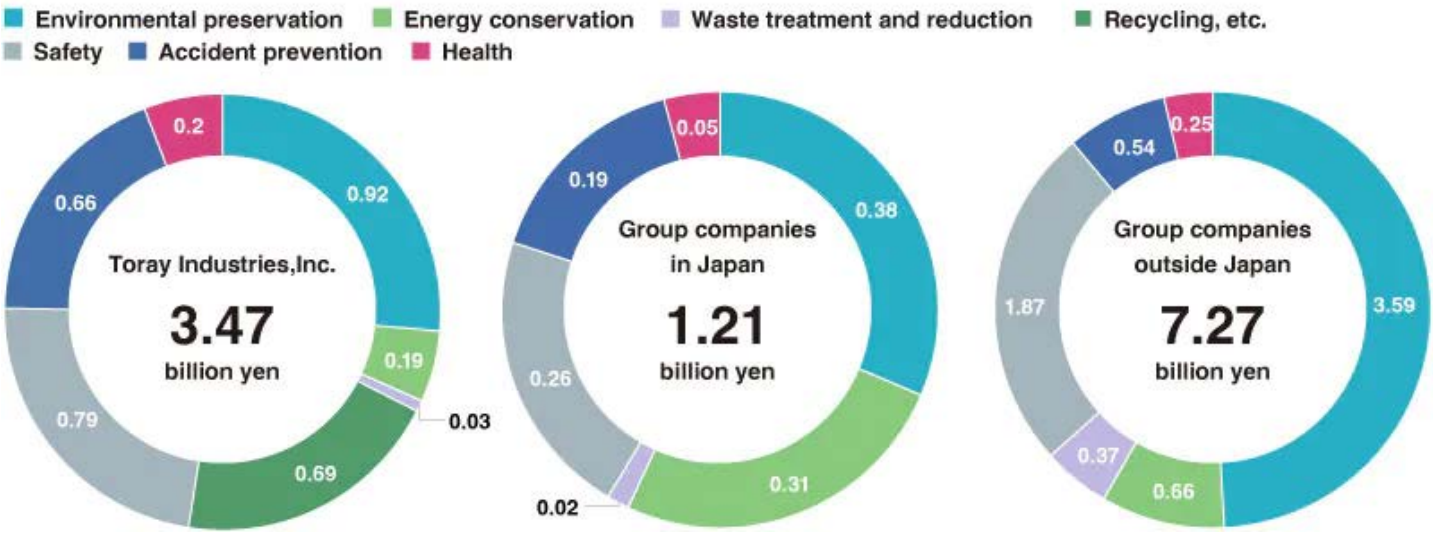
## Environmental Facility Investment and Environmental Conservation Costs (Toray Industries, Inc.)



## Facility Investment in Safety, Health, Accident Prevention, and Environmental Preservation Projects (Toray Group)

Toray Group reports on facility investments relating to safety, health, accident prevention, and environmental preservation projects. The Group continues to invest in safety improvements to facilities. As part of its environmental conservation efforts, the Group has invested in the expansion of exhaust gas emissions and wastewater treatment facilities and additional instrumentation to enhance wastewater management.

**Fiscal 2021 Facility Investment in Safety, Health, Accident Prevention, Environmental Preservation, and Energy Conservation Projects (Toray Group)**




**Toray Industries Environmental Accounting Standards**

- Some categories were changed based on the Ministry of the Environment's Guidelines for FY2005.
- Only economic effects that can be determined with a high degree of certainty are included in the calculation. Presumed effects are not included.
- Capital investment also includes facility investments for which environmental preservation is not the main objective. Capital investment resulting from leases is also included. Expenses include labor costs and depreciation. However, internal labor costs related to local volunteer activities are not included.
- Energy cost reduction figures show the amount of reduction for the 12 months after the completion of an energy saving facility. Expenses are not recorded as they are deducted when the effect is calculated.
- Waste disposal cost reduction figures show the amount of reduction achieved through waste reduction efforts and resource recycling for 12 months after the measures are undertaken.
- Effects of reducing greenhouse gas emissions are measured over a 12-month period following the completion of measures or facilities to save energy.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Biodiversity Initiatives

Next to the issue of climate change, the issue of biodiversity preservation has been a major focus of the international community in recent years. Biodiversity forms the basis of natural capital such as water, air, plants, animals, and minerals that are indispensable to human society. Climate change caused by human activities, depletion of natural resources, ecosystem destruction, and species extinction are causing biodiversity loss to occur at an alarming rate, making it a serious problem facing humankind. This has sparked an international discussion about the importance of taking a nature positive approach to stopping and reversing biodiversity loss.
Toray Group views conservation of biodiversity as a critical global environmental issue that is of equal importance to reducing greenhouse gas emissions. Toray is contributing to biodiversity conservation and the nature positive approach through its business activities. This includes water treatment technology to produce reliably safe drinking water, water conservation through the reuse of treated wastewater, and air purification using fiber filter-related materials.
The Group also uses environmental assessment checklists to conduct safety reviews for all products and to carry out environmental risk investigations before making capital investment. The checklists enable the Group to ensure that it is not exceeding legal limits on regulated substances contained in exhaust gas, wastewater, and waste from manufacturing. Through these efforts, Toray strives to assess its impact on biodiversity and help build a sustainable world.

## Working Group Considers Initiatives for Biodiversity

CSR Roadmap 2022
Main Initiatives (10)

In 2010, Toray Group launched a cross-organizational working group to develop biodiversity initiatives, which are prioritized and implemented under the guidance of the Toray Group Biodiversity Basic Policy. In fiscal 2021, the Group continued to review raw materials containing bio-based ingredients.

**Biodiversity Initiatives** Established December 2010

**Basic Approach**
Toray Group appreciates the gifts of nature that biodiversity provides, and strives to realize the conservation and sustainable use of biodiversity. The Group contributes to society through the development and dissemination of products and technologies which advance conservation of biodiversity.

**Action Guidelines**

1. We take into consideration the impact of our business activities on biodiversity, and strive to realize the conservation and sustainable use of biodiversity.
2. We endeavor to develop environmentally friendly technologies and products, and contribute to the conservation of biodiversity by making them available for use.
3. We practice fair use of genetic resources on the basis of relevant international agreements.
4. We recognize the influence of biodiversity within the supply chain, and pursue coexistence with nature.
5. We strive to raise employee awareness on biodiversity, and contribute to the building of a society that nurtures biodiversity through our communication with stakeholders.

Note: Toray Group respects Nippon Keidanren's Declaration of Biodiversity (Guide to Action Policies) and the Japanese Ministry of the Environment's Guidelines for Private Sector Engagement in Biodiversity. The Group is a promotion partner of Nippon Keidanren's Declaration of Biodiversity.

## Procuring Raw Materials

CSR Roadmap 2022
Main Initiatives (10)

### Conduct a survey of palm oil contained in raw materials (%)

**■Reporting scope**
Toray Industries, Inc.

**■Target in fiscal 2021**
Decision making (Yes/No) of shifting to certified raw materials : 100%

**Result in fiscal 2021**

**100%**

As one of its biodiversity conservation initiatives, Toray Group conducts a regular survey of products to determine the usage of bio-based raw materials in product manufacturing. The Group has also developed rules for checking the biodiversity impacts of products, and applies the rules to all products from the development stage.
Among them, palm oil is a key raw material for follow-up action. The Group is conducting investigations into certified raw materials and has been pushing to switch over to them in the three years from fiscal 2020 to fiscal 2022.
In fiscal 2020, the Group investigated whether or not raw materials were made with palm oil that uses certified palm nuts. A survey of 93% of suppliers was completed in fiscal 2020, and all target suppliers were surveyed by the end of fiscal 2021.
In fiscal 2021, Toray also surveyed suppliers about the possibility of switching from non-certified palm oil to certified palm oil. Determinations of whether or not this is possible have been received from all target suppliers.
Going forward, Toray Group will continue its investigation concerning non-certified raw materials that are difficult to change, while carefully examining the feasibility of switching to certified raw materials for each item concerned.

## Social Initiatives

CSR Roadmap 2022
Main Initiatives (13)

Toray Group carries out biodiversity conservation through social contribution activities as a good corporate citizen. It is promoting the creation of biotopes at a group plant and the participation of employees in volunteer cleanup activities. The waterside biotope at the Tokai Plant of Toray Industries has been certified as "Excellent Stage 2" in the SEGES MOU (Maintenance, Operation, and Utilization) category of the Social and Environmental Green Evaluation System (SEGES), a green certification program provided by Japan's Organization for Landscape and Urban Green Infrastructure.
Please see the following page for more information.

**Related Information**

> Activities Carried Out in Fiscal 2021

## Increasing Green Areas

CSR Roadmap 2022
Main Initiatives (13)

Plants at Toray Industries, Inc. and its group companies in Japan are operating greenery policies and plans, guided by the Toray Group Basic Policy for Increasing Green Areas.[1] The plans encompass initiatives to conserve green areas, including natural forests[2] that have been protected since the plants began operating. Sustainable greenery conservation initiatives also help to conserve the environment for communities.
Efforts to increase green areas by creating environmental conservation forests around Toray Industries' plants began in the autumn of 1973, when about 4,000 employees went to temples and shrines (which in Japan are usually surrounded by greenery) and mountains to collect tree seeds that had fallen there. The seeds were grown into seedlings at each workplace, and employees painstakingly planted them one by one.
Nearly 50 years have passed since then, and the trees grown from seeds, including laurel, camphor, and oak, now cover over 10,000 m² around the Mishima Plant at Toray Industries.
It is still working to conserve the environment by increasing green areas. Altogether, Toray Industries has created green areas covering approximately 200,000 m² at 12 plants, including Mishima Plant and the Basic Research Laboratories (now the Basic Research Center) through the shrine forest method.[3]

1 Toray Group Basic Policy on Increasing Green Areas was established in 2012, evolving out of greenery policies that were first established in 1973.
2 Natural groves or forestation by species based on potential native vegetation
3 Modeled after traditional forestry techniques used by Japanese shrines, this greening method reproduces green spaces in a state close to natural forests by using trees that are native to the area. In order to create forests with local genes, Toray employees collected seeds from shrines and forests near plants, grew them into seedlings, and planted the seedings to create forests at the plants.

### Toray Industries, Inc. (Mishima Plant)

Immediately after planting (1973)

Current state (photo taken in 2020)

### Toray Industries, Inc. (Tokai Plant)

Tree planting (1976)

Current state (photo taken in 2020)

**Toray Group's Basic Policy for Increasing Green Areas** Established June 2012

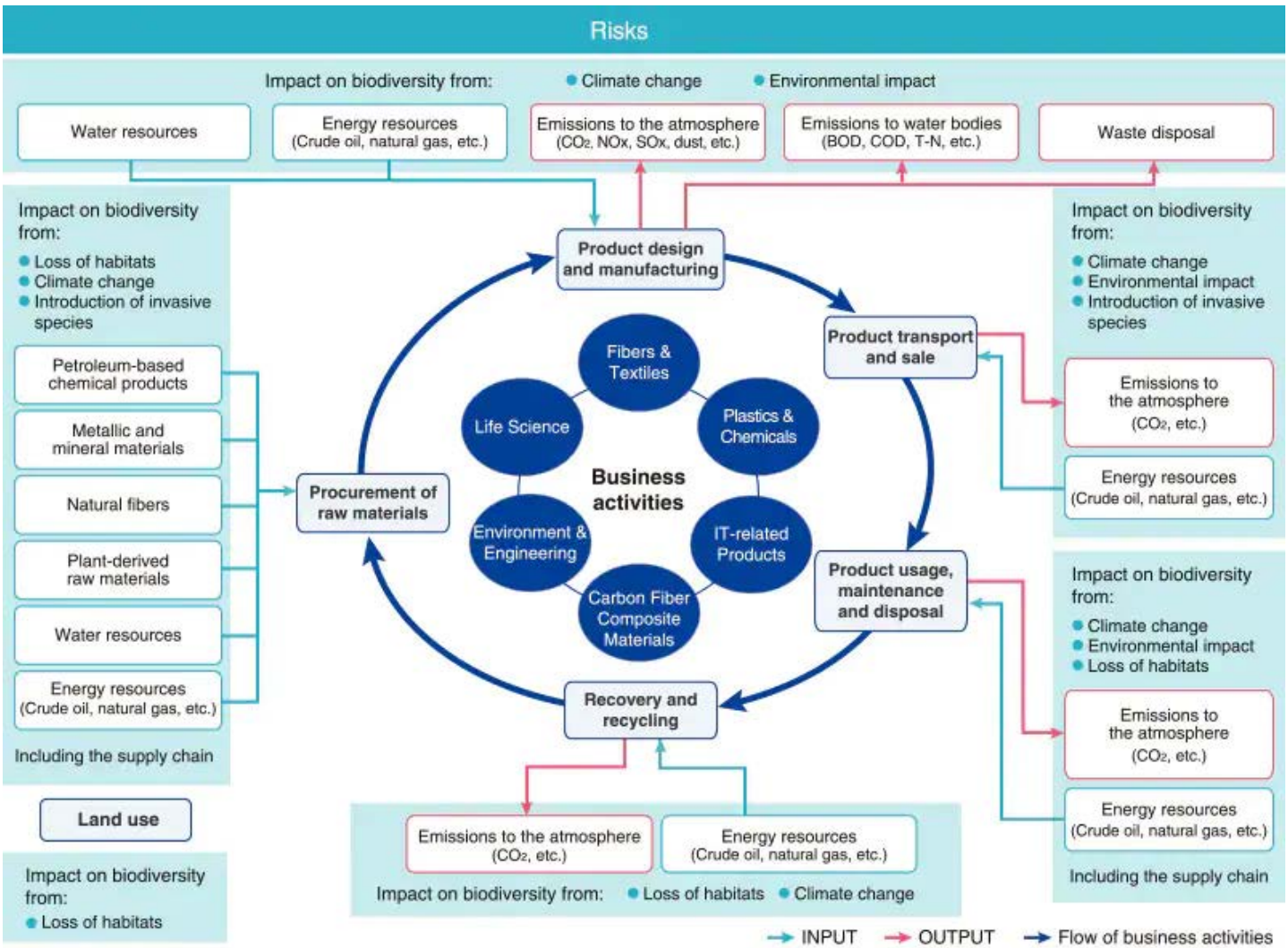
A. Toray Group contributes to the preservation of the natural environment by promoting tree planting using planting methods suitable for the biodiversity of local habitats.

B. Toray Group aims to surround its production plants with greenery by giving priority to tree planting in areas at the boundaries of factory sites.

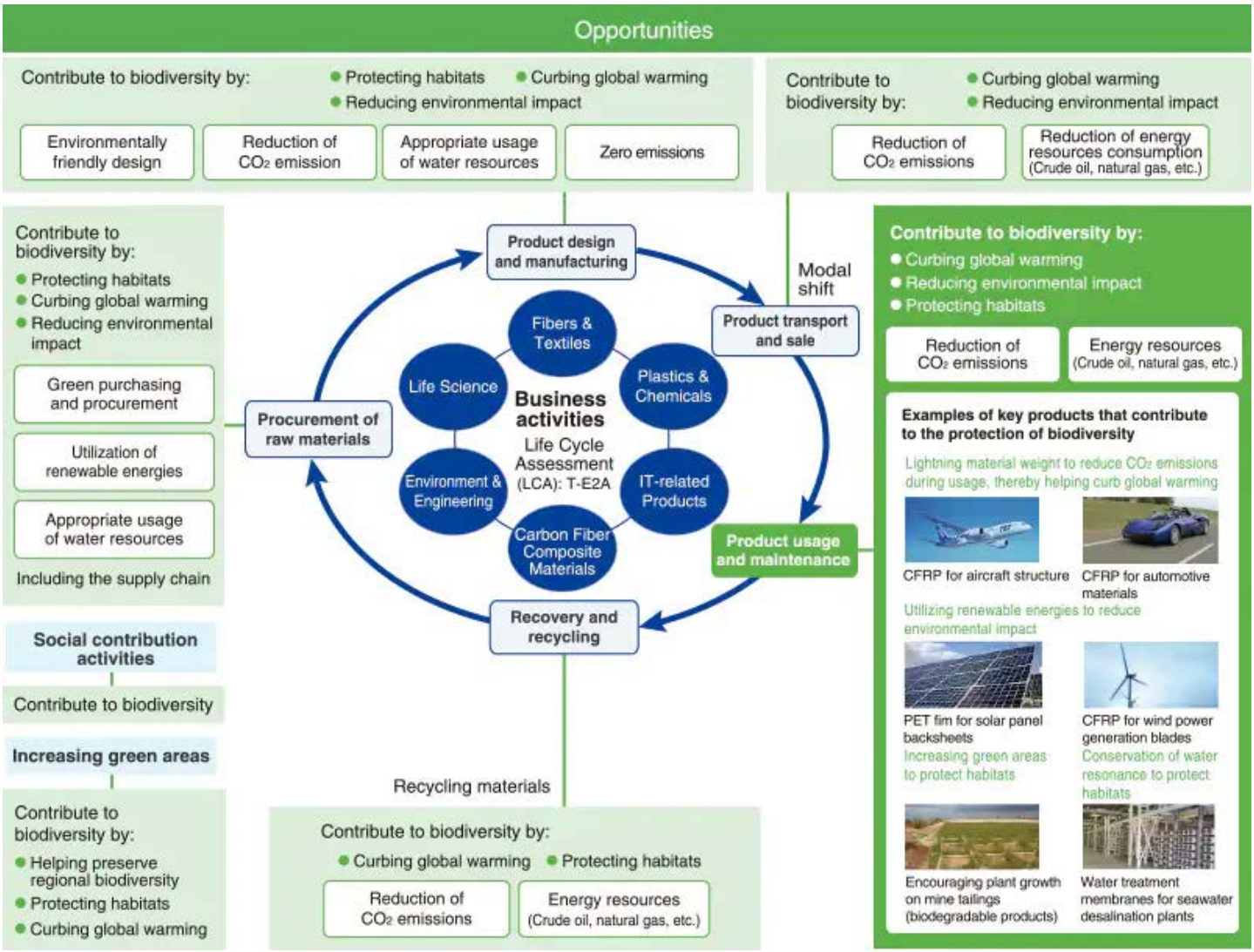
C. Toray Group sets goals for making each of its production plants greener while considering how to attain harmony with the surrounding environment as well as regulations concerning green space ratios in each respective country or region.

## Toray Group's Approach to the Relationship between Corporate Activities and Biodiversity

Since Toray Group's business activities have a wide range of effects on biodiversity, the Group conducted an analysis of the biodiversity risks and opportunities relating to these activities, namely, raw material procurement, water use, product and service design, operational emissions, and land use for operations.
On the risk side, biodiversity effects include the use of water and energy resources as well as emissions into the atmosphere and water. On the opportunity side, these effects include reductions to $CO_2$ emissions by offering products that reduce the weight of parts for aircraft and other equipment as well as protecting habitats by offering products that maintain green areas and protect water resources.
The two diagrams below conceptualize the relationship between the Group's business activities and biodiversity in terms of the two aspects of risks and opportunities.




Note: These diagrams were produced based on the Map of Corporate Activities and Biodiversity ® published by the Japan Business Initiative for Biodiversity.




## Initiative

### Participating in the 30 by 30 Alliance for Biodiversity

Toray Industries has participated in the 30 by 30 Alliance for Biodiversity since its launch by Japan's Ministry of the Environment on April 8, 2022.

With the goal of halting and reversing biodiversity loss (nature positive approach) by 2030, the Alliance was established by the Ministry of the Environment as a voluntary coalition of industry groups, government agencies, and private companies. Its aim is to help achieve the worldwide initiative for conserving 30% or more of Earth's land and ocean area as healthy ecosystems by 2030.

Click here for the main initiatives for CSR Guideline 3, “Safety, Accident Prevention, and Environmental Preservation” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Environmental Impact Overview

## Environmental Impact Overview Fiscal 2021

| | Toray Industries, Inc. | | | | | Group companies in Japan | | | | | Group companies outside Japan | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) |
| INPUT | | | | | | | | | | | | | | | |
| Energy (1,000,000 gigajoules)[1] | 28.8 | 27.8 | 25.3 | 27.3 | 108.1 | 6.2 | 5.8 | 5.3 | 5.8 | 108.5 | 54.1 | 61.0 | 50.9 | 63.4 | 124.5 |
| Derived from non-renewable energy sources | 27.6 | 26.5 | 24.0 | 26.1 | 108.6 | 6.2 | 5.8 | 5.3 | 5.8 | 108.6 | 54.0 | 60.9 | 50.7 | 63.2 | 124.7 |
| Derived from renewable energy sources | 1.2 | 1.3 | 1.2 | 1.2 | 100.8 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.1 | 0.1 | 0.2 | 0.1 | 50.0 |
| Water usage (1,000,000 tons)[1] | 175.9 | 171.8 | 165.7 | 171.8 | 103.7 | 13.3 | 13.4 | 11.5 | 11.5 | 100.2 | 43.7 | 41.9 | 37.6 | 40.5 | 107.8 |
| Industrial water | 139.1 | 132.1 | 129.9 | 130.9 | 100.8 | 4.5 | 4.0 | 3.5 | 3.7 | 105.7 | 16.1 | 18.3 | 16.5 | 20.4 | 123.6 |
| Public water | 0.2 | 0.2 | 0.2 | 0.2 | 100.0 | 0.3 | 0.2 | 0.3 | 0.3 | 100.0 | 11.1 | 10.3 | 10.3 | 10.1 | 98.1 |
| Seawater | 6.0 | 7.7 | 6.2 | 9.5 | 153.2 | 1.2 | 1.4 | 1.3 | 1.5 | 115.4 | 7.3 | 6.1 | 4.0 | 0.0 | 0.0 |
| Groundwater | 24.6 | 25.5 | 23.4 | 25.2 | 107.7 | 7.2 | 7.6 | 6.3 | 5.9 | 93.7 | 0.6 | 0.0 | 2.0 | 4.8 | 240.0 |
| Others | 6.0 | 6.2 | 6.0 | 6.0 | 100.0 | 0.1 | 0.2 | 0.1 | 0.1 | 100.0 | 5.8 | 7.2 | 4.8 | 5.2 | 108.3 |
| OUTPUT | | | | | | | | | | | | | | | |
| GHG (10,000 tons $CO_2$eq)[1, 2] | | | | | | | | | | | | | | | |
| 6 gases including $CO_2$ | 195.3 | 186.0 | 165.7 | 186.2 | 112.3 | 37.4 | 33.4 | 30.7 | 33.3 | 108.3 | 330.8 | 356.3 | 300.5 | 329.8 | 109.8 |
| Scope1[3] | 161.7 | 155.9 | 140.3 | 157.9 | 112.6 | 5.1 | 4.7 | 4.1 | 5.5 | 134.4 | 164.2 | 166.8 | 137.3 | 140.9 | 102.6 |

| | Toray Industries, Inc. | | | | | Group companies in Japan | | | | | Group companies outside Japan | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) |
| $CO_2$ | 152.6 | 146.9 | 132.6 | 148.4 | 111.9 | 5.1 | 4.6 | 4.1 | 5.1 | 124.4 | 164.2 | 166.8 | 137.3 | 140.9 | 102.6 |
| $CH_4$ | 0.4 | 0.4 | 0.3 | 0.3 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | - | - | - |
| $N_2O$ | 8.6 | 8.7 | 7.3 | 8.9 | 121.9 | 0.0 | 0.0 | 0.0 | 0.4 | 12,254.5 | - | - | - | - | - |
| Other gases (HFCs, PFCs, $SF_6$) | 0.2 | 0.0 | 0.0 | 0.3 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | - | - | - |
| Scope2 | 33.6 | 30.1 | 25.5 | 28.3 | 111.1 | 32.3 | 28.7 | 26.6 | 27.7 | 104.3 | 166.6 | 189.5 | 163.1 | 188.8 | 115.7 |
| PRTR Law-specified substances (tons) | | | | | | | | | | | | | | | |
| Atmospheric emissions | 327.7 | 229.1 | 211.0 | 183.3 | 86.9 | 101.5 | 99.7 | 104.4 | 89.8 | 86.0 | 457.0 | 392.2 | 480.6 | 442.8 | 92.1 |
| Water emissions | 28.3 | 24.2 | 22.2 | 26.5 | 119.5 | 0.4 | 0.4 | 3.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.7 | 3.7 | 522.7 |
| Waste transfers | 746.3 | 1,054.1 | 577.4 | 499.1 | 86.4 | 1,333.7 | 1,674.1 | 2,468.9 | 957.4 | 38.8 | 2,798.5 | 2,140.4 | 4,276.9 | 4,611.1 | 107.8 |
| Air pollutants (tons)[1] | | | | | | | | | | | | | | | |
| SOx | 244.9 | 254.9 | 160.1 | 219.4 | 137.1 | 16.0 | 9.7 | 17.9 | 2.4 | 13.3 | 2,291.5 | 1,597.4 | 1,404.7 | 1,111.3 | 79.1 |
| NOx | 1,305.7 | 1,274.0 | 1,139.2 | 1,302.6 | 114.3 | 32.5 | 30.2 | 29.7 | 14.3 | 48.3 | 708.9 | 878.4 | 1,020.7 | 1,372.9 | 134.5 |
| Dust | 96.5 | 121.9 | 60.9 | 102.6 | 168.4 | 1.0 | 3.1 | 1.5 | 4.7 | 316.0 | 173.9 | 234.1 | 133.3 | 207.4 | 155.5 |
| VOC | 422.1 | 307.4 | 309.2 | 266.1 | 86.1 | 178.1 | 175.0 | 172.2 | 136.4 | 79.2 | 528.7 | 486.0 | 557.8 | 485.9 | 87.1 |
| Industrial wastewater (million tons)[1] | | | | | | | | | | | | | | | |
| | 166.6 | 160.4 | 150.1 | 154.4 | 102.9 | 9.5 | 9.3 | 7.7 | 8.2 | 106.6 | 23.4 | 25.7 | 24.3 | 25.7 | 105.4 |
| Total water consumed (million tons)<br>Note: Calculated by substracting industrial wastewater from water withdrawn | | | | | | | | | | | | | | | |
| | 9.3 | 11.3 | 15.6 | 17.4 | 111.4 | 3.8 | 4.1 | 3.8 | 3.3 | 87.4 | 20.3 | 16.2 | 13.2 | 14.8 | 112.4 |
| Water pollutants (tons) | | | | | | | | | | | | | | | |
| BOD | 624.2 | 606.9 | 523.5 | 464.7 | 88.8 | 32.1 | 31.3 | 21.6 | 16.3 | 75.5 | 167.4 | 211.4 | 188.3 | 174.0 | 92.4 |
| COD[1] | 780.4 | 727.2 | 694.0 | 666.6 | 96.0 | 27.7 | 25.2 | 28.8 | 25.9 | 90.0 | 1,149.0 | 1,550.0 | 1,222.6 | 1,445.4 | 118.2 |
| Nitrogen | 393.5 | 341.2 | 340.4 | 405.8 | 119.2 | 13.8 | 13.5 | 8.6 | 7.6 | 87.9 | - | - | - | - | - |
| Phosphorus | 31.0 | 24.8 | 18.7 | 19.0 | 101.7 | 1.6 | 1.3 | 0.6 | 0.7 | 116.9 | - | - | - | - | - |
| Waste (1,000 tons)[1] | | | | | | | | | | | | | | | |
| Recycled | 30.6 | 30.0 | 27.0 | 27.6 | 102.3 | 15.9 | 15.1 | 12.3 | 11.3 | 92.1 | 112.8 | 108.9 | 84.3 | 99.7 | 118.3 |

| | Toray Industries, Inc. | | | | | Group companies in Japan | | | | | Group companies outside Japan | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) | 2018 | 2019 | 2020 | 2021 | Compared to previous year (%) |
| Incinerated and other | 0.1 | 0.1 | 0.1 | 0.4 | 455.3 | 2.0 | 2.8 | 2.0 | 0.3 | 17.3 | 20.5 | 20.2 | 11.5 | 15.7 | 137.0 |
| Direct landfill Diposal | 0.1 | 0.2 | 0.0 | 0.0 | 128.4 | 0.4 | 4.3 | 0.9 | 0.3 | 28.6 | 20.8 | 22.7 | 17.7 | 19.2 | 108.3 |
| Coal ash (1,000 tons)[1] | | | | | | | | | | | | | | | |
| Recycled | 68.7 | 68.1 | 66.6 | 69.0 | 103.7 | - | - | - | - | - | 22.6 | 19.0 | 12.5 | 15.8 | 126.5 |
| Direct landfill Diposal | 3.2 | 3.2 | 1.3 | 1.5 | 115.4 | - | - | - | - | - | 0.2 | 0.3 | 0.3 | 0.3 | 105.7 |
| Hazardous waste (1,000 tons)[1, 4] | | | | | | | | | | | | | | | |
| Hazardous waste | - | - | 2.1 | 2.3 | 108.3 | - | - | 2.8 | 2.7 | 98.1 | - | - | - | 0.0 | - |
| Non-hazardous waste | - | - | 25.0 | 25.7 | 102.9 | - | - | 12.5 | 9.2 | 73.6 | - | - | - | 134.6 | - |

1 FY2021 figures have been verified by a third party, LRQA Limited. (Target: Toray Industries, Inc.)
2 $CO_2$-equivalent emissions are calculated from the conversion factor for each gas.
3 $CO_2$ is aggregated for group companies outside Japan.
4 Data corresponding to “industrial waste subject to special control,” as defined in Japan’s Waste Disposal and Public Cleansing Act, is recorded as hazardous waste generated.

## GHG Emissions in Toray's Supply Chain (Scope3)

(10,000 tons-$CO_2$eq)

| Toray Industries, Inc. | | | | |
|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 |
| Category1: Purchased goods and services | - | - | - | 231.5 |
| Category2: Capital goods[5] | 13.7 | 12.8 | 10.2 | 9.2 |
| Category3: fuel and energy related activities[5] | 56.1 | 68.9 | 63.1 | 19.0 |
| Category4: Upstream transportation and distribution[5] | 4.6 | 4.7 | 3.8 | 4.3 |
| Category5: Waste generated in operations | - | - | - | 2.0 |
| Category6: Business travel | - | - | - | 1.3 |
| Category7: Employee commuting | - | - | - | 0.2 |
| Total | 74.4 | 86.4 | 77.1 | 267.5 |

5 FY2021 figures have been verified by a third party, LRQA Limited. (Target: Toray Industries, Inc.)

## Index of Environmental Impact Per Unit of Sales[6]

| | Toray Industries, Inc. | | | | | Group companies in Japan | | | | | Group companies outside Japan | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | Year-on-year comparison (points) | 2018 | 2019 | 2020 | 2021 | Year-on-year comparison (points) | 2018 | 2019 | 2020 | 2021 | Year-on-year comparison (points) |
| **GHG emissions** | 57.1 | 55.4 | 59.8 | 57.0 | -2.8 | 57.8 | 62.1 | 74.2 | 75.1 | 0.9 | 64.7 | 67.1 | 58.4 | 50.1 | -8.3 |
| **PRTR atmospheric emissions** | 26.0 | 20.5 | 41.0 | 30.2 | -10.8 | 29.1 | 24.9 | 11.0 | 8.9 | -2.1 | 28.1 | 23.2 | 34.1 | 24.4 | -9.7 |
| **SOx emissions** | 3.9 | 4.1 | 3.2 | 3.7 | 0.5 | 9.9 | 6.9 | 38.5 | 4.8 | -33.7 | 12.1 | 9.0 | 6.8 | 4.2 | -2.6 |
| **Water usage volume** | 68.6 | 70.5 | 84.3 | 74.2 | -10.1 | 36.8 | 37.6 | 66.4 | 64.9 | -1.5 | 51.0 | 51.9 | 37.6 | 31.7 | -5.9 |
| **BOD emissions** | 36.6 | 36.7 | 40.8 | 30.7 | -10.1 | 11.3 | 14.3 | 22.0 | 15.5 | -6.5 | 24.9 | 26.1 | 14.2 | 10.3 | -3.9 |
| **Landfilled waste volume** | 8.3 | 79.3 | 0.9 | 0.9 | 0.0 | 37.3 | 40.6 | 31.5 | 7.0 | -24.5 | 59.3 | 76.3 | 35.3 | 29.9 | -5.4 |

6 The amounts per unit of sales shown in the table are referenced to an index value of 100 set for the base year of fiscal 2001.

## Aggregate Environmental Impact Data by Company Type and Location

| | Toray Industries, Inc. | Group companies in Japan | Group companies outside Japan |
|---|---|---|---|
| **GHG** | All 13 plants and 1 research laboratory | 49 plants at 26 companies | 84 plants at 63 companies |
| **PRTR Law-specified substances** | All 13 plants and 1 research laboratory | 44 plants at 24 companies | 84 plants at 63 companies |
| **SOx, NOx, dust** | All 13 plants and 1 research laboratory | 37 plants at 22 companies | 84 plants at 63 companies |
| **BOD** | All 13 plants and 1 research laboratory | 37 plants at 22 companies | 84 plants at 63 companies |
| **COD[7]** | All 13 plants and 1 research laboratory | 37 plants at 22 companies | 84 plants at 63 companies |
| **Nitrogen and phosphorus** | All 13 plants and 1 research laboratory | 37 plants at 22 companies | - |
| **Waste** | All 13 plants and 1 research laboratory | 44 plants at 24 companies | 84 plants at 63 companies |

7 COD figures for Toray, group companies in Japan and Korea are given in CODmn (using the potassium permanganate method).
Other group companies outside Japan are given in CODcr (using the potassium dichromate method).

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Chemical Substance Emissions and Transfer Data

## PRTR Law-Specified Substance[1] Emissions and Transfer Data for Fiscal 2021

1 Chemical substances designated Class 1 under the April 2010 revision of Japan's PRTR Law

| Toray Industries, Inc. | Tons (dioxins: mg-TEQ) | | | |
|---|---|---|---|---|
| Substance name | Atmospheric emissions | Water emissions | Soil emissions / company landfill | Waste transfers |
| Methyl acrylate | 0.3 | 0.3 | 0.0 | 0.0 |
| Acrylonitrile | 7.1 | 2.0 | 0.0 | 185.0 |
| Acetaldehyde | 2.5 | 0.0 | 0.0 | 0.0 |
| Antimony and its compounds | 0.0 | 0.0 | 0.0 | 0.9 |
| Asbestos | 0.0 | 0.0 | 0.0 | 0.0 |
| Ethylbenzene | 0.0 | 0.0 | 0.0 | 0.0 |
| ε-Caprolactam | 0.2 | 13.1 | 0.0 | 9.7 |
| Xylene | 7.1 | 0.0 | 0.0 | 0.0 |
| Chlorobenzene | 0.1 | 0.0 | 0.0 | 2.8 |
| Chloroform | 4.2 | 0.0 | 0.0 | 6.9 |
| Cobalt and its compounds | 0.0 | 1.0 | 0.0 | 4.8 |
| 4,4'-diaminodiphenyl ether | 0.0 | 0.0 | 0.0 | 0.2 |
| Inorganic cyanide | 25.7 | 0.0 | 0.0 | 0.0 |
| 1,4-Dioxane | 0.1 | 3.6 | 0.0 | 0.0 |
| Diuron | 0.0 | 0.0 | 0.0 | 0.5 |
| Dichlorobenzene | 9.6 | 0.0 | 0.0 | 1.0 |
| Dichloromethane | 53.1 | 0.0 | 0.0 | 1.2 |
| N, N-dimethylacetamide | 0.4 | 0.0 | 0.0 | 11.8 |
| N, N-dimethylformamide | 6.8 | 0.3 | 0.0 | 168.4 |
| Styrene | 6.3 | 0.0 | 0.0 | 1.5 |
| Terephthalic acid | 0.0 | 0.0 | 0.0 | 8.2 |
| Dimethyl terephthalate | 0.0 | 0.0 | 0.0 | 3.1 |

| Toray Industries, Inc. | Tons (dioxins: mg-TEQ) | | | |
|---|---|---|---|---|
| Substance name | Atmospheric emissions | Water emissions | Soil emissions / company landfill | Waste transfers |
| Trichloroethylene | 2.4 | 0.0 | 0.0 | 0.7 |
| Toluene | 4.0 | 0.0 | 0.0 | 30.6 |
| Nitrobenzene | 0.0 | 0.0 | 0.0 | 16.6 |
| O-, m- and p-Phenylenediamine | 0.0 | 2.4 | 0.0 | 0.0 |
| Phenol | 0.0 | 2.7 | 0.0 | 0.0 |
| Bromomethane | 47.1 | 0.0 | 0.0 | 0.0 |
| Benzene | 2.5 | 0.9 | 0.0 | 0.0 |
| Poly (oxyethylene) alkyl ether | 0.4 | 0.0 | 0.0 | 13.0 |
| Manganese and its compounds | 0.0 | 0.3 | 0.0 | 1.4 |
| Methyl methacrylate | 3.6 | 0.0 | 0.0 | 19.4 |
| Methylenebis (4,1-phenylene) diisocyanate | 0.0 | 0.0 | 0.0 | 2.8 |
| Nickel and its compounds | 0.0 | 0.0 | 0.0 | 8.2 |
| Dioxins | 0.4 | 28.7 | 0.0 | 9.9 |
| Total | 183.3 | 26.5 | 0.0 | 498.7 |

Note: The list shows emissions and transfers of 34 substances (out of Toray Industries' 70 PRTR Law-specified substances) exceeding 50 kg and dioxins.

| Group companies in Japan | Tons (dioxins: mg-TEQ) | | | |
|---|---|---|---|---|
| Substance name | Atmospheric emissions | Water emissions | Soil emissions / company landfill | Waste transfers |
| Ethyl acrylate | 0.0 | 0.0 | 0.0 | 0.0 |
| Butyl acrylate | 0.1 | 0.0 | 0.0 | 0.3 |
| Acrylonitrile | 0.0 | 0.0 | 0.0 | 0.0 |
| Acetonitrile | 0.1 | 0.0 | 0.0 | 8.2 |
| Allyl alcohol | 0.1 | 0.0 | 0.0 | 1.3 |
| Isopropyl alcohol / propyl alcohol | 6.6 | 0.0 | 0.0 | 4.4 |
| Ethylbenzene | 14.7 | 0.0 | 0.0 | 34.4 |
| Ethylene glycol | 0.0 | 0.0 | 0.0 | 6.8 |
| Epichlorohydrin | 0.1 | 0.0 | 0.0 | 15.4 |
| Xylene | 11.3 | 0.0 | 0.0 | 22.6 |
| 1-chloro-2,4-dinitrobenzene | 0.0 | 0.0 | 0.0 | 0.4 |
| Dichloromethane | 0.2 | 0.0 | 0.0 | 0.0 |
| N, N-dimethylacetamide | 16.5 | 0.0 | 0.0 | 418.7 |
| N, N-dimethylformamide | 12.3 | 0.0 | 0.0 | 174.1 |
| Styrene | 0.0 | 0.0 | 0.0 | 0.0 |

| Group companies in Japan | Tons (dioxins: mg-TEQ) | | | |
|---|---|---|---|---|
| Substance name | Atmospheric emissions | Water emissions | Soil emissions / company landfill | Waste transfers |
| Triethylamine | 0.1 | 0.0 | 0.0 | 2.9 |
| Toluene | 22.7 | 0.0 | 0.0 | 60.9 |
| Carbon disulfide | 0.3 | 0.0 | 0.0 | 0.0 |
| 1-nonanol | 0.0 | 0.0 | 0.0 | 0.0 |
| 2-Ethoxyethanol | 0.3 | 0.0 | 0.0 | 0.4 |
| Hydroquinone | 0.0 | 0.0 | 0.0 | 0.5 |
| Pyridine | 0.1 | 0.0 | 0.0 | 1.9 |
| n-hexane | 1.4 | 0.0 | 0.0 | 59.0 |
| Poly (oxyethylene) alkyl ether | 0.0 | 0.0 | 0.0 | 64.8 |
| Formaldehyde | 0.1 | 0.0 | 0.0 | 0.3 |
| Maleic anhydride | 0.0 | 0.0 | 0.0 | 3.9 |
| Ethyl acetate | 2.1 | 0.0 | 0.0 | 1.2 |
| Methacrylate acid | 0.0 | 0.0 | 0.0 | 31.7 |
| Methyl methacrylate | 0.1 | 0.0 | 0.0 | 7.6 |
| 3-methylpyridine | 0.4 | 0.0 | 0.0 | 34.0 |
| Dioxins | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 89.6 | 0.0 | 0.0 | 956.0 |

Note: The list shows emissions and transfers of 30 substances (out of the 72 PRTR Law-specified substances for group companies in Japan) exceeding 50 kg and dioxins.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Sites with ISO 14001 Certification

## Sites with ISO 14001 Certification (as of May 2022)

| Toray Industries, Inc. : All 13 plants |
| --- |
| Shiga, Seta, Ehime, Nagoya, Tokai, Aichi, Okazaki, Mishima, Chiba, Tsuchiura, Gifu, Ishikawa, Nasu |
| **Group companies in Japan: 36 plants at 23 companies[1・2]** |
| • Du Pont-Toray Co., Ltd. [Tokai]<br>• Toray Opelontex Co., Ltd.<br>• Toray Textiles, Inc. [Tokai]<br>• Toray Coatex Co., Ltd. [Kyoto, Chemical Products]<br>• Toray Hybrid Cord, Inc.<br>• Toray Plastics Precision Co., Ltd. [Mishima, Koriyama]<br>• Toray PEF Products Inc. [Konan]<br>• Toray Monofilament Co., Ltd.<br>• Toray Advanced Film Co., Ltd. [Mishima, Takatsuki, Fukushima, Nakatsugawa]<br>• Toray KP Films Inc.<br>• Toray Fine Chemicals Co., Ltd. [Moriyama, Matsuyama, Tokai, Chiba]<br>• Toray Engineering Co., Ltd. [Numazu]<br>• Soda Aromatic Co., Ltd. [Noda, Koriyama, Okayama Chemicals]<br>• Toray Amenity and Civil Engineering Co., Ltd. [Ehime, Fukushima]<br>• Dow Toray Co., Ltd. [Chiba, Fukui, Komatsu]<br>• DuPont Toray Specialty Materials Kabushiki Kaisha<br>• Suido Kiko Kaisha, Ltd.<br>• Toray Medical Co., Ltd.<br>• Ichimura Sangyo Co., Ltd.<br>• Toray International, Inc.<br>• Chori Co., Ltd.<br>• Toray Carbon Magic Co., Ltd.<br>• Sowa Textile Co., Ltd. [Hakui] |

| Group companies outside Japan: 68 plants at 48 companies[2] | |
|---|---|
| USA | • Toray Plastics (America), Inc. [Rhode Island, Virginia]<br>• Toray Resin Co.<br>• Toray Fluorofibers (America), Inc.<br>• Toray Composite Materials America, Inc.（Decatur, Tacoma）<br>• Toray Membrane USA, Inc. |
| Mexico | • Toray Advanced Textile Mexico, S.A. de C.V.<br>• Toray Resin Mexico, S.A. de C.V.[3] |
| UK | • Toray Textiles Europe Ltd.<br>• Toray Advanced Composites UK Ltd. |
| France | • Toray Films Europe S.A.S.<br>• Toray Carbon Fibers Europe [Abidos, Lacq] |
| Germany | • Euro Advanced Carbon Fiber Composites GmbH<br>• Greenerity GmbH |
| Italy | • Alcantara S.p.A.<br>• Delta-Tech S.p.A. |
| Czech Republic | • Toray Textiles Central Europe s.r.o. |
| Hungary | • Zoltek Zrt. (ZHU) |
| Indonesia | • P.T. Century Textile Industry Tbk<br>• P.T. Easterntex<br>• P.T. Indonesia Toray Synthetics<br>• P.T. Acryl Textile Mills<br>• P.T. Indonesia Synthetic Textile Mills<br>• P.T. Toray Polytech Jakarta |
| Thailand | • Toray Textiles (Thailand) Public Company Limited [NPT, M1, M2, M3]<br>• Thai Toray Synthetics Co., Ltd. [Bangkok, Ayutthaya, Nakhonpathom] |
| Malaysia | • Penfibre Sdn. Berhad [Fiber, film]<br>• Penfabric Sdn. Berhad [M1, M2, M3, M4]<br>• Toray Plastics (Malaysia) Sdn. Berhad<br>• Toray BASF PBT Resin Sdn. Berhad |

| | |
|---|---|
| China | • Toray Fibers (Nantong) Co., Ltd.<br>• Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd.<br>• Toray Plastics (Shenzhen) Ltd.<br>• Toray Film Products (Zhongshan) Ltd.<br>• Toray Plastics Precision (Zhongshan) Ltd.<br>• Toray Plastics (Suzhou) Co., Ltd.<br>• Toray Fibers & Textiles Research Laboratories (China) Co., Ltd.<br>• Toray Advanced Materials Research Laboratories (China) Co., Ltd.<br>• Toray Polytech (Nantong) Co., Ltd.<br>• Toray BlueStar Membrane Co., Ltd.<br>• Toray Plastics (Chengdu) Co., Ltd.<br>• Toray Medical (Qingdao) Co., Ltd.<br>• Cangzhou Toray Fine Chemicals Co., Ltd.[3] |
| Republic of Korea | • Toray Advanced Materials Korea Inc. [M1, M2, M3, M4, M5, Anseong, Yugu, Gunsan[3], Advanced Materials Research Center[3]]<br>• STEMCO, Ltd.<br>• Toray Battery Separator Film Korea, Limited<br>• Toray BSF Coating Korea Limited |
| Taiwan | • Toray Advanced Film Kaohsiung Co., Ltd. |
| Saudi Arabia | • Toray Membrane Middle East LLC |

1 In addition, 12 companies received certification as affiliated companies on Toray Industries' sites.
2 Information in brackets refers to the names of the plants.
3 A company that newly acquired ISO 14001 certification in fiscal 2021.

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Environmental Data for Toray Industries and Principal Group Companies

## Environmental Data for 13 Toray Industries' Plants and Principal Group Companies

| | Emission Volume | | | | | | | | | | | | | | Principal manufactured products |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GHG emissions | PRTR | | | | Gas emissions | | | Water emissions | | | Waste | | | |
| | | Emissions | | | Waste transfers | SOx | NOx | Dust | BOD | COD | Effluent | Recycled | Simple incineration | Landfill disposal | |
| | | Air Water | Water | Soil & landfill | Waste | | | | | | | | | | |
| | 10,000 tons $CO_2$/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | million $m^3$/ year | tons/ year | tons/ year | tons/ year | |
| Shiga Plant | 6.6 | 0.9 | 0.0 | 0.0 | 21.5 | 0.0 | 45.8 | 20.6 | 29.5 | 37.6 | 12.5 | 3,380.8 | 8.5 | 0.0 | • Base material of ultrasuede™ man-made suede<br>• TOPTICAL™ color filter<br>• TORAYVINO™ home water purifier |
| Seta Plant | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.1 | 0.1 | 114.8 | 0.0 | 0.0 | • TORAYLON™ acrylic fiber<br>• Medical devices (Inoue Balloon catheters, ANTHRON™ P-U catheters) |
| Ehime Plant | 63.5 | 36.1 | 7.5 | 0.0 | 377.0 | 209.5 | 721.1 | 72.5 | 86.2 | 139.5 | 31.5 | 5,138.7 | 39.3 | 0.0 | • TORAY TETORON™ polyester staple fiber<br>• TORAYCA™ carbon fiber<br>• ROMEMBRA™ reverse osmosis membrane module<br>• TORAYCON™ PBT resin |

| | Emission Volume | | | | | | | | | | | | | | Principal manufactured products |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GHG emissions | PRTR | | | | Gas emissions | | | Water emissions | | | Waste | | | |
| | | Emissions | | | Waste transfers | SOx | NOx | Dust | BOD | COD | Effluent | Recycled | Simple incineration | Landfill disposal | |
| | | Air Water | Water | Soil & landfill | Waste | | | | | | | | | | |
| | 10,000 tons $CO_2$/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | million $m^3$/ year | tons/ year | tons/ year | tons/ year | |
| Nagoya Plant | 8.1 | 18.0 | 0.0 | 0.0 | 24.3 | 0.0 | 48.2 | 1.7 | 48.1 | 87.4 | 23.1 | 3,349.6 | 0.0 | 9.1 | • AMILAN™ nylon resin<br>• TORAYCON™ PBT resin<br>• Various fine chemicals |
| Tokai Plant | 66.8 | 52.8 | 19.1 | 0.0 | 20.0 | 7.4 | 359.3 | 3.5 | 243.8 | 257.3 | 19.4 | 5,512.0 | 34.9 | 0.0 | • Caprolactam<br>• Tereph- thalic acid<br>• TORAY TETORON™ polyester chips<br>• TORELINA™ PPS resin |
| Aichi Plant | 1.8 | 0.0 | 0.0 | 0.0 | 19.0 | 0.0 | 1.0 | 0.0 | 2.1 | - | 1.6 | 163.9 | 0.0 | 0.0 | • Nylon filament yarn<br>• RAYTELA™ plastic optical fiber |
| Okazaki Plant | 7.5 | 7.7 | 0.0 | 0.0 | 23.4 | 0.0 | 28.8 | 2.0 | 11.7 | 29.6 | 6.2 | 3,463.2 | 0.0 | 2.2 | • Nylon filament yarn<br>• TORAY WATERLESS PLATE™ printing plate<br>• Filtryzer™ hemodialyzers<br>• TORAYVINO™ home water purifier |
| Mishima Plant | 12.3 | 1.3 | 0.0 | 0.0 | 3.7 | 2.5 | 61.6 | 0.1 | 16.2 | 23.5 | 36.4 | 1,308.0 | 1.3 | 0.4 | • LUMIRROR™ polyester film<br>• TORAY TETORON™ polyester filament yarn<br>• DORNER™ oral administration prostacyclin PGI2 derivative<br>• FERON™ natural interferon-β preparation |
| Chiba Plant | 1.9 | 11.7 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 7.1 | 76.3 | 5.3 | 2,135.9 | 6.4 | 3.0 | • TOYOLAC™ ABS resin |

| | Emission Volume | | | | | | | | | | | | | | Principal manufactured products |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GHG emissions | PRTR | | | | Gas emissions | | | Water emissions | | | Waste | | | |
| | | Emissions | | | Waste transfers | SOx | NOx | Dust | BOD | COD | Effluent | Recycled | Simple incineration | Landfill disposal | |
| | | Air Water | Water | Soil & landfill | Waste | | | | | | | | | | |
| | 10,000 tons $CO_2$/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | tons/ year | million $m^3$/ year | tons/ year | tons/ year | tons/ year | |
| Tsuchiura Plant | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 0.1 | 1.4 | 1.2 | 0.3 | 11.9 | 0.0 | 0.0 | • TORAYFAN™ BO polypropylene film |
| Gifu Plant | 7.4 | 2.6 | 0.0 | 0.0 | 7.4 | 0.0 | 25.4 | 0.5 | 12.9 | 8.0 | 10.7 | 1,055.4 | 0.0 | 1.3 | • ultrasuede™ man-made suede<br>• LUMIRROR™ polyester film<br>• TORELINA™ PPS film |
| Ishikawa Plant | 4.1 | 1.1 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 5.0 | 5.7 | 7.1 | 1,020.9 | 1.0 | 2.9 | • TORAY TETORON™ polyester filament yarn<br>• Nylon filament yarn<br>• TORAYCA™ prepreg |
| Nasu Plant | 2.6 | 51.2 | 0.0 | 0.0 | 0.0 | 0.0 | 4.9 | 1.6 | 0.2 | 0.0 | 0.1 | 838.3 | 5.9 | 0.3 | • Lithium-ion rechargeable battery |
| Toray Hybrid Cord, Inc. | 1.2 | 8.6 | 0.0 | 0.0 | 0.4 | 0.0 | 0.6 | 0.0 | 0.5 | 1.8 | 0.3 | 667.0 | 0.5 | 14.0 | • Tire cord<br>• Carpet pile fiber |
| Toray Fine Chemicals Co., Ltd. [Chiba] | 2.6 | 1.7 | 0.0 | 0.0 | 74.8 | 0.5 | 5.8 | 3.6 | 0.0 | 0.0 | 0.0 | 1,573.6 | 2.1 | 8.8 | • DMSO and DMS<br>• Functional acrylic resin |
| Malaysia Penfibre Sdn. Berhad [Fibers & Textiles] | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 17.2 | 11.1 | 2.9 | 0.6 | 6.9 | 148.9 | 121.6 | 16.5 | 89.0 | • TORAY TETORON™ polyester staple fiber |
| France Toray Films Europe S.A.S. | 3.3 | 0.0 | 0.0 | 0.0 | 580.2 | - | 17.4 | - | 2.3 | 16.7 | 1.5 | 1,845.6 | 0.0 | 1,645.8 | • LUMIRROR™ polyester film |

CSR Activity Report (CSR Guideline Activity Reports) - Safety, Accident Prevention, and Environmental Preservation

# Third-Party Assurance

LRQA

## LRQA Independent Assurance Statement

Relating to TORAY INDUSTRIES, INC.'s Environmental and Social Data for the fiscal year 2021 within its CSR Report 2022

This Statement has been prepared for TORAY INDUSTRIES, INC. in accordance with our contract.

**Terms of Engagement**

LRQA Limited ("LRQA") was commissioned by TORAY INDUSTRIES, INC. ("the Company") to provide independent assurance on its environmental and social data for the fiscal year 2021[1] within its CSR Report 2022 ("the report"), against the assurance criteria below to a limited level of assurance and at the materiality of the professional judgement of the verifier using ISAE 3000 (Revised) and ISO 14064-3:2019 for Greenhouse gas ("GHG") emissions.

Our assurance engagement covered the operations and activities relating the Company, its consolidated subsidiaries, and its affiliated companies in Japan and overseas and specifically the following requirements:

- Verifying conformance with the Company's reporting methodologies;
- Evaluating the accuracy and reliability of data for the selected environmental and social indicator listed below;

Environmental[2]

- Scope 1 GHG emissions ($tCO_2e$)[3]
- Scope 2 GHG emissions [market-based and location-based] ($tCO_2e$)[3]
- Scope 3 GHG emissions (Categories 2, 3, and 4) ($tCO_2e$)[3]
- Energy consumption (GJ)[3]
- The amount of Industrial Waste, Water Use, Waste Water, SOx, NOx, Dust, VOC, COD (tonnes)[4,5]

Social

- Lost Time Injury Frequency Rate[6]
- Tier-1 Process Safety Events[7]

Our assurance engagement excluded the data and information of the Company's suppliers, contractors and any third-parties mentioned in the report.

LRQA's responsibility is only to the Company. LRQA disclaims any liability or responsibility to others as explained in the end footnote. The Company's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of the Company.

**LRQA's Opinion**

Based on LRQA's approach nothing has come to our attention that would cause us to believe that the Company has not, in all material respects:

- Met the requirements above
- Disclosed accurate and reliable environmental and social data which is summarised in Table 1 below.

[1] Environmental data covers 1 April 2021 to 31 March 2022. Social data covers 1 January 2021 to 31 December 2021.
[2] GHG quantification is subject to inherent uncertainty.
[3] The scope of energy and GHG emissions is covered the head Office of the Company, 15 factories and other 30 operating sites in Japan.
[4] The scope of industrial waste is covered 13 factories of the Company in Japan.
[5] The scope of industrial waste is covered the breakdown of the industrial waste.
[6] The scope is covered the Company, its 41 consolidated subsidiaries, 30 affiliated companies in Japan and overseas 90 affiliate companies. The contractors worked in Japan is also included.
[7] The scope is covered the Company, its 41 consolidated subsidiaries, 30 affiliated companies in Japan and overseas 90 affiliate companies.

Page 1 of 3

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LRQA

The opinion expressed is formed on the basis of a limited level of assurance[8] and at the materiality of the professional judgement of the verifier.

**Table 1. Summary of Toray's Environmental and Social data in FY2021**

| Scope | | |
|---|---|---|
| Scope 1 GHG emissions[3] | 1,779,845 | $tCO_2e$ |
| GHG emissions relating supply to external organizations | 200,993 | $tCO_2e$ |
| GHG emissions after deduction | 1,578,852 | $tCO_2e$ |
| Scope 2 GHG emissions[3] (Market-based) | 313,712 | $tCO_2e$ |
| GHG emissions relating supply to external organizations | 30,575 | $tCO_2e$ |
| GHG emissions after deduction | 283,138 | $tCO_2e$ |
| Scope 2 GHG emissions[3] (Location-based) | 327,937 | $tCO_2e$ |
| GHG emissions relating supply to external organizations | 35,148 | $tCO_2e$ |
| GHG emissions after deduction | 292,790 | $tCO_2e$ |
| Scope 3 GHG emissions[3] (Categories 2, 3, and 4) | 325,118 | $tCO_2e$ |
| 2. Capital goods | 91,848 | $tCO_2e$ |
| 3. Fuel- and energy-related activities not included in Scope 1 or Scope 2 | 190,113 | $tCO_2e$ |
| 4. Upstream transportation & distribution | 43,157 | $tCO_2e$ |
| Energy consumption[3] | 27,312,669 | GJ |
| Industrial waste[4,5] | — | |
| Disposal amount | 119 | tonnes |
| Recycled amount | 27,577 | tonnes |
| Total amount of industrial waste | 27,696 | tonnes |
| The amount of industrial hazardous waste | 2,275 | tonnes |
| The amount of coal ash | 70,571.5 | tonnes |
| Water Use | 171,760 | k-tonnes |
| Waste Water | 154,350 | k-tonnes |
| SOx | 219.42 | tonnes |
| NOx | 1,302.62 | tonnes |
| Dust | 102.58 | tonnes |
| VOC | 266.1 | tonnes |
| COD | 666.56 | tonnes |
| Lost Time Injury and Occupational Illness Frequency Rate[6] | — | |
| TORAY INDUSTRIES, INC. | 0.06 | |
| Affiliated companies | 0.32 | |
| Consolidated subsidiaries in Japan | 0.11 | |
| Overseas consolidated subsidiaries | 0.56 | |
| Entire the scope | 0.38 | |
| Contractors in Japan[7] | 0.69 | |
| Tier-1 Process Safety Events[6] | 0 | |

Note: GHG emissions after deduction are same as GHG emissions under Japan's Act on Promotion of Global Warming Countermeasures (Act No. 117).

[8] The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Page 2 of 3

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**LRQA's Approach**

LRQA's assurance engagements are carried out in accordance with ISAE3000 (Revised) and ISO14064-3:2019 for GHG emissions. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Auditing the Company's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification.
- Interviewing with those key people responsible for compiling the data and drafting the report.
- Sampling datasets and tracing activity data back to aggregated levels;
- Verifying the historical environmental and social data / records for the fiscal year 2021 [1]; and
- Verification for confirming of the effectiveness of its data management system of Tokai Factory was conducted by emails, telephone, and site visit.

**Observations**

The Company should continue efforts for implementing quality assurance and quality control (QA/QC) systems for the effective management of environmental and social data. This is particular to ensure effective internal verification processes at both the corporate and member company levels.

**LRQA's Standards, Competence and Independence**

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 *Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition* and ISO/IEC 17021-1 *Conformity assessment – Requirements for bodies providing audit and certification of management systems – Part1: Requirements* that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

LRQA is the certification body of ISO9001 and IATF16949 for the Company and as such does not compromise our independence or impartiality.

**Signed** **Dated:** 30 June 2022

**Takahiro Iio**
**LRQA Lead Verifier**
**On behalf of LRQA Limited**
**10th Floor, Queen's Tower A, 2-3-1 Minatomirai, Nishi-ku, Yokohama, JAPAN**

**LRQA reference: YKA4005148**

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# LRQA Independent Assurance Statement

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  Environmental [2]
  - Scope 1 GHG emissions ($tCO_2e$) [3]
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  - Scope 3 GHG emissions (Categories 2, 3, and 4) ($tCO_2e$) [3]
  - Energy consumption (GJ) [3]
  - The amount of Industrial Waste, Water Use, Waste Water, SOx, NOx, Dust, VOC, COD (tonnes) [4] [5]

  Social
  - Lost Time Injury Frequency Rate [6]
  - Tier-1 Process Safety Events [7]

Our assurance engagement excluded the data and information of the Company's suppliers, contractors and any third-parties mentioned in the report.

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LRQA is the certification body of ISO9001 and IATF16949 for the Company and as such does not compromise our independence or impartiality.

Signed Dated: 30 June 2022

Takahiro Iio
LRQA Lead Verifier
On behalf of LRQA Limited
10th Floor, Queen's Tower A, 2-3-1 Minatomirai, Nishi-ku, Yokohama, JAPAN

LRQA reference: YKA4005148

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CSR Activity Report (CSR Guideline Activity Reports)

# Product Quality and Safety

**Provide safe, highly reliable products by striving to enhance management systems for product quality assurance and safety, and disclose appropriate information.**

## Basic Approach

To live up to its “quality first” and “customer first” commitments, Toray Group has established policies on quality assurance and product safety, respectively, and an organizational framework to pursue both in an integrated manner. Specifically, the Quality Assurance Committee deliberates on basic policies and other matters, while the Quality Assurance Planning & Administration Department and the Product Safety Planning & Administration Department of the Quality Assurance Division plan and propose measures.
Additionally, Toray Group supplies product safety information in accordance with the characteristics of the product or service. The Group is fundamentally committed to respecting the Eight Basic Consumer Rights and strives to secure the quality and safety of its products throughout its business activities.
The Medium-Term Management Program, Project AP-G 2022, directs Toray Group to pursue resilience and proactive management to achieve growth, and this hinges on securing product safety and quality. The Group continued to address individual areas for improvement and execute product safety measures in fiscal 2021.
However, in fiscal 2021, Toray Industries, Inc. announced that inappropriate actions at Toray related to certification of certain resin products by Underwriters Laboratories (hereinafter, "UL"), a global third-party safety science organization headquartered in the United States, had taken place. This fact was announced on January 31, 2022, and on the same day, the Company formed an expert committee to conduct a thorough investigation and study the root cause. On April 8, the Company received the committee report that sets out the findings of the investigation along with recommended measures to prevent recurrence.
In response to this situation, Toray Group is focused on further strengthening compliance and is doing its utmost to prevent recurrence and restore trust in the Group.

> For more information on the Toray response to this matter, please refer to:
Response to Inappropriate Actions Relating to UL Certification in the Toray Resins Business

### Related Policies

**Toray Group Quality Policy** Revised June 2007

We give top priority to the product quality offered to our customers as well as to safety and to the environment in our corporate activities. We work on quality assurance 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 the quality and reliability of our products, in all our divisions, including sales, manufacturing and research and development.
3. We meet quality requirements at the stage of design and development, and ensure and enhance these in the manufacturing process.
4. We continuously strive to organize, maintain and improve our quality management system.

**Product Safety Management Basic Policy** Established January 1992

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

**Related Information**

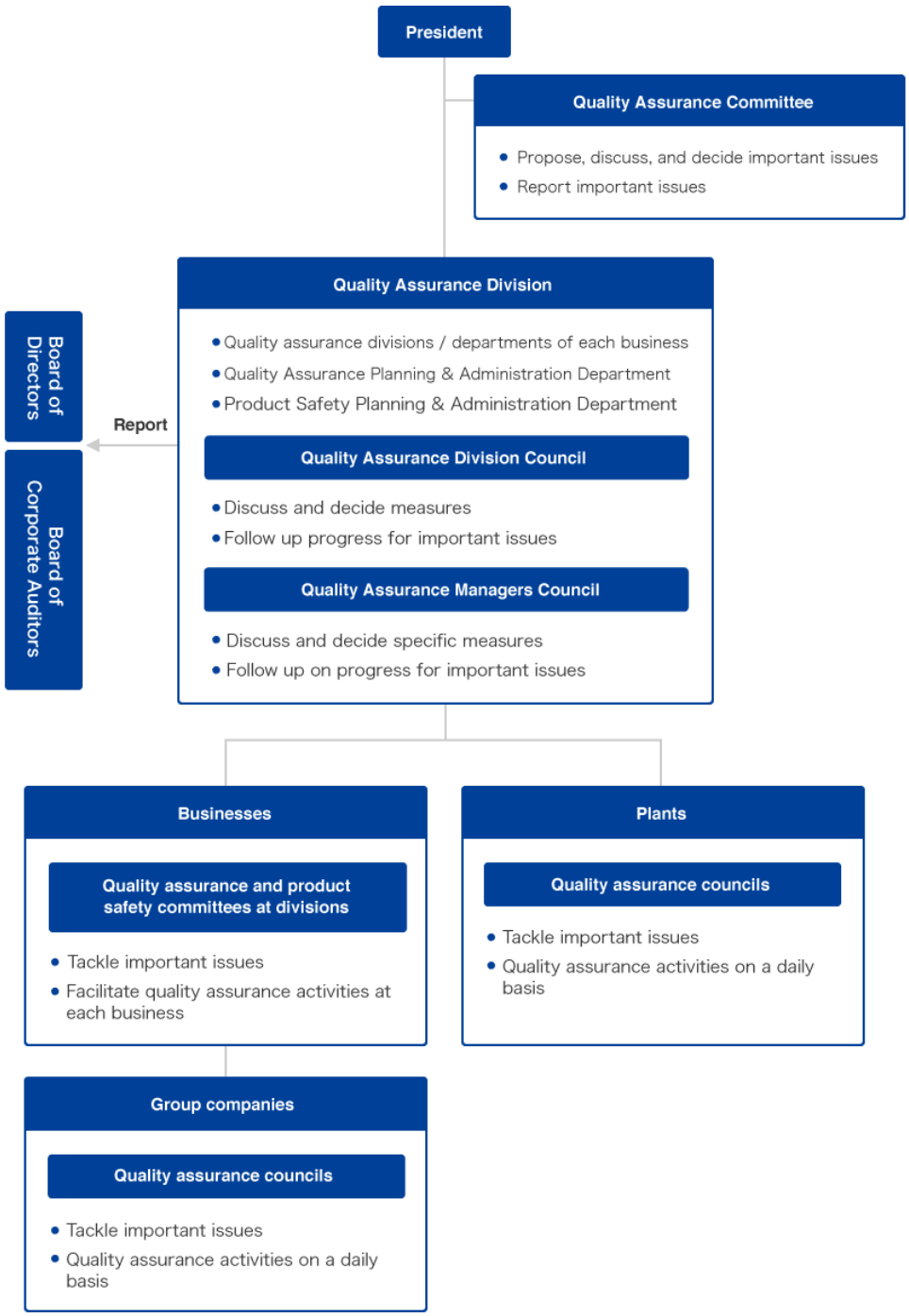
See the following page for information on chemical substance management.
> Safety, Accident Prevention, and Environmental Preservation

## Structure

### Framework for Quality Assurance

The quality assurance framework of Toray Industries, Inc. is shown in the diagram below. The Quality Assurance Managers Council promotes and implements the annual group-wide quality assurance themes that are established by the Quality Assurance Committee. Quality assurance and product safety committees at divisions further examine the company-wide issues that have been identified by the Quality Assurance Managers Council, breaking them down into action items that are designated every year for implementation. Quality assurance, production, technology, and sales departments cooperate to tackle quality assurance issues and raise the level of activities.

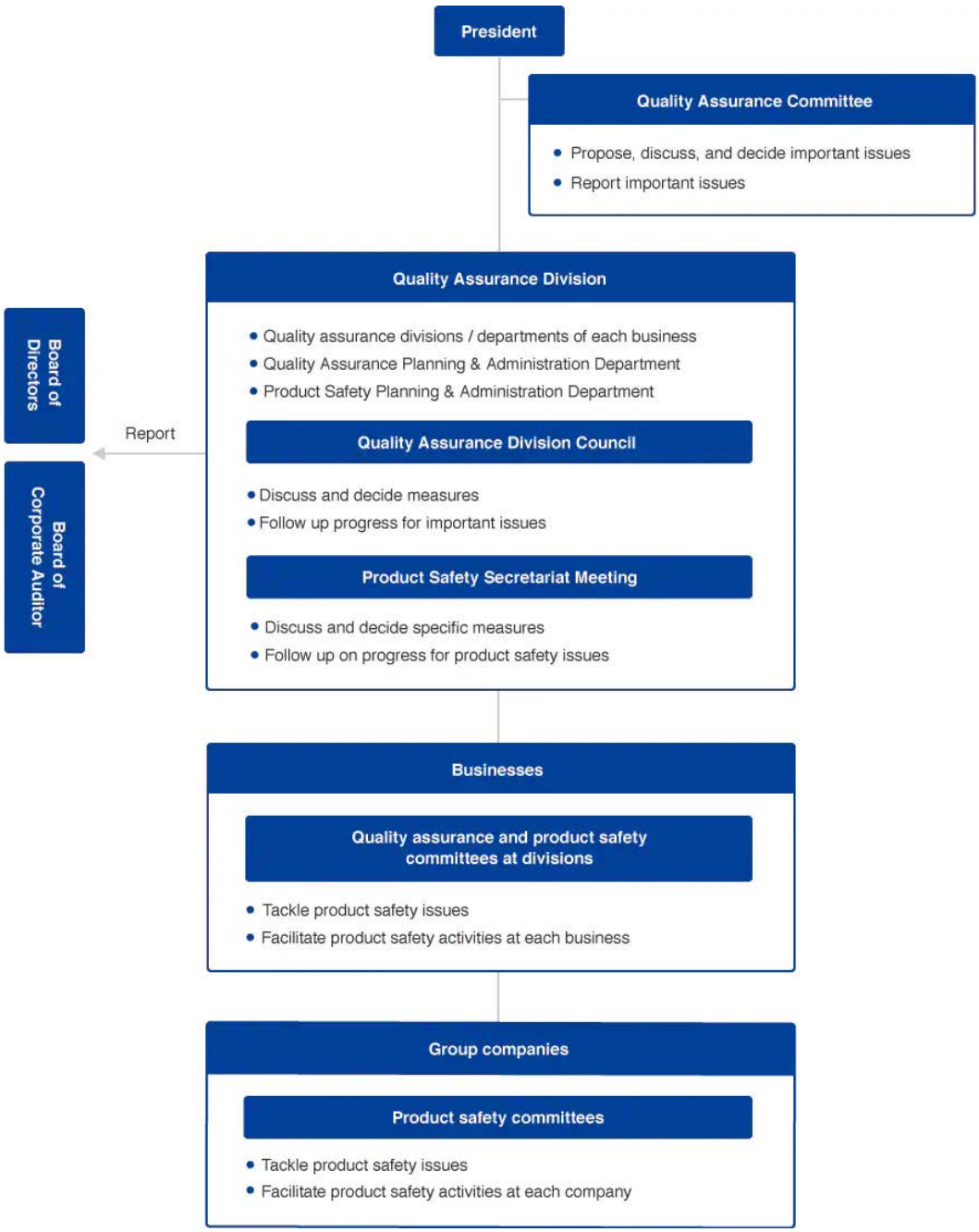
### Framework for Quality Assurance



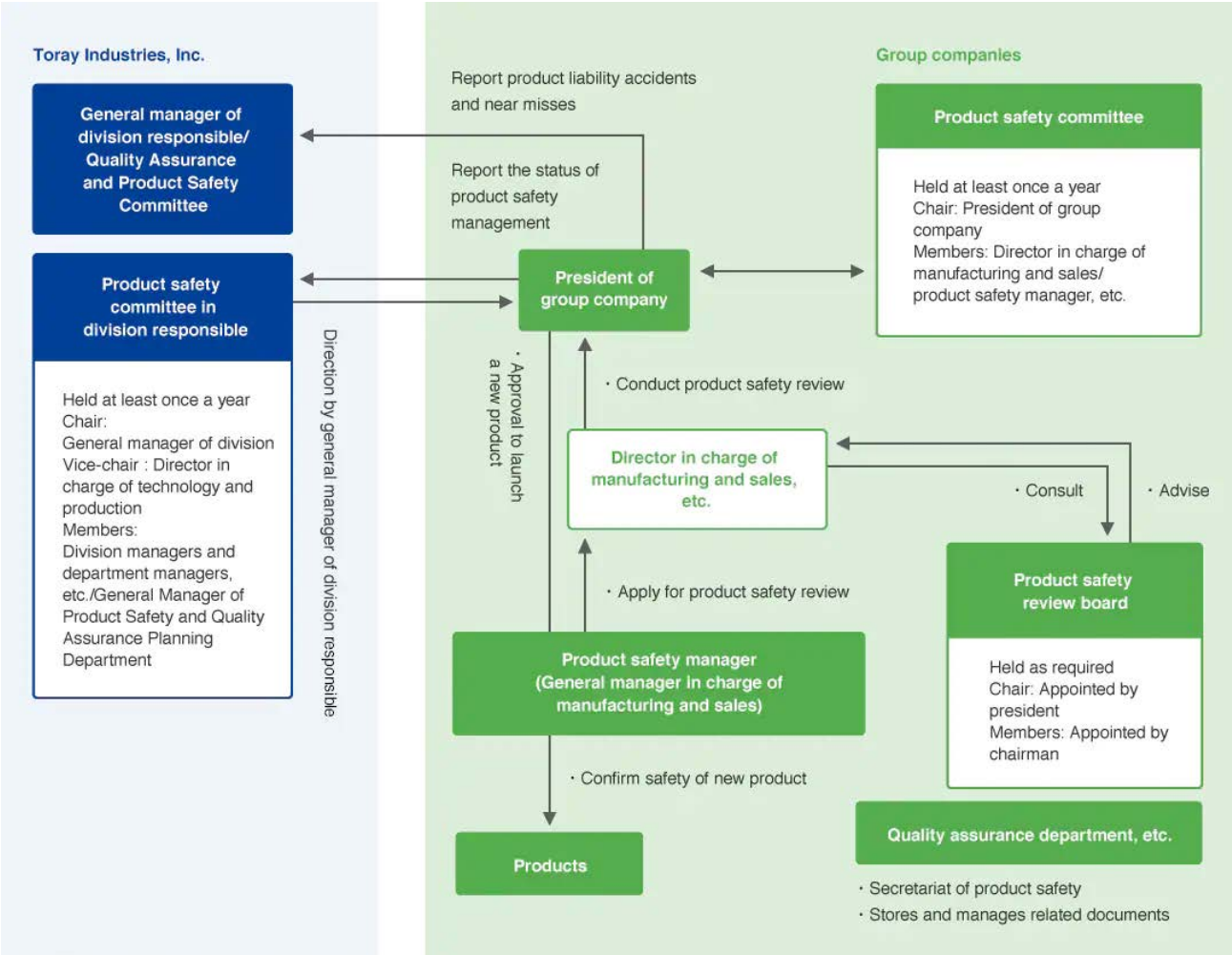

### Framework for Product Safety

Toray Industries' product safety framework is shown in the diagram below. The Product Safety Secretariat Meeting promotes and implements the annual company-wide product safety themes that are established by the Quality Assurance Committee. Quality assurance and product safety committees at the divisions further examine the group-wide issues that have been identified by the Product Safety Secretariat Meeting, breaking them down into action items that are designated every year for implementation. The action items are executed in cooperation with quality assurance, production, technology, and sales organizations at the departmental and divisional levels, to ensure thorough management of product safety and continue raising the level of management. Toray Group has been centrally tracking statistics on product accidents and the execution of product safety reviews since fiscal 2011.

## Framework for Product Safety



### Framework for Product Safety at Group Companies




### Self-Inspections to Ensure Quality Assurance and Product Safety

Since fiscal 2016, Toray Group companies have been implementing self-inspections for quality assurance and product safety using the C-MOS internal control monitoring online system. Any issues that are identified through the self-inspections are corrected to ensure that improvements are made. The self-inspections are conducted on a three-year cycle to ensure that the basic frameworks for quality assurance and product safety are in place. For the first three-year cycle, Toray Industries was inspected in fiscal 2016, followed by group companies in Japan in fiscal 2017, and group companies outside Japan in fiscal 2018.
For the second three-year cycle implemented in fiscal 2019, Toray Group assigned inspection items to verify the effectiveness of improvements, with Toray Industries taking its turn to conduct self-inspections in fiscal 2019 followed by group companies in Japan in fiscal 2020 and group companies outside Japan in fiscal 2021.

# CSR Roadmap 2022 Targets

## CSR Roadmap goals

1. Achieve zero product accidents
2. Enhance the group-wide framework for product safety and quality assurance

## Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| (1) Aim for zero product accidents | 4-❶ |
| (2) Establish a system to audit effectiveness of improvement and continuity of Toray Group's overall quality assurance framework | - |
| (3) Introduce a group-wide quality control system with fraud prevention features | - |
| (4) Prepare and build a quality assurance system that covers quality assurance and quality control functions in each business | - |
| (5) Provide quality assurance and product safety education | 4-❷ |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| 4-❶ Number of product accidents | 0 | 0 | 0 | 2[1] |
| 4-❷ Group companies implementing product quality assurance and safety education (%) | 100% | 100% | 100% | 100% |

Reporting Scope：Toray Group

1 (1) An incident occurred in which an electrically heated floor mat manufactured and sold by Toray some time between 1976 and 1983 overheated, causing flooring and other materials to burn. The ensuing recall has been ongoing since 2008, and Toray Industries has once again posted recall notices on our website and in national newspapers. This incident did not result in injury or harm to any persons.
(2) An accident involving carbon fiber volleyball posts manufactured for non-general consumption and sold by a Toray Group company resulted in a broken arm. The net winder had been attached to a post in order to unwind the net when the aged winder gear, which had been worn down over time, caused the winder handle to spin in reverse, breaking a player's arm. Each customer who had purchased the product was contacted and asked to perform the periodic inspections as described in the instruction manual.

**Related Materiality for CSR**

- Ensuring product quality and safety

Click here for a PDF summary of materiality-related CSR Roadmap 2022 main initiatives, KPIs and progress (PDF: 1.6MB). PDF

## Looking to the Future

In fiscal 2022 and beyond, Toray Group will address individual issues related to improving quality assurance and product safety, while continuing to enhance its group-wide management systems for both quality assurance and product safety.
In addition, with respect to the inappropriate actions regarding UL certification in the Toray resins business, Toray Industries has received recommendations in the report by the expert committee that investigated this matter and, guided by these recommendations, is implementing a series of measures to prevent recurrence.

> For more information on the Toray response to this matter, please refer to:
Response to Inappropriate Actions Relating to UL Certification in the Toray Resins Business

CSR Activity Report (CSR Guideline Activity Reports) - Product Quality and Safety

# Initiatives for Quality Assurance and Product Safety

## Reinforcing Compliance in Product Quality Assurance

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)(5)

Toray Group is pursuing five major tasks to reinforce quality assurance compliance throughout the Group.

1. Reinforcement of structures related to quality assurance systems of the entire Toray Group
   Toray Industries provides guidance to its business sites and group companies around the world regarding the development of quality assurance frameworks and audits the effectiveness of these frameworks and the work done under them. The organizations clarify their vision for quality assurance and design initiatives to close the gap between the vision and actual performance.
2. Development of human resources and creation of workplace culture not allowing any misconduct
   Toray Group started implementing education on compliance in quality assurance during Quality Control month in November in fiscal 2020. Toray Industries provides training materials to its business sites and group companies around the world, while individual departments and companies are responsible for providing education for their employees. (A total of 20,395 employees received training in fiscal 2021.)
3. Review and adjustment of actual contracts with customers regarding quality (assurance)
   In accordance with guidelines for quality assurance agreements, Toray Industries is promoting ongoing efforts to thoroughly inspect and review agreements at its business sites and group companies around the world and is working to optimize contract provisions.
4. Appropriate maintenance and management of measuring devices
   Based on risk assessment sheets for evaluating the necessity of replacement or maintenance of measuring devices, Toray Industries and its group companies around the world create and implement plans to replace the devices appropriately.
5. Improvement of quality data management system to not allow any misconduct
   Toray Industries and its group companies around the world are developing data management systems that minimize human involvement, such as by automating measurement, transfer of measurement data, and issuance of inspection reports.

## Education and Training for Quality Assurance and for Product Safety

CSR Roadmap 2022
Main Initiatives (5)

### Group companies implementing product quality assurance and safety education

**■Reporting scope**
Toray Group

**■Target in fiscal 2021**
100%

**Result in fiscal 2021**

**100%**

Toray Industries provides training every year for newly appointed department and section managers at the Company and its group companies in Japan. The training is designed to educate managers about quality assurance compliance and Toray Group's quality assurance and product safety initiatives. Moreover, since fiscal 2013, all group companies around the world have conducted original quality assurance and product safety training tailored to their operations.

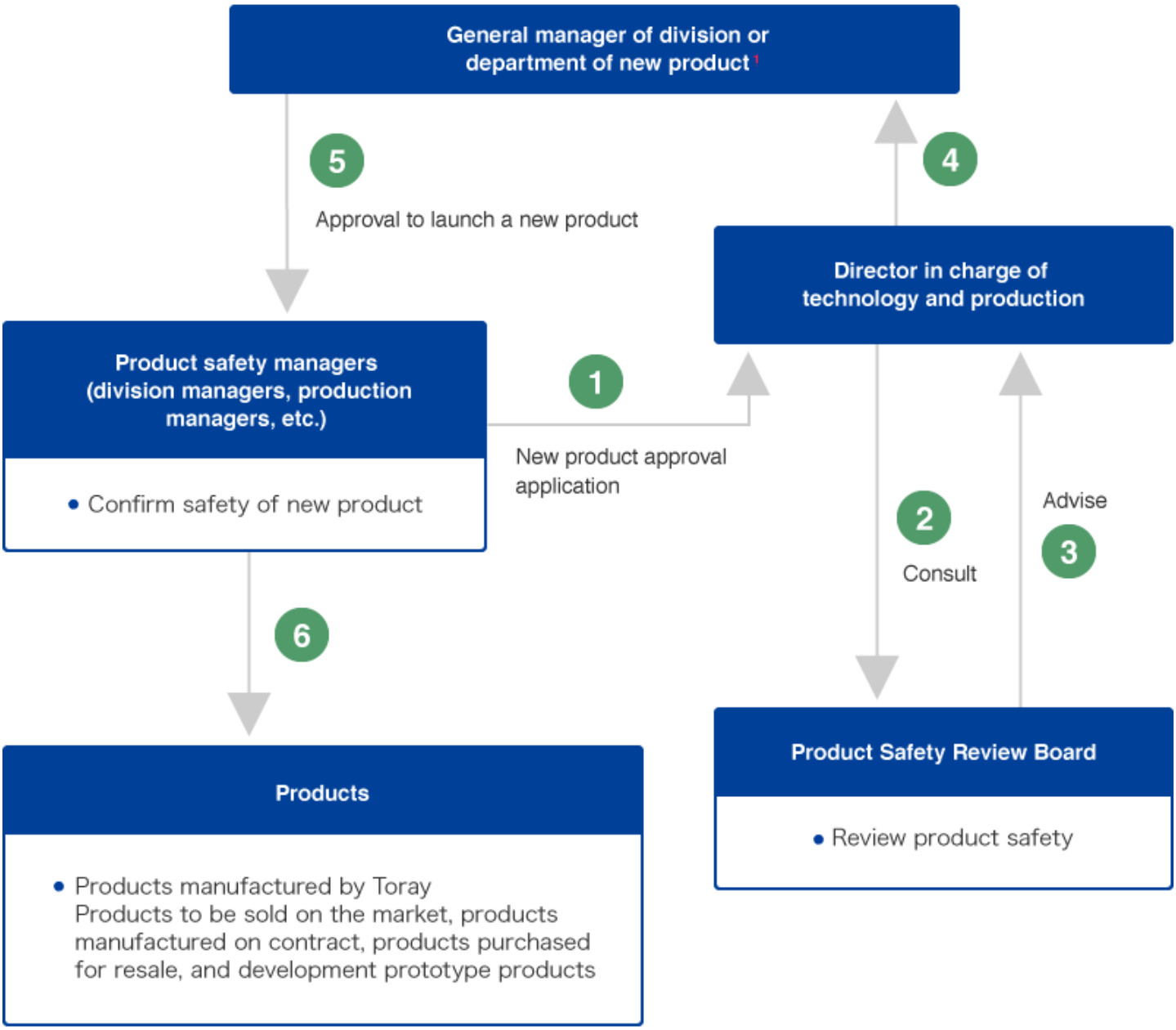
## Enhancing Product Safety Reviews

CSR Roadmap 2022
Main Initiatives (1)(2)

Toray Industries and its group companies implement product safety reviews for all products. In addition to addressing product safety, the reviews examine the adequacy of information provided to customers via, for instance, safety data sheets (SDS), labeling, and instructions. Products are also assessed for impact on the global environment. Special precautions are taken for new products that are highly original, as well as for products for which the safety considerations have changed significantly from previous products. For these products, a Product Safety Review Board comprised of neutral assessors with specialized knowledge is assembled to review the safety of the product. Toray Group also ensures that newly established group companies rapidly establish a framework for product safety and implement product safety reviews.

**Implementing product safety reviews for all products**

**Product Safety Review Flow Chart (Toray Industries, Inc.)**




1 At group companies in and outside Japan, this position is held by the president or a director

## Preventing Product Accidents

CSR Roadmap 2022
Main Initiatives (1)

### Number of product accidents

| ■Reporting scope | ■Target in fiscal 2021 |
| --- | --- |
| Toray Group | 0 |

**Result in fiscal 2021**

**2**[2]

2 (1) An incident occurred in which an electrically heated floor mat manufactured and sold by Toray some time between 1976 and 1983 overheated, causing flooring and other materials to burn. The ensuing recall has been ongoing since 2008, and Toray Industries has once again posted recall notices on our website and in national newspapers. This incident did not result in injury or harm to any persons.
(2) An accident involving carbon fiber volleyball posts manufactured for non-general consumption and sold by a Toray Group company resulted in a broken arm. The net winder had been attached to a post in order to unwind the net when the aged winder gear, which had been worn down over time, caused the winder handle to spin in reverse, breaking a player's arm. Each customer who had purchased the product was contacted and asked to perform the periodic inspections as described in the instruction manual.

## Providing Product Safety Information

Toray Group provides customers with product safety information specifically tailored to the product or service.

1. Customer support lines
   In its efforts to create a convenient environment for customers, Toray Industries makes available toll-free numbers for customers to call and inquire about its mainstay consumer products such as home water purifiers and contact lenses.
2. Safety data sheets (SDS)
   Toray Group designates the duties, management framework, and procedures for SDS on products that are manufactured or sold by the Group, and provides customers with adequate information on the safe handling of Group products. SDS are disclosed online so that they are readily accessible to customers.
3. Product labeling and instructions
   Toray Group creates labels and instruction manuals (including catalogs) and provides them to customers only after clarifying the duties and management framework for product labels and instruction manuals, the procedures from creation to distribution, and other key processes.

## Respecting the Eight Basic Consumer Rights

In providing products and services, Toray Group is fundamentally committed to respecting the Eight Basic Consumer Rights and strives to secure safety and quality of its products throughout the Group's business activities.

**The Eight Basic Consumer Rights (Excerpted from the Consumers International website)**

- The right to satisfaction of basic needs
- The right to safety
- The right to be informed
- The right to choose
- The right to be heard
- The right to redress
- The right to consumer education
- The right to a healthy environment

Click here for the main initiatives for CSR Guideline 4, “Product Quality and Safety” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Product Quality and Safety

# Sites with ISO 9001 Certification

Toray Group has established an appropriate quality management system at each manufacturing site and is working to strengthen its quality assurance system.

## Sites with ISO 9001 certification (as of July 2022)

CSR Roadmap 2022
Main Initiatives (2)

**Toray Industries, Inc.: 11 plants**

Shiga, Seta, Ehime, Tokai, Aichi, Okazaki, Mishima, Tsuchiura, Gifu, Ishikawa, Nasu

**Group companies in Japan: 23 companies**

Du Pont-Toray Co., Ltd., Toray Opelontex Co., Ltd., Dow Toray Co., Ltd., DuPont Toray Specialty Materials Kabushiki Kaisha, Toray Construction Co., Ltd., Toray Building Materials Co., Ltd., Toray Engineering Co., Ltd., Toray Precision Co., Ltd., Sowa Textile Co., Ltd., Toray Textiles, Inc., Toray Coatex Co., Ltd., Toray Amtecs Inc., Toray Monofilament Co., Ltd., Toray Hybrid Cord, Inc., Toray Plastics Precision Co., Ltd., Toray PEF Products Inc., Toray Fine Chemicals Co., Ltd., Soda Aromatic Co., Ltd., Toray Advanced Film Co., Ltd., Toray KP Films Inc., Toray Carbon Magic Co., Ltd., Suido Kiko Kaisha, Ltd., Toray Research Center Inc.

**Group companies outside Japan: 42 companies**

**USA**
Toray Plastics (America), Inc., Toray Fluorofibers (America), Inc., Toray Membrane USA, Inc., Zoltek Companies,Inc

**Mexico**
Toray Advanced Textile Mexico, S.A.de C.V.

**UK**
Toray Textiles Europe Ltd.

**France**
Toray Films Europe S.A.S., Toray Carbon Fibers Europe S.A.

**Germany**
Euro Advanced Carbon Fiber Composites GmbH, Greenerity GmbH

**Italy**

Alcantara S.p.A., Composite Materials (Italy) s.r.l., Delta-Tech S.p.A., Delta-Preg S.p.A.

**Czech Republic**

Toray Textiles Central Europe s.r.o.

**Netherlands**

Toray TCAC Holdings B.V.

**India**

Toray Industries (India) Private Limited

**Indonesia**

P.T. Century Textile Industry Tbk, P.T. Easterntex, P.T. Indonesia Toray Synthetics, P.T. Acryl Textile Mills, P.T. Indonesia Synthetic Textile Mills, P.T. Toray Polytech Jakarta

**Thailand**

Thai Toray Synthetics Co., Ltd., Toray Textiles (Thailand) Public Company Limited

**Malaysia**

Penfibre Sdn. Berhad, Penfabric Sdn. Berhad, Toray Plastics (Malaysia) Sdn. Berhad

**China**

Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd., Toray Fibers (Nantong) Co., Ltd., Toray Polytech (Nantong) Co., Ltd., Toray BlueStar Membrane Co., Ltd., Toray Plastics (Suzhou) Co., Ltd., Toray Plastics (Chengdu) Co., Ltd., Toray Plastics Precision (Zhongshan) Ltd., Toray Film Products (Zhongshan) Ltd., Toray Fibers & Textiles Research Laboratories (China) Co., Ltd., Toray Advanced Materials Research Laboratories (China) Co., Ltd.

**Republic of Korea**

Toray Advanced Materials Korea Inc., STEMCO, Ltd., Toray Battery Separator Film Korea Limited.

**Taiwan**

Toray Advanced Film Kaohsiung Co., Ltd.

Click here for the main initiatives for CSR Guideline 4, “Product Quality and Safety” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports)

# Risk Management

**Under normal conditions, assess and analyze risks, and strive to mitigate and prevent them from materializing; and in the event of a crisis that could have a significant impact on management activities, strive to prevent damage from increasing, by bringing the situation quickly under control and normalizing conditions with a prompt and appropriate response**

## Basic Approach

Toray Group regularly identifies potential management risks affecting the Group's management activities in order to mitigate risks and seeks to prevent a crisis. In addition, the Group strives to prevent damage from spreading and to promptly control and normalize the situation by ensuring quick and appropriate responses using the emergency quick response system it has established.

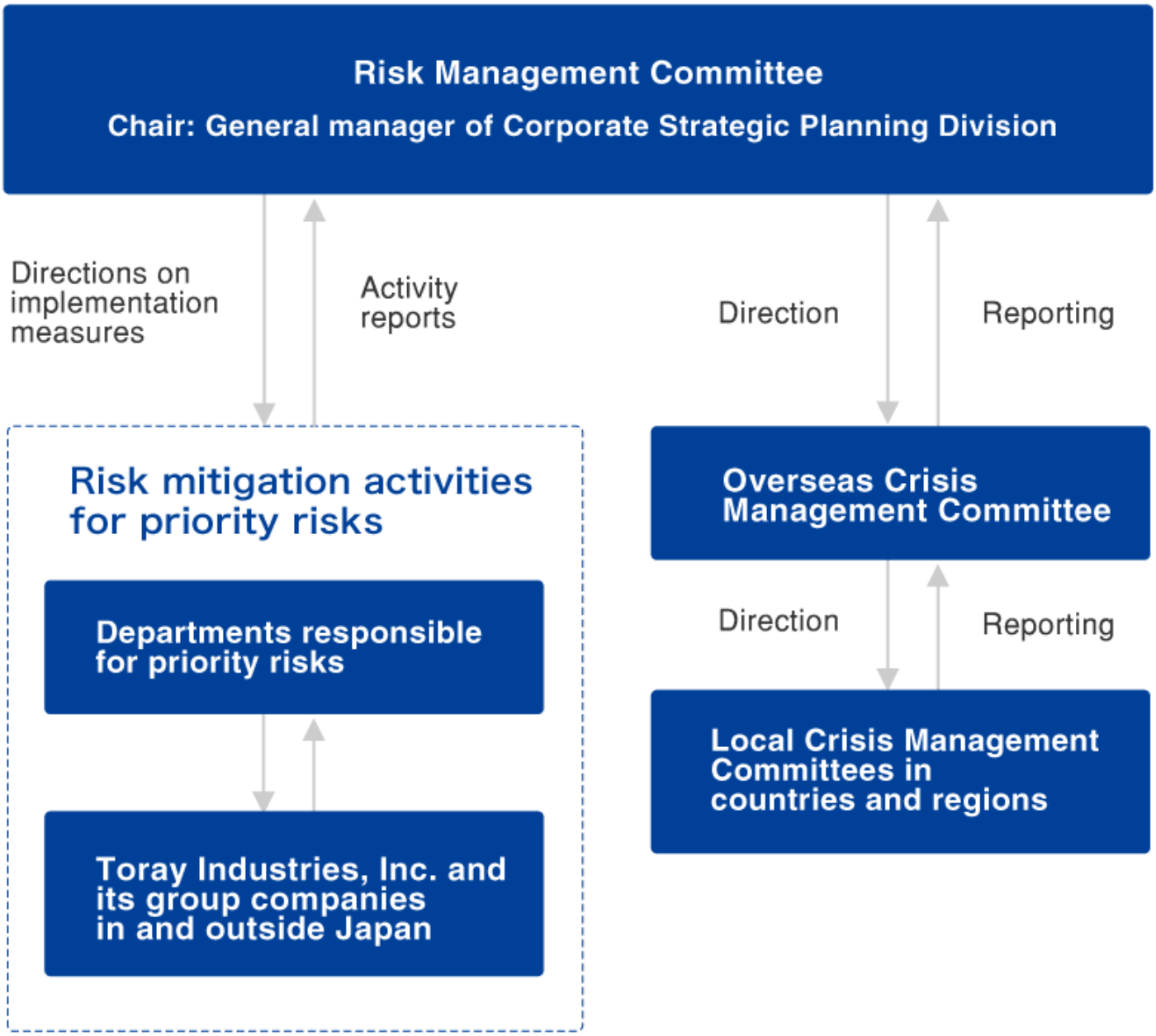
## Structure

The risks affecting Toray Group are constantly changing, and the Group recognizes the critical importance of reinforcing its system for responding to risks that materialize suddenly due to changes in the surrounding environment and for responding promptly when crises do occur. To this end, Toray Industries, Inc. established a dedicated team within the Corporate Strategic Planning Division to communicate closely with the Board of Directors and top management and to pursue risk management as an integral part of management strategy. This team manages overall risk under normal conditions and ensures a quick response when crises do occur.
The general manager of the Corporate Strategic Planning Division regularly reports on the status of risk management to the Board of Directors and makes certain to inform the Board when a critical issue or emergency arises. In April 2021, a new department to deal with economic security risks was also established within the Corporate Strategic Planning Division. It is working to gather information both in and outside the Company and mitigate risks.

**Structure of the Risk Management Committee**

Chaired by the general manager of the Corporate Strategic Planning Division, the Risk Management Committee is tasked with reviewing, discussing and promoting shared awareness of risk management across the entire Toray Group. This committee primarily carries out priority risk mitigation activities as part of regular risk management. In addition, the Overseas Crisis Management Committee and local crisis management committees, which manage employees' overseas travel under normal conditions and compile information on overseas risks, have also been made subordinate to the Risk Management Committee. The committee keeps the Board of Directors regularly informed about the contents of its discussions and reporting matters.

**Risk Management Committee System**

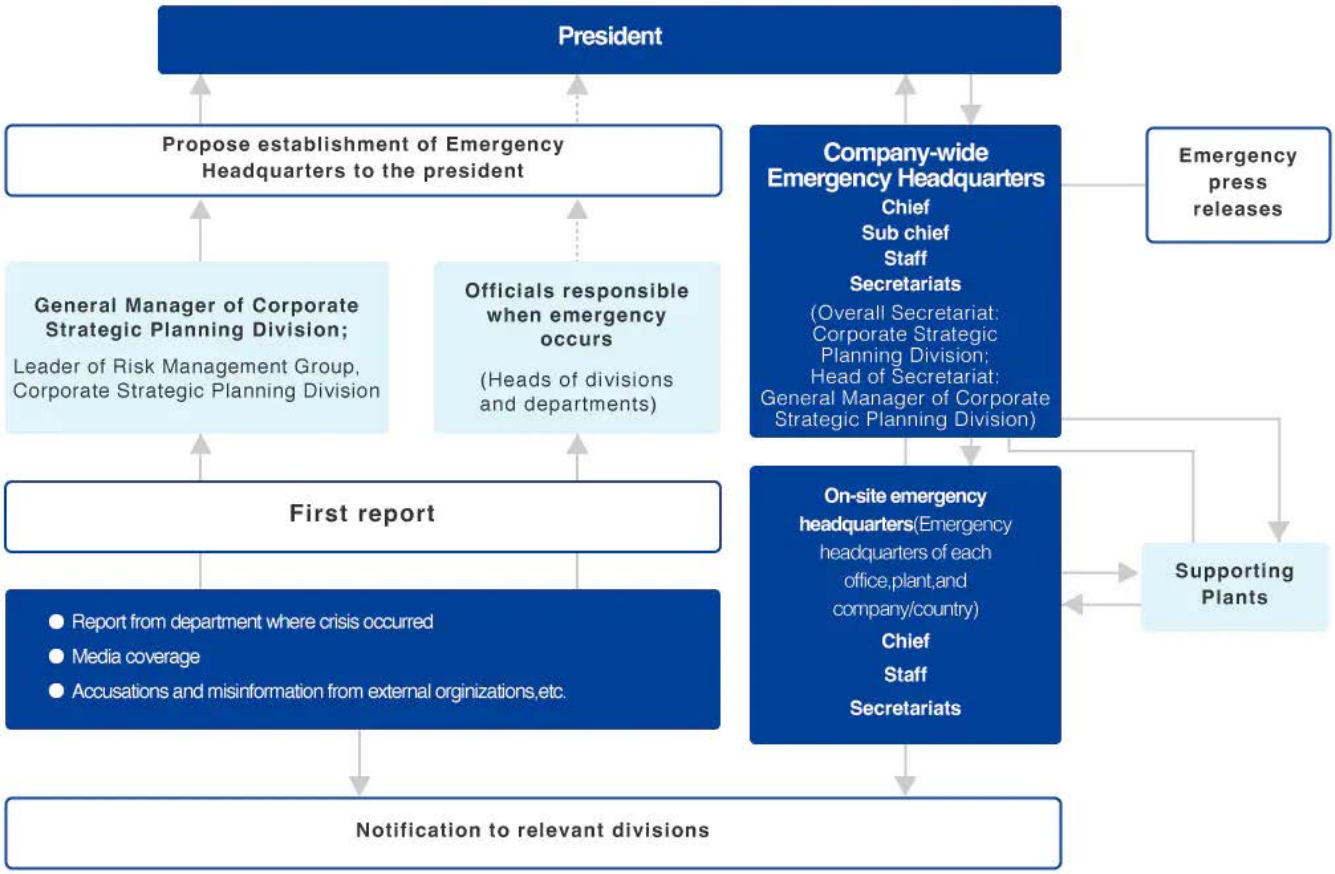


## Strengthening the Emergency Quick Response System

Toray Group has established Risk Management Regulations, a set of clear fundamental principles that form the basis of a company-wide response in the event of a major crisis. The Group works to ensure the thorough implementation of these rules when required. Moreover, the Group reviews the rules as appropriate to prepare for new risks that emerge due to changes in the social environment. In order to ensure quick management decisions especially in the event of a crisis, Toray Group has clarified the reporting channel from a department where a crisis has occurred, covering group companies in and outside of Japan. The Group recognized that the rapid spread of COVID-19, which emerged at the end of 2019, posed a serious risk to the health and safety of employees and the Group's business continuity. In accordance with its rapid response framework, the Group established a group-wide emergency headquarters on February 7, 2020, headed at the time by an executive vice president[1].
The emergency headquarters has been creating and promoting measures to ensure the safety and health of employees and continued operations. This has been done in accordance with the pandemic measures and directives issued in countries where the Group operates.

1 The headquarters is headed by a Senior Vice President (Member of the Board) as of July 2022.

### Emergency Quick Response System



## CSR Roadmap 2022 Targets

### CSR Roadmap goals

1. Strengthen corporate risk management throughout the Toray Group and mitigate risks
2. Instill greater risk management among employees by rolling out risk management education throughout the Toray Group

### Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| (1) Follow up on Toray's priority risks | 5-❶ |
| (2) Conduct periodic risk management (priority risk mitigation activities through a three-year cycle) and routine risk management (observing trends in and outside Japan, and establish a group-wide system to respond to risks that may have a significant impact on management, as identified through research and analysis, as "specified risks"); and in the event of a group-wide crisis, respond appropriately in accordance with the Risk Management Regulations | - |
| (3) Regarding major earthquakes in Japan, prepare and regularly review business continuity plans for key products, and conduct regular drills to establish a group-wide emergency response headquarters | - |
| (4) Regarding information security risks, monitor and bolster the contents of communications and enhance education and training on the risk of cyberattacks and information leakage<br>In addition, starting in fiscal 2021, designate information security risks as part of the fifth three-year set of priority risks for Toray Group, and accelerate more comprehensive initiatives. | - |
| (5) Provide risk management education | 5-❷ |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| 5-❶ Group companies conducting follow-up on the Toray Group's priority risks (%) | 100% | 100% | 100% | 100% |
| 5-❷ Group companies implementing risk management education (%) achieved compared to the plan at the beginning of the fiscal year) | 100% | 100% | 100% | 100% |

Reporting scope : Toray Group

## Looking to the Future

CSR Roadmap 2022 goals are: (1) strengthening corporate risk management throughout Toray Group and mitigating risks; and (2) instilling greater risk management awareness among employees. To achieve these goals, the Group will periodically and routinely identify latent risks in management activities, prevent and mitigate risks, and prevent crises from ever occurring.

The fifth three-year set of priority risks to be addressed over the three years from fiscal 2021 to 2023 are information security, global CSR procurement, and business continuity risks from water hazards. Initiatives to mitigate these risks are being promoted across the Group.

As part of this effort, Toray has completed confirmation of the current situation and established mitigation measures for business continuity risks from water hazards. Accordingly, these priority risk activities have been completed in fiscal 2021.

Although priority risk activities are to be conducted over a period of three years, the plan is to review these activities with the aim of engaging in risk management to achieve management goals. Specifically, in order to set priority risks for achieving the next Medium-term Management Program (fiscal 2023 to 2025), the current fifth three-year set of priority risks will be ended one year ahead of schedule, in fiscal 2022 instead of 2023. The plan is to carry out the sixth three-year set of priority risks from fiscal 2023 to 2025, to coincide with the next Medium-term Management Program period.

CSR Activity Report (CSR Guideline Activity Reports) - Risk Management

# Risk Management Initiatives

## Basic System for Group-Wide Risk Management

CSR Roadmap 2022
Main Initiatives (1)(2)

### Description of Activities

**1. Periodic risk management (priority risk mitigation activities)**

(1) Toray Industries, Inc. exhaustively identifies group-wide risks (climate change, natural disasters, legal violations, scandals, etc.) and then pinpoints significant risks to address in a group-wide system. It does this by taking each risk identified and conducting quantitative analysis and assessment in a process of mapping based on the possibility of occurrence, degree of impact on the Company's management, and indicators of whether sufficient measures are already in place as well as qualitative analysis based on interviews with each department. Ultimately, priority risks are determined after consulting with the Risk Management Committee, which is chaired by the general manager of the Corporate Strategic Planning Division.

(2) Priority risks are addressed with risk mitigation activities following the PDCA cycle over a three-year period.

(3) In the fifth three-year set of priority risks (fiscal 2021–2023), information security, global socially responsible procurement, and business continuity risks from water hazard risks were selected.

(4) Toray Industries assigns a department responsible for each priority risk and integrates group-wide activities using a three-year road map for risk mitigation activities as well as an annual activity plan.

(5) In addition, the results of the annual activities for Toray Group overall are reported to the Risk Management Committee every year, and progress is monitored. Toray Industries discusses and establishes an annual activity plan for the next fiscal year that addresses the monitoring results and any new risks that have materialized due to changes in the environment.

**Group companies conducting follow-up on the Toray Group's priority risks (%)**

| ■Reporting scope | ■Target in fiscal 2021 |
|---|---|
| Toray Group | 100% |

**Result in fiscal 2021**

**100%**

**2. Routine risk management (monitoring trends in and outside Japan, identifying, assessing and monitoring risks)**

Toray Industries routinely monitors domestic and overseas trends and identifies risks that could have a major impact on Toray Group's management. When such risks are identified, the Company promptly develops a company-wide system to address them and takes the necessary group-wide countermeasures.

**3. Response in the event of a crisis**

Based on the Risk Management Regulations, a company-wide quick response system (Company-Wide Emergency Headquarters) is formed to respond to the crisis that has occurred.

## Business and Other Risks

Toray Group has identified the following business and other risks, as noted in its annual securities reports.

1. Risks related to environmental issues such as climate change, water shortages, and resource depletion
2. Risks related to internal controls
3. Risks related to product demand, market trends, and business plans
4. Risks related to procurement of raw materials and fuel
5. Risks related to information security and cyber threats
6. Risks related to the COVID-19 infection
7. Risks related to global business development
8. Risks related to natural disasters and accidents
9. Risks related to foreign currency, interest rate and securities market fluctuations
10. Risks related to lawsuits

## Initiatives to Mitigate Global CSR Procurement Risk

CSR Roadmap 2022
Main Initiatives (1)(2)

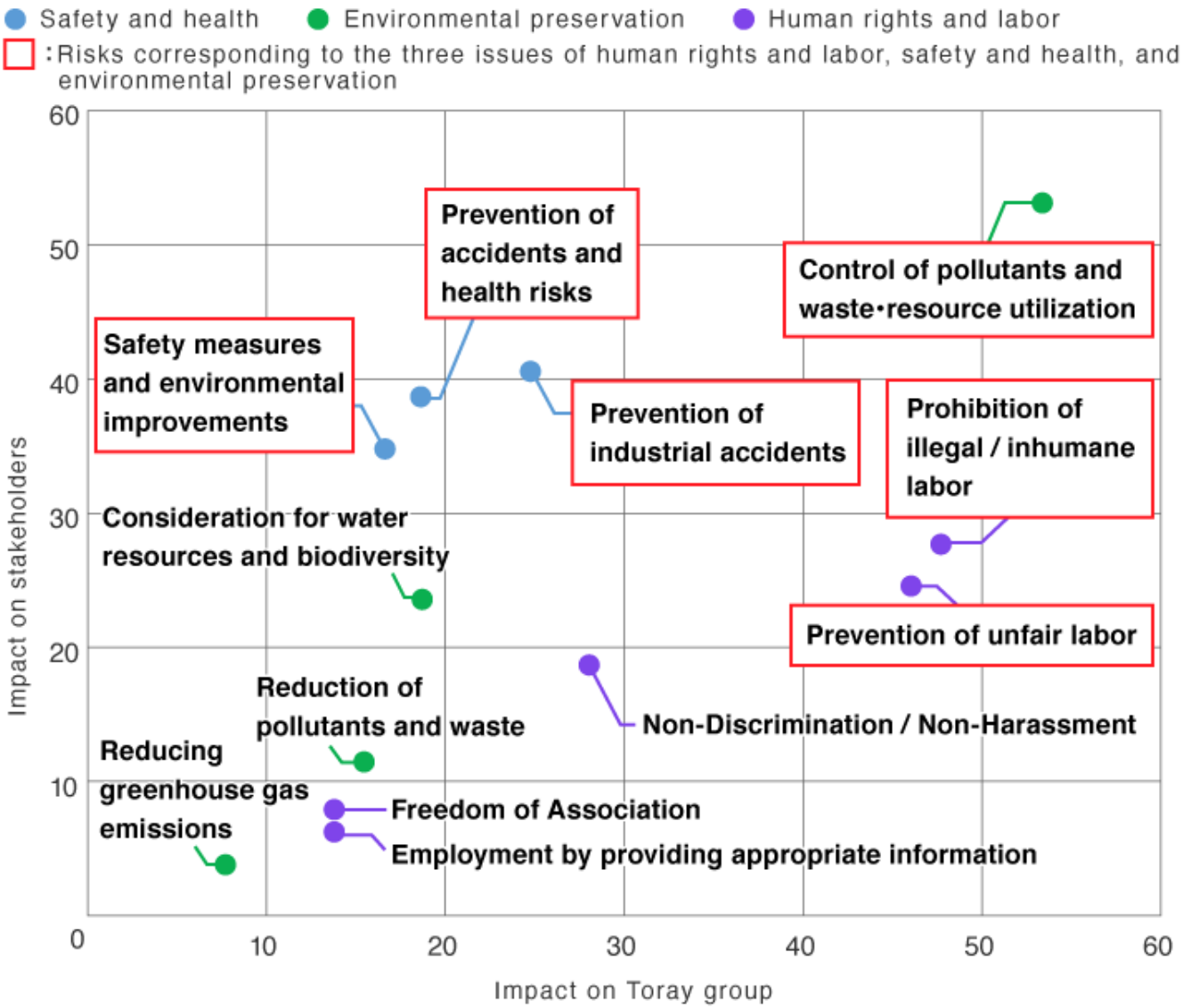
**Investigating a Survey Process Prioritizing High-risk Issues**

The Toray Group CSR Procurement Policies were established as the Group's CSR policies related to procurement. Meanwhile, the Toray Group CSR Procurement Guidelines were implemented as activity guidelines for the entire supply chain, with which suppliers need to comply. In addition, a CSR Procurement Survey is regularly conducted targeting major suppliers to confirm that CSR initiatives are being implemented throughout the supply chain. After evaluating and analyzing the survey responses, Toray asks suppliers with low scores to make improvements and follows up with such measures as facility visits.

Moreover, in order to mitigate CSR procurement risk for the entire Group, starting in fiscal 2021, Toray has been investigating the adoption of a new priority risk identification process. This process involves identifying important CSR procurement risk types corresponding to specific countries, regions, and industries, and then picking out suppliers that require risk investigation, auditing, and/or mitigation measure implementation.

In fiscal 2021, Toray identified past cases of CSR risks that have materialized in supply chains worldwide. To do this, it used multiple databases created by an external consultant that has conducted global surveys and evaluations of ESG and corporate behavior risks. Toray also used information from these tools that help companies identify all types of risks, including those relating to operations and supply chains. Furthermore, using these CSR risk cases, Toray analyzed the potential degree of impact on stakeholders and Toray Group. It then prioritized the CSR risks and decided to focus on the three issues of human rights and labor, safety and health, and environmental preservation. Similarly, Toray investigated risk levels by country and region in order to identify specific suppliers to be surveyed.

**CSR Procurement Risk Map**




Toray will continue to create supplier survey procedures and questionnaires, and to conduct trials, as it continues with investigation toward the establishment of a new survey process.

## Risk Management Education for Employees

CSR Roadmap 2022
Main Initiatives (5)

In order to foster employee awareness of risk management, Toray Group has set a KPI in its CSR Roadmap 2022 of the number of Group companies implementing risk management education. In fiscal 2021, the Group conducted risk management education for its new employees, newly appointed managers, and general managers. To prevent the spread of COVID-19, some training sessions were held remotely.

**Group companies implementing risk management education (%) achieved compared to the plan at the beginning of the fiscal year)**

| ■Reporting scope | ■Target in fiscal 2021 |
|---|---|
| Toray Group | 100% |

**Result in fiscal 2021**

**100%**

Click here for the main initiatives for CSR Guideline 5, “Risk Management” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Risk Management

# Business Continuity Plan Initiatives

## Ensuring Preparedness for Major Earthquakes

CSR Roadmap 2022
Main Initiatives (3)

Toray Group maintains a business continuity plan (BCP) in case of a major earthquake which was included in its fourth three-year set of priority risks (fiscal 2018–2020).
Toray Group's basic policy when ensuring business continuity in the event of a major earthquake is to meet its social responsibility to continue supplying products. The top priority of the plan is to confirm employees' safety and prevent any impact on the local community. In addition to striving to prevent the damage from expanding and to prevent any secondary damage, the Group works to continue the supply of key products and to restore business quickly. In line with this, the Group consistently carries out evacuation drills based on a scenario involving an earthquake, systematically renovates plant buildings for better seismic resistance, and devises business continuity plans.

In fiscal 2018, Toray Industries, Inc. created and began administering BCPs for key products selected from each business in accordance with the Procedures for Developing BCPs for Designated Key Products in the event of an earthquake. Group companies in and outside Japan did the same in fiscal 2019.
In addition, since fiscal 2012, Toray Group has continued to conduct company-wide drills on setting up an emergency response headquarters. In fiscal 2021, as in the previous year, in light of Toray Industries' enhanced network environment and the improved reliability of public network infrastructure, the Company conducted initial response drills online, on the assumption that a large number of employees could be working from home due to the suspension of transportation services and the outbreak of COVID-19. Toray Group will continue to strengthen its capacity to respond to earthquakes with training and other measures.

## Handling Water Hazard Risks (Floods, Storm Surges, Etc.)

CSR Roadmap 2022
Main Initiatives (1)

In recent years, there has been an increasing trend of storm and flood disasters, such as typhoons and heavy rain, causing devastating damage. In light of this, business continuity risks from water hazard risks were included as part of the fifth three-year set of priority risks (fiscal 2021–2023).

With the aim of checking water hazard risks, starting in Japan, in fiscal 2020, Toray Industries developed its own Wind and Flood Damage Control Checklist based on the Wind and Flood Damage Control Guidelines for Hazardous Materials Facilities published by the Fire and Disaster Management Agency at the Ministry of Internal Affairs and Communications. Toray Industries and its group companies have been reinspecting wind and flood damage control measures at their manufacturing sites and have confirmed flooding areas and flood depths. In fiscal 2021, the Group proceeded to investigate water hazard risks at manufacturing sites outside Japan. Based on a survey targeting the worldwide production facilities of Toray Industries and its group companies (146 factories belonging to 89 companies), 40 of the plants surveyed (belonging 19 companies) were found to be in flood risk zones.
In response to the risks identified at these plants, the Group formulated a plan in fiscal 2021 to ensure the safety of human life and prevent secondary damage at the sites in flood risk zones, and is systematically promoting mitigation measures. Regarding Toray products deemed critical in the event of a large-scale earthquake, to help ensure their supply continuity, the BCP promotion department for each product concerned investigated water hazard risks at Group manufacturing sites and across the entire supply chain. Based on the results, the Group revised its BCP for critical products (earthquakes) and created a BCP for critical products (earthquakes and water hazards) that reflects new measures to mitigate flood risk.
Based on the results of these activities, a decision was made to complete in 2021 the activities for the identified priority risk – business continuity risks from water hazards.

**Related Information**

See the following page for information on water stress areas and water resource management.

> Initiatives for Managing Water Resources

Click here for the main initiatives for CSR Guideline 5, “Risk Management” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Risk Management

# Addressing Information Security Risks

## Addressing Information Security Risks

CSR Roadmap 2022
Main Initiatives (4)

Toray Group has formulated its Confidential Information Management Regulations and Regulations for the Management of Personal Information for the purpose of protecting confidential information and personal information owned by the Group and of appropriately managing the confidential information and personal information entrusted by suppliers and stored by the Group.
Based on these regulations, Toray Industries, Inc. established the position of Corporate Information Security Officer (held by the Senior Vice President, General Administration & Communications Division[1]) as the officer responsible for the Toray Industries. The Corporate Information Security Officer discusses and coordinates measures related to enhancing information security with related departments, and promotes their deployment. Under the Corporate Information Security Officer, the Group is working to enhance information security by defining the roles and responsibilities of each division and department, and by establishing an Information Security Committee in each department for their promotion.
The Toray Group Information Security Basic Policy was established in April 2022. While strengthening governance, its purpose is to ensure appropriate management of confidential information across Toray Group in order to reduce information security risks such as data leaks.
As is the case at Toray Industries, each group company in and outside Japan also establishes various rules and promotes information security measures in accordance with the Toray Group Information Security Basic Policy. Moreover, information security has been included in the fifth three-year set of priority risks for Toray Group (fiscal 2021–2023), and more comprehensive initiatives will be taken group-wide. Plans for addressing priority risks and progress reports on steps taken are reported to the Board of Directors on a regular basis.

1 As of July 2022, a senior vice president serves as general manager of the General Administration & Communications Division.

**Toray Group Information Security Basic Policy:** Established in April 2022

Toray Group prioritizes information security as an important management issue. In order to fulfill the Group's social responsibility, all officers and employees (including contract, part-time, and dispatched employees) take thorough measures based on the Information Security Basic Policy.

1. Ethics and compliance
   We will prohibit ourselves from collecting, moving or using any information assets illegally in violation of the regulation or law where Toray group engages their duties.
2. Development and operation of systems and rules
   In order to promote information security measures and to respond promptly to information leaks, we have established an information security system. We will establish a system and rules for security and apply them appropriately.

3. Protection of information
   We will protect the information of our customers and the Toray group companies in accordance with the significance of risk. From the perspective of the protection of personal information, we will protect the personal information of our employees, customers, and Toray group companies from being used for any purpose other than its original intent.
4. Availability of information assets in support of business continuity
   We will secure the availability of information assets necessary to pursue and fulfill our social responsibility.
5. Continuous Improvement and Maintenance of Information Security
   We will continuously improve the information security management system by prioritizing identified issues, by continuously conducting risk analysis of emerging threats, changes to the business, and or the evolution of information technology.

## Combating Cyber Attacks

CSR Roadmap 2022
Main Initiatives (4)

Toray Group is taking the following initiatives to respond to today's increasingly sophisticated cyberattacks.

1. Thoroughly implementing and enhancing existing initiatives
   Standardizing and automating the settings and security measures of PCs owned by the Group
2. Enhancing network security
   (1) Constant monitoring and analysis of communications between the outside (Internet) and the corporate network, and within the corporate network
   (2) Periodic external expert vulnerability assessments of connections with the outside (Internet) and reviews of appropriate responses
3. Enhancing education and training
   Because IT measures alone may not be sufficient to address today's increasingly sophisticated cyberattacks, the Group also conducts education through regular e-learning (once a year) and several unannounced rounds of suspicious e-mail response training for all employees.

## Prevent Employees from Leaking Confidential Information

CSR Roadmap 2022
Main Initiatives (4)

In addition to providing information security education for all employees on an annual basis, Toray Group conducts grade-specific training for employees, including new employees and newly appointed managers, in aims of improving security awareness and skill-levels. At the same time, an e-mail magazine is sent out regularly and a series on information security is carried in an in-house magazine to encourage the improvement of information security literacy among all employees.
Before removing a computer or smartphone from an office, for example, employees must receive permission from a manager. In addition, the actual device must be inspected monthly, and an inventory of assets is taken once every six months. Moreover, the Group has established approaches to dealing with the loss of such devices and other similar incidents, and has built channels for reporting and other mechanisms to minimize damage thereof.

Click here for the main initiatives for CSR Guideline 5, "Risk Management" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports)

# Communication

**Disclose corporate information in an active, fair and straightforward manner to maintain management transparency; and disclose information appropriately to encourage dialogue and cooperation with stakeholders including customers, employees, stockholders, business partners, consumers, mass media, and other parties**

## Basic Approach

Toray Group communicates with diverse stakeholders throughout its business activities in accordance with its Basic Policies to Promote Dialogue with Stakeholders and its Information Disclosure Principles. The senior management team regularly receives reports on communication activities and provides advice.

Toray Group's goal of achieving sustainable growth globally and into the future is about much more than just expanding the Group's business. The aim is to practice Toray-style management, contribute to society, and remain a corporate entity respected by society. Toray-style management is all about living up to the corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products," and this is done by executing the corporate missions of serving customers, employees, shareholders, and society. Toray Group established the Long-Term Corporate Vision, TORAY VISION 2030, and the Medium-Term Management Program, Project AP-G 2022. At that time, the Group also organized its management principles — the principles that it has upheld since the beginning — in the form of the Toray Philosophy. Over the two years between fiscal 2020 and 2021, Toray Group implemented the Toray Philosophy Project as one of its group-wide projects under Project AP-G 2022, seeking to enhance understanding of Toray-style management both inside and outside the Group. Issues involving organizational culture and the gaps that have been detected between the Toray Philosophy and the workplace over the duration of these two years of activities will be taken over by the Corporate Brand Meeting, which was established in September 2021 under the Brand Management Committee chaired by the president. This committee will continue to formulate and implement measures to activate internal communication. The entire Group will work to ensure that all employees conduct themselves in accordance with the Toray Philosophy and foster an attachment to the Toray Group.

**Basic Policies to Promote Dialogue with Stakeholders** Established September 2005

1. Toray Group will promote dialogue and collaboration with all stakeholders, including customers, stockholders and investors, business partners, employees, government, local communities, NPOs, citizens, the global community and the media.
2. Each company in Toray Group, through dialogue and collaboration with stakeholders, will take steps to carry out reforms designed to increase the satisfaction level of everyone.
3. All Toray Group employees, in their respective workplaces, shall identify and strive to solve issues affecting stakeholder satisfaction as part of their CSR activities.

**Information Disclosure Principles** Established January 2004

1. Information Disclosure Principle:
   Strive to communicate with various stakeholders associated with the Company by actively disclosing pertinent information.
2. Voluntary Disclosure Principle:
   Comply with statutory disclosure and timely disclosure requirements and voluntarily disclose information that can be disclosed.
3. Timely Disclosure Principle:
   Strictly comply with the appropriate disclosure timing for statutory disclosure and timely disclosure, and disclose information on facts that can be disclosed as quickly as possible for voluntary disclosure as well.
4. Fair Disclosure Principle:
   Disseminate information to all stakeholders in a fair and unbiased manner.
5. Information Management Principle:
   Officers and employees associated with the content of information to be disclosed shall strive to maintain thorough information management until disclosure.

## Structure

The General Administration & Communications Division works with divisions and departments of Toray Industries and its group companies in and outside Japan to devise the best methods for collecting and disseminating information. The Group's business sites regularly engage and maintain lines of communication with local residents and governments. Additionally, the Group is always open to inquiries and feedback from stakeholders, which are fielded through its corporate websites.
Opinions obtained from stakeholder communication processes are used to provide feedback to the related divisions and departments. They are encouraged to act on the feedback received in order to maintain good relationships with stakeholders. For example, matters related to safety, health, accident prevention, and environmental conservation are suitably handled by the Group's business sites. The CSR Operations Department in the General Administration & Communications Division guides the implementation of social initiatives that contribute to the advancement of local communities, which are carried out by the business sites.

## CSR Roadmap 2022 Targets

### CSR Roadmap goals

1. Reflect results of dialogue and collaboration with each stakeholder group in management activities in a timely and appropriate manner
2. Reflect information obtained through dialogue and collaboration with each stakeholder group in management decisions in a timely and appropriate manner

### Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| (1) Actively dispatch information on the Toray Philosophy and use education to ensure it is embraced throughout the Group | - |
| (2) Strengthen the dissemination of information via websites | 6-❶ |
| (3) Facilitate exchange of opinions between management and employees | 6-❷ |
| (4) Facilitate communication between management and stockholders and investors | 6-❸ |
| (5) Encourage communication with mass media | 6-❹ |
| (6) Work to utilize various tools and strengthen systems in order to effectively disseminate information and promote dialogue in response to digitalization and globalization | - |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| **6-❶ Number of corporate website page views (per month)** | 1 million page views | 1 million page views | 1 million page views | 1.09 million page views |
| **6-❷ Interviews conducted to exchange opinions within the company (rate of progress)** | 40% | 60% | 80% | 42% |
| **6-❸ Interviews with key investors in which management participates (number)** | Cumulative total of 80 | Cumulative total of 80 | Cumulative total of 80 | Cumulative total of 125 |
| **6-❹ News releases (number)** | 200 | 200 | 200 | 138 |

Reporting scope : Toray Industries, Inc. (6-❶)
Toray Group (6-❷, 6-❸ and 6-❹)

## Looking to the Future

With the diversification of social issues in recent years, careful dialogue with stakeholders has become increasingly important. Toray Group treats requests from stakeholders as opportunities for growth. By contributing to society through its businesses and other efforts, the Group will continue to promote social progress and help to resolve global issues, thereby serving as a corporate group of high value to all stakeholders.
Toray Group is also enhancing the usability of its communication tools and strengthening its framework for utilizing digital technologies, to effectively disseminate information and engage in dialogue while keeping pace with digitalization and globalization.

CSR Activity Report (CSR Guideline Activity Reports) - Communication

# Communication via Corporate Websites

CSR Roadmap 2022
Main Initiatives (2)(6)

## Number of corporate website page views (per month)

■Reporting scope
Toray Industries, Inc.

■Target in fiscal 2021
1 million page views

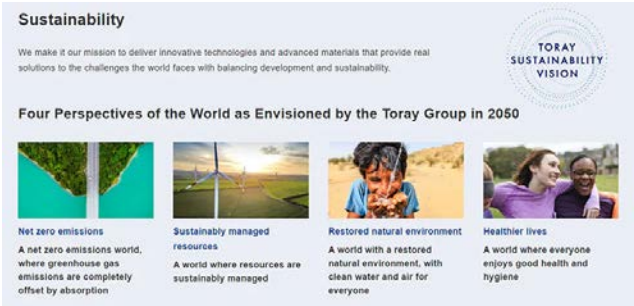
Result in fiscal 2021

**1.09**

**million page views**

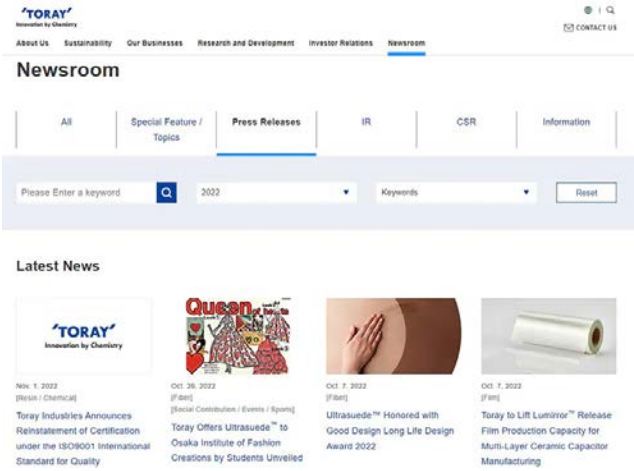
On the Toray Group website, information is provided to a wide range of stakeholders to give them an accurate perspective on Toray, with information in menu categories such as “About Us,” “Our Businesses,” “Sustainability,” “Research and Development,” “Investor Relations” and “Career.”
In fiscal 2021, the Group website was redesigned to help stakeholders gain an even better understanding of Toray Group corporate activities. The website now introduces each of the four perspectives of the world as envisioned by the Toray Group in 2050 as outlined in the Toray Group Sustainability Vision and includes new content such as the "Toray at a glance" section, which presents a simple overview of Toray Group for stakeholders who may not have a thorough understanding of the Group, as well as the "Newsroom" section, which provides a digest of various Toray Group news items. These and other new features have improved the website design and better organized the information presented to enhance usability. In addition to the corporate website, Toray Group business websites (a total of 25 websites) are also being redesigned to better provide the information that meets customer needs.
Further, in order to provide more stakeholders with information, Toray Group regularly posts information on its official social media account (on LinkedIn) and encourages users to visit from related sites.

New corporate website home page




Four Perspectives of the World as Envisioned by the Toray Group in 2050

Toray at a glance




Newsroom

## Related Information

- Four Perspectives of the World as Envisioned by the Toray Group in 2050
- Toray at a glance
- Newsroom
- List of business/brand websites
- Toray's official social media site (on LinkedIn)

Click here for the main initiatives for CSR Guideline 6, "Communication" in CSR Roadmap 2022.

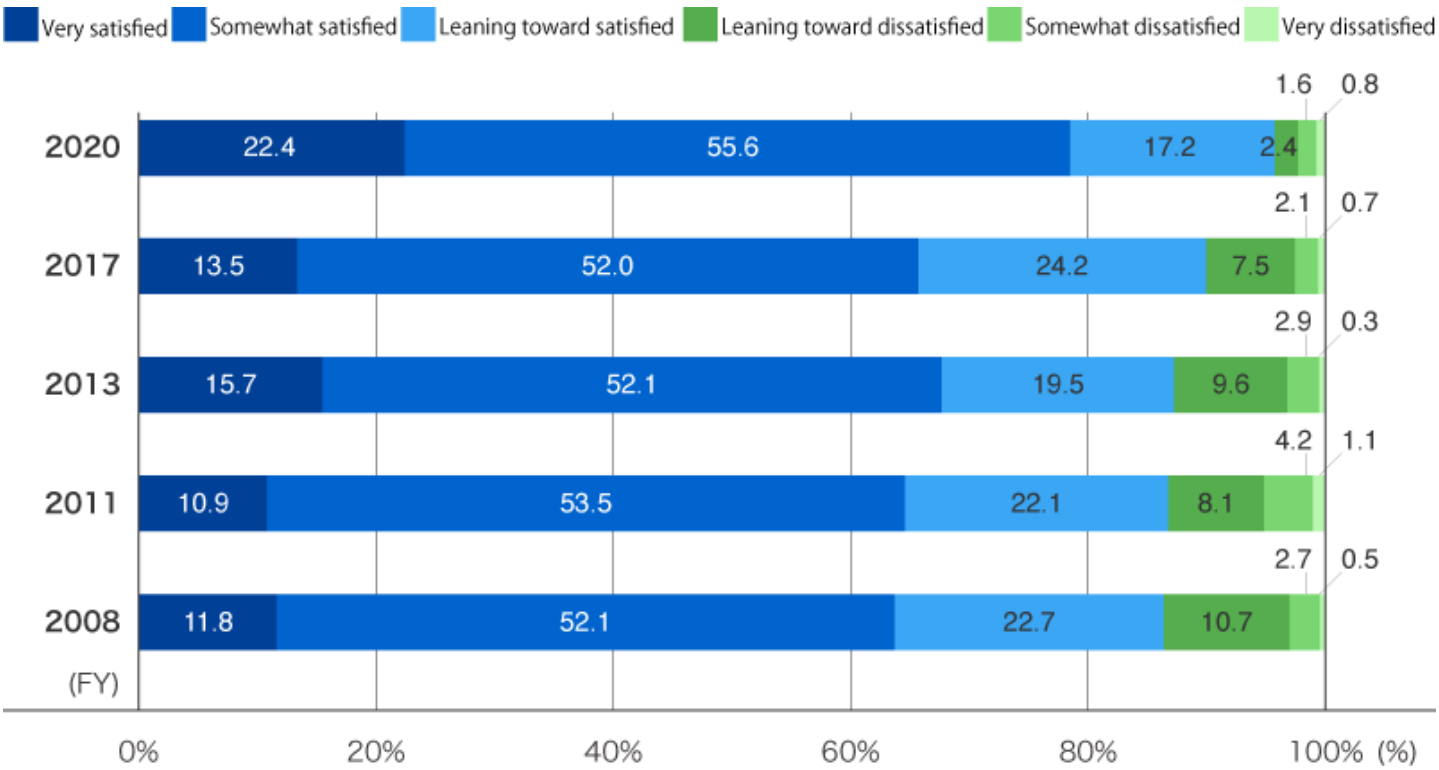
CSR Activity Report (CSR Guideline Activity Reports) - Communication

# Communication with Customers

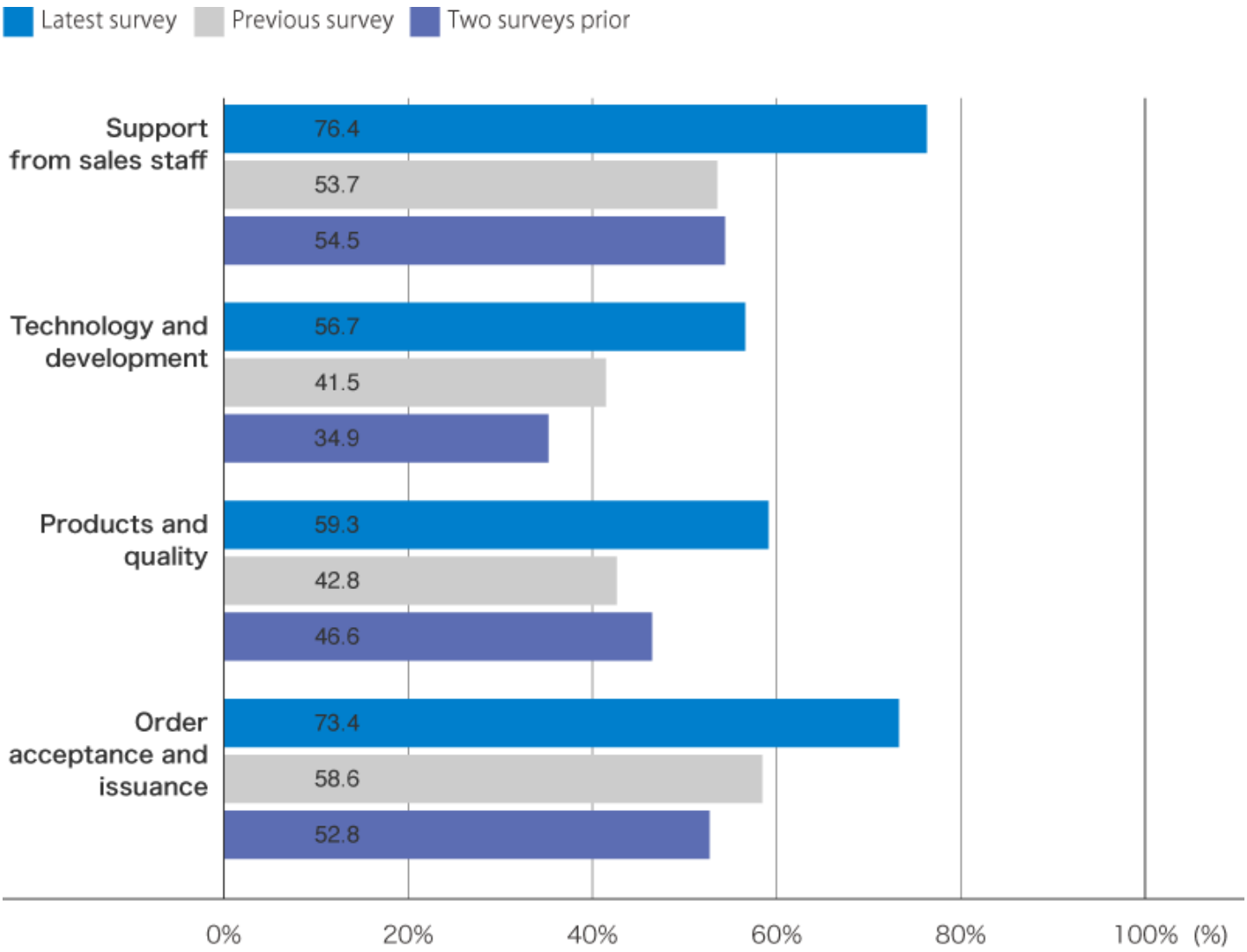
## Customer Satisfaction Survey

True to its “customer first” commitments, Toray Group regularly conducts customer satisfaction surveys. The survey results are shared within the Group at the officers’ meeting and via the in-house magazine to facilitate business improvement at worksites and motivate employees. From executives and managers to general staff, every employee works to achieve even higher quality customer service, by engaging in an iterative cycle of understanding and improving issues.

### Overall Customer Satisfaction (%)



**Customer Satisfaction (%) by Category**




Note: Percentage of customers who chose "Very satisfied" or "Somewhat satisfied" on a six-point scale of " Very satisfied, "Somewhat satisfied," "Leaning toward satisfied," "Leaning toward dissatisfied," "Somewhat satisfied" and "Very satisfied."

## Showrooms

Toray has set up showrooms in Tokyo (at the head office), at the Shiga Plant, and at other major Toray sites as space for communicating with customers. These showrooms feature accessible displays of Toray's business and product applications. The goal is to deepen understanding of Toray Group's commitment to leverage its innovative technologies and advanced materials to help address a host of issues. Toward this end, the corporate culture floor of the Toray Human Resources Development Center in Mishima and the exhibit space at the Automotive Center (now the Environment & Mobility Development Center) in Nagoya were also renovated in fiscal 2021.

Exhibit space at Toray Human Resources Development Center in Mishima

Exhibit space at the Automotive Center (now the Environment & Mobility Development Center) in Nagoya

CSR Activity Report (CSR Guideline Activity Reports) - Communication

# Communication with Stockholders and Investors

In accordance with its Information Disclosure Policy, Toray Industries, Inc. makes sure to disclose information required under laws and regulations in an accurate, timely and appropriate manner, as well as a broad range of additional information beyond these requirements. The Company's Investor Relations Department was established to liaise with stockholders and investors, aiming to create as many communication opportunities as possible.

**Interviews with key investors in which management participates (number)**

■Reporting scope
Toray Group

■Target in fiscal 2021
Cumulative total of 80

**Result in fiscal 2021**

Cumulative total of **125**

## Holding Investor Relations Events to Communicate with Stockholders and Investors and Giving Feedback to Top Management

CSR Roadmap 2022
Main Initiatives (4)

Toray Industries conducts same-day briefing sessions with the release of quarterly and annual earnings results, and holds interviews, for institutional investors and securities analysts. The Company also conducts briefing sessions for individual investors. Feedback received at investor briefing sessions and through communication with investors and stockholders is regularly reported to the Board of Directors, helping to guide management and business activities.

| Activities | Number of events | Number of meetings/participants |
|---|---|---|
| Meetings with investors and analysts | As required | 499 meetings |
| Briefing sessions for individual investors | Yearly | 237 participants |

## External Evaluation of Information Disclosure to Investors

CSR Roadmap 2022
Main Initiatives (2)

In the "Investor Relations" section of its corporate website, Toray Industries provides information about its financial results and management policies and strategies for stockholders and investors. In an effort to disclose information fairly, the Company promptly posts financial data and presentation materials, including English translations, used in its briefings for institutional investors. In fiscal 2021, the Company's publications were evaluated externally by a number of organizations, as shown below.

| Organization details | Evaluations |
|---|---|
| Daiwa Investor Relations Co., Ltd. | Award for outstanding website in 2021<br>Excellence Award in Sustainability Category |
| Nikko Investor Relations Co., Ltd. | 2021 All Japanese Listed Companies' Website Ranking<br>(AAA Website in overall ranking and AAA Website in sector ranking) |
| GOMEZ | Silver Prize (top in textile sector) in IR Site Ranking 2021 |

## Evaluations from the Perspective of Socially Responsible Investment

CSR Roadmap 2022
Main Initiatives (2)

- Dow Jones Sustainability Asia Pacific Index
- The Sustainability Yearbook 2022
- FTSE 4Good Index / FTSE Blossom Japan Index / FTSE Blossom Japan Sector Relative Index
- MSCI ESG Rating: AAA / MSCI Japan ESG Select Leaders Index
- CDP Water Security A List

## Convenient General Stockholders Meetings

CSR Roadmap 2022
Main Initiatives (4)(6)

For the convenience of its stockholders, Toray Industries avoids holding its general meeting of stockholders on a date when many other companies in Japan hold their meetings. Toray Industries implemented strict COVID-19 prevention measures for the general meeting of stockholders it held on June 22, 2021, live-streaming a hybrid in-person/online meeting to accommodate stockholders who were unable to attend and/or were in remote locations. Every year, the general stockholders' meeting notice and agenda are released approximately four weeks in advance of the meeting to give stockholders extra time to review the agenda items. The meeting notice is also posted in both Japanese and English on the corporate website. Voting enhancements include smartphone-based electronic proxy voting and an electronic voting platform for institutional investors.

Click here for the main initiatives for CSR Guideline 6, "Communication" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Communication

# Communication with Business Partners

Toray Group holds policy briefings and carries out CSR procurement surveys for business partners to foster mutual understanding and closer collaboration.

**Related Information**

> Socially Responsible Procurement Initiatives at Toray Group

CSR Activity Report (CSR Guideline Activity Reports) - Communication

# Communication with Employees

## Toray Philosophy Project

CSR Roadmap 2022
Main Initiatives (1)

Over the two years between fiscal 2020 and 2021, Toray Group has implemented the Toray Philosophy Project as one of its group-wide projects under the Medium-Term Management Program, Project AP-G 2022.
The Group aims to achieve sustainable growth globally and into the future by living up to its corporate philosophy of “contributing to society through the creation of new value with innovative ideas, technologies and products. ”Toray Group adopted the Toray Philosophy with the aim of remaining a corporate entity worthy of the full respect of society. The Group organized its management principles — the principles it has upheld since the beginning — in the form of the Toray Philosophy.
The Toray Philosophy Project aims to instill the Toray Philosophy as a set of common values shared by all Toray Group employees, as well as a concrete sense that each employee is contributing to society in the course of executing their work. Toward this end, project activities have been designed to achieve the following goals.
1. Fostering an understanding of the Toray Philosophy as a set of common values shared by all Toray Group employees
2. Incorporating the Toray Philosophy into the guiding principles of each workplace and individual employee's conduct so that this philosophy is embodied in concrete action
3. Encouraging each employee to envision a future Toray Group based on the Toray Philosophy and share their thoughts with workplace colleagues so that actions to help achieve this vision are driven by employee initiative
Toray Group has issued the Toray Philosophy Book to help Toray Group employees better understand the concepts of the Toray Philosophy. The Toray Philosophy Book has been published in 17 languages[1], including Japanese with the help of translation by Toray employees in different countries and regions, for the use of Toray Group companies outside of Japan. Toray Group also implemented two participatory programs: Toray Philosophy for Me, which asked employees to think about what the Toray Philosophy means to them and how it can be put into practice, and Our Toray Philosophy Action Declaration, which asked each workplace to apply their employees' understanding of the Toray Philosophy to the question of what a workplace that embodies this philosophy looks like. The results of these exercises formed the basis of discussions that focused on the actions needed to put the Toray Philosophy into practice at both the individual level and the organizational level.
In addition, Toray Group has held director-led, group-wide lectures and workplace roundtable discussions on the Toray Philosophy and has incorporated presentations on it into the corporate education curriculum, to enhance comprehension and further instill the practice of Toray-style management.
Certain group companies in Japan have their own management philosophies, and the Toray Philosophy Project provided an opportunity to discuss, in conjunction with the Toray Philosophy, the degree to which these companies' management philosophies have been instilled and put into practice.As this project marked the first time that group companies outside Japan have implemented activities designed to instill the management philosophy among employees, the level of understanding of Toray and the Toray Philosophy varied significantly from company to company. For those companies that are relative newcomers to Toray Group, project activities were not rushed, but

rather carried out deliberately with the idea that it is important to first foster an understanding of and sense of belonging to Toray Group. The Group continues to take its time carrying out activities designed to thoroughly instill the Toray Philosophy among employees through video messages from the presidents of these companies and the local language edition of the Toray Philosophy Book.

In compiling a digest of these activities, a questionnaire was sent to those in charge of the Toray Philosophy Project at each Toray Industries department. Many respondents indicated that personnel in their department were clearly proud of or wished to feel pride in Toray and that they hoped to continue to work with employees to make concrete changes to conduct and transform the organization as a whole. To the question of whether the project provided an opportunity to put its three goals (1, 2, and 3 above) into practice, 97% of respondents answered “strongly agree” or “agree” (4 or more on a 5-point scale) with regard to goal 1, with 89% strongly agreeing or agreeing with regard to both goal 2 and goal 3.

Issues involving organizational culture and the gaps that have been detected between the Toray Philosophy and the workplace over the duration of these two years of activities will be taken over by the Corporate Brand Committee, which was established in September 2021 under the Brand Committee chaired by the president. This committee will continue to formulate and implement measures to activate internal communication. The entire Group will work to ensure that all employees conduct themselves in accordance with the Toray Philosophy and foster an attachment to the Toray Group.

1 The 17 languages are Japanese, English, Spanish, Portuguese, German, French, Italian, Czech, Hungarian, Dutch, Arabic, Indonesian, Thai, Malay, Chinese (simplified, traditional), and Korean.

## Communication via In-house Magazines and Intranet

CSR Roadmap 2022
Main Initiatives (3)(6)

Toray Group employs various forms of media such as printed in-house magazines, intranet, and company-wide bulletin boards to provide information on the Group’s management policies and issues, as well as to promote dynamic communication that will strengthen the Toray brand and foster a sense of belonging among Group employees. Messages from the president appear in all of these media. The printed in-house magazine is published in two languages (Japanese and English) to keep employees informed about management and business topics as well as corporate projects.

The Group has launched an intranet called TORAYNAVI Lite in Japanese and English for group companies in and outside Japan to share timely information.

**Circulation of Toray Group's publications**

**Japanese edition of *People* in-house magazine** :
Around 16,000 copies per issue (published six times per year)
**English edition of *People* in-house magazine** :
Around 3,000 copies per issue (published four times per year)
***Toray Management* magazine for managers** :
About 7,000 copies per issue (published four times per year)

## Employee Survey

Toray Industries, Inc. regularly conducts an employee attitude survey of Toray Group employees in and outside Japan. The survey is designed to assess employee engagement and motivation, and to gauge the level of progress in implementing the long-term vision and medium-term management program. It is conducted in six languages, including Japanese, English, Chinese, Indonesian, Thai, and Korean.The fiscal 2020 survey yielded encouraging results, with many respondents indicating a positive view of Toray and expressing a desire to continue working at Toray Group in the long term. The survey also shed light on issues and highlighted requests from employees. These are relayed to the relevant departments so that they can address them and raise employee satisfaction. The survey results are used to identify gaps that may exist between employee attitudes and customer assessments from customer satisfaction surveys, and to analyze the level of communication between managers and staff. The results of the employee attitude survey are circulated within the company as feedback and are utilized to make improvements.

## Promoting CSR Initiatives in Every Workplace

CSR Roadmap 2022
Main Initiatives (3)

A special characteristic of Toray Group's approach to corporate social responsibility is its “CSR line activities,” an employee participation system that emphasizes putting CSR into practice on the job. Each workplace implements activities suited to its own circumstances, such as holding discussions on CSR issues.

**Related Information**

> Toray Group Corporate Social Responsibility Initiatives

# Facilitating Internal Exchange of Opinions on CSR Issues and Enhancing Awareness

CSR Roadmap 2022
Main Initiatives (3)

## Interviews conducted to exchange opinions within the company (rate of progress)

**■Reporting scope**
Toray Group

**■Target in fiscal 2021**
60%

**Result in fiscal 2021**

**42%**

Toray Group strives to ensure that social responsibility is firmly rooted in its culture by providing employees with various opportunities.
Since fiscal 2019, the CSR Operations Department of Toray Industries has visited departments as well as group companies worldwide to conduct interviews to exchange opinions. The aims are to ascertain the status of CSR initiatives in each workplace and to promote further progress. The progress rate of the initiative for fiscal 2021 was 42%, falling short of the target of 60% of all targeted departments and group companies to be visited by the end of fiscal 2023. The rate of progress was affected by the period of time in fiscal 2020 when the department was unable to conduct in-person interviews due to the COVID-19 pandemic. The interviews are being conducted online now to improve the situation. The issues for CSR activity implementation identified during the interviews to exchange opinions will be reflected in Toray Group's CSR promotion measures.
Toray Group communicates CSR information through a variety of internal publications (including the *People* and *Toray Management* magazines and an internal CSR newsletter) to help employees understand the necessity of implementing CSR in each workplace. In addition, the Group also strives to increase CSR awareness with an e-learning course covering the fundamentals of CSR, CSR webinars designed to promote understanding and awareness of global environmental issues, and other programs.

Click here for the main initiatives for CSR Guideline 6, “Communication” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Communication

# Communication with the Media

CSR Roadmap 2022
Main Initiatives (5)

## Number of news releases

■Reporting Scope
Toray Group

■Target in fiscal 2021
200

Result in fiscal 2021

**138**

Toray Industries, Inc. recognizes that public relations and corporate communication activities have a role in fulfilling responsibilities for information disclosure as well as influencing public opinion. Accordingly, the Company's Corporate Communications Department actively engages with a wide range of media organizations, linking the Company with the public. 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 2021, Toray Group issued 138 press releases and carried out 247 interviews in response to media requests.

**Related Information**

> Toray's Information Disclosure Principles

Click here for the main initiatives for CSR Guideline 6, "Communication" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Communication

# Communication with Local Communities

Toray Group creates various opportunities for communication with people who live near its business sites. Some examples include regular community meetings and inviting local residents to summer festivals held on company premises.
As in fiscal 2020 most usual events were also canceled in fiscal 2021 due to COVID-19, but Toray Group still worked actively to contribute to local communities by providing support during the pandemic and conducting activities online.

Volleyball clinic held online
(Toray Industries Aichi Plant)

Taking part in an online seminar for local elementary school students
(Toray International Singapore Pte.Ltd., Toray Asia Pte.Ltd. (Singapore))

Volunteering at a local vaccination center
(Toray Group Companies in Malaysia)

Donating to a local COVID-19 fund
(Toray Group Companies in Malaysia)

Donating sponsorship to local after-school tutoring program
(Toray Group Companies in Mexico)

CSR Activity Report (CSR Guideline Activity Reports)

# Contributing Solutions to Social Issues through Business Activities

**Leverage innovation to address global-scale environmental issues such as climate change and provide solutions for various social issues such as the need to improve the quality of medical care, the need to reduce the burden on medical staff, health maintenance and longevity, and personal safety, thereby helping to build a more sustainable world.**

## Basic Approach

Global environmental issues continue to escalate, marked by climate change, rising $CO_2$ concentrations, and population growth-induced water scarcity and resource depletion. The world population is approximately eight billion, a number that is expected to surpass 10 billion by 2050. Meanwhile, developed countries as well as many emerging countries are expected to face rapid population aging, as average lifespans increase and birthrates decline.
In the world of the 21st century, the most critical shared challenges are to resolve global-scale environmental issues and to provide healthcare that helps people lead healthy, independent lives, which involves delivering high-quality medical care that reduces the burden on both patients and medical staff.

As basic strategies of the Medium-Term Management Program, Project AP-G 2019, Toray Group has implemented the Green Innovation Business Expansion Project (Green Innovation Project) and the Life Innovation Business Expansion Project (Life Innovation Project) to expand business in growth sectors. These efforts are directed by the Global Environment Business Strategic Planning Department and the Life Innovation Business Strategic Planning Department, respectively. The progress on the projects has been followed up by company-wide management committees and other bodies. To strengthen the initiatives, in 2018, the Group established and announced the Toray Group Sustainability Vision to clearly outline the world as envisioned by the Toray Group in 2050, and also set KPIs to be achieved by 2030 as long-term targets. To help ensure the achievement of the Sustainability Vision, the Group is strongly promoting the Green Innovation Project and Life Innovation Project group-wide. These projects are led by the president of Toray Industries, under the Long-Term Corporate Vision, TORAY VISION 2030, and the Medium-Term Management Program, Project AP-G 2022, which were announced in May 2020.

In the Green Innovation Project, Toray Group works to achieve “a net-zero-emissions world, where greenhouse gas emissions are completely offset by absorption” (in other words, a net zero emissions, carbon-neutral world), “a world where resources are sustainably managed,” and “a world with a restored natural environment, with clean water and air for everyone,” as outlined in the Toray Group Sustainability Vision. Here are some specific examples of Toray initiatives under this vision. To accelerate efforts to fight climate change, the Group will expand aircraft and automobile applications for its advanced materials and help reduce $CO_2$ emissions by improving fuel efficiency through vehicle weight reduction. It will also work to help society transition to renewable energy by supplying materials for wind and hydrogen power applications. To enhance sustainable, recycling-oriented use of resources, the Group will promote initiatives for resource recycling and bio-technology. To help ensure safe water and air, it will proceed with initiatives in areas such as water treatment membranes and air filters.

With its Life Innovation Project, Toray Group seeks to build “a world with a restored natural environment, with clean water and air for everyone,” as well as “a world where everyone enjoys good health and hygiene,” as set out in the Toray Group Sustainability Vision.
In working toward “a world where everyone enjoys good health and hygiene”, the Group is focused on “contributing to better medical care and hygiene for people worldwide.” In order to accelerate this initiative, the Group has broadened Life Innovation beyond its conventional definition of products that support people’s health maintenance and longevity and improve the quality of medical care, to include products that support personal safety and help the elderly and home-care recipients to live more independent lives (improving activities of daily living [ADLs]).

## Structure

In April 2021, the Group established the Sustainability Committee to serve as a group-wide committee. Headed by the president, the committee is tasked with promoting efforts to achieve the Toray Group Sustainability Vision. Toward this end, the committee draws up the overall medium- and long-term roadmaps and action plans for achieving the Vision and deliberates on the yearly action plans for the three group-wide projects—the Green Innovation Project, the Life Innovation Project, and the Challenge 30 Project[1]—and manages the progress on KPIs for fiscal 2030. In addition, the committee further promotes these efforts by overseeing and managing implementation issues and the status of activities. The Sustainability Committee also collaborates with the CSR Committee, Risk Management Committee, Safety, Health and Environment Committee, and Technology Committee to address climate change-related issues for the entire Toray Group. Along with the creation of the Sustainability Committee in April 2021, a Climate Change Subcommittee was also set up to promote initiatives to combat climate change. In addition to Scopes 1 and 2 greenhouse gas emissions, it is also working to reduce emissions from raw materials, which account for the majority of Scope 3 emissions. The subcommittee discusses important policies and agenda items related to climate change, such as reducing the carbon footprint[2] of Toray products. Furthermore, with the function of developing and promoting group-wide strategies for the implementation of sustainable, recycling-oriented use of resources, a Circular Economy Subcommittee was created in April 2022 under the Sustainability Committee. As a result, the Group is accelerating its resource recycling efforts, including recycling and the conversion of key polymers to biomass-based polymers.
For more information on the Toray Group governance structure related to the issue of climate change, please refer to the Toray Group TCFD Report 2021.

1 The Challenge 30 Project aims to achieve a 30% reduction in greenhouse gas emissions and water usage per unit of revenue in production activities by fiscal 2030 (compared with fiscal 2013) by undertaking the following activities.
・Implement regular energy-conservation activities with stronger cooperation between sites in and outside Japan, and adopt successful case studies across the Group
・Shift to purchasing electricity instead of generating with coal-fired boilers, and increase the usage of biomass fuels
・Promote wastewater reuse, etc. with Toray Group’s water treatment technologies

2 Carbon footprint is the total greenhouse gas emissions emitted by all the processes of a product life cycle, from raw material procurement to disposal (calculated as $CO_2$ equivalent and reported with the product information)

## CSR Roadmap 2022 Targets

### CSR Roadmap goals

Help address social issues by developing innovative materials and new technologies, focusing on the fields of Green Innovation and Life Innovation

### Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| (1) Increase revenue from Green Innovation products | 7-❶ |
| (2) Increase revenue from Life Innovation products | 7-❷ |
| (3) Expand contribution to $CO_2$ reduction in the value chain[3] | 7-❸ |
| (4) Expand water filtration throughput contribution by Toray's water treatment membranes[4] | 7-❹ |
| (5) Conduct a wide variety of product research and technology development to help build a low-carbon, circular economy | - |
| (6) Contribute to the utilization of biomass in and recycling of plastic products, the spread of renewable energy and hydrogen, and the reuse of water resources | - |
| (7) Contribute to countermeasures to public health risks, including infectious diseases, by developing and upgrading materials and products for protective clothing and personal protective equipment, as well as materials to protect environmental hygiene including of air and water | - |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| 7-❶ Revenue of Green Innovation products (IFRS) | 1,000 billion yen (Fiscal 2022) | | | 832.2 billion yen |
| 7-❷ Revenue of Life Innovation products (IFRS) | 300.0 billion yen (Fiscal 2022) | | | 308.4 billion yen |
| 7-❸ Contribution to $CO_2$ reduction in value chain | 5.3 times compared to fiscal 2013 (Fiscal 2022) | | | 8.0 times compared to fiscal 2013 |
| 7-❹ Contribution of Toray water treatment products | 2.4 times compared to fiscal 2013 (Fiscal 2022) | | | 2.2 times compared to fiscal 2013 |

Reporting scope : Toray Group

3 Toray calculates the $CO_2$ 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).

4 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.

### Related Materiality for CSR

- Contributing to the solution of environmental issues through business activities
- Contributing to health maintenance and longevity through business activities
- Initiatives for managing water resources

Click here for a PDF summary of materiality-related CSR Roadmap 2022 main initiatives, KPIs and progress (PDF: 1.6MB). PDF

## Looking to the Future

In fiscal 2021, the Green Innovation Project generated revenue of 832.2 billion yen on a consolidated basis. This was a year-on-year increase of 120.4 billion yen, attributed to business recovery from the impact of COVID-19 pandemic. Although sales of carbon fiber for aircraft remained sluggish due to the continued impact of COVID-19, sales of carbon fiber for wind turbine blades and water treatment membranes were strong. On the other hand, the contribution to the reduction of $CO_2$ emissions from the use of Toray Group products throughout the value chain increased due to business expansion. The Group will continue to help address resource, energy, and global environmental issues through its businesses.

Worldwide issues such as climate change, water scarcity, and resource depletion will become more serious, inducing a transition to more sustainable modes of production and consumption. Initiatives will be implemented for moving to a circular economy where used products are recovered and regenerated to make new ones. This will enable a further transition from a mass production/mass consumption linear business scheme to business models such as PaaS (products as a service), sharing, product life extension, resource collection and recycling, and circulated supply chains. The Green Innovation Project will take advantage of this transition to create new business opportunities and development.

In fiscal 2021, the Life Innovation Project generated revenue of 308.4 billion yen on a consolidated basis, due to increased shipments of sports-related materials and non-woven fabrics for hygiene products. Moving forward, Toray Group will continue to leverage its strengths in advanced materials in Life Innovation fields, while accelerating activities in the Pharmaceuticals & Medical Products Business.

CSR Activity Report (CSR Guideline Activity Reports) - Contributing Solutions to Social Issues through Business Activities

# Green Innovation Business Expansion Project

CSR Roadmap 2022
Main Initiatives (1)(3)(4)(5)(6)

## Revenue of Green Innovation products（IFRS）

■Reporting scope
Toray Group

■Target
1,000 billion yen（Fiscal 2022）

Fiscal 2021 Result

**832.2**

**billion yen**

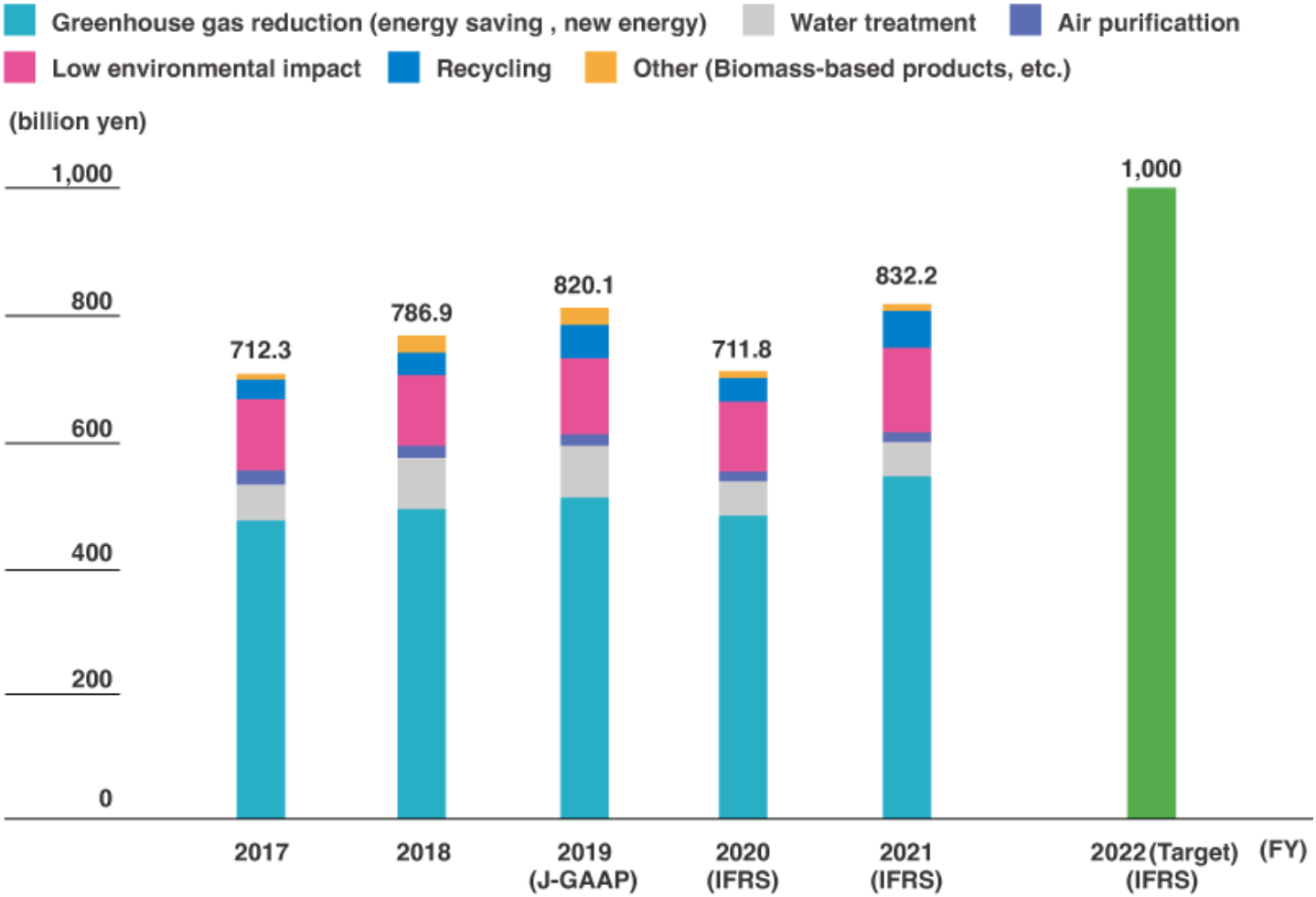
Toray Group embraces the thinking that all business strategies must prioritize responsibility for the global environment in an effort to help build a more sustainable world with a small carbon footprint. The Group is endeavoring to realize this vision by addressing global environmental, resource, and energy issues through the continued implementation of the Green Innovation Business Expansion Project.
Green Innovation businesses have steadily grown since the start in 2011, reaching consolidated revenue of 832.2 billion yen in fiscal 2021. In the Medium-Term Management Program, Project AP-G 2022, which started in fiscal 2020, Toray Group set a challenging target of 1,000 billion yen in revenue from Green Innovation businesses on a consolidated and International Financial Reporting Standards (IFRS) basis and aims to expand its environment-related businesses. The contribution to $CO_2$ emission reduction[1] and water filtration[2] from the use of Toray Group products has steadily increased as the business has expanded. In fiscal 2021, Toray Group products helped to reduce $CO_2$ emissions in the value chain by 306.22 million tons (8.0 times higher than in fiscal 2013) and added 61.00 million tons of water filtration (2.2 times higher than in fiscal 2013).

| | |
|---|---|
| **Contribution to $CO_2$ reduction1 in value chain in fiscal 2021** | **306.22 million tons-$CO_2$**<br>(8.0 times compared to fiscal 2013) |
| **Contribution of Toray water treatment products[2] in fiscal 2021** | **61.00 million tons**<br>(2.2 times compared to fiscal 2013) |

1 Toray calculates the $CO_2$ 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.

### Net Sales (Revenue) from Green Innovation Businesses (Toray Group)




Note: FY2020-21 performance and FY2022 target are revenue based on International Financial Reporting Standards (IFRS).

**Related Information**

> Toray Group's Green Innovation

Click here for the main initiatives for CSR Guideline 7, "Contributing Solutions to Social Issues through Business Activities" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Contributing Solutions to Social Issues through Business Activities

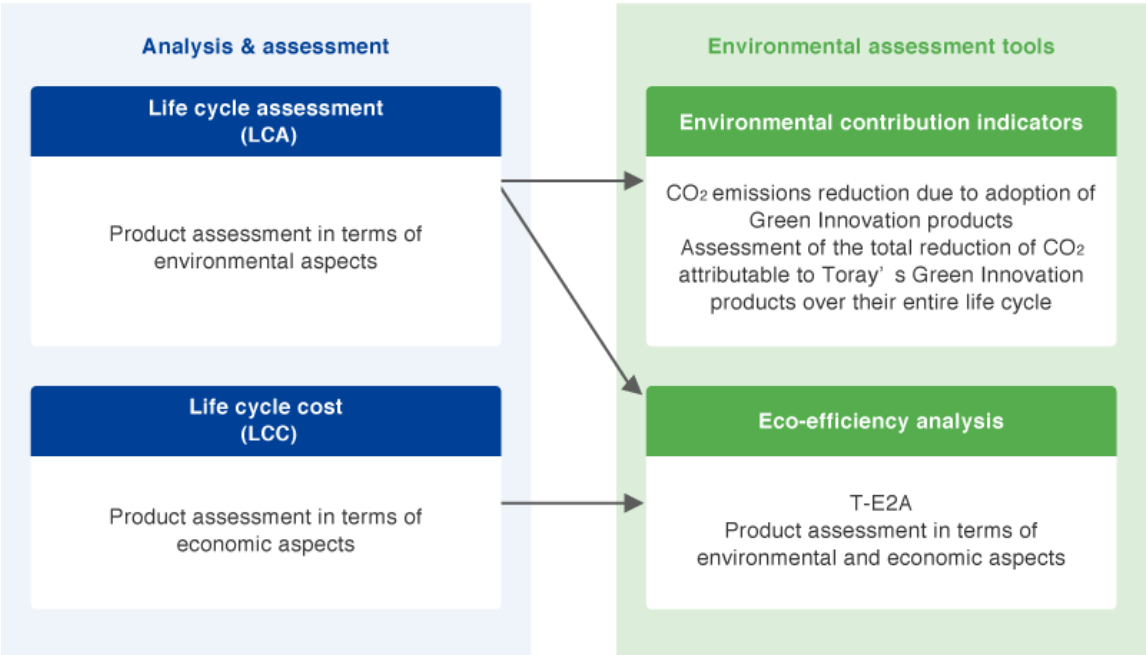
# Promoting Life Cycle Management

CSR Roadmap 2022
Main Initiatives (1)(3)(5)(6)

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. In this respect, Toray Group has been promoting life cycle management for some time. Life cycle management is the basis for Green Innovation products, and the Group has adopted life cycle assessment[1] and the Toray Eco-Efficiency Analysis (T-E2A)[2] tool and is working to ensure these are employed thoroughly in all of its businesses.
Toray Group also recognizes the importance of product life cycle assessment when it comes to addressing global issues such as reducing greenhouse gas emissions and achieving zero emissions. In an effort to become carbon neutral, the Group will further enhance its assessment implementation and the corresponding promotion system. Moreover, it will actively utilize and promote life cycle assessment in order to help realize a carbon neutral society.

1 Life cycle assessment is a method for quantitatively assessing the resources that have gone into a product and the impact the product will have on the environment and ecosystems over its life cycle.
2 T-E2A is an environmental analysis tool developed by Toray Industries, Inc. 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.

### Toray Industries' Life Cycle Management Approach




Click here for the main initiatives for CSR Guideline 7, “Contributing Solutions to Social Issues through Business Activities” in CSR Roadmap 2022.

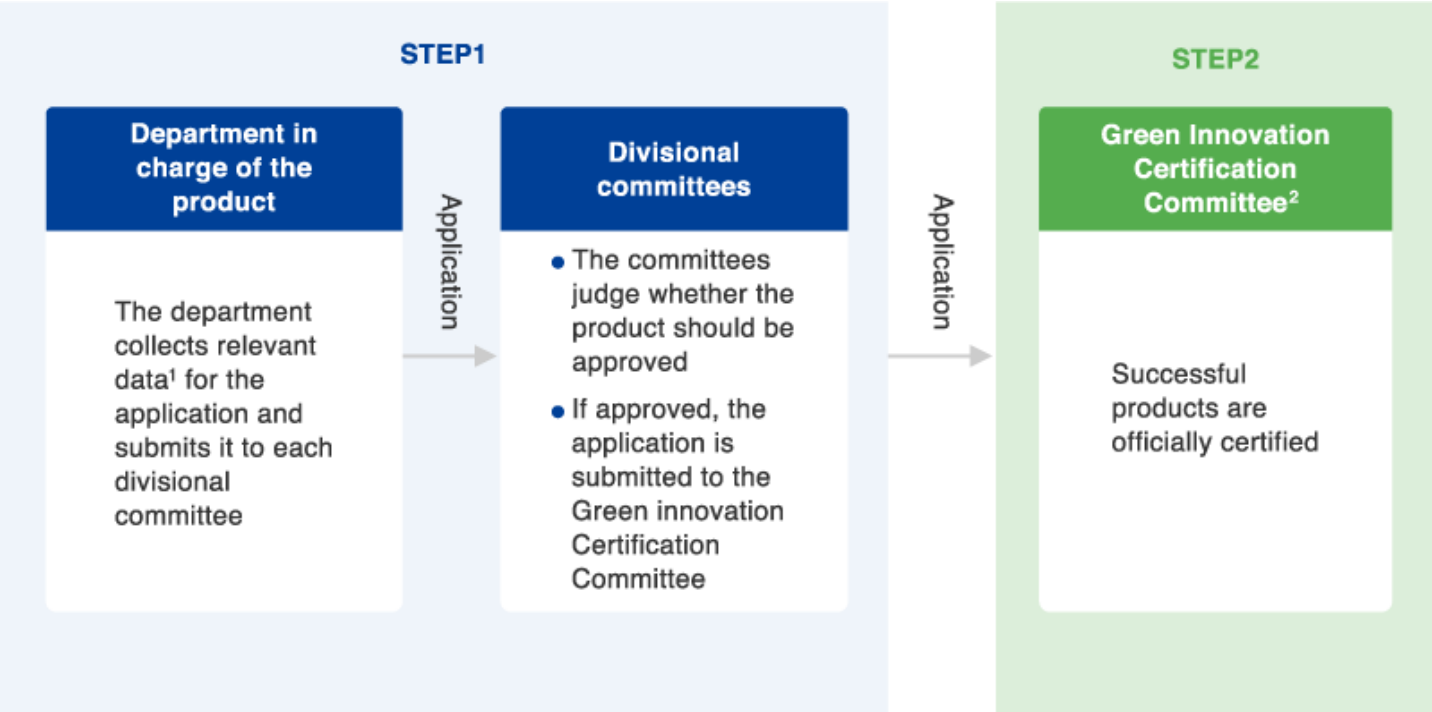
CSR Activity Report (CSR Guideline Activity Reports) - Contributing Solutions to Social Issues through Business Activities

# Approach to Green Innovation Products

CSR Roadmap 2022
Main Initiatives (1)(3)(4)(5)(6)

The following diagram outlines Toray Group's process and procedures for certifying Green Innovation products. Products are subjected to a two-stage screening process conducted by the divisional committees and by the group-wide Green Innovation Certification Committee. Those able to demonstrate objective evidence of providing an effective solution for global environmental issues are certified as Green Innovation products.

### Green Innovation Product Certification Process




1 This includes LCA data, T-E2A data, and estimates of $CO_2$ emissions reduction attributable to the product.
2 Comprised of members of Toray Industries' Global Environment Business Strategic Planning Department, Corporate Marketing Planning Department, and Technology Center Planning Department, as well as experts when necessary.

# Green Innovation-Related Products and R&D Announced in Fiscal 2021

CSR Roadmap 2022
Main Initiatives (1)(3)(4)(5)(6)

## Launch of New Nylon Fiber Made From Plants
## 100% Plant-based Nylon Fiber Ecodear™ N510

Toray Industries has developed a new fiber, Nylon 510 (N510), made entirely with polymer raw material obtained from plants. It has been released as Ecodear™ N510[3] and is the newest in the lineup of biomass-based polymer materials and products under the Ecodear™ brand. The Company has created diverse potential applications for Ecodear™ N510 as a sustainable offering for high-end markets worldwide. While primarily for sports and outdoor fabrics they extend to lightweights, cut-and-sew fabrics through innerwear lace materials. Toray Industries already offers partially plant-based polyester, nylon, and other polymers. However, this is the first 100% plant-based[4] nylon fiber to be put on the market. Unlike other wholly plant-based nylons, Ecodear™ N510 has practical features like a high melting point and outstanding dimensional stability. Moreover, because it is as strong and heat-resistant as Nylon 6, companies can use it to create products that are sustainable and offer the same performance as products made from conventional petroleum-based nylon.
Going forward, Toray is focused on combining various proprietary technologies to drive further fiber advances. These would include making fibers thinner and lighter or adding functionality by changing cross-sectional shapes. In this way, the Company will develop an array of apparel and other materials applications. By providing innovative technologies and advanced materials, Toray will keep serving increasingly diverse lifestyles while contributing to affluent living and sustainability.

3 100% plant-based nylon fiber made using Sebacic acid from castor-oil plants, and Pentamethylenediamine from corn.
4 ISO16620-1 3.1.5 bio-based synthetic polymer content (percentage of content derived from plants) is 100%.

> SPORTS FABRICS (product site)

Textile

Sewn Product

Brand Logo

**TORAY Commercializes “IMPRIMA™FR” as New Waterless Offset Printing Plate for Flexible Packaging**

Retort pouch printed using IMPRIMA™FR

Gravure and flexographic processes predominate in the printing of flexible packaging materials.
A drawback is that these setups consume a lot of printing ink containing organic solvents. This results in energy consumption and $CO_2$ emissions when thermally drying these solvents and treating waste gas. There has therefore been a shift toward the adoption of offset printing, which is free of organic solvents and employs printing inks that are cured with electron beam or ultraviolet processes, which consume less energy.
IMPRIMA™ is the brand name for the Toray Waterless Plate™, which does not use water containing volatile organic solvents for dampening during the printing process and does not discharge alkaline processing liquid waste during plate making. More than 1,500 printing companies in 50 countries have adopted this Toray product in recognition of its eco-friendly performance. Released in October 2021, the IMPRIMA™FR waterless printing plate for flexible packaging materials delivers high resolution and beautiful gradations in printing by leveraging Toray’s proprietary nano-structure and interface control technologies.
It also lowers printing costs because this printing plate costs less than those for conventional flexible packaging printing processes.
To assess the environmental impact, Toray produced estimates based on Product Category Rule PA-BC-02, the Japan Federation of Printing Industries’ calculation standard for plastic containers and packaging. The estimates confirmed that using the IMPRIMA™FR waterless printing plate with electron beam offset printing for flexible packaging printing can reduce $CO_2$ emissions by up to one fifth compared to gravure printing and by up to one third compared to flexographic printing.
This product should significantly reduce $CO_2$ emissions and contribute to carbon neutrality in the growing flexible packaging materials market, while helping to improve printing quality and lower printing costs.

> Waterless printing plates (product site)

### Toray's Hydrocarbon Electrolyte Membrane Contributes to Reducing Green Hydrogen Cost

Hydrocarbon electrolyte membrane

Komekurayama P2G system

As part of its efforts to help realize a carbon-neutral society, Toray Industries has been developing and demonstrating Japan's first megawatt-class, polymer electrolyte membrane (PEM) type water electrolysis technology. Since 2016, in collaboration with Yamanashi Prefecture and Tokyo Electric Power Company Holdings, Inc., Toray has been demonstrating a P2G (power-to-gas) system that produces hydrogen from photovoltaic power in Komekurayama, Kofu City, Yamanashi Prefecture.

The project has shown that by using the hydrocarbon-based electrolyte membrane developed by Toray, it is possible to produce twice as much hydrogen per unit of membrane area as with conventional fluorine membranes, at the same voltage. It is expected that this drastic improvement in the efficiency of water electrolysis will greatly reduce green hydrogen[5] costs in the future.

In June 2021, the project began supplying green hydrogen made using renewable energy to semiconductor factories and supermarkets in Yamanashi Prefecture, ahead of the rest of Japan.

In addition, based on a Green Innovation Fund Project, supported by Japan's New Energy and Industrial Technology Development Organization (NEDO) and jointly adopted by eight parties concerned in August 2021, Toray plans to help build one of the largest PEM-type water electrolyzers in Japan to produce green hydrogen that could decarbonize factory heating demand.With its proprietary hydrocarbon-based electrolyte membrane technology, Toray will continue to improve the performance of water electrolyzers. Its aim is to help build a carbon-neutral world by lowering the cost of hydrogen to the current fossil fuel level, and to help build a global green-hydrogen supply chain.

In recognition of these efforts, Toray Industries received the Japan Business Federation Chairman's Award at the 30th Global Environment Awards[6] sponsored by the Fujisankei Communications Group.

5 Hydrogen produced by electrolyzing water using electricity generated from renewable energy sources. Because it is produced this way without emitting $CO_2$, it is classified as green hydrogen.

6 The Global Environment Awards were established in 1992 with the aim of "industry coexisting with the global environment." As a way to recognize environmental excellence that brings together companies, government, and citizens, the program has involved special participation by the World Wide Fund for Nature Japan (WWF Japan; Honorary President, Crown Prince Akishino).

Click here for the main initiatives for CSR Guideline 7, “Contributing Solutions to Social Issues through Business Activities” in CSR Roadmap 2022.

**CSR Activity Report (CSR Guideline Activity Reports) - Contributing Solutions to Social Issues through Business Activities**

# Realizing a Circular Economy

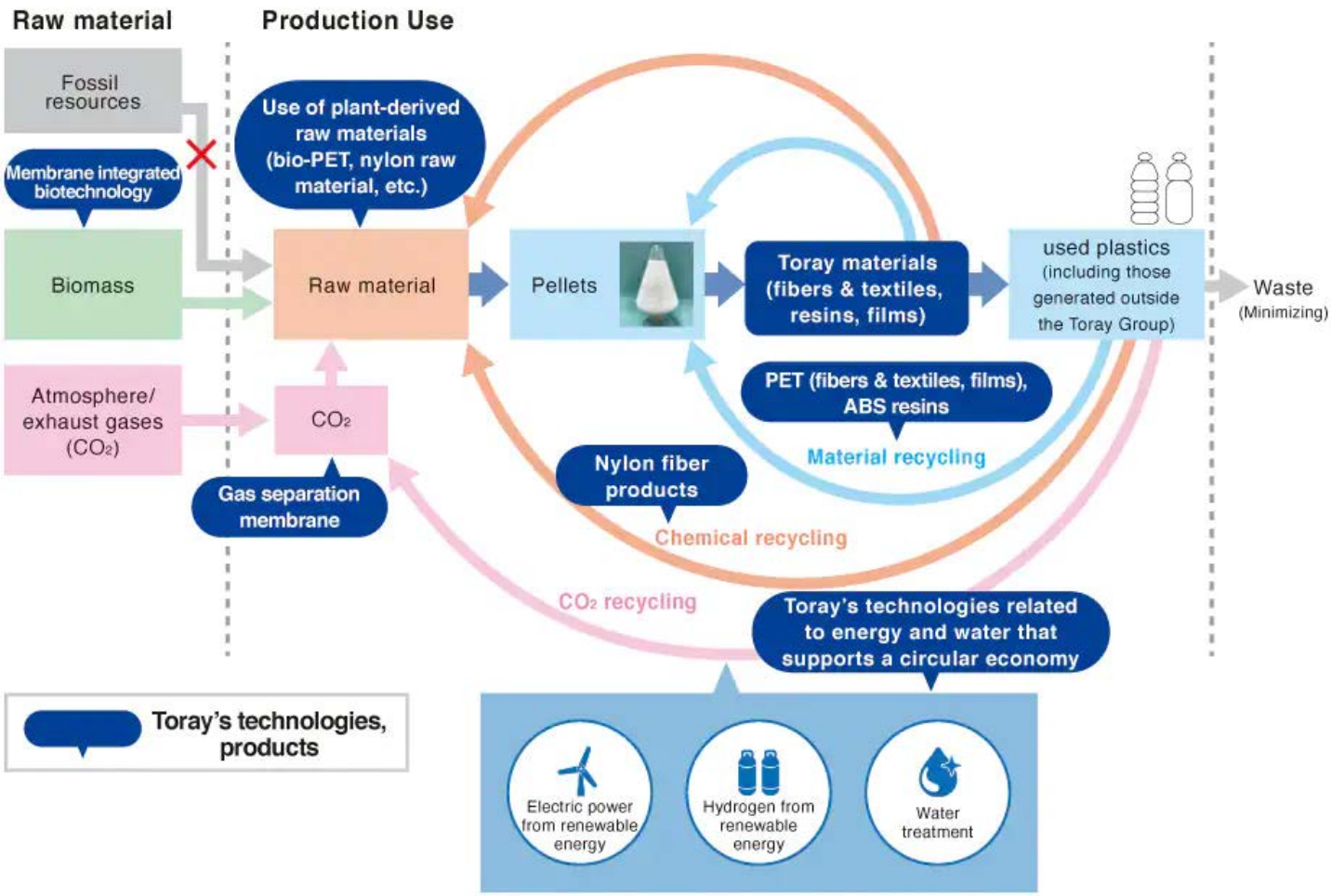
CSR Roadmap 2022
Main Initiatives (1)(3)(5)(6)

As a manufacturer of a wide range of materials, Toray Group has been promoting various recycling initiatives to ensure that the earth's resources are efficiently utilized.

In the Toray Group Sustainability Vision, the Group outlines “a world where resources are sustainably managed,” as one of the perspectives of the world as envisioned in 2050. Conventional societies face a variety of problems, including the depletion of resources, marine pollution caused by large amounts of waste, and $CO_2$ emissions. In order to solve these problems and realize a sustainable, circular economy that makes effective use of resources, the Group facilitates recycling of plastic products, switching to biomass for raw material, adopting renewable energy and hydrogen, and reusing water, across its various technologies.

In its Medium-Term Management Program, Project AP-G 2022, Toray Group has identified realizing a circular economy as a key issue. An initiative example in this area is material recycling[1], which enables the reuse of products such as fibers/textiles, resins, and films. In addition, chemical recycling,[2] which converts unrecyclable products back into basic chemicals such as monomers and gases, is already implemented for nylon fiber/textile products.

Toray Group is also working to develop materials that use bio-based instead of fossil resources, and membrane-integrated bioprocess technology, which efficiently produces these raw materials. Moreover, the Group is promoting carbon recycling, the use of $CO_2$ as a resource with our gas separation membranes. Toray technology is also used in the materials for the wind turbine blades and hydrogen production equipment that utilize renewable energy sources to generate electricity and hydrogen used in manufacturing processes, as well as in the water treatment membranes for the reuse of wastewater.




1 Material recycling is a recycling process that uses heat to convert used plastic bottles and remnants produced during manufacturing processes into yarn, staple fiber, and other materials.

2 Chemical recycling is a recycling process that breaks down through depolymerization used products and remnants produced during manufacturing processes into monomers that are manufactured back into chips and then recycled into yarn, staple fiber and other materials.

**Related Information**

For more information on Toray Group waste reduction, chemical substance management, energy conservation, and climate change measures, please visit the website below.

> Safety, Accident Prevention, and Environmental Preservation

**Recycling Activity Principles** Established in March 2004

1. We shall design, produce, and sell products that reduce our impact on the environment.
2. We shall purchase and use materials and products which will help reduce our impact on the environment.
3. We shall disclose information related to recycling programs and recycled goods.
4. We shall voluntarily cooperate with customers to recycle or otherwise appropriately dispose of our products.

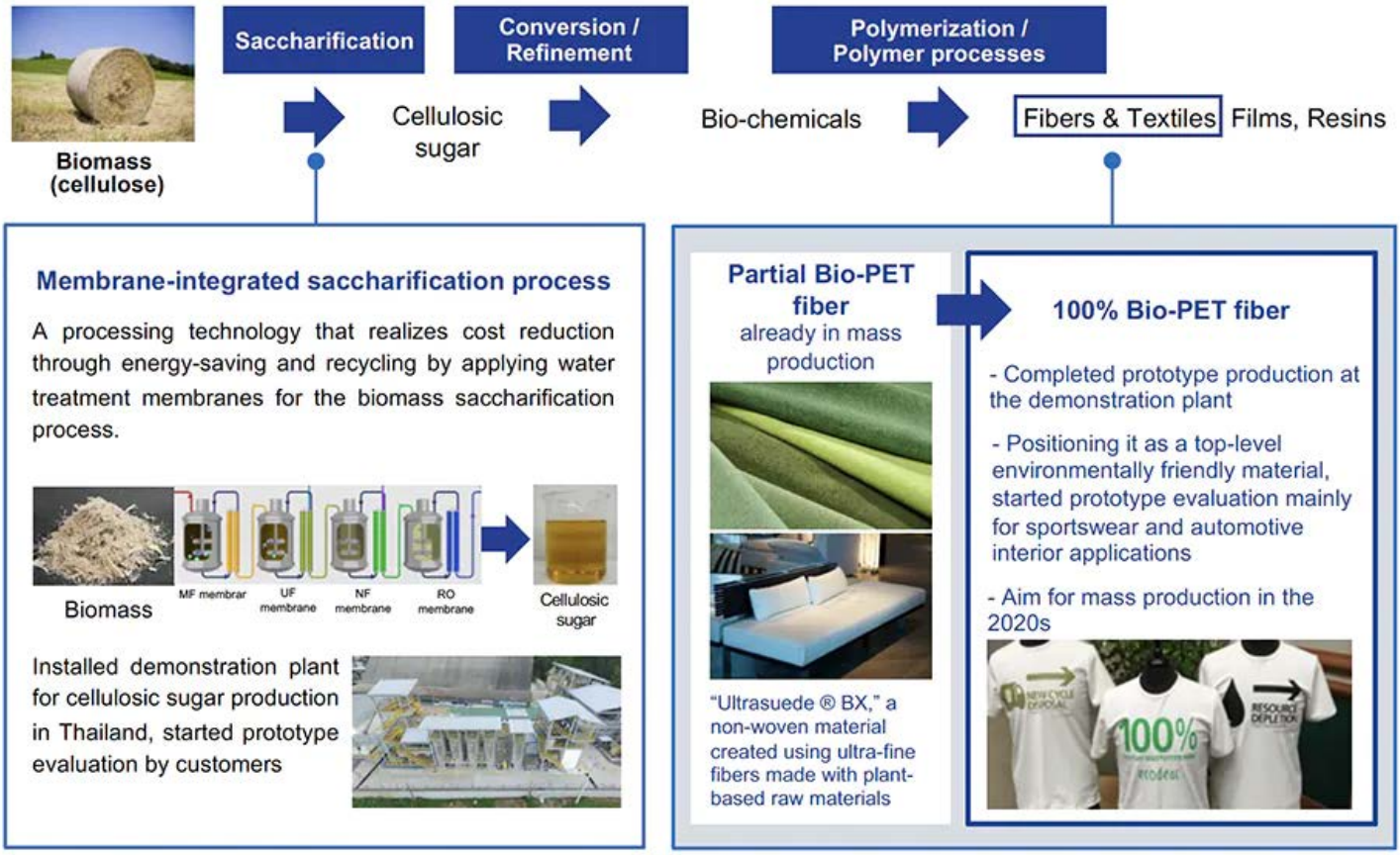
## Biomaterials Business

CSR Roadmap 2022
Main Initiatives (1)(3)(5)(6)

Toray Group is developing biomass-based materials made from plant-based raw materials instead of fossil raw materials. For example, Toray Group mass produces partially bio-based polyethylene terephthalate (PET) fibers that are made from plant-based ethylene glycol, which is also used to make Ultrasuede™ PX ultra-microfiber non-woven fabric with suede texture. Toray Group is also prototyping a 100% bio-based PET fiber and developing membrane-integrated bioprocesses. The Group has recently developed and launched Ecodear™ N510, a nylon fiber made from 100% plant-based raw materials.

### 100% Bio-Based PET Fiber, Membrane-Integrated Bioprocesses

Toray Group is promoting a 100% bio-based PET material made from plant-based ethylene glycol and bio-para-xylene produced at its pilot plant, as its flagship environmentally conscious products. Toray Group seeks to launch mass production of these materials for sportswear and automotive interior applications in the early 2020s.
Toray Group is also developing a membrane-integrated bioprocess to enable bio-based raw materials to be manufactured with greater efficiency. This membrane-integrated bioprocess combines membrane separation technology and biotechnology to create new applications for water treatment membranes in processes such as saccharification, fermentation, and purification. The technology significantly improves the manufacturing of raw sugar from non-edible biomass and increases fermentation efficiency, thereby contributing to realizing a non-fossil raw material. Toray Group is currently operating a technology demonstration project for a saccharification process that produces sugars from nonedible biomass. Toray Group will work to commercialize the technology, in order to build a supply chain that produces materials and chemicals from non-edible biomass.



## Promoting Recycling

CSR Roadmap 2022
Main Initiatives (1)(3)(5)(6)

At Toray Group, Ecouse™ is the unified brand for its recycled materials and products across a wide range of business segments including fibers & textiles, plastics, and films. These products include fibers made by recovering and recycling discarded PET bottles and scrap ends generated from manufacturing processes, recycled resin made from scrap ends generated during manufacturing and collected used products, as well as films made by recovering and recycling films that have been used in customer processes.
In the fiber/textile segment, Toray Group offers the CYCLEAD™ reclaiming system for the recovery and circulation of used fibers. In 2019, Toray Group introduced the &+™ ("And plus") brand of recycled fibers that include Toray's original traceability function. These fibers are made from discarded PET bottles and use filtering and cleaning technologies to remove foreign matter, resulting in a fiber with high whiteness that can be made into a wide variety of products.
Finally, Toray promotes efforts that involve developing unique material recycling systems to, for example, recover and recycle used fibers, resin, and film.

## Fiber and Textile Recycling

CSR Roadmap 2022
Main Initiatives (1)(3)(5)(6)

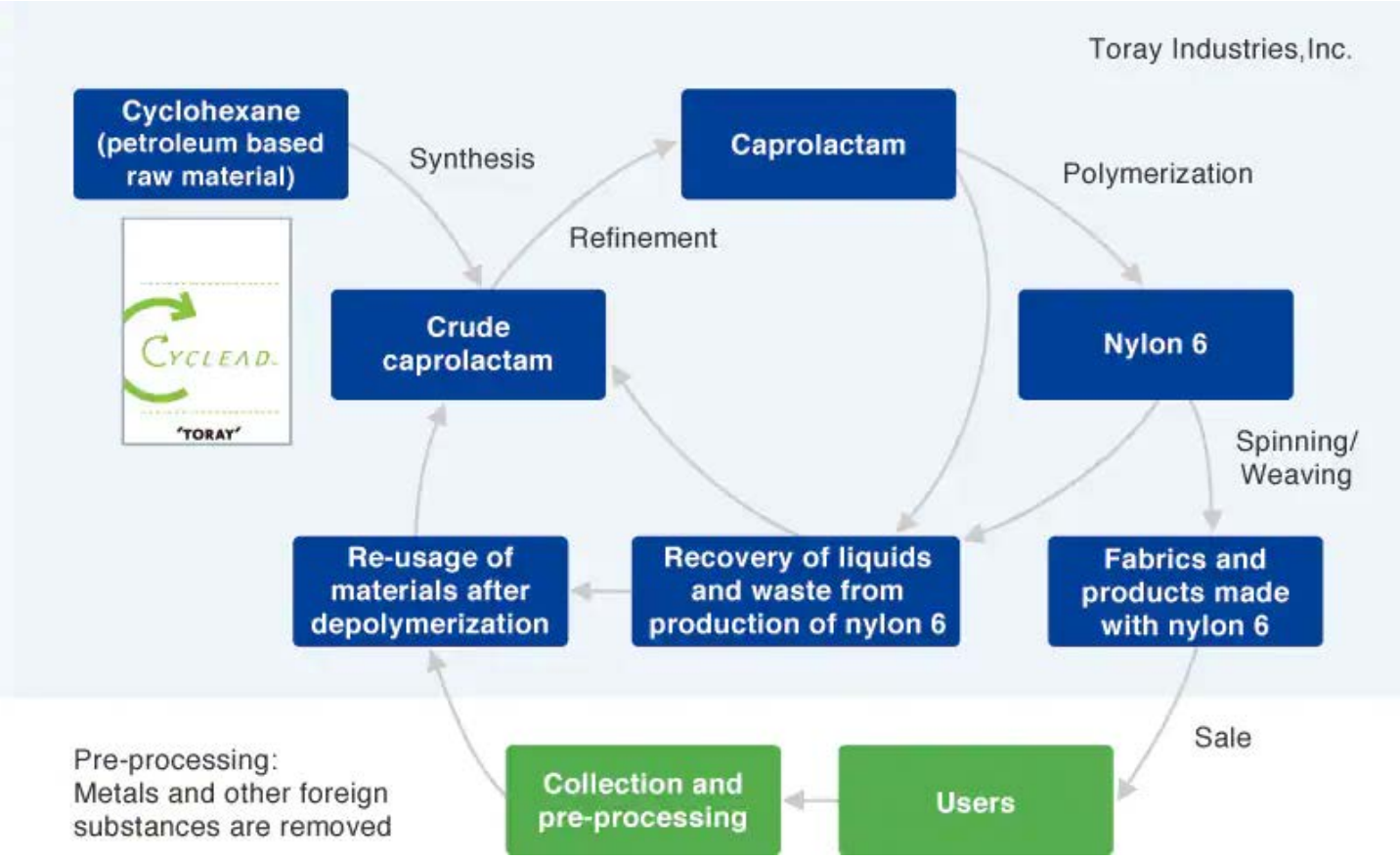
### Recycled Materials ECOUSE™

ECOUSE™ is a textile mainly for corporate uniforms, made from reusing byproducts such as film and thread scraps from internal manufacturing processes.

> ECOUSE™ recycled polyester fiber (product site)

**Collection and Circulation Type Recycling with CYCLEAD™**

**Brand of textiles made from reclaimed nylon and other products**

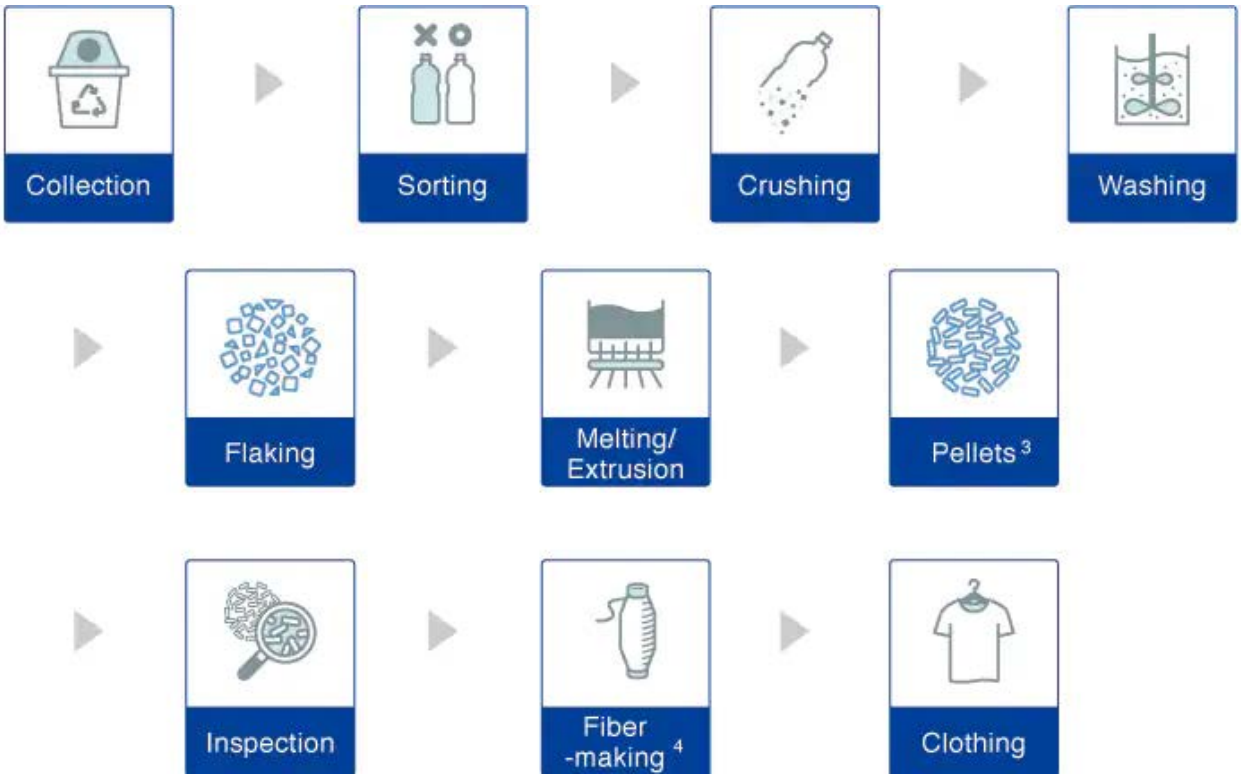



**&+™ Fiber Brand Made from Recycled Plastic Bottles**

Previously, plastic bottle derived-fibers were limited in variety due to contaminants mixed into raw materials, which made it difficult to produce special cross-sections and fine fibers, as well as issues posed by fiber whiteness being impaired by yellowing from plastic bottle degradation. In response, Toray together with Kyoei Industry Co., Ltd. developed contaminant filtering technology and advanced plastic bottle cleaning techniques to stabilize the supply of raw materials that are impurity-free. Combining these technologies with Toray's fiber production technology, it is possible to achieve diverse fabric applications with a degree of whiteness equivalent to fibers materials made directly from fossil resources. Moreover, Toray has commercialized its highly reliable polyester fiber under the &+™ brand by incorporating its proprietary traceability technology that can detect special additives premised in with plastic bottle-based raw materials. In January 2020, Toray Industries began full-scale sales of &+™ brand products. Going forward, the goal is to expand the scale of the brand by utilizing a diverse supply chain that includes textiles and sewn products, as well as fibers, and involves production sites around the world.

> &+™ (product site)

## &+™ Process Diagram




3 &+™ raw pellets have better whiteness than typical recycled plastic pellets due to Toray's cleaning and filtering technologies.
4 &+™ fiber has a high degree of whiteness and can be made in a wide variety of textiles. It is therefore used in a wide range of clothing including fashion garments and sportswear, by meeting diverse needs for functionality, texture, and color variation. Clean PET bottles that have been properly sorted are transformed using various recycling processes into high-quality &+™ PET fiber.

### Promoting Recycling with UNIQLO

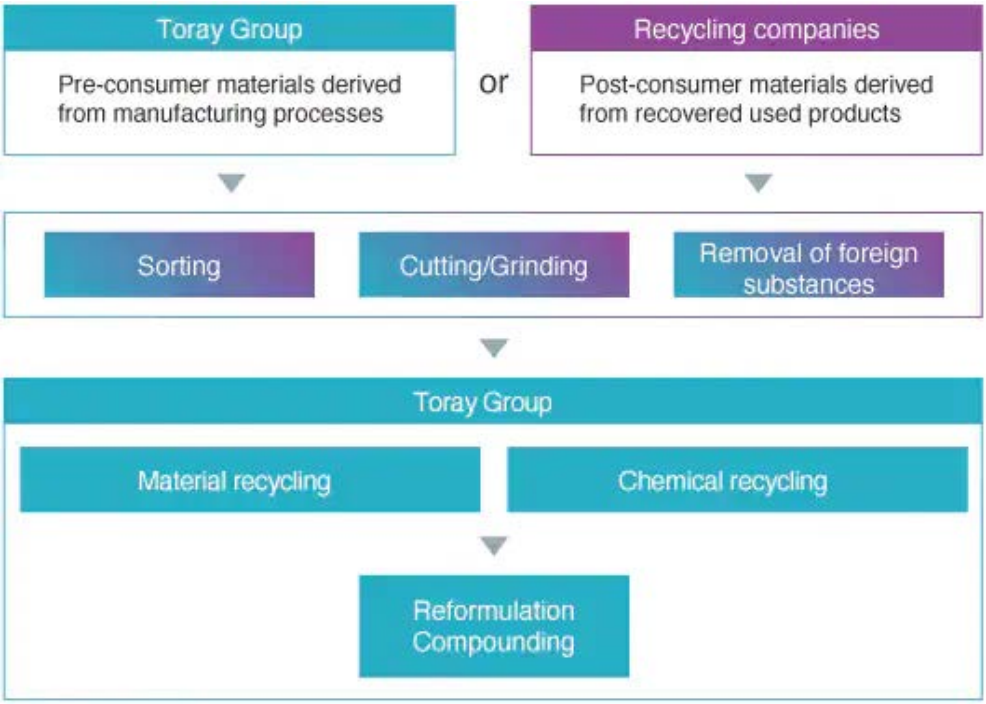
Together with UNIQLO, Toray is promoting new initiatives for sustainable products, with Toray supplying fibers made from recycled plastic bottles for UNIQLO's quick-drying wear DRY-EX brand polo shirts starting in 2020.
In addition, UNIQLO stores are collecting used down items from customers to recycle the feathers. Conventionally, the stuffing in duvets and other objects incorporating down is manually removed. Such processes are arduous with Ultra Light Down items because of their thin outer fabric and complex construction. By developing special extraction machinery, Toray has fully automated cutting, stirring and separating, and recovery, for 50-fold the process capacity of manual processes, thus greatly alleviating workloads. Toray and UNIQLO are jointly developing new recycling-based down products from recycled feathers.

# Resin Recycling

CSR Roadmap 2022
Main Initiatives (1)(3)(5)(6)

### Expanding Recycled Grade Products by Recycling Pre-Consumer and Post-Consumer Materials

Toray Group is developing recycled grade products based on a proprietary formulation design that actively engages in both pre-consumer recycling, utilizing such byproducts as film and fiber scraps from manufacturing processes, and post-consumer recycling, utilizing used materials collected from users.
The Group also produces chemically recycled PBT grades made by depolymerizing scraps and then re-polymerizing them back into PBT. Toray will continue to meet customer needs for recycled resin by sourcing materials from diverse sources in and outside the Group.



**Recycling Post-Consumer Materials and Practicing Closed Loop Recycling with Customers: Horizontal Recycling of Air-Conditioner Components**

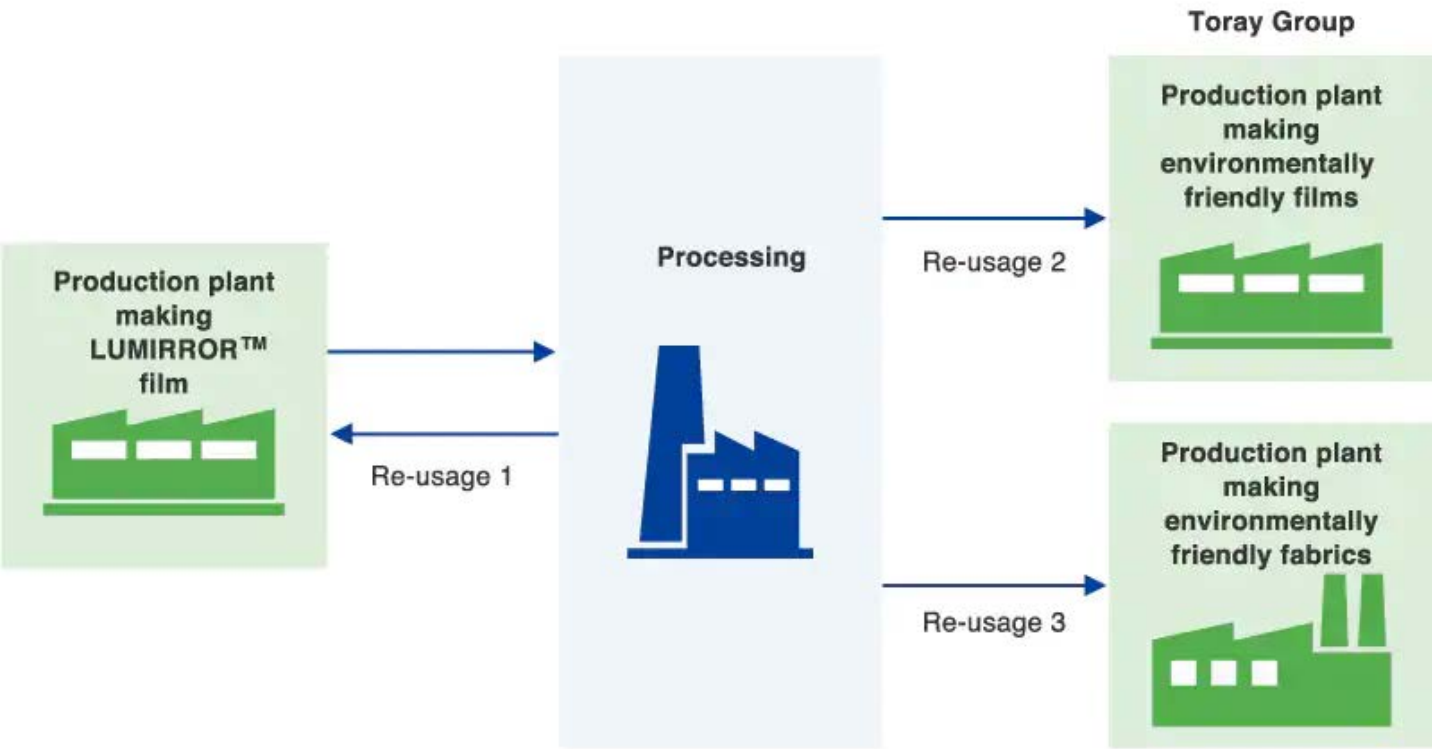
For post-consumer recycling, the Group is working with customers to establish a material recycling system for reusing fans from indoor air conditioners collected under the Home Appliances Recycling Law as new fans.
Fans installed in indoor air conditioners use glass fiber-reinforced acrylonitrile-styrene resins, and Toray's unique collection and foreign substance removal system and materials blending method solve such problems as contamination and glass breakage during recycling as well as realize physical properties nearly equivalent to virgin materials.
The Group is currently looking at ways to work with customers to recycle in other sectors, as well.

## Film Recycling

CSR Roadmap 2022
Main Initiatives (1)(3)(5)(6)

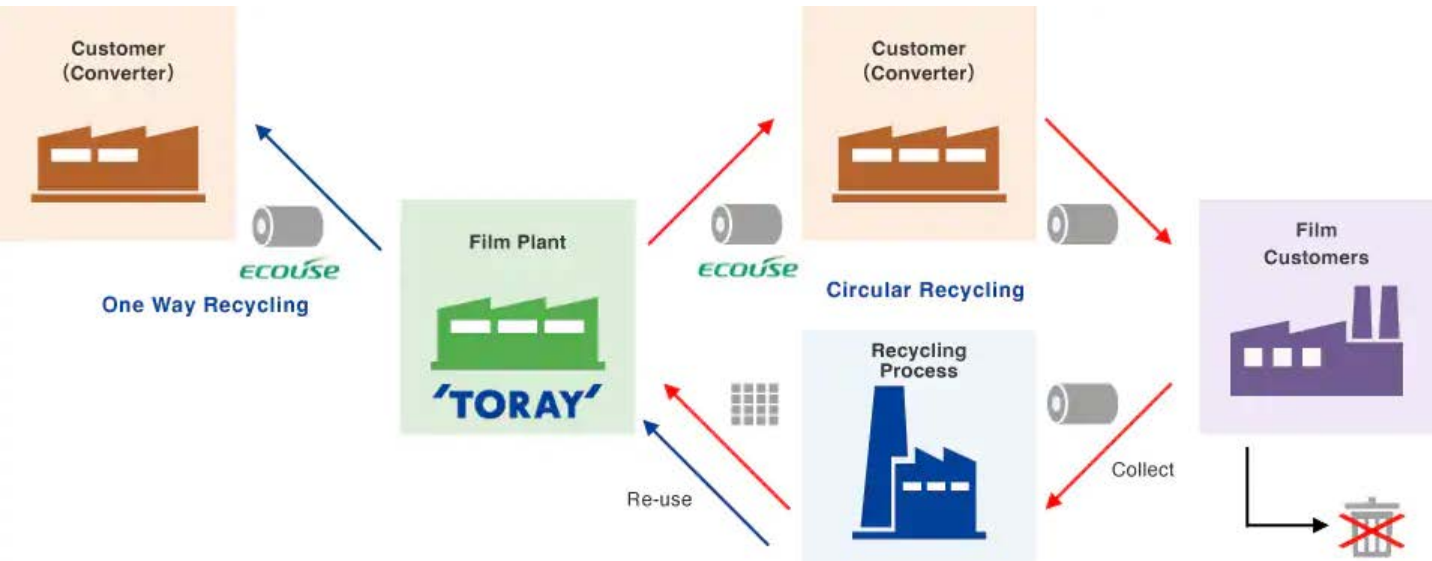
Toray Industries is promoting pre-consumer recycling, using byproducts from the PET film LUMIRROR™ manufacturing process in textile and resin applications, as well as for environmentally friendly film. In addition, the Company operates a recycling system for collecting waste PET film from customer manufacturing processes to be recycled and reused as raw material for film.

### Processing and Re-using Recovered Raw Materials Generated from Manufacturing Processes




### Reusing waste PET film from customer manufacturing processes

Toray Industries has established a recycling system to collect used films from electronic component applications and recover them for use in producing eco-friendly films, launching the Ecouse™ series, which helps to build a sustainable economy. The company combined mechanical recycling process technology, which removes coating materials and resins from film surfaces, with foreign matter removal techniques for each manufacturing process to enable reuse of the recovered materials in films without impairing mechanical characteristics or reliability. The Ecouse™ series of eco-friendly PET films has reduced the amount of fossil-based resin used as a raw material, and can therefore lower $CO_2$ emissions by up to 50% compared to conventional films. The Company will continue to make use of this system to help build a circular economy.



## Carbon Fiber Recycling

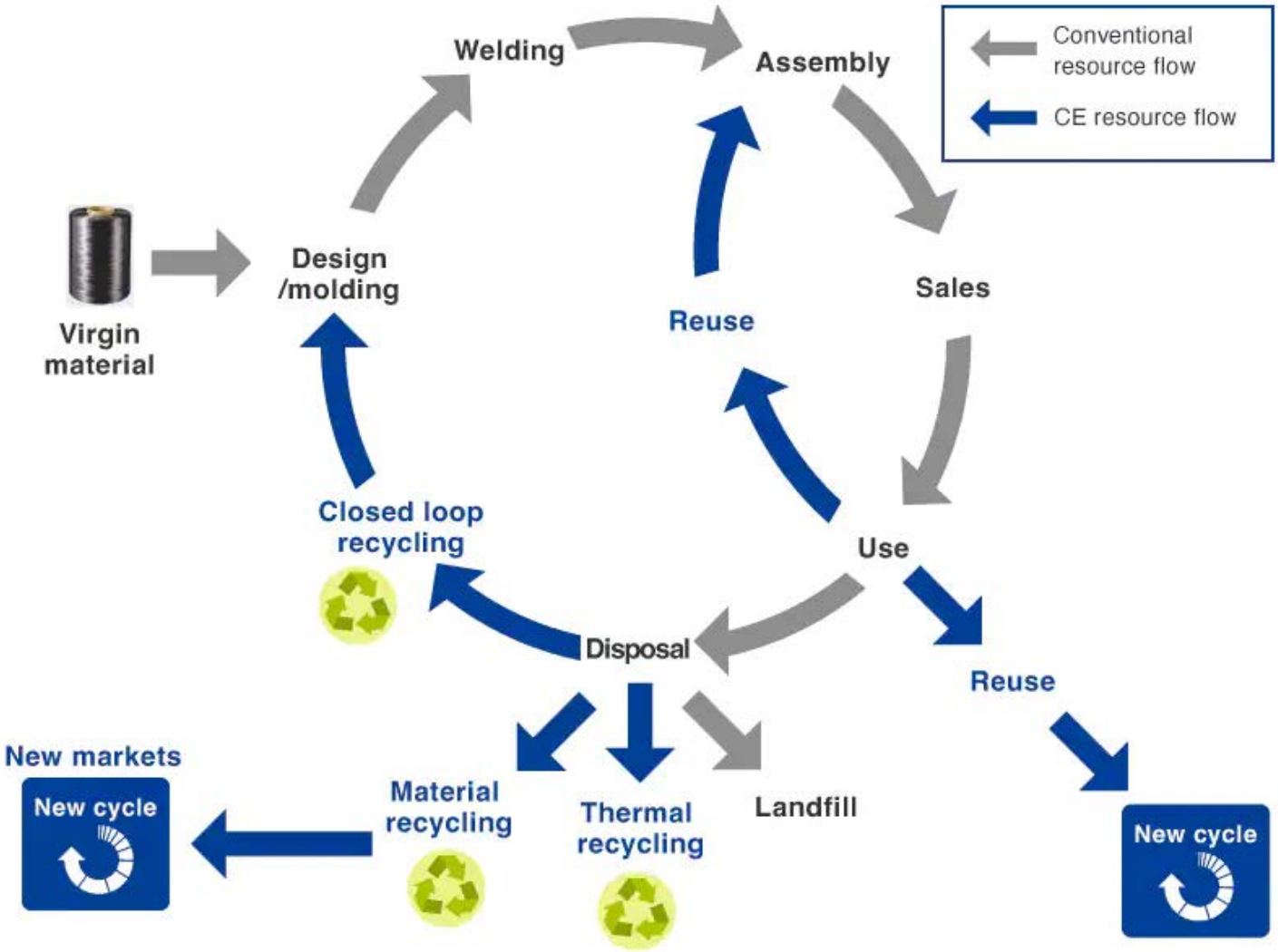
CSR Roadmap 2022
Main Initiatives (1)(3)(5)(6)

Due to its excellent mechanical properties, carbon fiber allows products to be lighter and last longer. Therefore, it is a material that significantly curbs $CO_2$ emissions over the entire lifecycle of the products, including their operation, contributing to solutions for global environmental issues. In particular, the use of carbon fiber in environmental products such as large wind turbines, aircraft, and hydrogen tanks significantly reduces $CO_2$ emissions during their operation. As demand grows, market expectations for the development of carbon fiber recycling technologies are also on the rise.

The successful development of recycled carbon fiber and associated applications requires collaboration with a wide range of customers to explore various possibilities for use in specific parts and materials. Toray Industries collaborated with Toyota Tsusho Corporation in a program of the New Energy and Industrial Technology Development Organization (NEDO) for the development of a highly efficient recycled carbon fiber manufacturing technology that uses an innovative and energy-efficient thermal decomposition method,[5] and completed the project in 2017. This new technology uses combustible gas from matrix resin as the energy source for the thermal decomposition process, which is the process that consumes the most energy in this type of carbon fiber recycling. As a result, the companies have significantly reduced the amount of energy consumed in the recycling process. As a result, the companies have significantly reduced energy consumption and $CO_2$ emissions in the recycling process to less than one-tenth of the energy consumption and $CO_2$ emissions of virgin carbon fiber production. With an eye towards future commercialization, Toray Industries constructed and began to operate a pilot plant to test energy-efficient recycled carbon fiber manufacturing technologies. In addition, Toray Group will work with its customers to promote the development of new applications for recycled carbon fiber.

Through these efforts, the Group aims to establish a circular flow of carbon fiber that will help drive a circular economy. (See chart below.)

## Establishing a Circular Economy (CE) That Uses Recycled Carbon Fiber




5 Thermal decomposition method: A recycling method in which carbon fiber is recovered by heating carbon fiber composite materials and thermally decomposing the matrix resins.

Click here for the main initiatives for CSR Guideline 7, “Contributing Solutions to Social Issues through Business Activities” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Contributing Solutions to Social Issues through Business Activities

# Life Innovation Business Expansion Project

CSR Roadmap 2022
Main Initiatives (2)

## Revenue of Life Innovation products (IFRS)

■Reporting scope
Toray Group

■Target
300.0 billion yen（Fiscal 2022）

Fiscal 2021 Result

**308.4**

**billion yen**

In the field of health and medical care, the world has entered a period of historic change. The threats posed by the COVID-19 pandemic have been added to the existing challenges of declining birthrates and aging populations in developed countries, soaring social security costs, and global healthcare disparities. Toray Group's life science business helps to support health and medical care, especially through polymer material research, which Toray Group has pursued since its establishment.

The Life Innovation Business Expansion Project started in fiscal 2014 with the launch of the Medium-Term Management Program, Project AP-G 2016. Life Innovation is a group-wide project aimed at improving health by making the most of Toray Group's advanced materials, core and elemental technologies, and business platforms. The project focuses on businesses that can improve the quality of medical care, reduce the burden on medical staff, and support people's health maintenance and longevity. Under the Medium-Term Management Program, Project AP-G 2022, which was initiated in fiscal 2020, Toray Group has been adding businesses related to personal safety products, including ones that help protect people from infectious diseases, extreme weather (heat waves, etc.), disasters, and accidents, and strengthening group-wide initiatives related to these businesses.

### Product Definitions and Guidelines

**Improving the quality of medical care and reducing burden on medical staff**

- Products used in medical treatment, products used in medical testing and diagnosis, supplies/products used in medical institutions

**Supporting a society where people everywhere can live long, healthy lives**

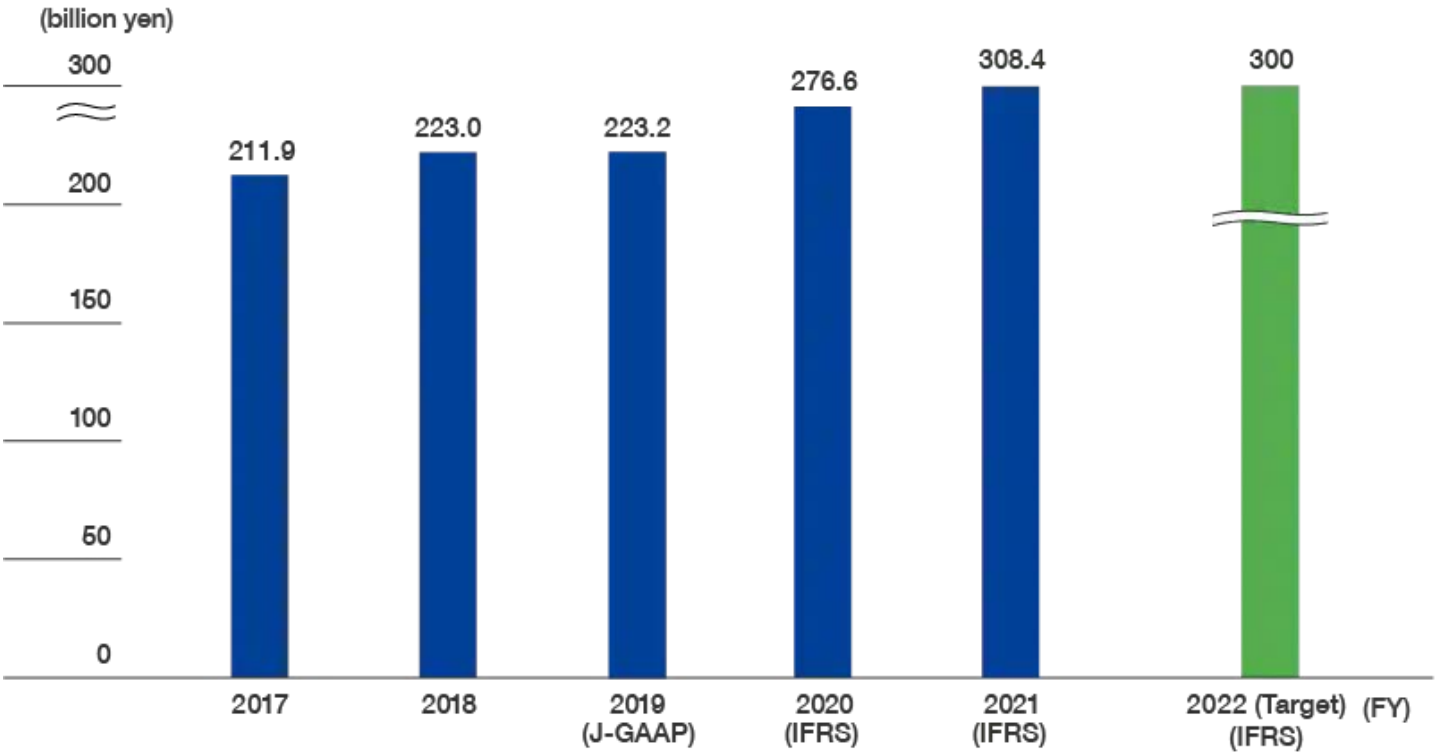
- Maintaining wellness, health, and independent living, improving activities of daily living (ADLs) for the elderly and home-care recipients, reducing the burden on care givers (nursing staff and families), and addressing public health issues

**Supporting personal safety**

- Leveraging materials to protect people from disasters, extreme weather (heat waves, etc.), and accidents

Net sales ("revenue" from fiscal 2020) in Life Innovation businesses have steadily increased from 142.2 billion yen in fiscal 2014 to 308.4 billion yen in fiscal 2021 due to the addition of personal safety products to this business area in fiscal 2020. Toray Group aims to expand revenue in this area to 300 billion yen in fiscal 2022, based on International Financial Reporting Standards (IFRS).

**Net Sales (Revenue) of Life Innovation Businesses (Toray Group)**




Note: FY2020-21 performance and FY2022 target are revenue based on International Financial Reporting Standards (IFRS).

## Life Innovation Product Topics

CSR Roadmap 2022 Main Initiatives (7)

### Toray Debuts Japan's First PMMA Hemodiafiltration Device FILTRYZER™ HDF

FILTRYZER™ HDF

Toray Industries has developed FILTRYZER™ HDF, Japan's first polymethyl methacrylate (PMMA) hollow fiber membrane-based hemodiafiltration device, and has recently launched sales of this product in Japan. Broadly two therapies employ artificial kidneys. The first is hemodialysis with dialyzers. The second is hemodiafiltration with hemodiafilters, which combines hemofiltration and hemodialysis.

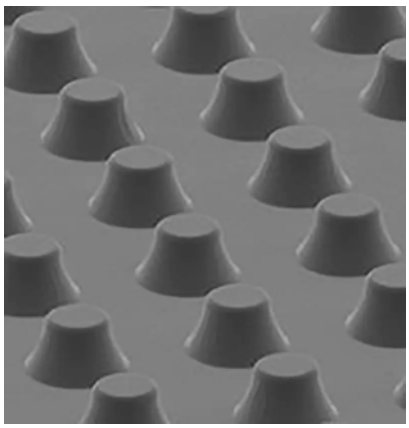
More than 80% of hollow fiber membranes in hemodiafilters in Japan are made of polysulfone. Demand has risen for other materials, including because of allergic reactions and other biocompatibility issues and toxin removal performance needs. Toray is the world's sole

manufacturer of dialyzers incorporating PMMA hollow fiber membranes. They have earned excellent reputations in Japan and numerous other nations for excellent biocompatibility and uremic toxin removal.
By using technology it has developed over many years, the Company pursued hemodiafilter development and now has Japan's first PMMA hemodiafiltration device, FILTRYZER™ HDF. The product has since received manufacturing and marketing approval in Japan, and is covered by the country's health insurance system.
Having obtained approval in 2007 to market Japan's first polysulfone hollow fiber membrane hemodiafilters, the Company has continued to work to improve them. The new PMMA hemodiafiltration device underscores Toray's ongoing commitment to meeting diversifying dialysis market needs.

### Toray Develops Biochip for High-Performance Multi-Item Allergy Testing

Food, pollen, and other allergies afflict half of Japan's population. Incidence rates are rising, particularly among infants and young adults. It is common in medicine to identify such ailments by using in vitro diagnostic products that measure allergen-specific IgE antibody levels in the blood. An issue with simultaneously measuring allergen-specific IgE antibodies from small blood samples (which can alleviate stress for certain patients) has been that proteins, cells, and other contaminants in the blood impede accurate measurements. Recently, Toray Industries completed development of an allergy testing biochip that can simultaneously measure multiple allergen-specific immunoglobin E (IgE) antibodies from trace amounts of blood. Toray was able to attain high precision from measurements with small samples by combining the microarray technology of its 3D-GeneTM, a highly sensitive DNA chip, and its low-fouling polymer technology to prevent blood component adhesion.
This new biochip should help reduce stress on children and others whose blood is difficult to draw and enhance the accuracy of allergy diagnostics in medical settings. Toray aims to undertake large-scale verifications of the specimens of allergy sufferers and swiftly apply for in vitro diagnostic certification.

Allergy Testing Biochip



Fine columnar structure in the center of the chip

### Highly Breathable Model of LIVMOA™ Disposable Personal Protective Clothing Proven to Reduce Heat Stress

Based on a fusion of fiber and film technologies, the LIVMOA™ lineup of disposable personal protective clothing provides both comfort and barrier properties, making it ideal for dust protection, clean rooms, infection control, and other uses. Toray Industries is promoting business development for this product line.
The Company conducted an evaporative heat resistance test on the fabric of a highly breathable model of LIVMOA™ designed to optimize safety and comfort. Using the Wet Bulb Globe Temperature (WBGT) index[1], a benchmark for heat stress, the test found that the correction value (value added to the WBGT value according to the clothing combination) showed the same value as for regular clothing. Accordingly, this protective clothing helps keep the wearer from getting sweaty while working, resulting in a high level of comfort. Additionally, the test confirmed that the fabric helps reduce heat stress for the wearer compared to general-purpose protective clothing.

Going forward, Toray will strive to promote safer and more comfortable work environments by marketing its highly breathable model of LIVMOA™ disposable personal protective clothing to the manufacturing and construction sectors, where heat protection is essential in summer.

1 This benchmark used for heat stroke prevention is derived from temperature, humidity, and radiation from light.

LIVMOA™3000

**Toray Concludes Business Collaboration Agreement with ASKA Concerning Adhesion Barrier TRM-270C**

Toray Industries signed a business collaboration agreement with ASKA Pharmaceutical Co., Ltd. to develop and commercialize an adhesion barrier in Japan. Toray has been developing the product in collaboration with Nanotheta Co., Ltd.

The product is used during medical procedures in obstetrics and gynecology, as well as in gastroenterology procedures. It has a laminated structure that comprises anti-adhesive layers, as well as supportive layers that are made of biodegradable polymers and water-soluble polymers respectively. Since it has the properties of being both flexible and providing good adherence to organs, the expected benefits are good operability particularly during laparoscopic surgeries with an excellent anti-adhesive effect.

Through the commercialization of this product, Toray hopes to improve the prognoses of patients who undergo surgery in obstetrics and gynecology as well as gastroenterology interventions.

Click here for the main initiatives for CSR Guideline 7, “Contributing Solutions to Social Issues through Business Activities” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports)

# Human Rights Promotion and Human Resources Development

**Respect human rights, provide safe and healthy workplaces for employees, secure and train personnel, and diversify while striving to protect employment.**

## Basic Approach

### Committed to Human Rights

At Toray Group, 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. The Group works to promote and raise awareness of human rights, for instance by declaring its commitment to the respect of human rights in its Corporate Guiding Principles and Ethics & 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 characteristic is strictly forbidden in every process from recruiting and hiring to work placement, compensation, training, and retirement.

The Ethics & Compliance Code of Conduct stipulates that harassment must never be tolerated in the workplace, including sexual, and power harassment. In addition, Toray Industries has established Guidelines for Preventing Harassment in the workplace and informs officers and employees of the policy and prevention management system that does not allow sexual harassment, pregnancy-based harassment, and power harassment.

Toray Group has been tackling the issue of discrimination based on self-acknowledged gender and sexual orientation. In January 2017, the Group established an employee hotline specifically for LGBT issues, which is operated by the Human Rights Promotion Section of the Industrial Relations Department of Toray Industries.

The Group also addresses global human rights issues in accordance with the Toray Group Policy for Human Rights, considering the diverse cultures, customs and social norms of the countries and regions where it operates.

## Related Policies

### Policies on Human Rights

Toray Group declares fulfilling our responsibility to respect human rights as a good corporate citizen in its Corporate Guiding Principles and specifies its respect for human rights in its Ethics & Compliance Code of Conduct and strives to prevent any human rights violations through education and awareness activities within the Group.
In addition, as a global enterprise, the Group respects international norms such as the Universal Declaration of Human Rights, the International Labor Organization's conventions, and the UN Guiding Principles on Business and Human Rights. Based on approval by the Board of Directors, the Group has also established the Toray Group Policy for Human Rights, which lays out the Group's commitment to ensuring that it is not complicit in any human rights violations in the overall supply chain, including at suppliers or contract manufacturers, and to promptly and appropriately addressing issues if and when they arise.

**Toray Group Policy for Human Rights** (Established December 2017)

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.

## Securing and Developing Human Resources

The success or failure of a company is decided by its people—employees shape its destiny. Guided by this concept, Toray Group considers securing and developing outstanding human resources as one of its most important tasks and 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

**Related Policies**

**Toray Global HR Management ("G-HRM") Fundamental Policy**

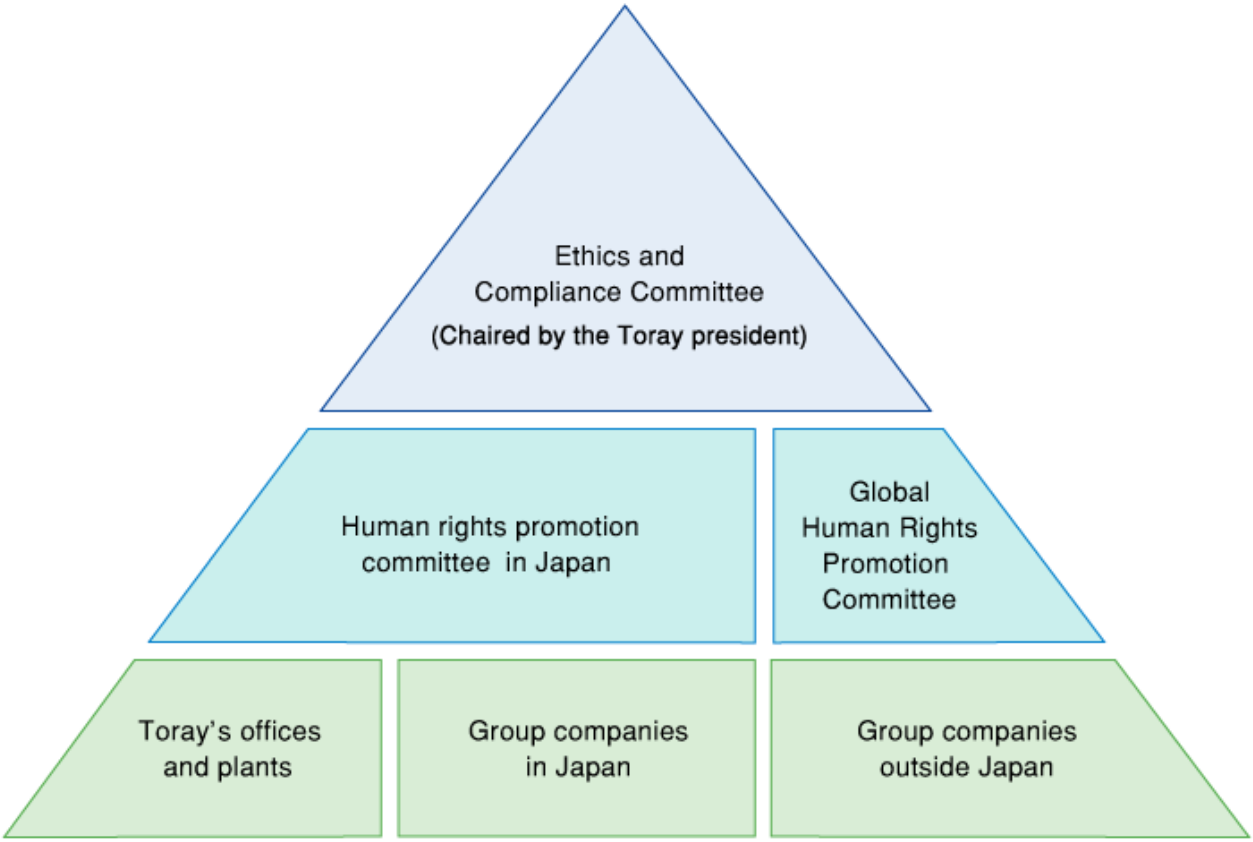
Toray Group established its Global HR Management ("G-HRM") Fundamental Policy, with the goal of managing human resources from a common perspective shared by the entire Group, thereby surmounting differences between countries, regions, cultures, customs, and individual companies.
Under the policy, Toray Group practices a united approach to human resources management of each group company.

## Structure

**Human Rights Promotion System at Toray Group**

Under the Ethics and Compliance Committee chaired by the president of Toray Industries, Toray Group operates the Human Rights Promotion Committee in Japan and the Global Human Rights Promotion Committee.
The Human Rights Promotion Committee in Japan determines the human rights activity policy to be carried out in the offices and plants of Toray Industries. Activities are implemented accordingly, with the aim of ensuring that working environments are positive and supportive throughout the Company. Group companies in Japan use the activity policy of Toray Industries as a reference, and then implement their own human rights programs with the support of the parent company.
Meanwhile, the Global Human Rights Promotion Committee aims to minimize human rights risks outside Japan. Each group company takes its own specific human rights initiatives based on circumstances in the country or region concerned.

**Toray Group's Human Rights Promotion System**




At group companies, each group company works on its own human rights initiatives with support from Toray Industries, Inc.

**Identifying, Assessing and Mitigating Human Rights Risks**

Toray Group carries out an annual survey of all of Toray Industries' offices and plants as well as its main group companies in and outside Japan, asking about their human rights promotion activities, including awareness and education efforts. The results are confirmed at the Human Rights Promotion Committee in Japan and the Global Human Rights Promotion Committee. Using this process, issues, problems and concerns are identified as human rights risks, and initiatives are considered and implemented in line via the human rights promotion system.
Toray Group has set up a system that enables everyone working for the Group to report and consult on human rights issues. In Japan, the Corporate Ethics and Legal Compliance Helpline has been set up, and each group company outside Japan also has established a Helpline contact point. Toray Group strives to mitigate human rights risks and to respond promptly and appropriately if and when any issues arise. Information concerning the use of the Helpline contact points in Japan, such as the number of contacts and their content, is reported to the semiannual Ethics and Compliance Committee meetings chaired by the president of Toray Industries, Inc.

In order to also promote respect for human rights in the supply chain, compliance-related communications can always be submitted through the Toray website. The system for ensuring human rights are protected in the supply chain is described under "Facilitating CSR Initiatives Throughout the Supply Chain."

**Related Information**

> Inquiries concerning CSR initiatives by Toray Group and its business partners

> Socially Responsible Procurement Initiatives at Toray Group

### Securing and Developing Human Resources

Toray Group employs talented human resources who can play an active role in global business, inclusive of gender and whether employees were hired out of university or mid-career. The Group's approach to human resources development uses well-designed, systematic training programs.

## CSR Roadmap 2022 Targets

### CSR Roadmap goals

1. Respect for human rights and fair promotion based on ability throughout the Toray Group by eliminating discrimination based on race, gender, education, nationality, religion, and physical attributes
2. Ensure work environments take into consideration employees' health and build a vibrant and rewarding workplace culture group-wide, working systematically to secure and train personnel

### Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| **Human Rights Promotion** | |
| (1) Implement human rights education and training | 8-❶ |
| (2) Achieve the legally mandated employment rate of persons with disabilities | 8-❷ |
| (3) Operate a whistle-blowing system and consultation service at each Toray Group company to promptly and appropriately respond to problems in an effort to reduce human rights risks | - |
| **Human Resources Development** | |
| (4) As part of career develop initiatives for core staff, use the career path worksheets included in the new personnel information system | 8-❸ |

| | KPI |
|---|---|
| (5) Systematically hire, develop, and core staff outside Japan | - |
| (6) Create workplace environments in which women will feel comfortable performing their duties | - |
| (7) Support the return to work from long-term childcare leave | 8-❹ |
| (8) Reduce the number of employees who exceed non-statutory working hours | 8-❺ |
| (9) Encourage the use of annual paid leave by labor union members | 8-❻ |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| **8-❶ Group companies implementing human rights education and training (%)** | 100% | 100% | 100% | 100% |
| **8-❷ Group companies that have achieved legally mandated employment rate of persons with disabilities (%)** | 100% | 100% | 100% | 48.4% |
| **8-❸ Career development of core staff using the new personnel information system (% of staff using a career path worksheet)** | 20% | 30% | 100% | 100% (Expanded to all eligible employees ahead of schedule in March 2022) |
| **8-❹ Employees returning to work from childcare leave (%)** | 100% | 100% | 100% | 99.0% |
| **8-❺ Reduction in employees who exceed 45 hours/month of non-statutory working hours (%)** | Year-on-year reduction | Year-on-year reduction | Year-on-year reduction | 112.2% |
| **8-❻ Available annual paid leave used by labor union members (%)** | About 90% | About 90% | About 90% | 89.6% |

Reporting scope : Toray Group (8-❶)
Toray Group (Japan) (8-❷)
Toray Industries, Inc. (8-❸, 8-❺ and 8-❻)
Employees of Toray Industries, Inc. (8-❹)

### Related Materiality for CSR

- Respecting human rights
- Creating a positive workplace
- Securing and developing human resources

Click here for a PDF summary of materiality-related CSR Roadmap 2022 main initiatives, KPIs and progress (PDF: 1.6MB). PDF

## Looking to the Future

### Committed to Human Rights

During the CSR Roadmap 2022 period (fiscal 2020–2022), efforts are being made throughout Toray Group to improve awareness of the need to protect human rights. These efforts are carried out via ongoing campaigns and training highlighting the Toray Group Policy for Human Rights.
In addition to identifying human rights issues within Toray Group and responding promptly and appropriately, the Group is augmenting its internal education at Toray Industries, Inc. and its group companies and striving to improve human rights awareness among officers and employees in fiscal 2022.

### Securing and Developing Human Resources

Toray Group pursues a range of initiatives to build workplace environments that are considerate of employee health and a workplace culture characterized by pride and motivation. To secure the future management talent needed to lead the Group in coming years, Toray Group hires systematically, continually improves its grade-specific management training to strengthen frontline capacity, and regularly upgrades its selective training to foster managerial candidates.

CSR Activity Report (CSR Guideline Activity Reports) - Human Rights Promotion and Human Resources Development

# Human Rights Activity Report

## Human Rights Training

CSR Roadmap 2022
Main Initiatives (1)

### Group companies implementing human rights education and training (%)

■Reporting scope
Toray Group

■Target in fiscal 2021
100%

Result in fiscal 2021

**100%**

Toray Industries, Inc. holds human rights promotion campaigns annually to help increase awareness and understanding of human rights issues.
In fiscal 2021, the campaign focused on the human rights sensitivity of every person, harmony in the workplace, and the importance of respecting others' personal space and feelings. Educational pamphlets were handed out to all employees. Through the campaign, the Company communicated to employees that it is important to create a workplace culture that respects the dignity of others, prevents sexual harassment, pregnancy-based harassment, and power harassment, and understands LGBT issues. The Company also sought to deepen understanding in each workplace that global interest in respect for human rights is increasing.
To raise awareness of human rights among employees, the Company holds management training and workplace-based study sessions at Toray Industries' offices and plants. In fiscal 2021, the Human Rights Promotion Section Manager conducted remote and in-person group training sessions for members of the Human Rights Promotion Committee as part of the human rights awareness campaign. Online training courses on Toray ethics and legal compliance are also held every year targeting all executives and employees (including contracted, part-time, and dispatched employees). In addition to reviewing the code of conduct and promoting awareness of the whistleblower hotlines, the program focuses on a different theme each year, looking at case studies of such issues as bribery prevention, or human rights and workplace harassment prevention. The fiscal 2021 program was held in March 2022, and 98.4% of eligible participants completed the activity. The theme was Japan's amended Whistleblower Protection Act, which took effect in June 2022.
For group companies in Japan, the manager of Toray Industries' Human Rights Promotion Section held training sessions on human rights for labor managers and members of their staff (58 group companies participated). In addition, the Company provided teaching materials, educational pamphlets and e-learning materials—the same ones used in the human rights promotion activities of Toray Industries. In this way, Toray Industries supported efforts by group companies to promote human rights.

For group companies outside Japan, Toray Industries provided educational materials reflecting the Toray Group Policy for Human Rights, Toray Group's human rights promotion system and international codes such as the Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights. Overall, Toray Group promoted education tailored to the conditions of each country or region as it disseminated the Toray Group Policy for Human Rights.

**Fiscal 2021 Human Rights Training and Seminar**

| Type of training | | Number of sessions | Number of participants |
|---|---|---|---|
| Toray Industries, Inc. | Training at head office | 27 | 1,734 |
| | Training at offices and plants | 1,746 | 15,960 |
| | Training at outside company | 25 | 33 |
| Group companies in Japan | Training at companies | 1,066 | 21,705 |
| | Training at outside company | 116 | 471 |

| | |
|---|---|
| **Total amount of time dedicated to training** | **2,068 hours** |

## Response to Reports and Consultations on Human Rights

CSR Roadmap 2022 Main Initiatives (3)

In fiscal 2021, 49 hotline reports and consultations related to human rights (workplace harassment and inappropriate behavior, etc.) were received across the Toray Group. Investigations were conducted to check facts for all these cases, based on coordination between the department (person) in charge of the investigation, relevant department (person) involved in the incident, and the internal consultation offices set up at each company of Toray Group. In cases where a problem was verified, corrective measures were taken based on the group company's internal rules, such as the employment regulations.
The number of reports and consultations received, an overview of the cases, and the results of measures taken in response were reported to the Ethics and Compliance Committee, the Board of Directors, and the Board of Corporate Auditors as part of updates on the operational status of the whistleblowing system as a whole. Detailed reports were also submitted to the Human Rights Promotion Committee in Japan, and the Global Human Rights Promotion Committee.
In addition, through its human rights education in Japan, Toray Group introduced examples of issues reported to employees in a way that makes it impossible to identify the workplace or individuals to promote understanding and alerting to workplace harassment and other issues.

Click here for more information on the establishment and operation of the whistleblowing system relating to CSR Guideline 2, "Ethics and Compliance".

Click here for the main initiatives for CSR Guideline 8, "Human Rights Promotion and Human Resources Development" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Human Rights Promotion and Human Resources Development

# Securing and Developing Human Resources to Create New Value

## Employing a Diverse Workforce

Toray Group employs talented human resources with high aspirations who can play an active role in global business, inclusive of gender and whether employees were hired out of university or mid-career.
Since 1998, Toray Industries, Inc. has been expanding its efforts to recruit a diverse human resource population and has hired 113 non-Japanese as regular employees as of fiscal 2021. The Company actively recruits non-Japanese students who are studying in Japan, and Japanese students who graduate from universities abroad. Then, it seeks to build a work environment where all employees are able to fully demonstrate their individual abilities and perform to their utmost potential. In addition, Toray is actively pursuing mid-career hiring, while providing follow-up support for these hires, including additional training after joining the company.

**Number of Employees Hired in Fiscal 2019- 2021 (Toray Industries, Inc.)**

| Result | | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| New graduates | Men | 244 | 176 | 123 |
| | Women | 44 | 36 | 38 |
| | Total | 288 | 212 | 161 |
| Mid-career hires | Men | 37 | 9 | 13 |
| | Women | 8 | 2 | 6 |
| | Total | 45 | 11 | 19 |

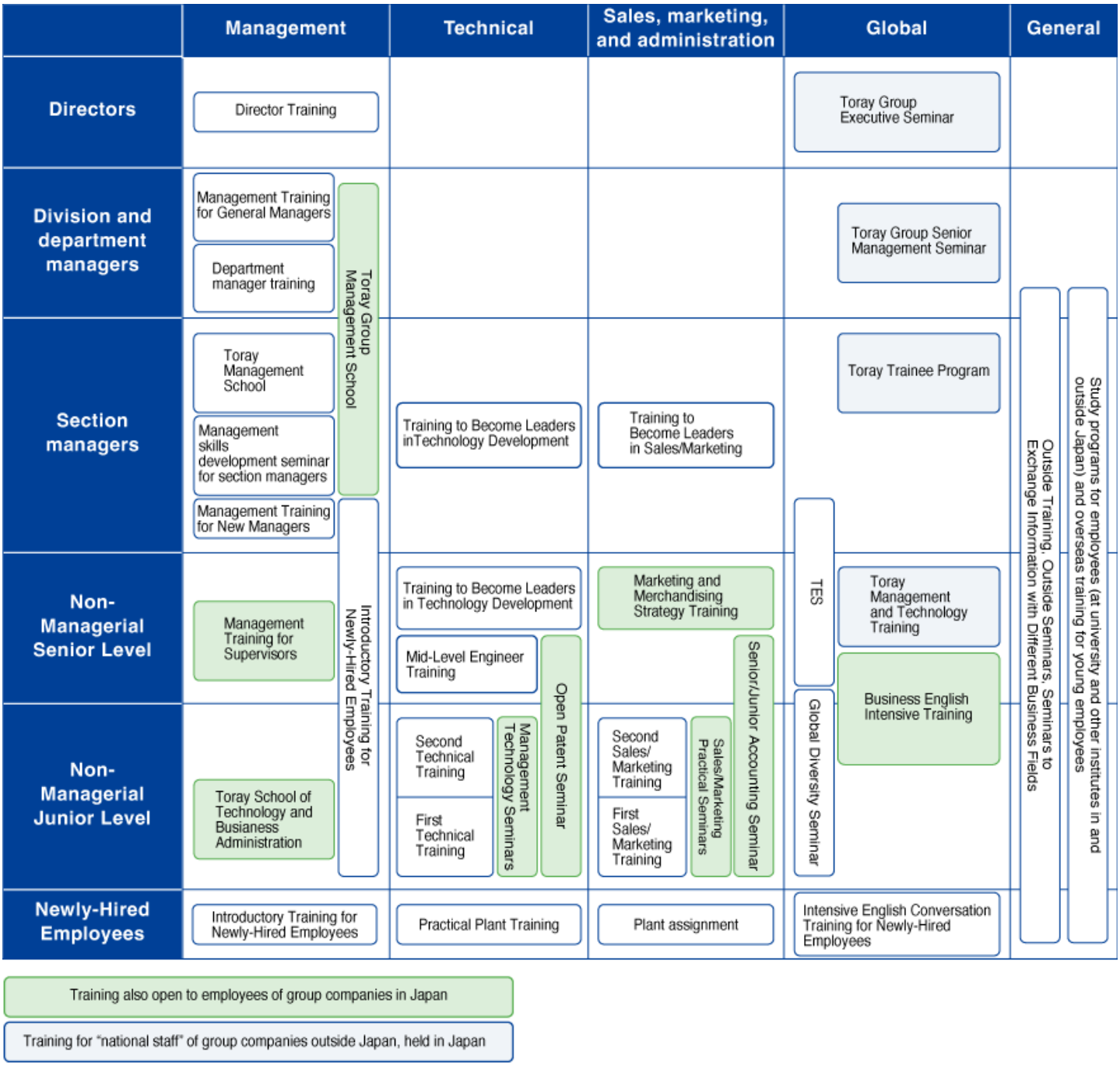
## Systematic and Effective Training

CSR Roadmap 2022
Main Initiatives (4)(5)

Toray Industries develops well-designed training programs and systematically executes diverse training programs to enhance management, sales, production technology, and specialized skills, and to better equip employees to address globalization. These programs cover all levels of employees and fields, aiming to develop future management candidates while expanding and educating the base of core staff ready to employ their strong capabilities to lead on the front lines.

Over the recent years, Toray Industries has concentrated on enhancing and expanding its development of global human resources through Overseas Training for Young Employees, the Toray Global English School, and Business English Intensive Training, as well as through joint sessions of the Toray Management School and Toray Group Senior Management Seminar. The Company also implements the Global Diversity Seminar for non-Japanese employees working at Toray Industries. In fiscal 2021, all training was resumed using an online format. However, some training that involves practical skills or focuses on discussion was conducted using an in-person group format, based on thorough measures to prevent COVID-19 infection. For this reason, training expenditures per employee at Toray Industries stood at 58,899 yen in fiscal 2021, compared to 36,092 yen in the previous fiscal year. In addition to training, the Group is adopting diverse personnel programs to develop an organization in which human resources who are ready for new challenges can play a greater and more active part in the Company.

**Fiscal 2021 Training Program at Toray Industries**



**Company-Wide Training Course Enrollment in Fiscal 2021 (Toray Industries, Inc.)**

| Training category | Persons enrolled | | | Time dedicated to training per employee (hour)[1] |
|---|---|---|---|---|
| | Men | Women | Total | |
| Management | 691 | 78 | 769 | 42.9 |
| Technical | 561 | 84 | 645 | 27.9 |
| Sales, marketing, and administration | 305 | 93 | 398 | 22.3 |
| Global | 83 | 18 | 101 | 46.6 |
| General | 3 | 2 | 5 | 28.5 |
| Total | 1,643 | 275 | 1,918 | 33.7 |

1 Time dedicated to group training at the Toray Human Resources Development Center. It does not include time for correspondence learning or study abroad, etc.

**Toray School of Technology and Business Administration Develops Leaders to Improve Frontline Capabilities Across the Toray Group**

Toray Industries set up the Toray School of Technology and Business Administration as a place to train its young employees and group employees in Japan. The school is located in the education center of the Toray Shiga Plant, and marked its 28th session in 2021.
Classes include general subjects such as mathematics and English, along with specialized subjects including polymer chemistry and engineering basics, as well as experiment labs. By having employees participate in hands-on learning experiences, they get a deeper understanding of the theory taught in class. During the one-year period of enrollment, each student aims to develop the skills to become a frontline leader who can think and act without being micromanaged, by utilizing every opportunity for their own professional development.

**Personnel System (Toray Industries, Inc.)**

| | |
|---|---|
| Management-by-objectives system[2] | Each employee establishes annual objectives. At the end of the fiscal year, employees and their supervisors meet to review accomplishments and the extent to which they were able to meet their objectives. |
| Personnel appraisal system[2] | Designed to facilitate a fair appraisal of employee contributions in terms of duties, responsibilities, capabilities, and performance[3]. |
| Individual meeting system[2] | Employees meet with their supervisors twice a year in a one-on-one setting. Supervisors provide consultation on employee performance and new objectives. |
| Self-assessment system for managers, occupational specialists, and G Course employees | Employees are surveyed annually on topics concerning work experience and desires for interdepartmental transfer. Surveys can then be linked to individual personnel transfers and placement. |
| Career assessment system for G Course employees | Employees participate in a regular review consisting of presentations of daily operations and personnel interviews in order to focus on the direction of their future growth. |
| Job opening system | Employees are given an opportunity to apply for jobs inside the Company and proactively develop their career, while ensuring optimal staff assignment. |

2 Applies to 100% of managers, occupational specialists, and employees pursuing G Course and S Course career paths.
G Course: A career path for Toray Group executive or upper-level professional candidates
S Course: A career path for manager, supervisor, or specialist candidates
3 Including CSR initiatives

## Career development of core staff using the new personnel information system (% of staff using a career path worksheet)

**■Reporting scope**
Toray Industries, Inc.

**■Target in fiscal 2021**
30%

**Result in fiscal 2021**

**100%**

Toray Industries has introduced career path worksheets as a human resource development tool designed to promote employee growth. These worksheets encourage employees to reflect on their past work experience and the level of skill required in their field, as well as facilitate career-related discussions through interviews with supervisors and subordinates.
The career path worksheets were first introduced in fiscal 2020 for employees pursuing G-Course career paths in sales and corporate administration. In fiscal 2021, their use was extended to technical G-course employees and, as of March 2022, has been expanded to all G-Course employees.

## Development of Future Management Candidates for Toray Group

CSR Roadmap 2022
Main Initiatives (5)

Toray Group implements training in order to systematically develop future management candidates. Numerous employees who have undergone the training are already active in management positions. This training was not implemented in fiscal 2020, due to measures to prevent the spread of COVID-19. It was resumed in fiscal 2021 however, with the addition of thorough infection prevention measures.

### Strategies for Developing Future Management Candidates

| Program | Participants | Purpose | Year started | Total participants through FY2021 |
|---|---|---|---|---|
| Management Training for General Managers | Division and department managers of Toray Industries, Board members/officers of group companies in and outside Japan | Develop management leaders at Toray Industries and group companies | 2013 | 159 |
| Toray Management School | Section managers of Toray Industries | Develop future management candidates at Toray Industries and group companies | 1991 | 580 |
| Toray Group Management School | Department managers of group companies in Japan | Develop management candidates focusing on group companies in Japan | 2006 | 306 |
| Toray Group Executive Seminar | Board members/officers of group companies outside Japan | Develop core staff at group companies outside Japan | 2004 | 98 |

| | |
|---|---|
| **Number of employees who participated in programs to develop future management candidates (cumulative total)** | **1,143** |

The Toray Global HR Management ("G-HRM") Fundamental Policy was established through a resolution of the Board of Directors. The goal of the policy is to manage human resources from a common perspective shared by the entire Group, thereby surmounting differences between countries, regions, cultures, customs, and individual companies.

**Toray Global HR Management ("G-HRM") Fundamental Policy** Revised December 2021

True to its corporate philosophy, "Contributing to society through the creation of new value with innovative ideas, technologies and products" and its embodiment through "Innovation," and in order to continue being a highly valuable corporate group for every stakeholder, Toray Group focuses on recruiting, retaining, and developing employees with high aspirations, with the understanding that "Human Resources" are the most important asset in management.

As Toray Group continues to promote further business growth and expansion globally, we set the following four principles as the Toray G-HRM Fundamental Policy, despite all differences between countries, regions, cultures, customs, and companies in order to facilitate HR management with a common basis for all Toray Group companies around the world.

Step by step, each company is encouraged to implement and maintain a concrete HR management system in line with the following Toray G-HRM Fundamental Policy. However, at the same time, it is essential to value the merits of local HR management in each company based on the individual circumstances of country, region, culture, custom and company. Thus, it is necessary to promote the policy while integrating both approaches properly.

1. **Consistently recruit and retain core staff and promote long-term HR development programs**
   - **(1) Consistently recruit core staff based on mid/long-term HR management views.**
   - **(2) Sustain long-term HR development through emphasizing individual career development, promoting career interviews on development progress between supervisors and staff, and carrying out on-the-job training (OJT), together with training programs (Off-JT) and self-development.**
   - **(3) Promote HR development by following up on each individual through MBO (Management by Objectives) and performance appraisal systems.**
2. **Select and develop core staff who can win a place in the global competition**
   - **(1) Recruit, retain and develop diverse and capable staff globally who understand and support the Toray Philosophy.**
   - **(2) Provide selected staff with opportunities for sophisticated high-level training and global careers.**
   - **(3) Promote staff, who have skills to assume management responsibility for Toray Group companies, to top management positions of each company, and also give them opportunities for selection to executive positions as well as core positions of Toray Industries, Inc.**
3. **Pursue a "placing the right people to the right jobs" policy while enhancing fairness, understanding (by employees) through convincing explanations, and transparency**
   - **(1) Make the best assignment for each employee and assigned organization by focusing on his/her ability and performance.**
   - **(2) Place importance on fairness, understanding (by employees) through convincing explanations, and transparency when determining individual compensation, such as salary and bonus, by appropriately taking account all of the roles and responsibilities of the position, the employee's ability, as well as performance appraisal results based on the MBO (Management by Objectives).**

**(3) Enhance the HR development system and the compensation system to value challenges as well as contributions to the team.**

**4. Continue various management methods to further strengthen the company's business structure**

**(1) Conduct and continue head-count management and labor cost management as an entire company in a well-balanced way appropriate for business environments.**

**(2) Always sustain a flat, effective organizational structure and control the appropriate proportion of managerial staff.**

**(3) Build a resilient organization through the appropriate management of diverse work styles.**

## Systematically Securing, Developing, and Promoting Core Staff Outside Japan at Group Companies

CSR Roadmap 2022
Main Initiatives (5)

Toray Group regards the development of core staff at its group companies outside Japan as one of its priority management objectives. The Group makes active efforts to promote employees locally hired at these companies (national staff) to executive management positions, as well as to key posts and management positions at Toray Industries' head office. In fiscal 2021, a total of eight core staff outside Japan help manage Toray Group, with two serving as vice presidents of Toray Industries and six serving as director *(riji)*, a position that is equivalent in scope and level of responsibility to senior management.

In terms of human resource development and promotions, Toray Group has been working on a succession plan and personnel development plan based on a medium- and long-term perspective and drawing up its Medium-Term Human Resources Plan with the goal of implementing systematic personnel assignments to ensure that core staff can tackle important business issues. The Group implements human resources strategies designed to support business strategies by verifying the availability of successor candidates for core positions and developing individualized development plans for future management candidates, including for core staff outside Japan. In addition, the Group is systematically fostering human resources by offering career development opportunities such as domestic and international job rotations.

Human resource development is systematically implemented using both on-the-job and off-the-job training. Off-the-job training consists of training implemented by each group company outside Japan. This is combined with grade-specific training programs held in Japan to ensure understanding of management principles and policies. These are linked with personalized long-term development plans. Toray Group, with direct involvement from the head office, is developing and regularly providing management training courses outside Japan specially designed for the particular circumstances and needs of group companies in each respective country.

## FY2021 Training Courses Held for Core Staff Outside Japan

### Japan-based courses

| Training program | Managerial category | Participants |
|---|---|---|
| Toray Group Senior Management Seminar | Department managers | 12 |
| Toray Trainee Program | Section managers | 18 |
| Total participants | | 30 |

### Courses held outside Japan

| Training program | Managerial category | Participants |
|---|---|---|
| Toray Group EU Senior Management Seminar | Department managers | 10 |
| Toray Group EU Management Seminar | Section managers | 16 |
| Toray Group Indonesia Management Seminar | Department managers / section managers | 32 |
| Toray Group Malaysia Management Seminar | Department managers / section managers | 14 |
| Toray Group China Senior Management Seminar | Department managers | 20 |
| Total participants | | 92 |

Click here for the main initiatives for CSR Guideline 8, “Human Rights Promotion and Human Resources Development” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Human Rights Promotion and Human Resources Development

# Promoting Diversity

Toray Group is committed to promoting employee diversity to help build thriving workplaces where each individual's abilities can flourish.

## Fostering an Organizational Culture Conducive to the Career Advancement of Women

CSR Roadmap 2022
Main Initiatives (6)

Toray Industries, Inc. has long encouraged women in the workplace and implemented policies to support women to build fulfilling careers. The Company promoted its first female manager in 1958 and introduced employee provisions for taking parenting leave nearly 20 years before parenting leave became mandatory in Japan. In 2003, a woman became president of a Toray Group company. Then, in 2004, the Company launched the Advancement of Women Project. As of April 2022, women held 10.0% of unit manager or higher positions and 6.0% of section manager or higher positions. In June 2015, the Company welcomed its first female director (riji), a position that is equivalent in scope and level of responsibility to senior management. (One female director [riji] as of March 2021.)
In March 2021, Toray Industries formulated and publicly released its five-year action plan (April 2021–March 2026) for increasing the retention rate of women employees and the ratio of women employees in management positions by promoting initiatives for individual skill development and career building.
The new action plan sets out the following goals and initiatives.

**Goals:**

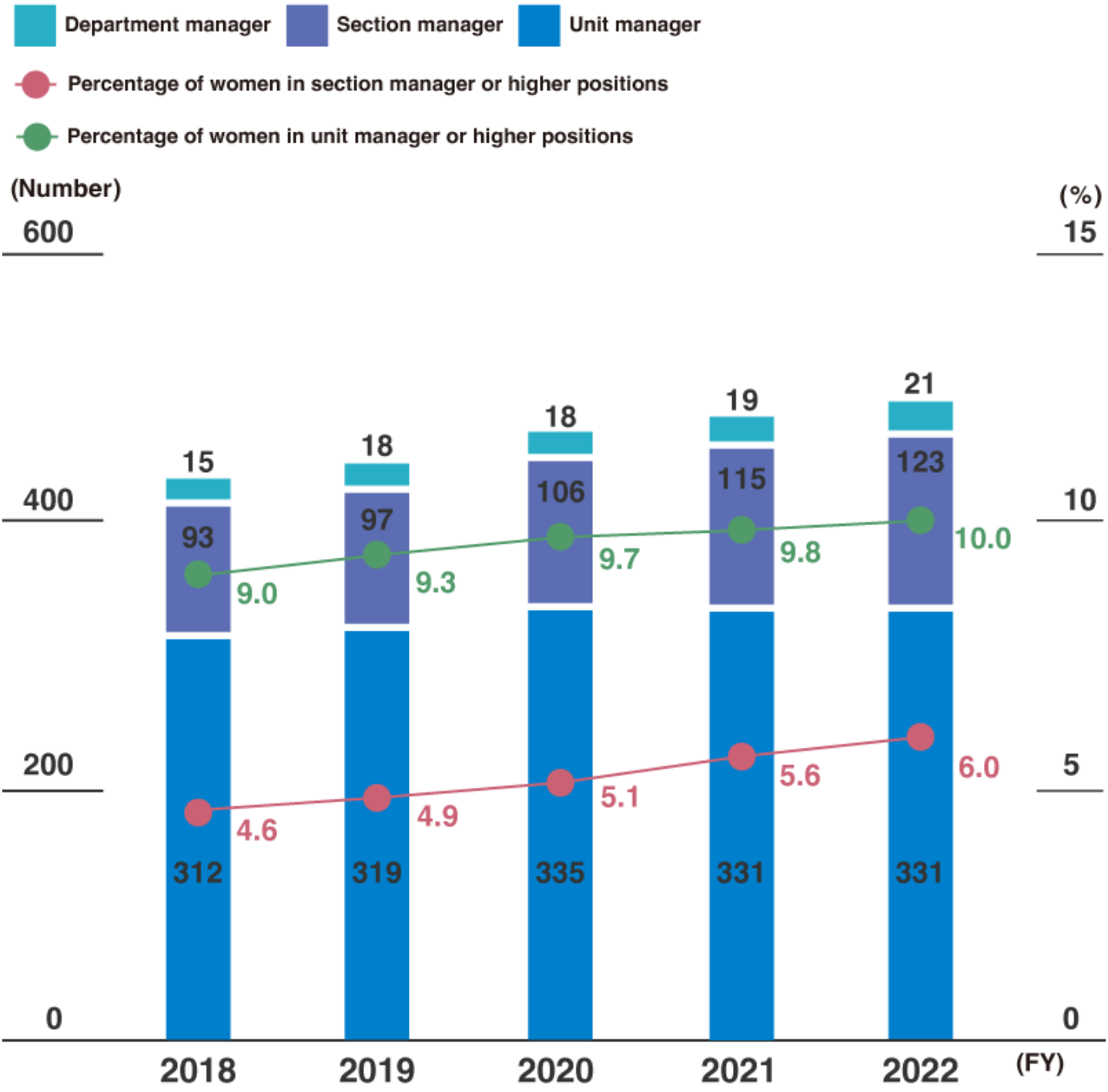
1. Increase the percentage of management positions held by women each year, with a specific initial target of raising this percentage from the 5.1% in fiscal 2020 to 6.5%
2. Achieve a 1:1 ratio of men and women employees continuously employed for each employment management category (among those who have been employed for ten years or less)

**Initiatives:**

(1) Use career path worksheets to enhance opportunities for discussion with supervisors and subordinates regarding careers and other topics and share content with directors in charge of each business and Personnel Department to follow up on status of implementation.
(2) Narrow the gap between the percentage of women selected for company-wide leadership training and the percentage of women in the target group for this training.
(3) Provide continuous training and other means of raising awareness of career development among women employees.
(4) Enhance systems to enable diverse work styles and create an even better environment for balancing work and life events.

(5) Conduct morale survey (measuring effectiveness of initiatives) to ascertain status of above initiatives, analyze results, and identify measures for improvement.

**Number of Women in Management Positions and Women as a Percentage of Total Management (Toray Industries, Inc.)**




Note: As of April each year

# Promoting Communication Among Women in the Workplace

CSR Roadmap 2022
Main Initiatives (6)

Toray Group supports the voluntary initiatives of women in the workplace to create venues for communication about ways to resolve the issues and difficulties that they may face when trying to balance work and family life.
The outcomes of these communication events give the Group a glimpse into the current conditions facing women at work and their own opinions. Toray Group believes that resolving these issues one at a time will foster greater participation by women at work, and will steadily continue its efforts.

### Holding Career Advancement Seminars for Women Serving as Managers and Occupational Specialists, and Discussion Meetings

In fiscal 2014, women serving as general managers at Toray Group developed and initiated a career advancement seminar for women serving as managers and occupational specialists, and it has now been held six times as of fiscal 2020.
These seminars were developed and launched with the hope that they would help women learn about diverse career paths and leadership and the importance of forming personal networks and learning from one another, particularly now. Participants in past seminars have been encouraged by this chance to hear about the wide range of conditions in which women in management and occupational specialties work and to interact with diverse role models. Each of the seminars is attended by the president of Toray Industries and the Senior Vice President of the Human Resources Division who engage in dialogue with the participants.
In fiscal 2016, the second seminar was held in January, and subsequently the seminar participants organized discussion meetings for women at all of Toray Industries' offices and plants in Japan to more broadly ascertain the views of women in non-management positions and younger workers at all plants. (In 2017, an additional discussion meeting was also held at the newly established Nasu Plant.)
The meetings offer an opportunity for women in workplaces of various ages and at various stages of life to talk honestly about balancing work and home life, sharing and educating each other about the challenges and issues they face. Men are also included in the conversations at some of these discussion meetings.
In fiscal 2017, follow-up meetings were held in 16 locations (plants), and women employees held group discussions on several themes chosen in the discussion meetings for women. In session one (information sharing), 1,039 employees participated, including 426 men, and 439 women participated in session two (group discussion). At session two (group discussion), a theme that fit the situation at each plant was chosen for discussion from among the themes compiled at the discussion meetings. Talking about a theme of interest to the participants allowed the discussion to go deeper, and issues that should be addressed at plants were identified. There have been several cases in which, based on the views obtained in the follow-up meetings, these discussions have led to improvements in the workplace environment or to facilities that enhanced working conditions for both men and women. In some cases, the discussions sparked the start of regular lunch meetings. These discussion meetings, led by women, have been held at all Toray offices and plants since fiscal 2019.
In fiscal 2021, an online discussion meeting was held for female G-Course employees in Toray Group. The facilitators were female managers and occupational specialists who are able to serve as role models. It was a valuable opportunity for many G-Course employees to share their work motivations, concerns, and issues, and to hear the opinions and stories of the facilitators and their peers from various generations and workplaces. In order to help resolve the issues identified through this discussion meeting, the plan for fiscal 2022 is to hold training not only for female managers and occupational specialists, but also for male managers and occupational specialists who have female subordinates.

## Career Advancement Seminars for Women Serving as Managers and Occupational Specialists, and Discussion Meetings

### Fiscal 2015

**First career advancement seminar for women serving as managers and occupational specialists**

| | |
|---|---|
| Dates | February 13 – 14, 2015 |
| Purpose | Build networks among participants, and share their diverse situations. Help participants to recognize what they need to do in order to further advance their careers, and foster a perspective that develops leaders who will manage organizations. In addition, discuss the direction of future seminars. |

**Second career advancement seminar for women serving as managers and occupational specialists**

| | |
|---|---|
| Dates | January 29 – 30, 2016 |
| Purpose | Enable participants to examine their career plans integrating career and personal life, by studying the experiences of accessible role models. Encourage each participant to draft a statement of intent about what she needs to do now and in the future to realize her career plan and help her organization achieve its medium-term goals. |

**Discussion meetings for women**

| | |
|---|---|
| Dates | From August through December 2016[1] |
| Purpose | The meetings were held at plants; women shared their opinions on work situations and the issues they face, and these were summarized. |

1 With the Nasu Plant's incorporation, a discussion meeting was also held there in September 2017.

### Fiscal 2016

**Third career advancement seminar for women serving as managers and occupational specialists**

| | |
|---|---|
| Dates | February 28 and March 1, 2017 |
| Purpose | Problems faced at work were analyzed and recommended solutions provided, based on opinions from the discussion meetings for women and the results of a questionnaire given to all women in the workforce at Toray Industries before the meetings. This series of initiatives is intended to reinforce the problem-solving skills required for managers and occupational specialists. Participants followed up on the progress on the statements of intent they each made at the second seminar. |

### Fiscal 2017

**Follow-up discussion meetings**

| | |
|---|---|
| Dates | From December through March 2017 (22 meetings at 16 sites) |
| Purpose | Held as a follow-up to the discussion meetings for women. Of the themes discussed at these meetings, group discussions were held on: (1) the need for female advisors in balance work and personal life; (2) the need for seminars on systems for childrearing and caregiving; (3) the ease of use of the telecommuting program; and (4) the need for women's training for employees on the S course[2] track and for raising interest in participating. Measures to improve these issues were considered and proposed in line with conditions at each plant. |

2 An abbreviation for Specified Assignment Course, the S Course is the career path for employees who wish to pursue a career as a manager, supervisor or expert in a specified occupation.

Group discussion

**Fiscal 2018**

**Fourth career advancement seminar for women serving as managers and occupational specialists**

Dates July 13– 14, 2018

Purpose Before the meeting, men in management positions and male occupational specialists were interviewed about their thoughts on the issue of promoting career advancement for employees regardless of gender. Using results of the analysis, major issues facing the career advancement of diverse employees were identified, in order to enhance their ability to arrive at and implement solutions. Using assessment tools, employees learned about their own strengths and weaknesses and become more aware of their leadership styles.
(This seminar was held for women who had been promoted to managerial and occupational specialist positions after the third seminar, as well as women who were not able to participate in the past three seminars.)

Analysis and discussion of questionnaire results

Comments by the Senior Vice President of the Human Resources Division

Comments by Harumi Horinouchi, director (riji)

**Fiscal 2019**

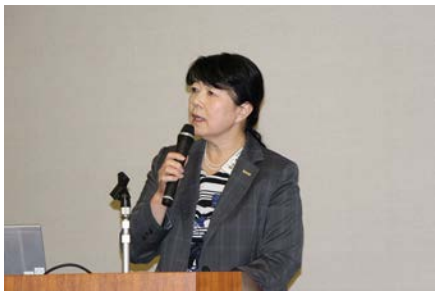
**Fifth career advancement seminar for women serving as managers and occupational specialists**

Dates October 18– 19, 2019

Purpose Based on an analysis of the current situation given by organizers of the seminar, the participants were divided into groups to discuss three challenges for achieving the empowerment of women in Toray Group workplaces and to come up with action plans. The challenges to be tackled are: the promotion of women to managerial and specialist positions, the retention of young female employees, and the realization of long-term career development. Since the seminar, the participants continue to engage in group work. The aim is to further ascertain the current situation and dig deeper into the root causes, and to make recommendations for overcoming the challenges.

Seminar participants

Welcome from the Senior Vice President of the Human Resources Division



Comments by Harumi Horinouchi, director (riji)

The Company set up a babysitting space in the training center during the career advancement seminars for women serving as managers and occupational specialists so that women who are also raising children could participate with peace of mind.

**Fiscal 2020**

**Sixth career advancement seminar for women serving as managers and occupational specialists**

| | |
|---|---|
| Dates | September 3– 4, 2020 (held online) |
| Purpose | With regard to the three issues defined in the fifth seminar (the promotion to managerial/specialist positions, retention of young employees, and the realization of long-term career development), the participants divided into 11 groups to report and discuss the activities undertaken, the results achieved, and recommendations for future action. |

Due to the COVID-19 pandemic, the seminar was held as a virtual meeting in fiscal 2020, rather than in-person as it has been in the past.

**Fiscal 2021**

**Online Discussion Meeting for Female G-Course Employees**

| | |
|---|---|
| Dates | November and December 2021 (participants divided into groups for a total of 62 sessions) |
| Purpose | The discussion meeting was divided into two parts. Part one consisted of the viewing of three videos: the president's message, an explanation of the purpose of the discussion meeting, and a lecture by an outside speaker. Part two provided the opportunity for participants to share their opinions with each other online. In this second part, female managers and occupational specialists (section managers) served as facilitators to create an atmosphere where participants could speak candidly without concern. The facilitators prompted discussion of and carefully listened to individual cases of female G-Course employees, their actual situations, and thoughts on work-life balance and sources of motivation. By helping to create networks among participants, including their role-model female managers and occupational specialists, workplace environments can be developed that enable female employees to pursue careers over longer terms. This includes being able to increase their motivation, access more information and reduce their anxiety about future career development, as well as finding appropriate support for career continuation while balancing childcare or family care responsibilities. The information gained at this meeting was compiled so that it can be used in discussions at the Seventh Career Advancement Seminar for Women Serving as Managers and Occupational Specialists to be held in 2022. Finally, the responses from the post-meeting questionnaire will be analyzed over time so that the results can be used to enhance future initiatives. |

### Sharing Stories via the Women's Empowerment Intranet

The Company gives specific examples on its corporate intranet of how employees who have given birth to and raised children, or provided caregiving for other family members, did so while still working. This intranet site was set up in January 2016, and since March 2019 it has been accessible via smartphone or tablet.
By the end of fiscal 2021, the stories of 34 employees were posted on this website under the title of “Does This Help? My Story.”
By publishing not only examples of work-life balance achievement amid major life events, but also personal experiences relating to overseas posting and other career stages, the intranet site is helping employees of every age and gender to make their professional and personal lives more fulfilling.

Toray web page featuring cases of women employees' empowerment and working while raising young children

## Employment of Persons with Disabilities

CSR Roadmap 2022
Main Initiatives (2)

**Group companies that have achieved legally mandated employment rate of persons with disabilities (%)**

**Result in fiscal 2021**

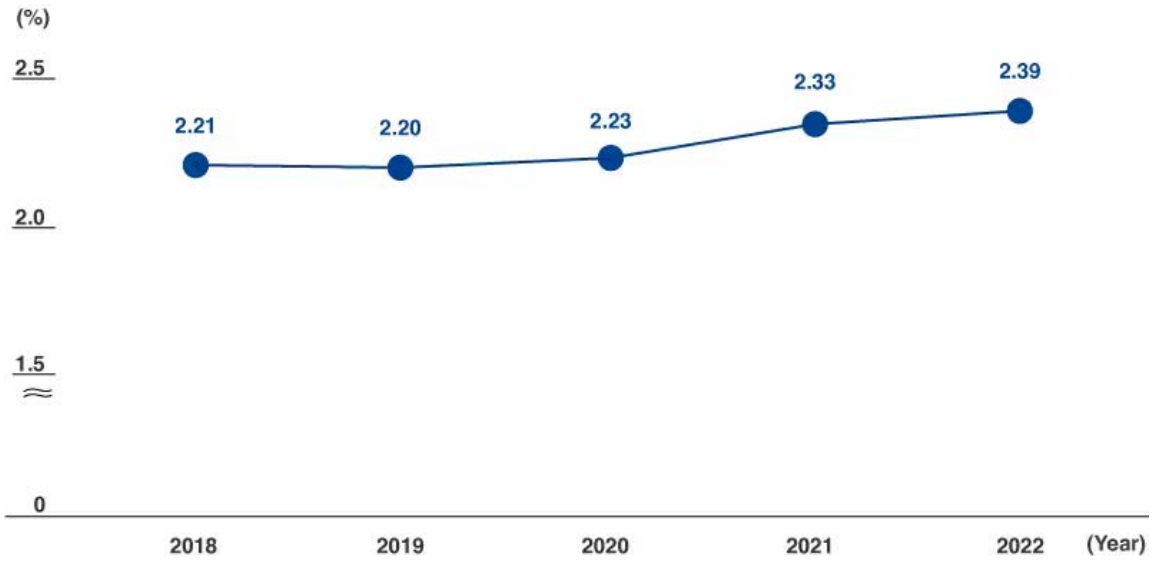
**48.4%**

**■Reporting scope**
Toray Group (Japan)

**■Target in fiscal 2021**
100%

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, in fiscal 2021, Toray Industries met Japan’s legally mandated employment rate of persons with disabilities, as did 48.4% 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. Toray Industries and group companies will continue to work together to actively focus on this issue moving forward.

**Employment Rate of Persons with Disabilities (Toray Industries, Inc.)**




Note: As of June 1 each year

**Examples of Diversity Initiatives to Promote Understanding of Persons with Disabilities**

**Toray Films Europe S.A.S. (France) Participates in an Diversity Event to Promote Better Understanding of Persons with Disabilities**

Toray Films Europe S.A.S. is working to create even better workplace environments and improve understanding and consideration of people with disabilities.
As part of this effort, 20 volunteers participated "Course de la Diversité Lyon 2021", a race held in the nearby city of Lyon. "Course de la diversité" means "race for diversity" in French, and is held to promote better understanding of diversity along with values such as social cohesion, solidarity, and equal opportunity. Under the motto of diversity, friendship and respect for individual differences, senior management members and employees came together to participate in the six-kilometer walk or run.
The event was a great opportunity for participants to improve team building, better understand disabilities, and open their minds. Employees also participated in various related activities to further deepen their understanding. These included a workshop to learn about musculoskeletal disorders, and hosting job seekers with disabilities on a full-day visit to the company. They also took part in Disabled Persons Week to learn about the problems faced by people with disabilities in the workplace.

## Re-employment System

As part of Toray Industries' initiatives to encourage full utilization of skilled individuals over 60 years of age, in fiscal 2001 the Company introduced a re-employment system open to all of its unionized employees who wish to continue working. In fiscal 2005, the scope of the re-employment system was expanded to include managers and occupational specialists who wish to continue working.

Click here for the main initiatives for CSR Guideline 8, "Human Rights Promotion and Human Resources Development" in CSR Roadmap 2022.

**CSR Activity Report (CSR Guideline Activity Reports) - Human Rights Promotion and Human Resources Development**

# Creating a Positive Workplace for Employees

CSR Roadmap 2022
Main Initiatives (6)(7)(8)(9)

Toray Industries, Inc. has been working 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 men and women. Support systems that exceed those legally mandated for childcare, family care, and maternity protection are provided, the result of the company's commitment to making them accessible and responsive for a diverse range of employee needs. In 2007, the company was granted certification as a general corporate entity meeting the requirements for supporting the development of the next generation by Japan's Ministry of Health, Labour and Welfare.

After acquiring the certification, Toray Industries revamped its child care support systems in June 2010 in an effort to encourage male employees to make use of them. Then in April 2011, the Company launched the Toray Smile Support Program, a point-based system that lets employees choose from various programs that provide financial assistance for childcare and purchasing homes. The Company initiated a telecommuting program in April 2012, aimed at making it easier for employees to work while raising children or caring for family members (the scope was expanded in October 2019 and the requirement of raising children or caring for family members in order to telecommute was eliminated in July 2020). Toray Industries also expanded the scope of its commuting allowance for taking the bullet train in October 2012. In April 2013, the Company improved its support systems once again, offering special leave for parents to prepare children for nursery school, and extending eligibility for leave to care for sick children. In July 2016, Toray Industries expanded its leave provisions for employees requiring special consideration as caregivers, and in January 2017, it eliminated restrictions on the number of times that employees can use long-term family care leave and lower-hour work schedule systems for caregivers. In July 2017, the Company started a flextime system without core-hour requirements for employees at the Tokyo and Osaka head offices. In April 2020, Toray Industries started to allow use of paid annual leave on an hourly basis, introduced a working-hour interval system.
In January 2021, the Company introduced hourly leave systems for caring for sick children or other family members, followed by the expansion of family-care programs in July 2022.

**Major Support Systems for Employee Work and Family Life Balance**

| Category | Description |
|---|---|
| Prenatal and postnatal leave | • Prenatal leave can be taken starting eight weeks before the expected delivery date (14 weeks before a multiple pregnancy).<br>• Postnatal leave is available for eight weeks after childbirth. |

| Category | Description |
| --- | --- |
| Long-term childcare leave | • Available for employees using child care center services up to the end of the month in which the child turns two years of age |
| Lower-hour work schedules for childcare | • A maximum reduction of two hours per day, calculated in 15-minute increments, available until the end of the fiscal year in which the child is in third grade of elementary school<br>• May be used concurrently with flextime system |
| Long-term family care leave | • Available for a total of 365 days per situation requiring leave to provide care<br>• May be split up |
| Spouse’s childbirth leave | • Available for three days in the event that an employee’s spouse gives birth |
| Lower-hour work schedules for caregivers | • May be taken multiple times per situation in the five-year period following the first day of use<br>• May be split up<br>• May be used concurrently with flextime system |
| Leave to care for sick children | • Five days per year of leave per child available until the end of the fiscal year in which the child is in third grade of elementary school<br>• Can be used on hourly basis |
| Family care leave | • Five days per year of leave available per family member<br>• Can be used on hourly basis<br>• At maximum 10 additional days per year available when no other appropriate caregiver is available |
| Toray Smile Support Program | • Welfare point system offering a selection of programs with an emphasis on providing support for childcare and home acquisition |
| Childcare services payment assistance | • Childcare coupons offering a 70% discount on services provided by participating companies issued as an additional Toray Smile Support Program service<br>• No restrictions on number of coupons or age of participating employee's child |

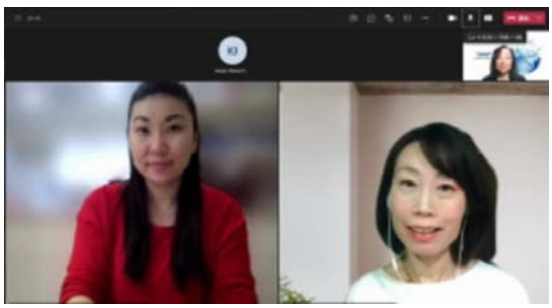
| Category | Description |
| --- | --- |
| Telecommuting program | • Available for employees who are proficient in their assigned duties, can perform these duties self-sufficiently, and meet certain requirements.<br>• Available up to three days (22.5 hours) per week and no more than a maximum of ten days (75 hours) per month for approved employees, who may use the program on a full-day or hourly basis. If an employee requests more than the maximum hours/days due to special circumstances, and it is deemed not to interfere with workplace management, the employee may telecommute for more than the maximum allowed under the program.<br>Note: In addition to the conditions above, since 2020, the program has also been used to address the COVID-19 pandemic. |
| Registration system for reemployment | • Registration system providing reemployment opportunities to former employees who resigned due to personal matters such as marriage, childbirth and childcare, nursing care for family members, or a spouse's work transfer<br>• The registration period is ten years. Registrants may be immediately eligible for regular employee positions depending on the content of their jobs, expectations of their role in the company, and their personal situations. |
| Commuting allowance for bullet train or other limited express travel | • Allowance for tickets for applicable distances on bullet trains or other limited express trains available for employees who wish to avoid (cease) living apart from their families due to job transfers or employees who bear personal responsibilities such as caring for family members<br>• In certain cases, employees may be required to pay a part of the commuting expenses out of pocket. |

Note: Toray Group employees working near Nihonbashi in Tokyo can use a local consortium-based child care center (Kids Square Nihonbashi Muromachi).

**Examples of Workplace Initiatives in fiscal 2021**

**Online Discussion Meeting Held Concerning Support for Balancing Work and Family Lives**

Toray Group has set up a section on its employee welfare site called WELBOX to provide information on various work-life balance support programs. WELBOX also shares examples of work-life balance achieved by Toray Group employees. In fiscal 2021, a new initiative, WELBOX Online Salone, was held as an online discussion meeting for those interested in the cases featured on the site. Reflecting on the themes of "balancing work and childcare" and "examples of career struggles," the participants shared their daily struggles, and used it as an opportunity for communication that went beyond the usual workplace boundaries. Going forward, the plan to continue holding this meeting about twice a year.



WELBOX online discussion meeting

### Utilization of Childcare and Family Care Leave Systems (Toray Industries, Inc.)

| FY | | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Employees taking childcare leave | Women | 68 | 58 | 60 | 66 | 56 |
| | Men | 3 | 4 | 10 | 22 | 40 |
| Employees taking family care leave | Women | 0 | 5 | 3 | 1 | 2 |
| | Men | 1 | 1 | 1 | 0 | 1 |

Note: Figures show the number of employees taking leave in each year.

### Number of Employees Who Returned to Work after Childcare Leave and Family Care Leave (Toray Industries, Inc.)

**Employees returning to work from childcare leave (%)**

**■Reporting scope**
Employees of Toray Industries, Inc.

**■Target in fiscal 2021**
100%

**Result in fiscal 2021**

**99.0%**

| | | FY2020 | | FY2021 | |
|---|---|---|---|---|---|
| | | Number of employees who returned to work | Percentage of employees who returned to work | Number of employees who returned to work | Percentage of employees who returned to work |
| Childcare Leave | Women | 64 | 97.0% | 59 | 98.3% |
| | Men | 18 | 100% | 38 | 100% |
| Family Care Leave | Women | 2 | 66.7% | 2 | 100% |
| | Men | 0 | - | 1 | 100% |

Note: Number/percentage of employees returning to work per fiscal year

### Employees taking leave for spouse's childbirth (Toray Industries, Inc.)

| FY | 2019 | 2020 | 2021 |
|---|---|---|---|
| Number of employees | 254 | 230 | 220 |

**Initiatives to Reduce Overtime and Encourage Use of Annual Paid Leave (Toray Industries)**

### Reduction in employees who exceed 45 hours/month of non-statutory working hours (%)

■Reporting scope
Toray Industries, Inc.

■Target in fiscal 2021
Year-on-year reduction

**Result in fiscal 2021**

**112.2%**

* In fiscal 2020, overtime work decreased due to pandemic restrictions on business activities. With the partial business recovery in fiscal 2021, overtime work increased compared to the previous fiscal year (76.0% compared to fiscal 2019)

### Available annual paid leave used by labor union members (%)

■Reporting scope
Toray Industries, Inc.

■Target in fiscal 2021
About 90%

**Result in fiscal 2021**

**89.6%**

As part of its commitment to workplace innovation, Toray Industries makes provisions to help employees balance work and family life. Since fiscal 2008, regular workplace discussions are held in each workplace to raise awareness of different working styles, and working late at night or on holidays is prohibited, in principle. All lights in the workplace are turned off at a certain time at night, and company-wide "no overtime days" take place one day each month. The Company has been working on ongoing initiatives to reduce overtime hours and encourage employees to take annual paid leave. (Employees used 89.6% of available annual paid leave in fiscal 2021).
In fiscal 2010, Toray Industries set up a Work-Life Balance Committee (renamed the AP-G 2022 Labor-Management Committee in fiscal 2020), which focuses on further improving and operating the systems. The committee follows up on work-life balance initiatives, including support for balancing work and family life, reducing excessive working hours, enhancing mental healthcare, and support for healthy work lives. In addition to reviewing further possible measures, the committee also analyzes current conditions regarding ideal work styles (required work styles, working conditions, and labor-management rules), identifies the issues involved, and reviews and proposes steps to be taken.

## Employee Health

Toray Industries sees employee health management as a management priority, and is taking strategic initiatives in this area. The group-wide Safety, Health, and Environment Committee reports on the results of health management initiatives, determines action plans, and promotes them in each workplace. Working in collaboration with the employee health insurance association, the Company actively promotes employee health by sharing health information via internal communication tools, holding participatory events using health information sites, and providing lifestyle disease prevention seminars.

Toray Industries is also addressing mental health, and since fiscal 2011 has been implementing employee stress check-ups through an external provider. This helps employees recognize their own stress levels and learn how to manage stress, which leads to an improved workplace environment. The stress check-ups are also carried out at group companies in Japan.
In recognition of these efforts, in March 2022, Toray Industries was again listed as a White 500 Company in the Certified Health and Productivity Management Organization Recognition Program.

**Examples of Workplace Initiatives in fiscal 2021**

**Physical Function Evaluations at the Mishima Plant (Toray Industries, Inc.)**

At the Mishima Plant of Toray Industries, a comprehensive health campaign (Health Promotion Plant -- Mishima) is being promoted to ensure that employees can work safely and in good health.
As part of this campaign, physical function evaluations recommended by the Japan Industrial Safety and Health Association were performed for employees of the factory and group companies operating on the premises. After completing a questionnaire, each person's physical function levels were measured. By confirming the gap between perceived and actual physical abilities, each individual's issues were identified. Participants were then encouraged to participate in the morning exercise program held at the plant before the start of work. Through these activities, the aim of the campaign is to improve the physical health of employees.
Going forward, Mishima Plant will continue to engage in activities to maintain and improve employee health through sleep seminars and walking events.

Function test (checking static balance while standing on one leg with eyes open)

## Dialogue with Labor Unions

Toray Industries holds meetings of the Central Labor and Management Council twice a year with the attendance of directors at the senior vice president level and higher and labor representatives at the union head level and higher. In addition to briefing the union on management information about Toray Group, the meetings facilitate ongoing dialogue with the union. In fiscal 2021, the number of meeting participants was limited in order to reduce the risk of COVID-19 infection.
Resolution of labor issues is undertaken at separate Labor and Management Council meetings.
Based on the union shop system, all regular employees, excluding those at the management level or accepted as exempted from labor-management consultations, are members of the Toray Workers' Union. As of March 2022, Toray Workers' Union membership stood at 8,168 workers.

Click here for the main initiatives for CSR Guideline 8, “Human Rights Promotion and Human Resources Development” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports)

# Facilitating CSR Initiatives Throughout the Supply Chain

**Promote CSR initiatives in areas including environmental preservation and human rights throughout the entire supply chain by working closely with suppliers, processing vendors, customers and distribution companies.**

## Basic Approach

Toray Group operates a wide range of businesses in countries and regions around the world. As a result, its procurement of raw materials and supplies and the locations and industries of its contractors and suppliers are diverse. At the same time, CSR initiatives in today's global society are increasingly important. They have become more diverse and advanced in the effort to address climate change, environmental protection, respect for human rights and improvements to the labor environment. These initiatives can no longer focus solely on a single company, and are being extended to encompass its entire supply chain.
To address this issue and ensure stable and sustainable procurement, Toray Group has established the Toray Group CSR Procurement Policies. The policies specify the Group's commitment to building a supply chain that not only ensures quality and supply stability, but also incorporates ethical, environmental, social and human rights considerations. Accompanying the policies, the Group has also formulated Toray Group CSR Procurement Guidelines to provide specific, detailed guidelines for action to further promote CSR throughout the supply chain. Suppliers are required to comply with the guidelines.

## Related Policies

**Toray Group CSR Procurement Policies** Revised March 2022[1]

1. Establish an internal CSR organization to facilitate CSR initiatives throughout the supply chain and sincerely committed to it.
2. Promote fair transactions grounded in corporate ethics, and comply fully with all laws and regulations, as well as social norms inside and outside Japan, when making purchases.
3. Take into account the impacts that purchasing activities have on the labor environment and health and safety. Also, engage in risk management through, for example, responding swiftly to unexpected situations and disclosing accurate information.
4. While appropriately managing chemical substances, pursue raw materials procurement that takes into account impacts on the environment such as green procurement and green purchasing.
5. Promote dialogue and cooperation with business partners and other stakeholders.
6. Maintain and strive to improve product quality and safety.
7. Respect human rights, eliminate all forms of discrimination, and strive to improve workplace environments. Additionally, do not be complicit in the infringement of human rights in the supply chain, such as through forced labor, slave labor, child labor, and unjust low-wage labor.
8. Do not use minerals from conflict regions or high risk regions, nor minerals that clearly contribute to conflicts or infringe upon human rights.
9. Prevent leaks of confidential information and respect intellectual property rights.
10. In selecting business partners, take into account their CSR initiatives, such as compliance with laws and regulations, respect for human rights, environmental preservation, and the like, while seeking strict adherence to the Toray Group CSR Procurement Guidelines and facilitating CSR initiatives throughout the supply chain.

1 Approved by a resolution of the Board of Directors, the Toray Group CSR Procurement Policies are the new and revised version of the earlier CSR Procurement Guidelines, which were formulated in 2004.

**Toray Group CSR Procurement Guidelines** Formulated March 2022

The new CSR Procurement Guidelines were formulated in March 2022 and comprise the following items.

1. Ethics and Compliance
   (1) Legal Compliance
   (2) Strict Adherence to Competition Laws
   (3) Preventing Corruption and Prohibiting Bribery
   (4) Prohibition against Behavior that Presents a Conflict of Interest
   (5) Protecting Confidential Information and Personal Information
   (6) Whistle-blowing System and Whistle-blower Protections
   (7) Appropriate Import/Export Management
   (8) Respect for and Safeguarding of Intellectual Property
   (9) Appropriate Information Disclosure
   (10) Responsible Procurement of Mineral

2. Safety, Accident Prevention, and Risk Management
   (1) Occupational Safety Management
   (2) Occupational Health Management
   (3) Responding in Times of Emergency
   (4) Business Continuity Plan (BCP) Initiatives
3. Environmental Preservation
   (1) Environmental Management
   (2) Reduce Emissions of Greenhouse Gases
   (3) Minimize Impacts on the Environment
   (4) Resource Reduction and Waste Product Management
   (5) Chemical Substance Management
   (6) Concern for Biodiversity
4. Product Quality and Safety
   (1) Maintain and Improve Quality
   (2) Product Safety
5. Human Rights Promotion
   (1) Respect for Fundamental Human Rights and Elimination of Discrimination and Harassment
   (2) Prohibition of Child Labor and Due Consideration toward Young Workers
   (3) Prohibition of Forced Labor and Slave Labor
   (4) Wages and Benefits
   (5) Working Hours
   (6) Dialogue and Cooperation with Employees
6. Facilitating CSR initiatives throughout the Supply Chain
   (1) Request for Initiatives to Business Partners

## Policies on Purchasing and Distribution

As a manufacturer of advanced materials that supplies a wide range of materials and products, Toray Group must expand CSR initiatives into upstream management, including production facilities and the procurement of raw materials and products. It has therefore established Basic Purchasing Policies together with Basic Distribution Policies. The entire Group works to fulfill its social responsibilities relating to procurement, purchasing, and distribution. These include measures to ensure fair and equitable transactions, quality improvement, legal compliance, environmental protection, and respect for human rights.

**Related Policies**

**Basic Purchasing Policies** Revised March 2022

1. Toray does its utmost to select suppliers and determine actual purchases fairly and on the basis of economic rationality, with consideration for price, quality, capability to provide stable supplies, technological capabilities, reliability, and other factors.

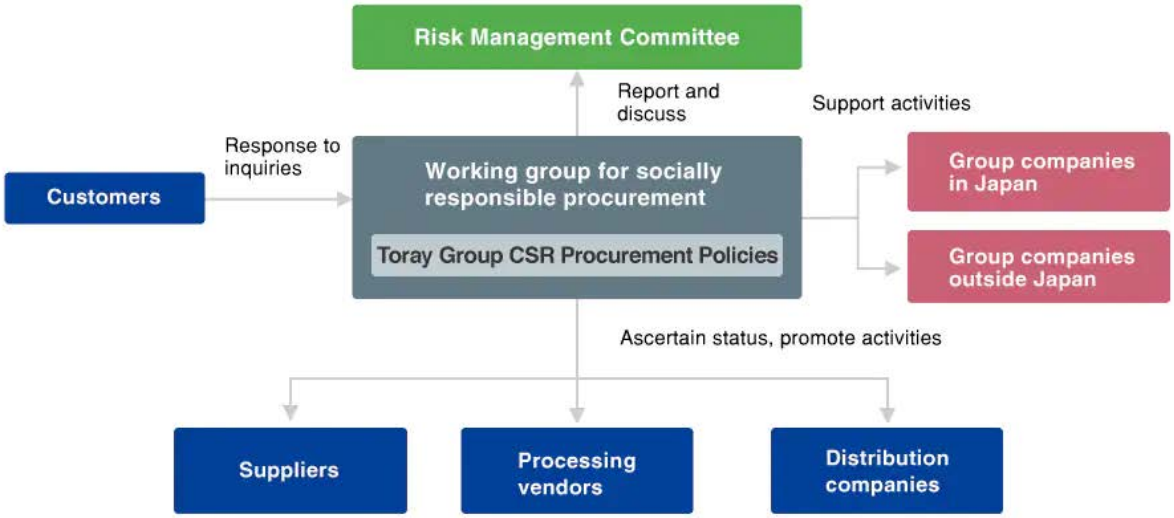
2. In selecting suppliers, Toray opens its doors to a wide range of companies inside and outside Japan. Toray does not rely solely on vendors it has existing or past relationships with, or on members of its corporate group.
3. Toray works to maintain and improve the quality of purchased products through cooperation with its suppliers.
4. Toray strictly adheres to its Toray Group CSR Procurement Policies and Toray Group CSR Procurement Guidelines, and works to promote purchasing that upholds Toray's corporate social responsibilities on a company-wide basis.

**Basic Distribution Policies** Revised March 2022

1. Toray does its utmost to select transport and warehousing providers and determine individual agreements impartially and based on factors such as economic rationality with consideration given to price, quality, supply stability, technological capabilities, reliability, and efforts to reduce environmental impact.
2. In selecting transport and warehousing providers, Toray opens its doors to a wide range of companies, rather than relying exclusively on companies with which we have done business in the past or companies affiliated with Toray Group.
3. Toray works to cooperate with our transport and warehousing providers in gauging and reducing the environmental impact of our transport and warehousing operations.
4. Toray strictly adheres to its Toray Group CSR Procurement Policies and Toray Group CSR Procurement Guidelines, and works to promote distribution activities that uphold Toray's corporate social responsibilities on a company-wide basis.

## Structure

To ensure socially responsible procurement across the Group and address today's increasingly globalized procurement risks, Toray Industries, Inc. has established a working group to lead a group-wide risk management initiative. The working group strives to ascertain the status of CSR practices at suppliers, responds to customer inquiries about Toray Industries' CSR practices, and supports group companies in this area. The working group also regularly reports on the progress of socially responsible procurement and related risk mitigation initiatives across the Group to the Risk Management Committee, which oversees overall risks. The issues reported are discussed by the committee members.



Further, initiatives are taken to ensure that the concept of socially responsible procurement permeates and is upheld throughout the entire Toray Group. Toray Industries, Inc. provided e-learning on CSR, including content on socially responsible procurement, for every executive and employee, including contracted, part-time, and dispatched workers, in November 2020 and February 2021. The training was taken a total of 13,947 times.
Toray Industries is also engaged in activities to spread awareness to group companies in and outside Japan by distributing internal educational materials that describe the necessity of socially responsible procurement, required activities, and examples of risks.

## Initiatives for Human Rights and Environmental Due Diligence[2] in the Supply Chain

Due diligence concerning the human rights and environmental activities of suppliers is used to identify and evaluate human rights and environmental risks in the supply chain. It allows risk prevention and mitigation measures to be taken. Toray Group carries out this due diligence in accordance with the process stipulated in the “OECD Due Diligence Guidance for Responsible Business Conduct” issued by the Organisation for Economic Co-operation and Development (OECD).
Toray Group has established policies related to this activity. It has implemented the Toray Group Policy for Human Rights, which prohibits child labor, forced labor, and unfair low-wage labor, and requires the respect for human rights throughout the entire supply chain. In the area of environmental preservation, the Group has also established Ten Basic Environmental Rules, Recycling Activity Principles, Toray Group Biodiversity Initiatives, and the Toray Group’s Basic Policy for Increasing Green Areas. The Toray Group CSR Procurement Policies and Toray Group CSR Procurement Guidelines have also been created to promote respect for human rights and environmental preservation throughout the supply chain.

Specific initiatives include regular implementation and analysis of the CSR Procurement Survey for business partners, establishment of the whistleblowing hotline system, surveys of high-risk issues related to CSR procurement, confirmation of business partner risks using a company search system, and identification of any negative impacts on human rights and the environment. Negative impacts are handled through measures such as requesting improvements from companies with low scores based on the CSR Procurement Survey, and conducting follow-up visits and confirmation.

Information about these activities is shared both in and outside the Company using the Group website and other means.

Toray Group will continue to promote initiatives to prevent and reduce any negative impacts on human rights and the environment that might occur in the supply chain.

2 To prevent or reduce the negative impacts that a company may have on society, a continuous due diligence process is used. It involves proactively investigating and identifying problems, correcting them through appropriate measures, and publicly disclosing these activities.

**Related Information**

> Initiatives to Mitigate Global CSR Procurement Risk

## CSR Roadmap 2022 Targets

### CSR Roadmap goals

To ensure socially responsible procurement by the Toray Group, request major suppliers and businesspartners to practice CSR and work with suppliers to promote greater awareness of human rights, social,and environmental issues

### Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| (1) Request suppliers to practice CSR, including by conducting CSR surveys and audits, and having them make pledges, and strive to understand the status of each company's CSR initiatives | 9-❶❷ |
| (2) Address issues in the supply chain such as human rights challenges and conflict mineral issues | - |
| (3) Reduce $CO_2$ emissions intensity from distribution activities | 9-❸ |
| (4) Promote modal shift[3] across distances of 500 km or more | 9-❹ |

| | KPI |
|---|---|
| (5) Continually work to reduce the environmental impact and improve the quality of distribution activities | - |
| (6) In accordance with the Declaration of Voluntary Activities for the White Logistics Movement,[4] contribute to sustainable logistics, for instance by selecting logistics companies that are engaged in working style reform, etc. | - |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| **9-❶ Group companies requesting their suppliers to practice CSR (%)** | At least 80% | At least 90% | At least 95% | 87% |
| **9-❷ Suppliers confirming the status of CSR initiatives as requested by Toray Group (%)** | At least 70% | At least 70% | At least 70% | 87% |
| **9-❸ Reduction in $CO_2$ emissions intensity from distribution activities (year-on-year)** | 1% | 1% | 1% | 3.9% |
| **9-❹ Modal shift to sea or rail for transport across distances for 500 km or more (%)** | 40% (Fiscal 2022 target) | | | 27% |

Reporting scope : Toray Group (9-❶ and 9-❷)
Toray Group (Only specified consigners) (9-❸)
Toray Industries, Inc. (9-❹)

3 The shifting of freight transportation by truck or other vehicle to railways and ships, which have a smaller environmental impact
4 A movement aimed at ensuring stable logistics function necessary for people's lives and for industrial activities while also contributing to economic growth in response to the shortage of truck drivers

### Related Materiality for CSR

- Managing social and environmental impact of suppliers

Click here for a PDF summary of materiality-related CSR Roadmap 2022 main initiatives, KPIs and progress (PDF: 1.6MB). PDF

## Looking to the Future

In recent years, there has been an increasing demand for companies to address social issues such as human rights and environmental problems throughout the supply chain. Toray Group believes that socially responsible procurement must be pursued together with suppliers. It will continue to identify and evaluate progress on CSR practices in all processes, including the procurement of raw materials and supplies across the entire Group, as well as production activities by contractors and processing vendors. Toray Group will promote greater awareness of human rights, social, environmental, and other CSR issues while mitigating risks across the supply chain.

CSR Activity Report (CSR Guideline Activity Reports) - Facilitating CSR Initiatives Throughout the Supply Chain

# Socially Responsible Procurement Initiatives at Toray Group

## Toray Group's Socially Responsible Procurement

CSR Roadmap 2022
Main Initiatives (1)(2)

### Group companies requesting their suppliers to practice CSR (%)

■Reporting scope
Toray Group

■Target in fiscal 2021
At least 90%

Result in fiscal 2021

**87%**

### Suppliers confirming the status of CSR initiatives as requested by Toray Group (%)

■Reporting scope
Toray Group

■Target in fiscal 2021
At least 70%

Result in fiscal 2021

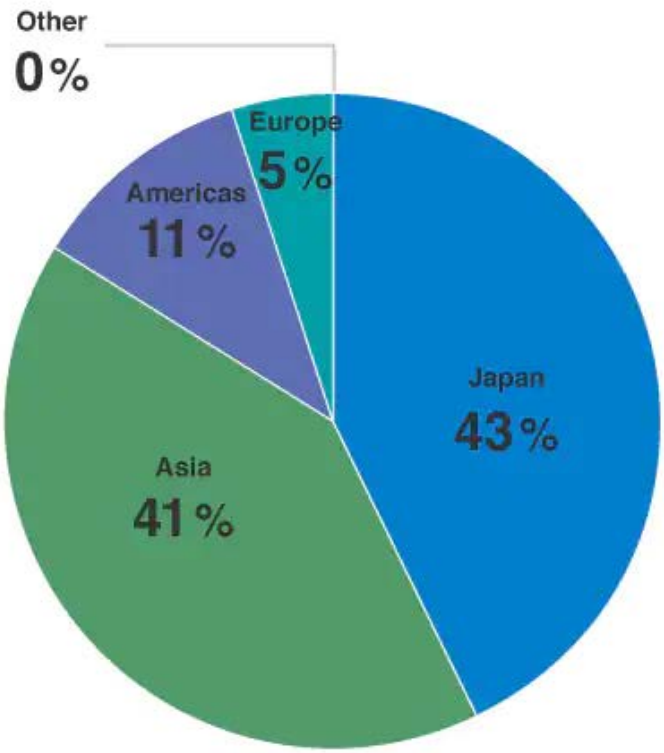
**87%**

### Toray Group Supply Chain

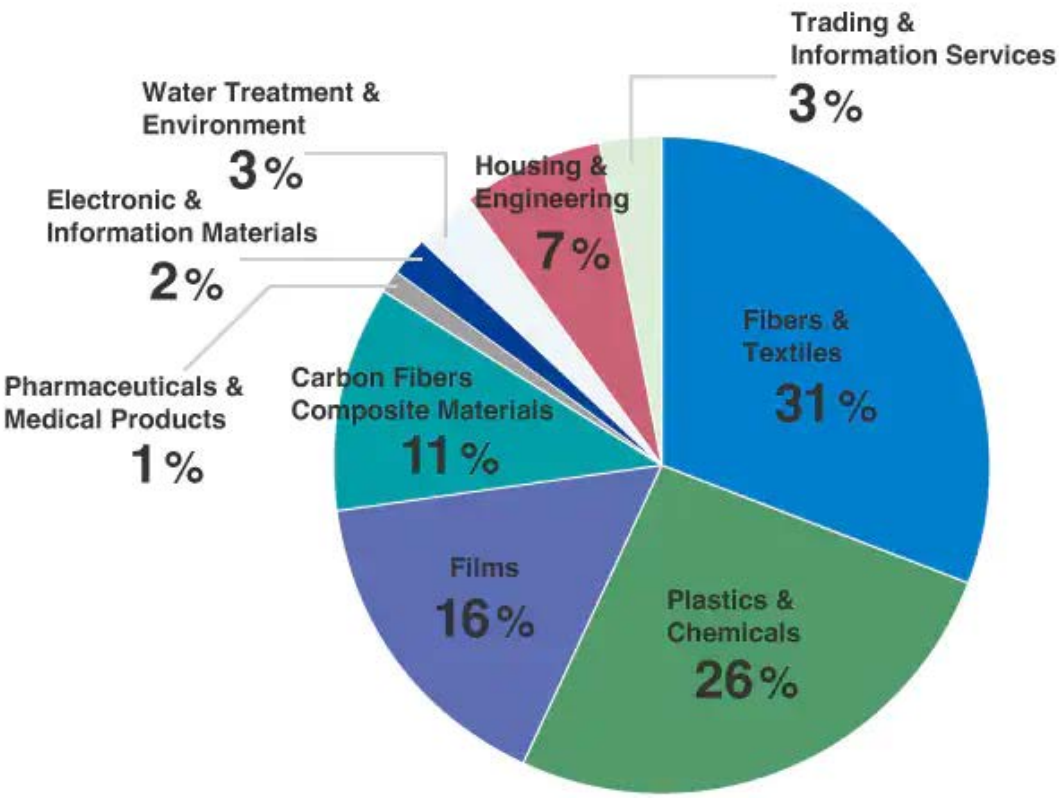
Toray Group's supply chain extends to diverse countries and regions around the world. In fiscal 2021, the Group's purchasing by region was 43% in Japan, 41% in the rest of Asia, 11% in the Americas, and 5% in Europe. Purchasing by business segment was 31% for Fibers & Textiles, 26% for Plastics & Chemicals, 16% for Films, 11% for Carbon Fibers Composite Materials, and 16% for others.

**Fiscal 2021 Purchasing Breakdowns by Region and Business Segment (Based on Transaction Value)**

**Purchasing Breakdown by Region**



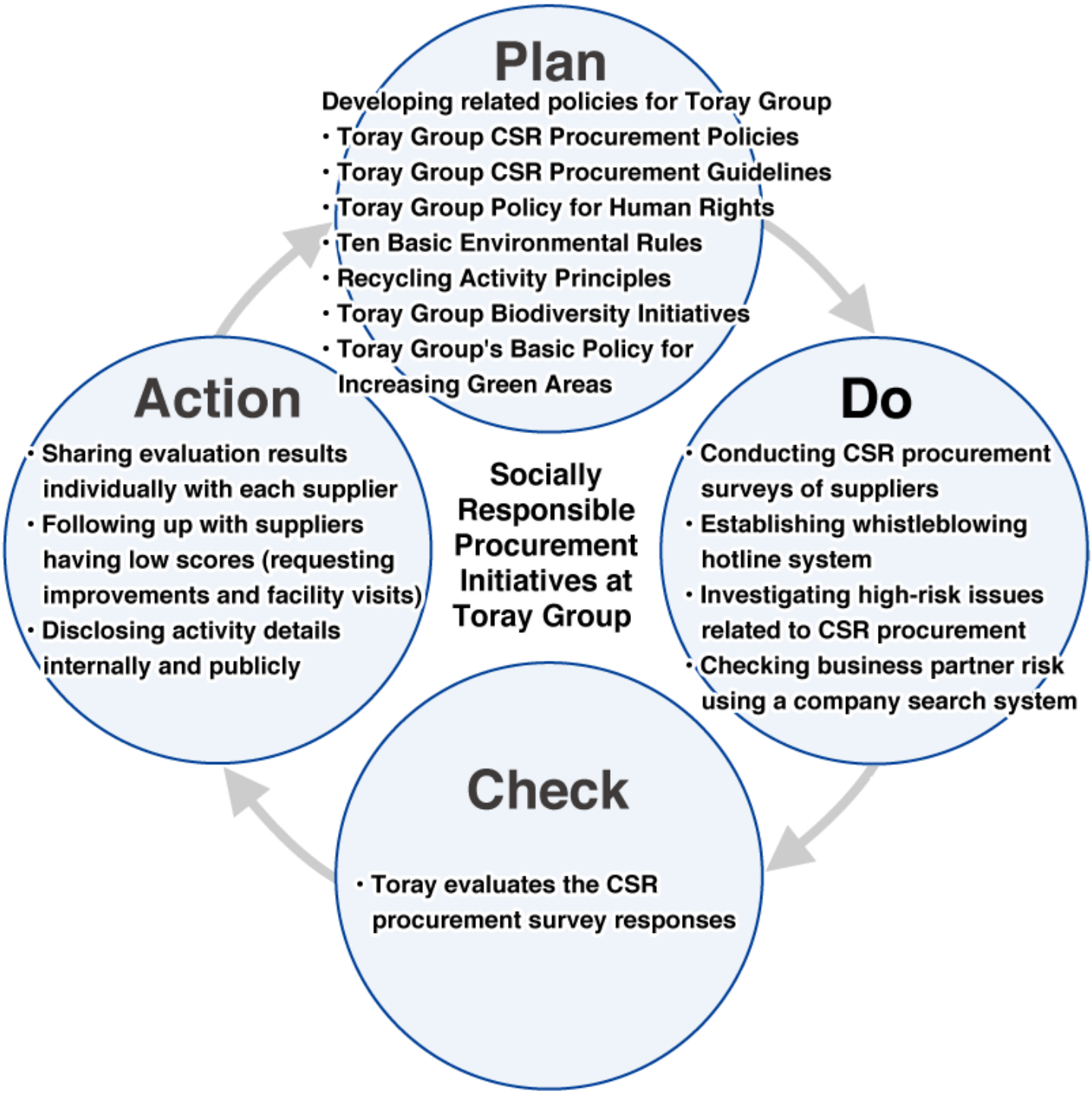

**Purchasing Breakdown by Business Segment**



**Socially Responsible Procurement Initiatives at Toray Group**

With its global supply chain, Toray Group places top priority on ascertaining suppliers' CSR activities and requesting them to implement the necessary initiatives. Toray Group is facilitating CSR initiatives across its supply chains, including at group companies around the world. These efforts include developing a socially responsible procurement system, responding to customers' requests for CSR practices, ascertaining and providing education on supplier CSR initiatives, carrying out CSR surveys of suppliers, requesting CSR initiatives through signed agreements and commitments, and requesting compliance with the Toray Group CSR Procurement Guidelines.
In fiscal 2021, the number of group companies requesting their suppliers to practice CSR was 139 (87%) out of the 159 applicable companies (group companies whose production activities include purchasing and/or outsourcing production). Group companies that have not yet completed such requests will do so.
In addition, Toray Group uses its own questionnaire survey system to conduct CSR surveys of suppliers. The Group has established a plan-do-check-action (PDCA) cycle by regularly monitoring suppliers' CSR initiatives, assessing suppliers based on uniform group standards, providing feedback on the results to suppliers, and following up on poor-performing suppliers. In this way, the Group endeavors to raise suppliers' awareness and efficiently and effectively lower CSR risks across the supply chain.
Through these initiatives, in fiscal 2021, of major suppliers that Toray Group identified as in need of confirmation of their CSR practices, 87% were confirmed to be meeting Toray Group's standards in their work on CSR.

PDCA Cycle for Supply Chain Management



## Main Items of CSR Surveys of Suppliers

### I. CSR promotion system

- ☐ Establishment of and familiarity with policies and guidelines
- ☐ Establishment of internal system and selection of responsible parties
- ☐ Establishment of goals and plans, review of activity results

### II. Corporate ethics and compliance

- ☐ Prevention of bribery, corruption, etc.
- ☐ Prevention of misuse of advantageous position and bid-rigging
- ☐ Compliance with changes in laws and regulations and educating employees about changes
- ☐ Protection of confidential information and personal information
- ☐ Protection of and respect for intellectual property
- ☐ Avoidance of all involvement with organized criminal groups
- ☐ Prevention of use of technology barred under regulations and illegal exports
- ☐ Identification of use of conflict minerals and cobalt and country of origin

### III. Occupational safety and health

- ☐ Safety measures in workplace and improvements to working environment
- ☐ Prevention of occupational accidents
- ☐ Prevention of accidents and health risks
- ☐ Adoption of management system related to occupational safety

### IV. Disaster prevention and risk management

- ☐ Development of education, training and manuals for disasters
- ☐ Establishment of business continuity plan (BCP) for large-scale disasters
- ☐ Establishment of BCP for pandemic
- ☐ Defense against threats on computer network

### V. Environmental conservation

- ☐ Obtaining and maintaining authorizations and registrations
- ☐ Prevention of pollutants and waste, promotion of resource use (3Rs: reduce, reuse, recycle)
- ☐ Appropriate management of chemical substances and pollutants in line with laws and regulations
- ☐ Reduction of the emission of greenhouse gases
- ☐ Green procurement, green purchasing, energy conservation activities
- ☐ Consideration for water resources and biodiversity and implementation of assessments
- ☐ Introduction of environmental conservation management system

### VI. Interaction with stakeholders

- ☐ Disclosure of financial information and non-financial information
- ☐ Setting up hotlines for consultation and reporting, protection of whistleblowers
- ☐ Support for community activities and activities contributing to society, and encouragement of participation in such activities

### VII. Product safety and quality assurance activities

- ☐ Assessment of product safety, management of substances contained in products
- ☐ Provision of information on specifications, quality and handling

### VIII. Human rights and labor

- ☐ Ban on illegal and inhuman labor practices, such as forced labor and child labor
- ☐ Provision of appropriate information to foreign workers and employment
- ☐ Prevention of undue low wages and wage reductions, as well as labor that exceeds statutory limits
- ☐ Ban on harassment, physical punishment, abuse, etc.
- ☐ Protection for freedom of association and collective bargaining, etc.
- ☐ Responding to the impact of COVID-19

### IX. CSR initiatives in supplier's own supply chain

- ☐ Requests for promotion of CSR along supply chain

# Socially Responsible Procurement Initiatives at Toray Industries

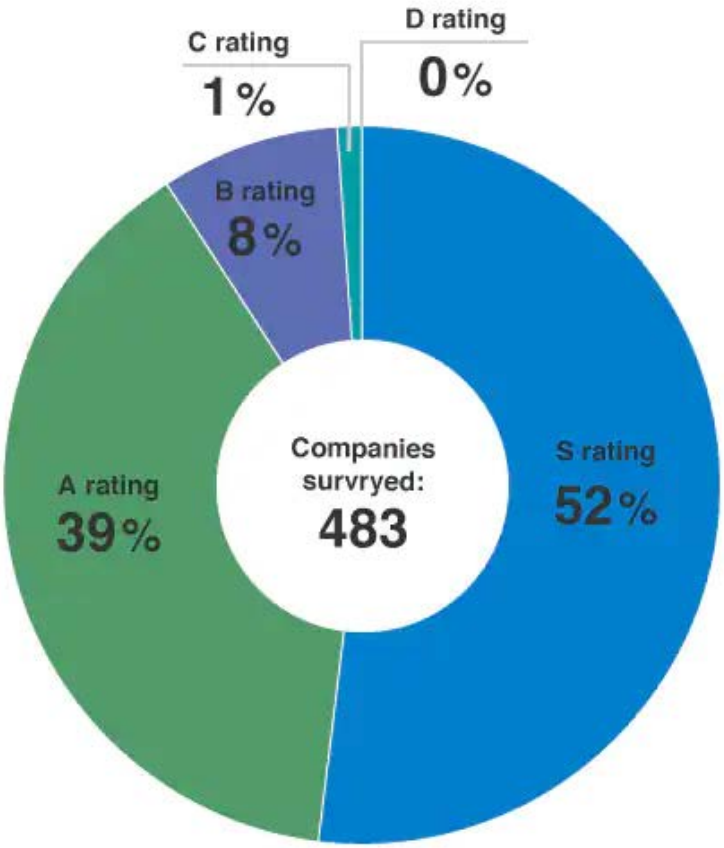
CSR Roadmap 2022
Main Initiatives (1)(2)

Every two years, in principle, Toray Industries carries out a CSR survey of major suppliers, business partners and distribution companies which together are responsible for 90% of the Company's total procurement value. Questions are established based on the Toray Group CSR Procurement Policies and the Toray Group CSR Procurement Guidelines. The surveys exhaustively confirm the extent to which suppliers are addressing CSR, requesting actions on a variety of social issues such as respect for human rights, reduction of greenhouse gas emissions, consideration for water resources and biodiversity, and implementation of environmental assessments.
In fiscal 2020, Toray Industries carried out CSR surveys of 483 major suppliers. The results indicated that about 99% of companies surveyed were rated S, A or B[1] for CSR practices, thus meeting the Company's standards for business partners. The companies surveyed rated C or D, requiring further investigation of their CSR practices, accounted for just 1%.
The assessment results have been fed back to each company along with the contents of the analysis. In fiscal 2021, the Company individually visited all seven suppliers that were rated C or D to confirm actual conditions and discuss measures for improvement. In fiscal 2022, the Company will again survey its major suppliers, including those that received C or D evaluations in the previous survey, to confirm the progress situation at each business partner. Toray Industries is aiming to facilitate awareness of CSR throughout the supply chain and to promote CSR initiatives.
In parallel with those efforts, Toray Industries is asking its suppliers to understand and comply with the Toray Group CSR Procurement Guidelines, as part of efforts to further enhance CSR activities throughout the entire supply chain. These guidelines outline specific and detailed requirements for areas such as ethics, compliance, safety, accident prevention, risk management, environmental preservation, product quality and safety, and human rights promotion.
In addition, rules for responses to CSR surveys from customers are set and a system is in place to facilitate prompt and accurate responses.

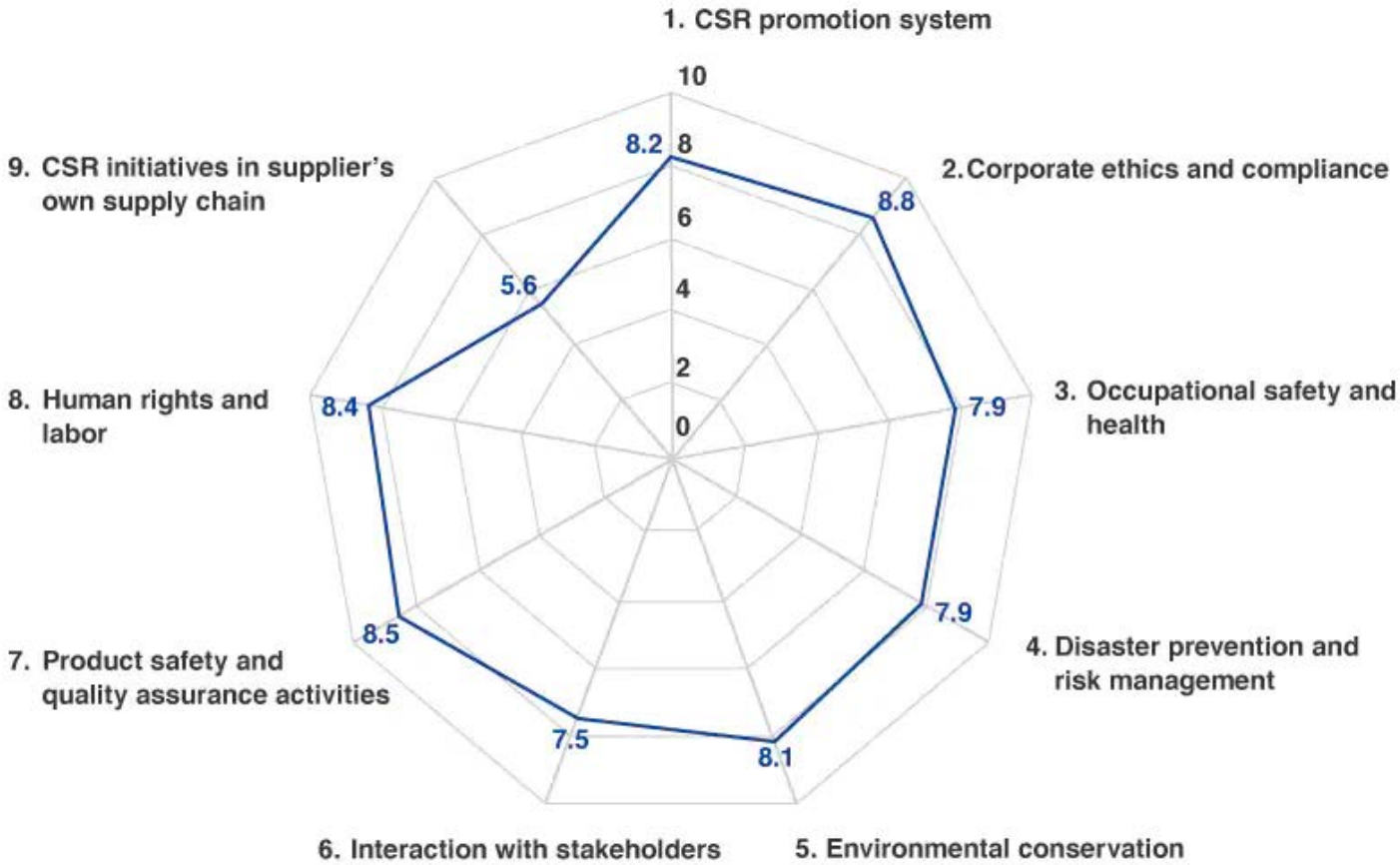
1 Survey responses are assessed on a 10-point scale for each of the nine survey items. Taking the average score for the nine items as the overall score, 8 or more points is rated as S, 6 or more points but less than 8 is rated as A, 5 or more points but less than 6 is rated as B, 3 or more points but less than 5 is rated as C, and less than 3 points is rated as D.

| | |
|---|---|
| **Percentage of suppliers with the level of efforts required by the Company (Rated as S, A, or B)** | **99%** |

**Fiscal 2020 CSR Status of Suppliers (Toray Industries, Inc.)**




**Fiscal 2020 Analysis of CSR Survey of Suppliers (Toray Industries, Inc.)**



## Socially Responsible Procurement Initiatives at Toray Group Companies in and outside Japan

CSR Roadmap 2022
Main Initiatives (1)(2)

Toray Group Companies in and outside Japan have also established their own internal systems and rules, and are conducting CSR procurement surveys of their suppliers. They also ask suppliers to comply with the Toray Group CSR Procurement Guidelines, while conducting audits and other measures to continually ascertain the status of supplier CSR initiatives and to request improvements.

Group companies outside Japan ask their suppliers to implement CSR initiatives. For suppliers that have not received such requests, Toray Industries conducts CSR procurement surveys and other measures to support CSR procurement at overseas group companies.

In fiscal 2021, Toray Industries conducted a questionnaire survey of 111 suppliers of overseas group companies.

Group companies in Japan also pursue CSR procurement with their suppliers. In fiscal 2021, a CSR procurement survey was sent to 1,042 suppliers of domestic group companies.

In addition to checking the CSR promotion situation at each supplier using the questionnaire, the relevant evaluation results were shared with each supplier as feedback. The suppliers requiring further investigation of their CSR practices were subject to such investigation, and Toray Group companies in Japan requested that suppliers requiring further investigation of their CSR practices make improvements.

Moreover, the questionnaire survey system used by Toray Industries is being expanded to group companies worldwide. By standardizing evaluation criteria and sharing the CSR promotion situations at suppliers, CSR risks across the Group's entire supply chain are being reduced efficiently and effectively.

## Human Rights in the Supply Chain

CSR Roadmap 2022
Main Initiatives (1)(2)

Toray Group believes that respect for human rights and environmental preservation are especially crucial elements in ensuring that the supply chain is stable and sustainable. The Toray Group CSR Procurement Policies state that Toray will work to build a supply chain that promotes human rights and preserves the environment. Toray requests that suppliers comply with the Toray Group CSR Procurement Guidelines by taking measures to protect the environment and by respecting human rights, while prohibiting forced labor, slave labor, child labor, and unfair low-wage labor.

With the CSR procurement questionnaire, the Company strives to understand and evaluate suppliers' initiatives related to human rights, labor practices, and environmental preservation. It also ascertains and prevents issues from arising in the supply chain.

### Results of Fiscal 2020 CSR Survey of Suppliers Regarding Respect for Human Rights

The survey conducted by Toray Industries in fiscal 2020 confirmed a high rate of implementation of initiatives on 10 survey items, excluding those related to requests to secondary suppliers, out of 11 items related to human rights and labor. In fiscal 2021, the Company conducted individual status checks and requested responses from those suppliers who answered “Will address in one year” ([1] in the table below) and “Not addressed” ([0] in the table below).

In addition, in an effort to ascertain and prevent potential human rights issues within the supply chain, the fiscal 2020 survey included new questions to determine whether suppliers have been giving due consideration to and have been taking appropriate measures to address various human rights issues such as employment and labor issues that could have arisen due to the COVID-19 pandemic. In fiscal 2021, the Company checked the status of suppliers who indicated that they had not yet done so and asked them to take measures.

| Survey Questions | Implementation rate | Survey results (The results are ranked from 0 to 4. 0 and 1 mean that the company has not addressed the issues.) |
|---|---|---|
| 1. Have policies and guidelines been set and employees educated about respect for human rights, eliminating discrimination and improving the work environment? | 99.4% | [4] 51% [3] 31% [2] 18% [1] 0% [0] 0% |
| 2. Has an internal system been set up and people responsible for its promotion been designated in regards to respect for human rights, eliminating discrimination and improving the work environment? | 98.9% | [4] 49% [3] 27% [2] 23% [1] 0% [0] 1% |
| 3. Have goals and plans been set, activity results reviewed and mechanisms for making improvements and corrections devised in regards to respect for human rights, eliminating discrimination and improving the work environment? | 98.3% | [4] 40% [3] 24% [2] 34% [1] 1% [0] 1% |
| 4. Are there rules to completely avoid forced labor, labor for debt repayment, slave labor, involuntary or exploitative labor, and/or child labor? | 96.2% | [3] 96% [1] 2% [0] 2% |
| 5. Are there rules to ensure that foreign workers are given employment contracts and employment regulations in a language that they can understand, and that there is no confiscation, concealment, destruction, or misuse of ID, passports, and work permits? | 92.7% | [3] 93% [1] 6% [0] 2% |
| 6. Are conditions appropriately managed and operated in line with applicable laws, including welfare, to prevent wages that are below the minimum wage, inappropriate reductions and labor that exceeds the legal limit? | 98.9% | [3] 99% [1] 1% [0] 0% |
| 7. Are conditions appropriately managed and operated to ensure that sexual harassment, power harassment, physical punishment, emotion or physical abuse, pressure and other inhuman treatment and actions do not occur? | 96.8% | [3] 97% [1] 3% [0] 1% |
| 8. Are conditions appropriately managed and operated to ensure that the rights to freedom of association, assembly and collective bargaining are not illegally or inappropriately impeded or denied and that no retaliation is taken? | 98.1% | [3] 98% [1] 1% [0] 1% |
| 9. Are conditions appropriately managed and operated to ensure that in recruiting, hiring and employing people, race, the color of one' s skin, age, gender, sexual orientation, nationality, religion and other factors do not result in discriminatory action? | 96.2% | [3] 96% [1] 2% [0] 1% |
| 10. Is due consideration given to various employment, human rights, and labor issues that may arise due to the spread of COVID-19 and appropriate responses taken? | 98.9% | [3] 99% [1] 1% [0] 0% |
| 11. Do you ask your suppliers to make improvements in regard to respect for human rights, the eradication of discrimination and improvement of the labor environment? | 69.2% | [4] 14% [3] 26% [2] 30% [1] 7% [0] 23% |

Supplemental information:

[4] Addressed well

[3] Addressed

[2] Addressed at minimum level

[1] Will address in one year

[0] Not addressed

For questions 4 to 10, only [3], [1], and [0] are used; no value has been set for [4] or [2].

**Results of Fiscal 2020 CSR Survey of Suppliers Regarding Environmental Preservation**

Toray Group considers the reduction of greenhouse gas emissions and biodiversity conservation to be important issues for preserving the global environment and checks progress at suppliers through a CSR procurement survey. The survey conducted by Toray Industries in fiscal 2020 confirmed a high rate of implementation of initiatives on 11 survey items, excluding those related to requests to secondary suppliers, out of 12 items related to environmental preservation. In fiscal 2021, the Company analyzed and evaluated the environmental initiatives of each respondent based on the questionnaire results, and provided feedback to each one. Toray requested that suppliers who had not taken sufficient measures take the appropriate steps. The Company will continue to promote environmental preservation efforts throughout its supply chain and procure environmentally friendly raw materials.

| Survey Questions | Implementation rate | Survey results (The results are ranked from 0 to 4. 0 and 1 mean that the company has not addressed the issues.) |
|---|---|---|
| 1. Have you stipulated the policies or guidelines for promote environmental preservation and familiarized them with your employees? | 98.3% | [4] 67%, [3] 11%, [2] 20%, [1] 1%, [0] 1% |
| 2. Have you prepared the internal system and designated the responsible person to promote environmental preservation? | 97.9% | [4] 64%, [3] 15%, [2] 19%, [1] 1%, [0] 1% |
| 3. Do you have any mechanism to identify risks, institute the goals / plans, verify and improve / correct results of the activities in relation to environmental preservation? | 98.3% | [4] 62%, [3] 13%, [2] 23%, [1] 1%, [0] 1% |
| 4. Have you acquired and maintained, and kept up to date all permissions and registrations to be required by the laws and public administration, etc. for the environment? | 95.0% | [3] 95%, [1] 4%, [0] 1% |
| 5. Do you control discharge of pollutant and generation of waste and perform the efforts of saving resource and energy including reduction / reuse / recycle (3R) , etc.? | 94.2% | [3] 94%, [1] 5%, [0] 1% |
| 6. Do you comply with the applicable laws / regulations, (REACH, ROHS, etc.) for, and appropriately manage the procured chemical substances? | 96.0% | [3] 96%, [1] 3%, [0] 1% |
| 7. Do you appropriately manage discharge of chemical substances into environment including air pollutant and water pollutant and perform the efforts for reduction? | 92.4% | [3] 92%, [1] 5%, [0] 2% |
| 8. Do you appropriately manage emission of greenhouse gas and perform the efforts for reduction (prevention of global warming)? | 84.0% | [3] 84%, [1] 10%, [0] 6% |
| 9. Do you perform the activities concerning reduction of environmental load and energy saving including green procurement of raw materials and packing materials, green purchasing of office supplies office machinery, power saving of offices, use of EV cars? | 94.7% | [4] 48%, [3] 47%, [1] 2%, [0] 3% |
| 10. Do you understand your business activities which may cause an impact on water resources and biodiversity, consider sustainable use of resources and perform the activities to minimize the impact for preservation of biodiversity? | 91.0% | [4] 42%, [3] 49%, [1] 2%, [0] 7% |
| 11. Do you perform the environmental assessment regarding the products (assessment of the products' impact on the environment)? | 83.4% | [4] 46%, [3] 37%, [1] 5%, [0] 12% |
| 12. Do you request the suppliers for promotion of environmental preservation? | 79.7% | [4] 17%, [3] 32%, [2] 31%, [1] 5%, [0] 15% |

Supplemental information:

[4] Addressed well

[3] Addressed

[2] Addressed at minimum level

[1] Will address in one year

[0] Not addressed

For questions 4 to 8, only [3], [1], and [0] are used; no value has been set for [4] or [2].

For questions 9 to 11, only [4] [3], [1], and [0] are used; no value has been set for [2]."

As part of efforts to promote human rights protections and environmental conservation in the supply chain, the Company enables individuals to report relevant issues at any time via the Toray website. Out of a total of 276 inquiries and consultations received in fiscal 2021 via the CSR inquiry form on the Toray website, none were related to human rights in the supply chain.

**Related Information**

> Inquiries concerning CSR initiatives by Toray Group and its business partners

## Human Rights Training for Contracted Security Companies

CSR Roadmap 2022
Main Initiatives (2)

Toray Group outsources security services to companies specialized in that field, depending on the situation in the area where a business site is located.
In addition to training on the guard services required, the Group also provides training on human rights as necessary when contracting services.

## Addressing Conflict Minerals

CSR Roadmap 2022
Main Initiatives (2)

In recent years, the public has become more concerned about responsible procurement of minerals. In particular, the four minerals of gold, tin, tantalum and tungsten often mined in the Democratic Republic of Congo and surrounding countries have sometimes been a source of funding for armed groups. For this reason, under Section 1502 of the Dodd Frank Act in the United States, publicly traded companies have obligations for reporting and disclosing use of these minerals.
To comply with the rules, Toray Industries investigates whether conflict minerals are used in any of the raw materials and production equipment used for its products. If conflict minerals are used, the Company investigates the suppliers to determine the locations of smelters and mines.
In fiscal 2021, the Company also investigated products made using any of four raw materials: tin, tantalum, tungsten, and gold. It confirmed that none of the raw materials used were from conflict areas. Toray Industries has also set up an internal system for surveys and responses so that it can respond promptly and appropriately to requests from customers in regard to surveys on conflict minerals.

Click here for the main initiatives for CSR Guideline 9, “Facilitating CSR Initiatives Throughout the Supply Chain” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Facilitating CSR Initiatives Throughout the Supply Chain

# Toray Group Distribution Initiatives

## Working Together with Business Partners

CSR Roadmap 2022
Main Initiatives (3)(5)(6)

### Holding Basic Distribution Policy Briefings

Toray Industries, Inc. promotes understanding of Toray Group's distribution policies and works to improve distribution performance with annual Basic Distribution Policy Briefings for logistics companies as part of its ongoing effort to improve quality and reduce the environmental impact of its distribution process. In fiscal 2020, the briefing was canceled due to COVID-19, but was held online in fiscal 2021 and 52 logistics companies participated.

Basic Distribution Policy Briefing (online meeting in fiscal 2021)

### Participation in White Logistics Movement and Efforts to Improve the Logistics Environment

Toray Industries participates in the White Logistics Movement,[1] an initiative designed to ensure the provision of the stable logistics necessary for consumers' lives and for industrial activities, while also contributing to economic growth. In line with the declaration of voluntary activities given below, the Company is actively working to improve the logistics environment based on mutual understanding and cooperation with business partners and logistics companies.

1 In response to the growing shortage of truck drivers in Japan, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Ministry of Economy, Trade and Industry (METI) and Ministry of Agriculture, Forestry and Fisheries (MAFF) are working together to encourage the participation of shipping and logistics companies. The aim is to improve the productivity of truck transportation and raise logistical efficiency, while looking to realize a fairer labor environment, thereby making it easier for women and drivers over the age of 60 to work in the industry.

| Initiative | Details |
|---|---|
| Cooperate with the logistics improvement and proposals | Seriously work on eliminating incidental work, etc. that leads to increased duty hours of truck drivers. |
| Use pallets, etc. | Expand use of packing styles (pallets, etc.) that enables loading using forklifts to reduce cargo loading time. |

| Initiative | Details |
|---|---|
| Extend lead time | Secure sufficient lead time corresponding to the transportation distance. |
| Take legal compliance status into account | Give utmost priority to assess compliance status with relevant laws upon selecting logistics companies for signing agreements. |
| Actively utilize logistics vendors engaged in working style reforms, etc. | Actively utilize logistics companies engaged in work-style reforms, improvement of transportation safety and logistics quality. |
| Suspend, discontinue, etc. of operation in case of adverse weather, etc. | Give utmost priority to the truck driver's safety in the event of adverse weather, earthquake, etc. |

**Improving Logistics Productivity by Using Smart Pallets**

As part of its White Logistics initiatives, Toray Industries, Inc. is the first in the industry to use smart pallets equipped with active tags developed by UPR Co., Ltd. Typically, pallets must be replaced with different pallets during transportation and storage to prevent their loss or outflow, and the loaded products must be reloaded each time. Smart pallets, on the other hand, do not need to be replaced, since the coming, going, and inventory of pallets can be managed from a distance with the embedded active tags. Adoption of these smart pallets allows Toray's products to go on the same pallet from production to storage, transportation, and use by the customer. This has eliminated cargo handling work by truck drivers and warehouse personnel, shortened loading and unloading time, improved the working environment, and increased logistics productivity. Moreover, the Company is reducing $CO_2$ emissions related to pallet recovery by using its packaging materials recovery system to recover empty pallets.
In recognition of the Company's contribution to reducing the environmental impact and the burden on transportation companies, Toray Industries jointly received, with UPR Co., Ltd., the Special Award in the Fiscal 2020 Green Logistics Partnership Conference Award for Excellent Business Operators.[2] In fiscal 2021, Toray Industries and UPR jointly received the Sustainable Activity Award in the 22nd Logistics Environment Award[3].

2 An award, presented by the Ministry of Economy, Trade and Industry, the Ministry of Land, Infrastructure, Transport and Tourism, and others, that recognizes businesses for their remarkable contributions to the establishment of sustainable logistics systems by reducing environmental burdens in the logistics sector or improving productivity in terms of distribution.
3 An award, presented by the Japan Association for Logistics and Transport, that recognizes groups, companies, and individuals who are contributing to the development of the logistics industry by reducing environmental impact. This includes conducting outstanding environmental preservation or awareness-raising activities, or pioneering technological development in the logistics field.

**Various Effects of Toray Industries' Use of Smart Pallets**

| Initiative | Effect |
|---|---|
| ・Reduce $CO_2$ emissions related to pallet recovery | 83% reduction (by 197 t-$CO_2$/year) |
| ・Reduce product loading and unloading time | 75% reduction (by 23,788 hours/year) |
| ・Improve efficiency of office work | 100% reduction in work time (by 1,584 hours/year) |
| ・Reduce truck standby time | 38% reduction (by 5,947 hours/year) |

| Initiative | Effect |
| --- | --- |
| ・Reduce distribution accidents (broken bags) | 35% reduction (by 148 incidents/year) |

## Reducing the Environmental Impact of Distribution

CSR Roadmap 2022
Main Initiatives (3)(4)(5)

### Reduction in $CO_2$ emissions intensity from distribution activities (year-on-year)

**■Reporting scope**
Toray Group （Only specified consigners）

**■Target in fiscal 2021**
1%

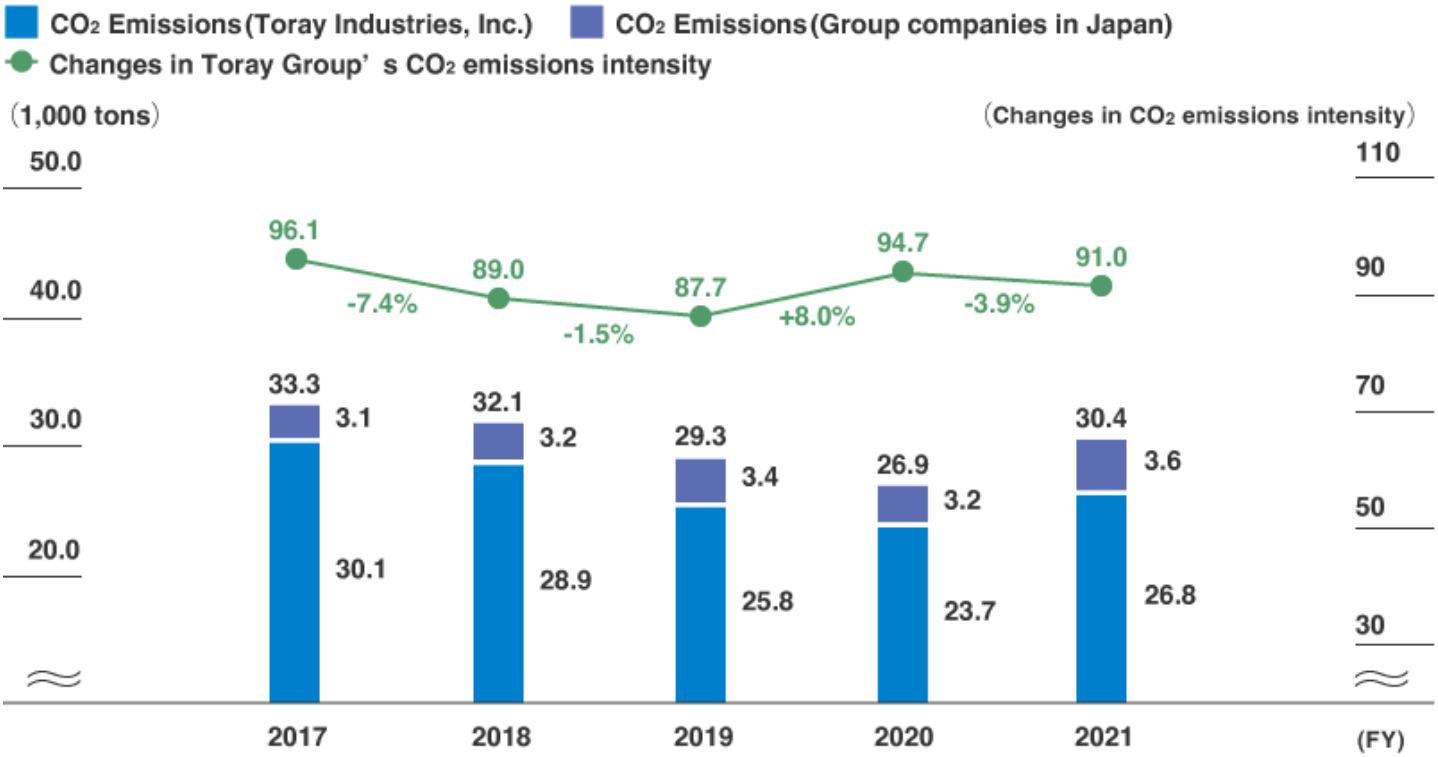
**Result in fiscal 2021**

**3.9%**

Toray Group is working hard to reduce $CO_2$ emissions in transport. These initiatives include reducing transport distances, shifting modes of transport to those which have less environmental impact such as sea and rail (modal shift), and raising transportation efficiency.
In fiscal 2021, at Toray Group (only specified consigners[4] in Japan), $CO_2$ emissions from distribution activities[5] were 30,400 tons, up 3,500 tons (13.2%) from the previous fiscal year, due primarily to an increase in transport volume.
Meanwhile, $CO_2$ emissions intensity[6] decreased significantly for Toray Industries and Toray Advanced Film due to the fact that the denominator, a relevant transport-related index[6], rose by more than the $CO_2$ emissions concerned. The change in Toray Group's $CO_2$ emissions intensity was 91.0 in fiscal 2021, taking the fiscal 2014 level (set at 100) as the base, an increase of 3.9% from the previous fiscal year (fiscal 2020).
In fiscal 2021, Toray Industries' CO2 emissions from distribution activities totaled 26,800 tons, up 3,100 tons (13.0%) from the previous fiscal year. This increase from the previous fiscal year was primarily due an increase in the transport volume for fiber, textile, resin and film products. It outweighed efforts for full-load transport, increased loading rates and reductions in inefficient transport, which resulted in a 230-ton emissions reduction.
Toray Industries' $CO_2$ emissions intensity from distribution activities decreased by 4.0% year on year (from fiscal 2020) because the increase in net sales exceeded the increase in $CO_2$ emissions. Over the past five years, however, $CO_2$ emissions intensity decreased an average of 1.3% per year. As a result, Toray Industries is meeting its legal mandate as a specified consigner to reduce energy consumption intensity by an average of at least 1% every year over the medium- and long-term.
Toray Group will continue to seek $CO_2$ emissions reductions by pursuing environmentally responsible distribution.

4 Toray Industries, Inc. and Toray Advanced Film Co., Ltd., which have annual cargo transport totaling 30 million ton-kilometers or more, are "specified consigners" under Japanese law. In addition, Toray Building Materials Co., Ltd. is no longer designated a specified consigner, which it had been until fiscal 2020, as its total transport volume was less than 30 million ton-kilometers in fiscal 2021.
5 $CO_2$ emissions from distribution activities refers to "$CO_2$ emissions related to the transportation of cargo entrusted to freight carriers" stipulated in the Act on Rationalizing Energy Use (Revised Energy Conservation Act)
6 $CO_2$ emissions from distribution activities ÷ the following transport-related indexes
Toray Industries, Inc.= Net sales
Toray Advanced Film Co., Ltd. = Shipping volume
Specified consigners are required to endeavor to meet the legal mandate to reduce $CO_2$ emissions intensity by an average of at least 1% every year over the medium- and long-term.

### $CO_2$ Emissions Resulting from Distribution Activities and $CO_2$ emissions intensity (Toray Group's Specified Consigners in Japan)




Notes:
1 Changes in Toray Group's $CO_2$ emissions intensity = Change in $CO_2$ emissions intensity at each specified consigner group company× Each group company's $CO_2$ emissions / Total Toray Group $CO_2$ emissions
2 Change in $CO_2$ emissions intensity at each group company = $CO_2$ emissions / Change in transport-related indexes (Fiscal 2014 = 100)
3 This shows the emissions level and intensity for specified consignors Toray Industries, Inc. and Toray Advanced Film Co., Ltd. in fiscal 2021.

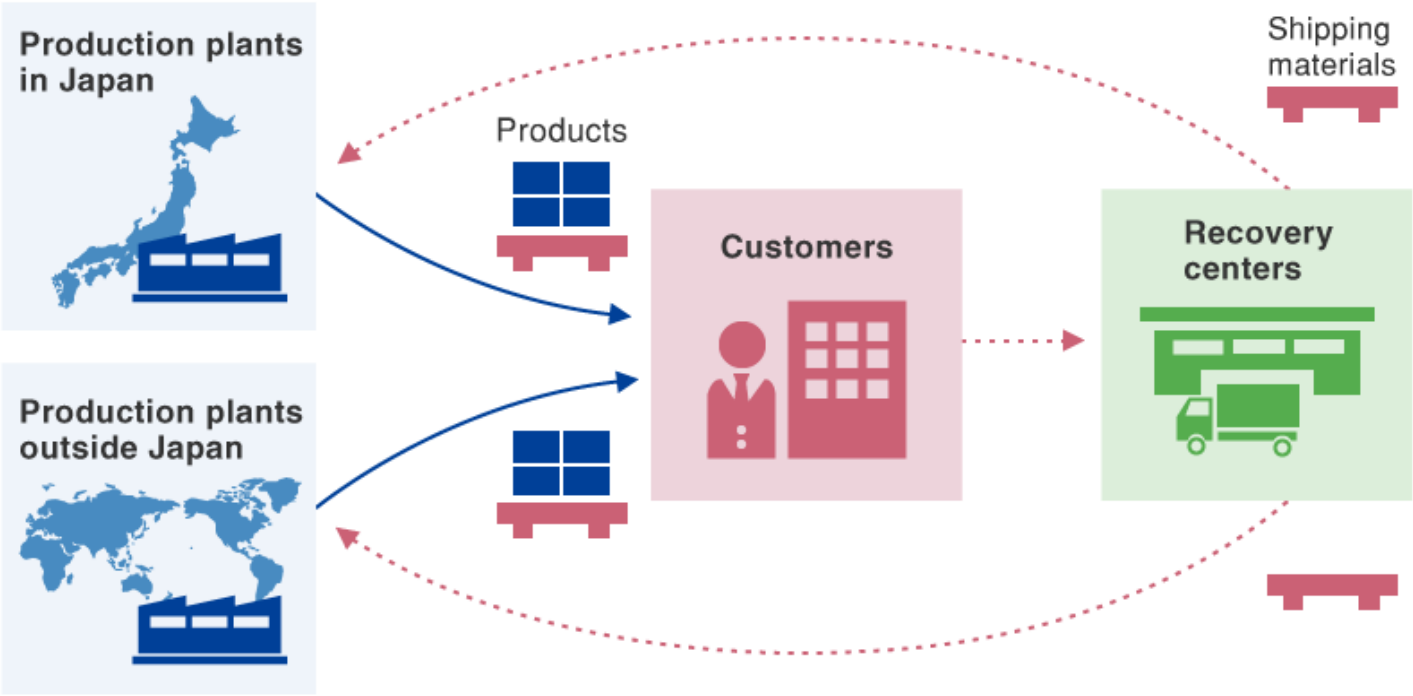
### $CO_2$ Emissions Reduction in Distribution Activities (Toray Industries, Inc.)

| Details of initiatives | $CO_2$ Reduction (1,000 tons) |
|---|---|
| Full-load transport, increased loading rates, and strategic positioning of warehouses, etc. | 0.052 |
| Reduction of inefficient transport, revision of inventory storage locations, and loading at the nearest port, etc. | 0.178 |
| Total | 0.230 |

### Expanding Collection and Reuse of Packaging Materials

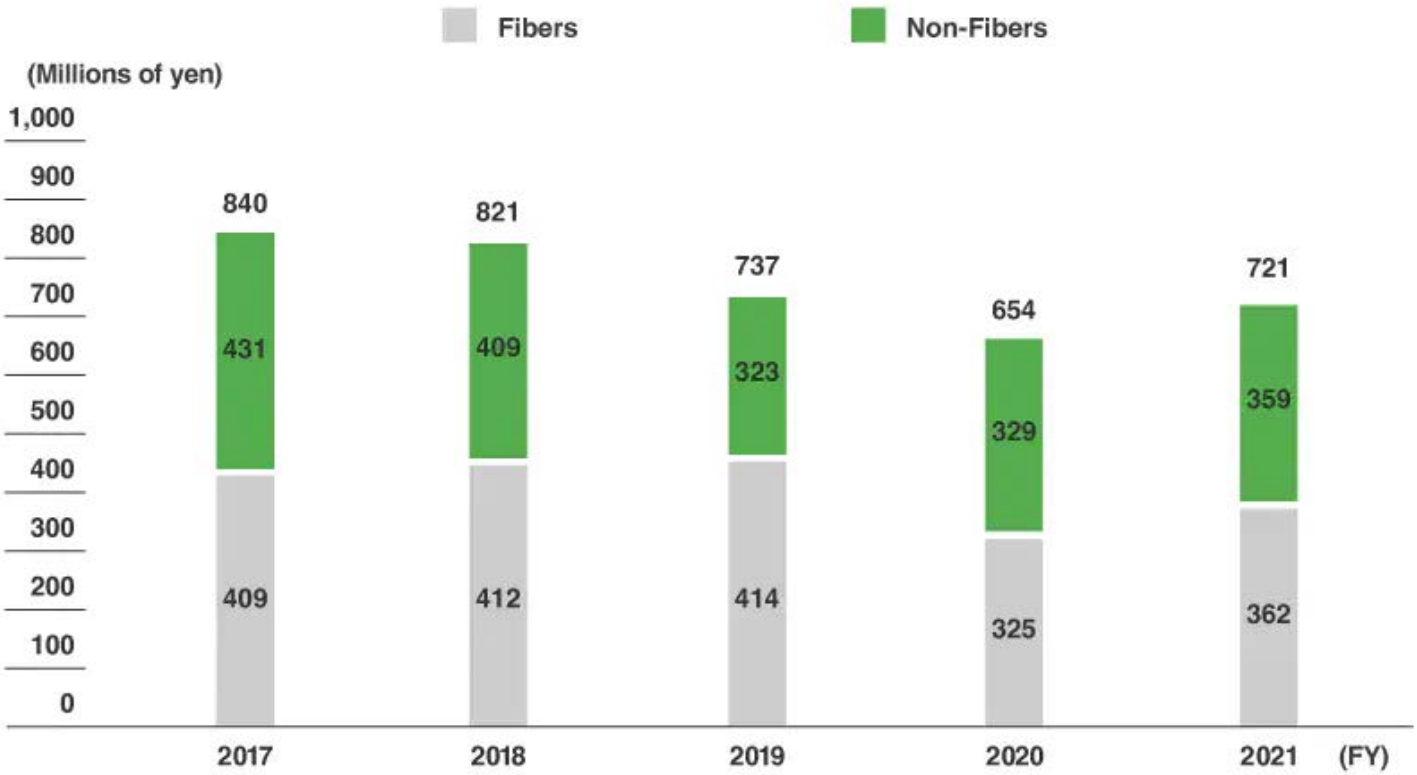
Toray Group is establishing a global framework to collect and recycle packaging and shipping materials that are included with products used by customers.
The value of these materials collected by Toray Industries in fiscal 2021 was 720 million yen, an increase of 70 million yen (10.2%) from the previous fiscal year. The volume of the materials collected increased due to the growth in shipment volumes for fibers, textiles and films. In order to reduce the amount of new material purchasing, the Group internally shares information on the inventories of used shipping materials being collected, such as temporary inventories at collection centers.

**System for Reusing Shipping Materials (Toray Industries, Inc.)**




**More packaging materials are reused, including at plants outside Japan**

**Monetary Amounts Recovered for Packaging Materials (Toray Industries, Inc.)**



**Related Information**

> Recycling of Film Packing Materials

## Promoting a Modal Shift

CSR Roadmap 2022
Main Initiatives (4)

### Modal shift to sea or rail for transport across distances for 500 km or more (%)

**■Reporting scope**
Toray Industries, Inc.

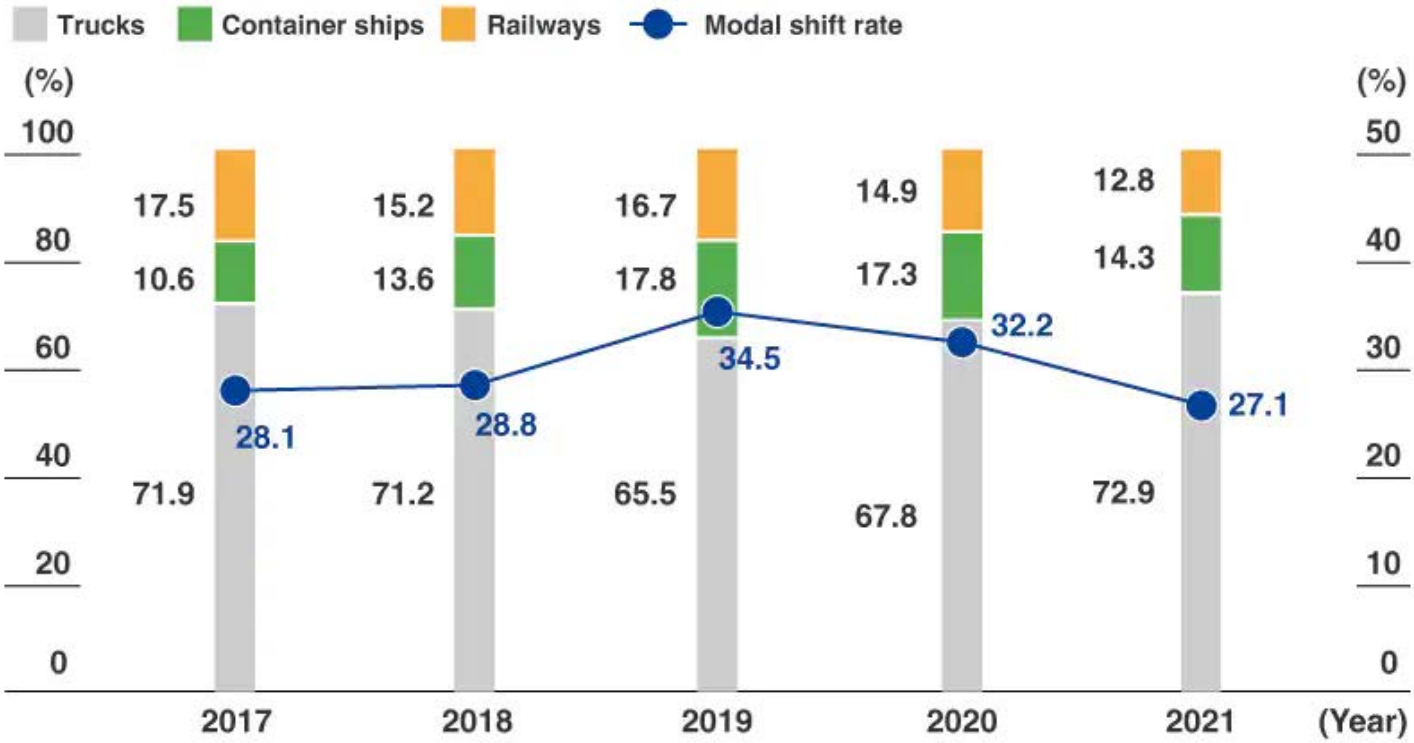
**■Target**
40%（2022 target）（Calendar year）

**Result in 2021（Calendar year）**

**27%**

Toray Industries laid out its commitment to environmentally friendly distribution in its Basic Distribution Policies (established in December 2004), in which it aimed to balance consideration for the environment in the distribution process with better competition achieved by cost-cutting. Toward this end, the Company has actively pursued modal shift (switching from trucks to rail and ship transport). In addition, modal shift is also effective as a measure to address the recent vulnerabilities in truck transport caused by a shortage of drivers. Toray Industries set a modal shift target of 40% to be achieved by fiscal 2022 and has been actively promoting initiatives to achieve this goal. The modal shift rate for January to December 2021 decreased by 5.0 points from the previous year to 27.1%. With the increase in rail transport demand in Japan in 2021, transport by truck increased due to the difficulty of securing containers for rail transportation and the increase in the number of cases where lead times for rail transportation were unacceptable. Shipping volumes for products that are usually transported over long distances by rail also decreased due to the COVID-19 pandemic.
Toray Group will continue pursuing modal shift in diverse product and materials transport and will work more closely with distribution partners. Through these efforts, the Group will promote environmentally responsible distribution while taking into consideration the environmental impact of the distribution process.

**Modal Shift Rate (Toray Industries, Inc.)**




**Acquisition of Eco Rail Mark and Eco Ship Mark**

Toray Industries has certified as an Eco Rail Mark Company by Japan's Ministry of Land, Infrastructure, Transport and Tourism and the Railway Freight Association. This recognizes Toray's active efforts to use rail freight transport, a relatively environmentally friendly means of transportation. The Company also obtained Eco Rail Mark Product certifications for its TORAY TETORON™ fiber and TORAYCON™ polybutylene terephthalate (PBT) resin. Moreover, in fiscal 2017 Toray Industries achieved the Eco Ship Mark certification related to its film products, which are difficult to ship by rail. This program recognizes companies that are switching to ship transport and use maritime transport, which has a low environmental impact, to a certain extent.

**Eco Rail Mark**

**Toray Industries, Inc. (certification for company)**

Toray TETORON™ fiber (certification for products)

TORAYCON™ resin (certification for products)

**Eco Ship Mark**

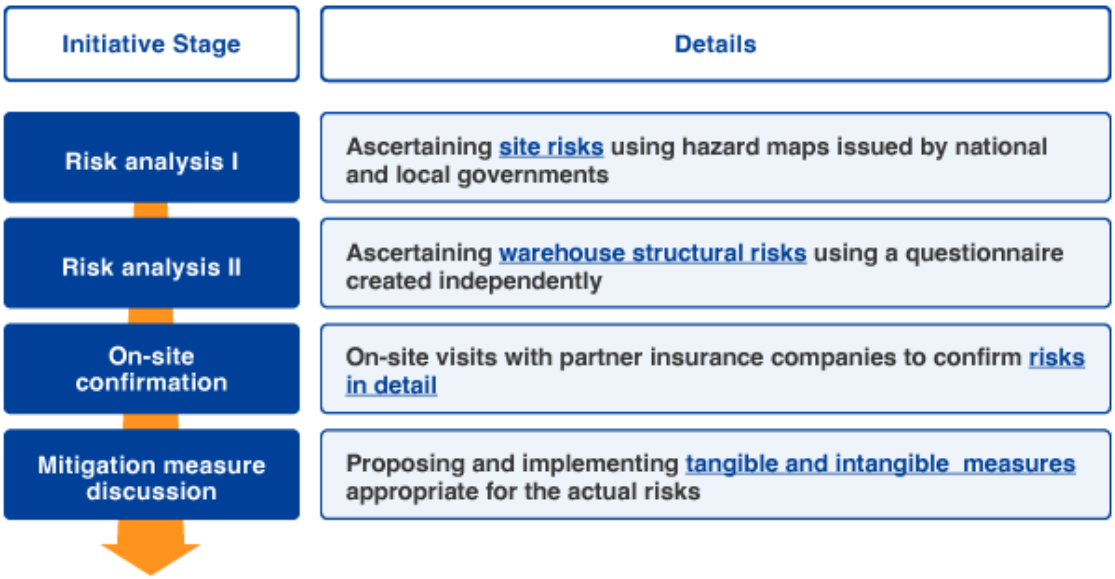
**Toray Industries, Inc. (certification for company)**

## Minimizing Natural Disaster Risks

CSR Roadmap 2022 Main Initiatives (1)(5)(6)

Toray Industries implements measures to prevent or minimize the damage caused by natural disasters such as typhoons and heavy rains, which have been increasing in frequency in recent years. It does this by continually investigating and identifying natural disaster risks at external warehouse sites in Japan, and by implementing response measures together with warehouse operators.

In fiscal 2021, the Company ascertained the natural disaster risks at its 44 main external warehouse sites. This was determined based on the structure of the warehouse buildings and the site environments, using tools such as hazard maps issued by the national and local governments. Eight sites were determined to be at high risk, and on-site inspections were conducted to confirm the actual situations. Based on the results of the investigation, Toray made proposals to the external warehouse operators concerned regarding tangible and intangible mitigation measures. The measures were discussed and improvements were made.
In fiscal 2022, Toray will further increase the number of sites to be inspected and continue promoting risk mitigation activities.




## Initiatives to Improve Safety and Quality in Distribution

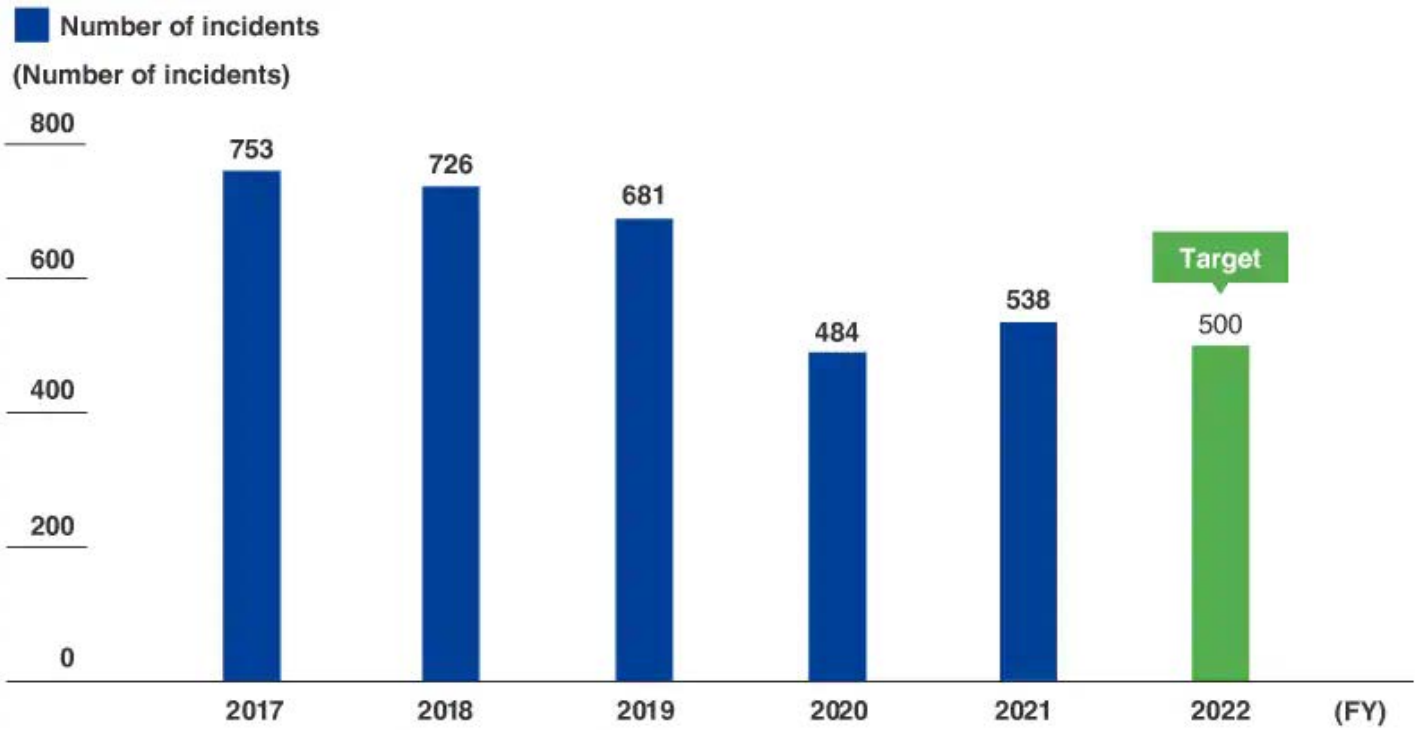
CSR Roadmap 2022 Main Initiatives (5)

Toray Industries is working on a project to improve transport quality. The Company works with distribution partners to improve distribution quality and safety and to reduce the incidence of problems by sharing accident analysis data and distribution quality enhancement reports, conducting on-site inspections and holding quality control meetings with partners. Partners that make outstanding contributions to improving quality are recognized through annual awards[7] These initiatives are aimed at reducing the number of problems such as those involving breakage, and reducing transport delays and incorrect shipments of Toray products.

7 Distribution-partner companies receiving awards in fiscal 2021 (alphabetical order):
Kintetsu World Express, Inc., The Sumitomo Warehouse Co., Ltd., Daisei Warehousing & Transportation Co., Ltd., Toto-Soko, Nagahama-Reizou, Nippon Express Co., Ltd., Fukui Logistics Corp., Meiko Trans Co., Ltd., Meitetsu Transportation Co., Ltd., Mitsubishi Logistics Corp., Yamada transport Co., Ltd.

### Distribution Incidents

Due to the adoption of straight-through pallet transportation with smart pallets, accidents during pallet transshipping and those caused by defective pallets remained at a low level in fiscal 2021, like in the previous year. However, an increase in the number of shipments compared to fiscal 2020 resulted in a corresponding rise in the number of logistics accidents. While promoting straight-through pallet transportation, Toray Group will continue working with partner companies to improve distribution quality.




## Legal Compliance and Safety Initiatives in Distribution

CSR Roadmap 2022
Main Initiatives (5)

### Logistics Efforts for Security Trade Control

In order to ensure thorough compliance with security trade controls relating to the export of its products, Toray Industries provides ongoing security trade control training to external warehouses where regulated items are stored. In fiscal 2021, in addition to explaining security trade control measures to eight sites belonging to six companies, important points were highlighted regarding the handling of regulated items, based on past near-miss incidents. Through this training, Toray once again stressed the importance of managing and handling regulated products appropriately.

### Recommending that Distribution Partners Acquire Third Party Certification

Toray Industries recommends that its distribution partner acquire external certifications such as ISO 9001, ISO 14001, Green Management Certification[8] and G Mark.[9] These certifications require companies to achieve legal compliance, improve quality, and practice environmental conservation in distribution processes. Toray Industries also pursues CSR initiatives in collaboration with distribution partners.

8 Certification is awarded by the Foundation for Promoting Personal Mobility and Ecological Transportation to companies that demonstrate a certain level of environmental improvement activities based on a manual for implementing green management (business management with a low environmental impact)

9 A system that recognizes companies that meet certain criteria and demonstrate excellent safety, based on an assessment by the Safety Evaluation Committee established by the Japan Trucking Association of proactive initiatives for legal compliance and safety recommended by the Ministry of Land, Infrastructure, Transport and Tourism

### Yellow Card Emergency Response Measures

Drivers of shipping vehicles carry a yellow card[10] detailing emergency measures to be taken to minimize damage in the event of an accident. Toray Industries has also established an emergency communication system and carries out emergency training. In the unlikely event of such an accident, the Company has procedures in place enabling the necessary staff to be dispatched as swiftly as possible to the accident site for assistance.

10 A Card listing the names of any hazardous substances, applicable laws and regulations, hazardous properties, procedures in case of accident, emergency reporting and contact information, methods for minimizing the spread of damage, and other relevant information.

### Initiatives to Prevent Overloading

The overloading of trucks causes vibration, noise, damage to roads and facilities, and also creates driving hazards. Consequently, Toray Industries is putting considerable effort into the prevention of overloading.

### Compliance and Security Measures for Importing and Exporting

As a measure to ensure the legality and safety of imports and exports as part of Toray Group's expanding global operations, a US subsidiary of Toray International, Inc. enrolled in the Customs-Trade Partnership Against Terrorism (C-TPAT)[11] with the aim of strengthening global supply chain compliance. In order to realize more efficient imports and exports of materials and to strengthen supply chain compliance and security measures, Toray Group is also encouraging its worldwide distribution partners to obtain Authorized Economic Operator (AEO)[12] status.

11 A voluntary program introduced by United States Customs and Border Protection in November 2004. The aim of the program is ensure and strengthen security through the global supply chain, based on international cooperation with private operators importing goods into the US.

12 A status implemented by the EU in December 2006 that gives priority in customs procedures to importers and exporters with a high level of compliance for cargo security. The Japanese Customs Act was also revised in 2007, and a similar qualification system was established to provide priority in customs procedures to highly compliant operators.

### Toray Group Logistics Company Acquires “Good Workplace Certification” (FY2021)

#### “Good Workers Rights Certification Obtained by Toyo Logistic Service”

Toyo Logistic Service Co., Ltd. applied for recognition under the Good Workplace Certification System promoted by Japan's Ministry of Land, Infrastructure, Transport and Tourism, and was certified in February 2022. This system was established by the Ministry in 2010 with the aim of enhancing working conditions in the road transportation industry (operators of trucks and buses, etc.) to resolve the shortage of drivers. Certification examinations are conducted based on documents submitted by each business site, such as the rules of employment, "36 agreements" (based on Article 36 of Japan's Labor Standards Act), and labor contracts. All Toyo Logistic Service sites employing drivers (Tokai, Nagoya, Gifu, Shizuoka (Mishima), Ishikawa, Fukui, Shiga, and Saitama) have been certified.

運転者職場環境良好度認証制度
働きやすい職場認証制度
登 録 証 書

登録番号：21LD0634-000
東洋運輸株式会社
本社

滋賀県大津市栄町１番５号
事業種別：トラック

上記組織は、働きやすい職場認証制度において、
本会の規則に基づいて審査した結果、認証され（一つ星）、
本会の働きやすい職場認証制度登録簿に登録されたことを証明する。
本証書は、2024年3月31日まで有効である。

発行日　2022年2月1日

国土交通省指定
働きやすい職場認証制度 認証実施団体
一般財団法人 日本海事協会
国土交通省
ClassNK
会 長 坂下 広朗

Certificate

Click here for the main initiatives for CSR Guideline 9, “Facilitating CSR Initiatives Throughout the Supply Chain” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports)

# Social Contribution Activities as a Good Corporate Citizen

**Proactively participate in local communities and the larger society in order to contribute to development in a way betting a good corporate citizen.**

## Basic Approach

As the foundation of its business activities, Toray Group works to build ties with local communities and contribute to society through its core businesses. Embracing a corporate philosophy of contributing to society as the ultimate objective of its corporate activities, Toray Industries, Inc. has worked to foster social development since its founding. The Group's Corporate Missions were set out in 1995 and include "For society: To establish ties and develop mutual trust as a responsible corporate citizen." Social contribution activities were included in Toray Group's CSR Guidelines established in 2004, and these activities have been a part of the Group's CSR activities ever since.

Today, the Group is working to achieve the Toray Group Sustainability Vision, which calls for solving social issues by expanding its Green Innovation and Life Innovation businesses. These efforts are driven by the Medium-Term Management Program, Project AP-G 2022, and the Long-Term Corporate Vision, TORAY VISION 2030.

While contributing to society through its business activities, the Group will continue to promote social contribution activities as a good corporate citizen to help solve global issues such as those addressed by the United Nations Sustainable Development Goals (SDGs),[1] as called for in its CSR Roadmap 2022. Based on the social issues that the Group aims to solve through its businesses, the focus has been set on three priority areas, namely "science and technology promotion," "environment and communities," and "health and welfare."

As indicated in the Toray Group Sustainability Vision, the Group works to increase people's interest in the environment. Toward this end, the Group is focusing on activities uniquely suited to Toray, including providing educational support in such areas as science, the environment, and career education, as well as offering support for improving and developing science and technology and promoting science education through the activities of Toray science foundations around the world. The Group maintains social contribution activities at a designated scale to ensure a specified measure of social contribution over the long term.

Established by resolution of the Board of Directors, the Toray Group Social Initiative Policies state, “Using company awards and other measures, we will create a culture that encourages employees to participate in society in constructive ways such as engaging in voluntary activities with an eye to local needs.” Accordingly, employees who wish to engage in volunteer work may take advantage of internal support systems such as absence from work and leave. Those who engage in volunteer activities are also eligible for special awards presented by each business site and plant.

1 The Sustainable Development Goals (SDGs) were adopted in September 2015 at the UN Sustainable Development Summit attended by more than 150 Heads of State. These 17 goals and 169 targets are worldwide objectives to be reached by 2030.

### Related Policies

**Toray Group Social Initiative Policies** Revised Sep 2020

1. Based on its Corporate Philosophy of "Contributing to society through the creation of new value with innovative ideas, technologies, and products," we will contribute to sustainable development of local and global society as a good corporate citizen, while continuously supporting social initiatives among employees.
2. We will pursue original programs dedicated to the improvement 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 society in constructive ways such as engaging in voluntary activities with an eye to local needs.
4. We will examine all marketing and advertising activities from the perspective of social contribution before finalizing them.

### Priority Areas for Social Contribution

Science and Technology Promotion: Toray Group strives to live up to its corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products” by providing innovative technologies and advanced materials. The Group is committed to taking on the challenge of innovation across all of its corporate activities. That is why the Group must develop and retain human resources who can generate this continual innovation. Also, via the Toray science foundations around the world, the Group is providing research grants, promoting science education, and fostering public interest in science, looking to make a long-term contribution.

Environment and Communities: Toray Group is pursuing Green Innovation businesses that help solve global issues relating to the environment, resources and energy. Utilizing its expertise and human resources, the Group is continuously engaged in environmental conservation activities while collaborating with local communities.

Health and Welfare: Toray Group's Life Innovation businesses contribute to better medical care and longevity, foster public health, and support personal safety. To help build a world where people everywhere can live long, healthy lives, the Group promotes sports and cancer screening awareness. Individual business sites support education programs for children and social welfare initiatives.

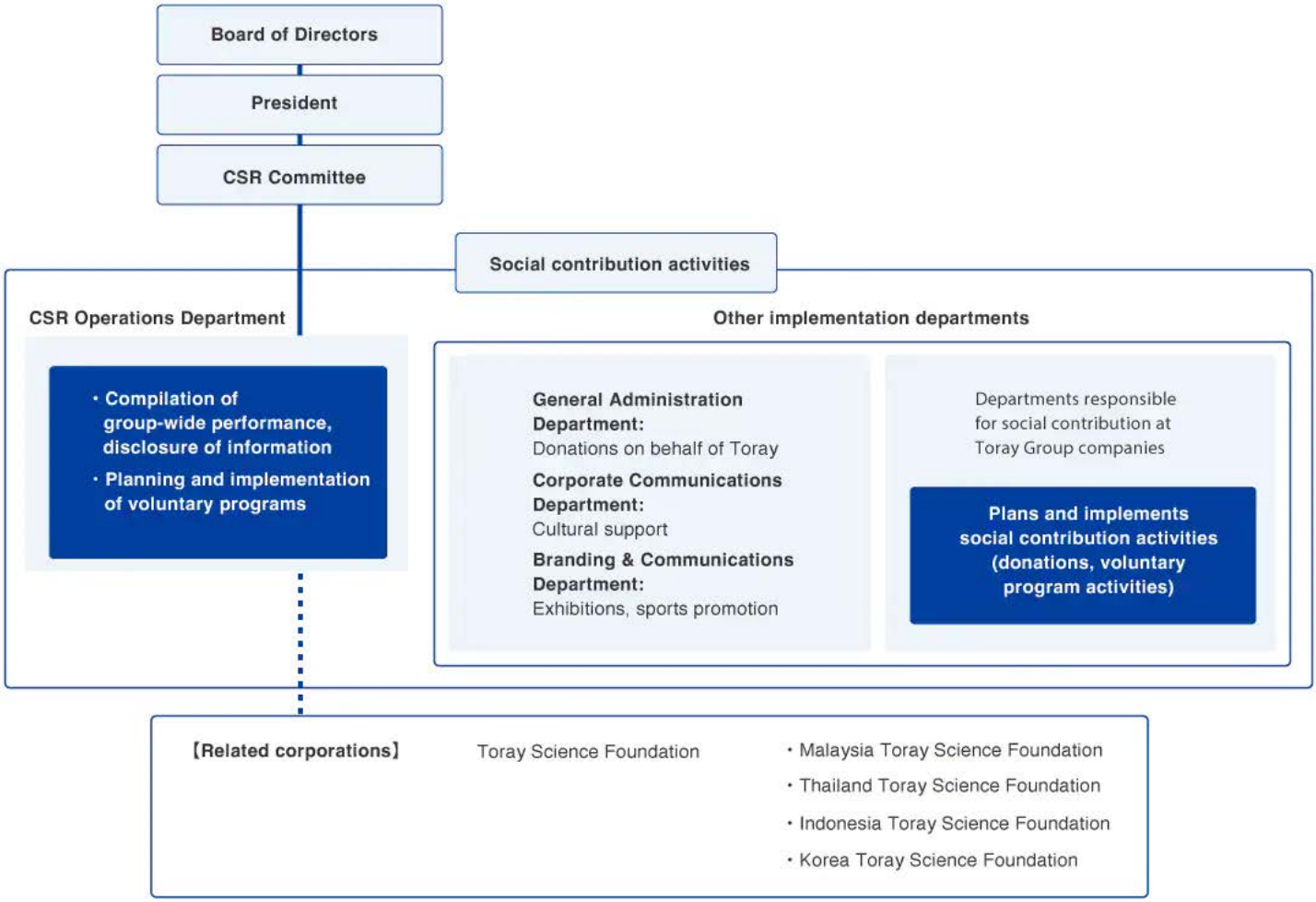
**Social Contribution and the Sustainable Development Goals**

Toray Industries has from the beginning engaged in corporate activities with the ultimate purpose of contributing to society, viewing itself as a public entity. The Company considers the growth of its business as an indication that it has earned the recognition and support of society as a corporation that is endeavoring to practice its philosophy of contributing to society.
In 1955, Toray Industries established the company principle that "Toyo Rayon contributes to communities" as an explicit statement of its founding principles. From around that time, everyone at Toray Industries, from management to employees, began pursuing diverse initiatives to realize the philosophy of contributing to society. These activities ranged from making donations to various organizations and institutions, providing humanitarian assistance and financial aid to disaster-stricken areas, and inviting students to visit Toray's manufacturing sites and providing them with informational materials.
In 1986, Toray Industries established the corporate philosophy of "Contributing to society through the creation of new value with innovative ideas, technologies and products," which carries on the core concept of the previous company principle. Toray Group pursues this corporate philosophy by emphasizing the social contributions of its businesses in making business decisions. The Group considers every aspect of its corporate conduct and the conduct of its employees through the lens of contributing to society. It is for this reason that Toray Group's core businesses naturally align with the United Nations Sustainable Development Goals (SDGs), whose themes include resolving global environmental issues and contributing to health and longevity.
While the SDGs have recently become the focus of international development efforts, Toray Group has been working since the beginning to resolve global social issues like these, as it strives to live up to its corporate philosophy.

## Structure

Since April 2012, Toray Industries has positioned the CSR Operations Department as a specialized department focusing on social contribution activities. The department is responsible for planning and promoting its own voluntary programs implemented independently, as well as aggregating CSR performance across Toray Group. Policy related to CSR activities and major CSR initiatives are discussed by the CSR Committee. Policy is communicated to Toray Group sites in and outside Japan through CSR discussion meetings held with each company and department, as well as at meetings attended by representatives from each country where the Group operates outside Japan that are held to promote activities suitable for the particular circumstances of each country and company.

### Social Contribution Activities Operational Structure




## CSR Roadmap 2022 Targets

### CSR Roadmap goals

1. As a member of society, implement social contribution activities that help to solve the global issues addressed by the SDGs and other initiatives
2. Voluntarily and continuously engage in the priority areas of “science and technology promotion,” “environment and communities,” and “health and welfare”

## Main Initiatives and Key Performance Indicators

| | KPI |
|---|---|
| (1) Implement social contribution activities at the appropriate scale | 10-❶ |
| (2) Actively engage in social contribution activities that are distinctive of Toray Group, focusing on science and technology promotion | - |
| (3) Promote social contribution activities in collaboration with stakeholders such as local communities and non-profit organizations | - |
| (4) Educate employees in Toray Group in order to instill the significance of social contribution, and encourage each site to continually participate voluntarily and actively in social contribution activities | 10-❷ |
| (5) Develop a wide range of educational support activities such as sending employees to teach science, environmental, and career education classes at schools | 10-❸ |
| (6) Support the improvement and development of science and technology and the promotion of science education through the activities of Toray science foundations in and outside Japan | - |
| (7) Share information with internal and external stakeholders on Toray Group's social contribution activities via websites and other means | - |

| Key Performance Indicator (KPI) | Target | | | Fiscal 2021 Result |
|---|---|---|---|---|
| | Fiscal 2020 | Fiscal 2021 | Fiscal 2022 | |
| **10-❶ Social contribution expenditure (% change from average expenditure over last six years)** | 100% or higher | 100% or higher | 100% or higher | 86% |
| **10-❷ Social contribution activities (number)** | 2,500 or more | 2,500 or more | 2,500 or more | 1,710 |
| **10-❸ Beneficiaries of educational support activities such as science classes for schools and career education (number)** | 15,000 or more | 15,000 or more | 15,000 or more | 11,331 |

Reporting scope : Toray Group

## Looking to the Future

Toray Group was founded with a commitment to contribute to society. In keeping with this pledge, the Group works to build relationships of trust with local communities by taking initiatives in the priority areas of “science and technology promotion,” “environment and communities,” and “health and welfare.” In addition, as a good corporate citizen, the Group pursues activities that contribute to the development of local communities and the resolution of global issues. Toray Group social contribution activities continue to evolve in ways that inspire Group employees and make them proud.

Toray Group employees visit science and physical education classrooms as guest instructors, support career education activities, and host plant tours for local children and students. The Group receives requests from many schools and communities, and these activities are expanding both in and outside of Japan. The goal set in fiscal 2014 was for these activities to reach a cumulative total of 100,000 people as a means of supporting education that will nurture leaders for a sustainable world. In August 2021, the goal was achieved when this number reached a cumulative total of 109,360 at the end of fiscal 2021.

CSR Activity Report (CSR Guideline Activity Reports) - Social Contribution Activities as a Good Corporate Citizen

# Fiscal 2021 Results (Data edition)

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)(5)(6)(7)

## Social contribution expenditure (% change from average expenditure over last six years)

■Reporting scope
Toray Group

■Target in fiscal 2021
100% or higher

Result in fiscal 2021

**86%**

## Social contribution activities (number)

■Reporting scope
Toray Group

■Target in fiscal 2021
2,500 or more

Result in fiscal 2021

**1,710**

## Beneficiaries of educational support activities such as science classes for schools and career education (number)

■Reporting scope
Toray Group

■Target in fiscal 2021
15,000 or more

Result in fiscal 2021

**11,331**

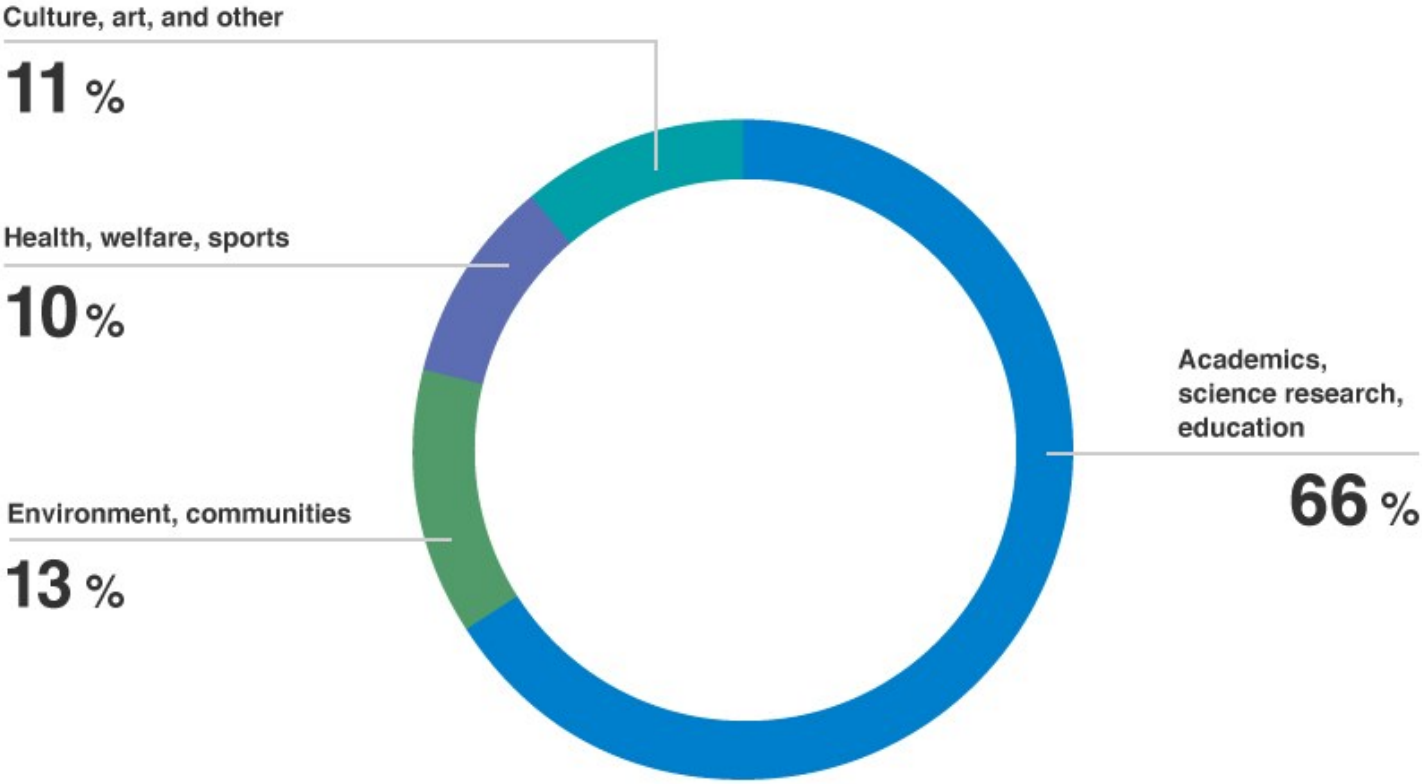
As a good corporate citizen, Toray Group is helping to promote the sustainable development of local and international communities based on its corporate philosophy. The Group also supports the social contribution activities of its employees under the Toray Group Social Initiative Policies.
The CSR Roadmap 2022 sets KPIs for social contribution expenditures, such as donations and personnel expenses associated with social contribution activities, and Toray Group maintains initiatives at the designated scale.
Social contribution expenditures in fiscal 2021 were 1.43 billion yen (approximately 900 million yen at Toray Industries alone), which is 86% of average expenditures over the last six years (fiscal 2015-2020, 1.66 billion yen), in contrast to the target of 100% or higher set in the CSR Roadmap 2022. This difference was due to the cancellation of the Shanghai Marathon as a COVID-19 pandemic measure and other factors.
In fiscal 2021, the main beneficiaries were Toray Science Foundation, Toray science foundations in Malaysia, Thailand, Indonesia, and the Republic of Korea, and sponsorship of the Tokyo Marathon.
In fiscal 2021, Toray Industries Inc., on behalf of Toray Group, donated approximately 220million yen to Toray Science Foundation. Toray Group companies outside Japan donated approximately 250 million yen to Toray science foundations around the world.

In its CSR Roadmap 2022, Toray Group sets KPIs for the number of social contribution activities to be implemented in order to ensure that the Group continues to actively contribute to society. In addition, the roadmap sets KPIs for the number of beneficiaries of educational support activities, such as science classes for schools and career education, with the aim of developing a solid educational support program, which has been a long-term Toray Group focus.
The number of social contribution activities implemented in fiscal 2021 was 1,710, short of the target of 2,500 or more.
This shortfall was due in large part to the fact that the COVID-19 pandemic led to the voluntary cancellation of activities, such as cleanup campaigns and other events in which employees would participate in-person, when it was thought to be difficult to ensure health and safety.
The number of beneficiaries of educational support activities increased compared to 2020 due to the implementation of online classes and company interviews during the COVID-19 pandemic. However, the beneficiaries of these activities in fiscal 2021 still numbered only 11,331, falling short of the Group target of 15,000 or more. This was due to the limited number of school visits by instructors and group-based educational events.

**Related Information**

> Toray Science Foundations around the World

**Breakdown of Expenditure in Fiscal 2021**




Click here for the main initiatives for CSR Guideline 10, “Social Contribution Activities as a Good Corporate Citizen” in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Social Contribution Activities as a Good Corporate Citizen

# Activities Carried Out in Fiscal 2021

## Toray Group's Educational Support Activities

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)(5)(7)

Toray Group conducts educational support activities to guide those who will become the leaders of a sustainable world. These activities include science and environmental programs to spark more interest in science among elementary and junior high school students, as well as career education and Toray plant tours.

### Supporting Science Education in Schools (Sending Employees to Teach Classes, Providing Educational Materials)

In order to raise awareness of the environment and interest in the sciences, Toray Group has developed environmental education and science experiment programs that employ some of its products. Delivering these programs, Group employees teach classes at local elementary, junior and senior high schools.
In fiscal 2021, in order to prevent the spread of COVID-19 infections, in-person classes conducted by employee instructors at schools were still somewhat limited. Once infection levels had subsided, classes were provided to some schools where pandemic safety measures could be confirmed. Due to the ongoing COVID-19 pandemic, the Group also conducted online classes using a web conferencing system during periods when states of emergency had been declared and the authorities had issued priority measures to prevent the spread of the virus. Using online tools, Toray Group has been able to expand the scope of its educational support activities, discovering new possibilities for meeting the demands of future educational settings by offering classes at distant schools, which has not been possible in the past, and by introducing lesson formats that are not possible with in-person settings.
The Group also lent laboratory equipment made with Toray advanced materials to 61 elementary, junior high, and senior high schools across Japan that the Group was unable to visit, for their use in lessons on science, chemistry, and the SDGs. Toray's educational programs have been well received by many teachers because the experiments they include help students understand how science and technology contributes to solving global environment problems.

Toray Industries employee teaches in the classroom

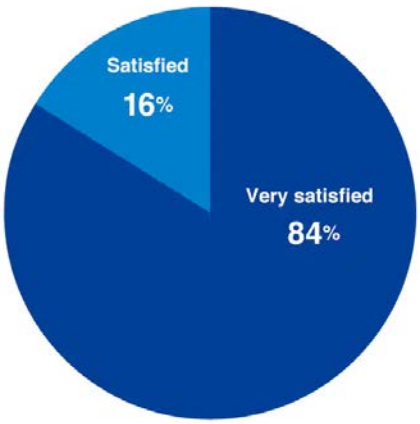
Junior high school students conduct an experiment with guidance from a Toray instructor

Junior high school students listen intently during class

## Questionnaire Results on Teaching Materials Provided by Toray Group

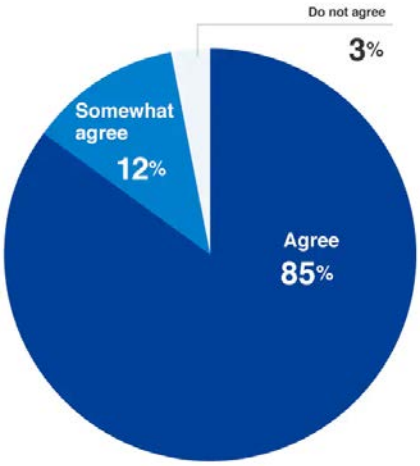
■ Satisfaction with classes using materials provided by Toray

How satisfied were you with the teaching materials provided?

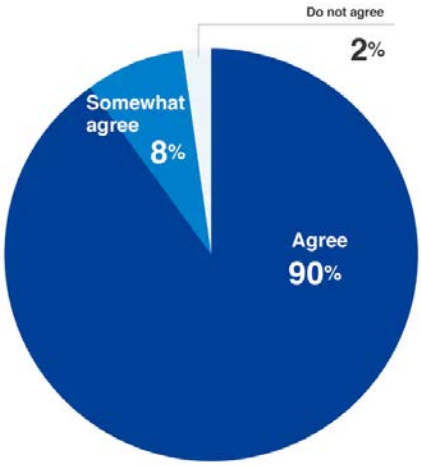


■ Feedback on Effectiveness of Program

Q1. The program makes students think of the problems occurring on the planet as related to their own lives.




Q2. The program helps students understand that what they learn in science helps in their own lives and is useful technology for solving global problems.




**Education Support Activities for Career Education, Company Tours, and Other Programs**

In addition to science experiment lessons and environmental education programs, Toray Group collaborates on career education and hosts office and plant tours in response to requests from local schools, boards of education, and non-profit organizations.

Toray Industries provided career-related talks to junior high and high school students by explaining job responsibilities at Toray. The instructors also shared stories from their own school days, and covered other topics that would be useful for students when considering their future career paths. The use of web-based tools also expanded, and online job interviews were implemented.

Among the group companies in Japan, Toray Advanced Film Co., Ltd. has resumed providing classes to neighborhood elementary schools, which had been suspended for the past two years due to the COVID-19 pandemic. In these classes, the instructors showed the students familiar products manufactured at the factory, such as the materials used to package candy and snacks, and conveyed Toray's appeal. Toray Research Center Inc. collaborated with an active learning program at a technical college, providing lectures and technical advice for group work.

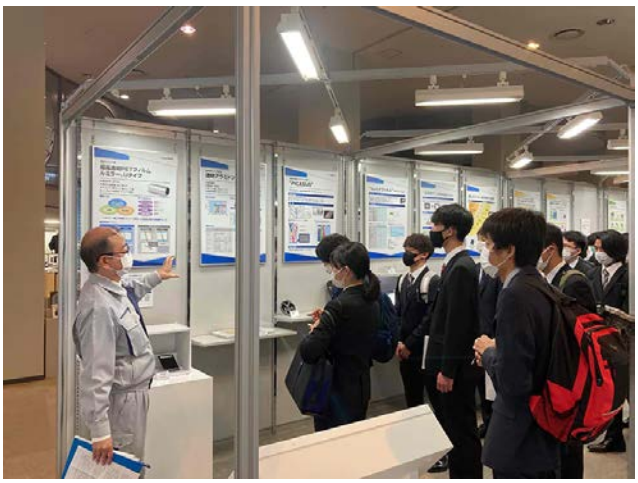
Group companies outside Japan also give career-related talks to local students, and provide education to foster awareness of safety, disaster prevention, and the environment. For example, in France, Toray Carbon Fibers Europe S.A. teamed up with neighboring companies and the local fire department to jointly provide first aid workshops for elementary school students. In Thailand, Toray Textiles (Thailand) Public Company Limited delivered an online lecture on textile products such as airbags to local university students majoring in textiles.

The Toray Industries volleyball team, Toray Arrows, has been involved in supporting children’s physical development through volleyball clinics and on-site instruction at elementary school physical education classes. In fiscal 2021, volleyball clinics were held with COVID-19 pandemic infection prevention measures in place.

Through a web conferencing system, students from Tokyo Metropolitan Chihaya High School interview Toray personnel about "&+™," a fiber made from recycled plastic PET bottles (Tokyo and Osaka head offices of Toray Industries, Inc.)

An employee from the Toray Industries Mishima Plant gives a talk to local junior high school students about working as a researcher

Elementary school students learn about familiar film technology such as candy and snack packaging (Toray Advanced Film Co., Ltd.)

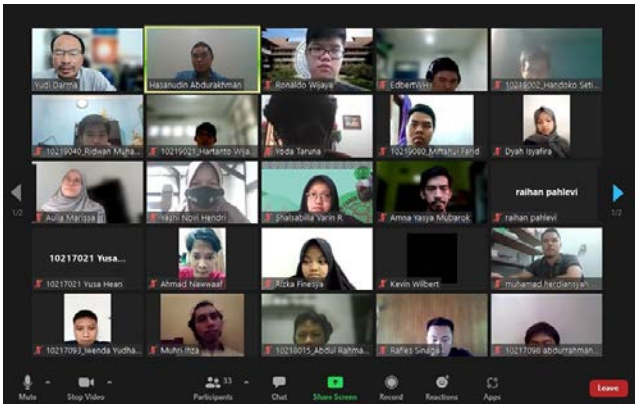


Technical college students discover the appeal of work related to plant engineering (Toray Engineering East Co.,Ltd.)

Local high school students listen to a talk on employment and careers (Toray Composite Materials America, Inc.)

At a local environmental fair, elementary school students listen to a presentation on global environmental issues and Toray Group activities (Toray Resin Mexico, S.A. de C.V.)

Letter of thanks from elementary school students who participated in a first aid workshop delivered in collaboration with neighboring companies and the local fire department. (Toray Carbon Fibers Europe S.A., France)



University engineering students listen to an online lecture concerning Toray Group's advanced technology and materials (P.T. Toray Industries Indonesia)

Safety education being provided to local elementary and junior high school students in response to a request from the local community (Toray Industries (India) Private Limited)

Volleyball clinic for local junior high school boys provided by the Toray Arrows men's volleyball team

Online volleyball clinic provided by the Toray Arrows women's volleyball team

**Related Information**

> Developing the Next Generation of Talent

### Workshops at the Science Museum

Since 2012, Toray Industries has been conducting two workshops, which use filtration experiments to examine the importance of the Earth's water, and the amazing properties of fibers, at the Science Museum located in Kitanomaru Park in Tokyo, every day that the museum is open. In fiscal 2021, approximately 4,800 people, from young children to adults, attended the workshops, which were held with infection prevention measures in place, such as a limitation on the number of participants and a shortened timeframe.

### Supporting the Biology Olympiad

Since 2007, Toray Industries has helped to send students to the International Biology Olympiad (IBO) through the Japan Science Foundation. The Company's aim is to help develop the next generation of leaders in the life sciences. The 32nd IBO was hosted by Lisbon, Portugal but held online. The four high school students chosen as the representatives for Japan won medals (2 silver and 2 bronze medals).

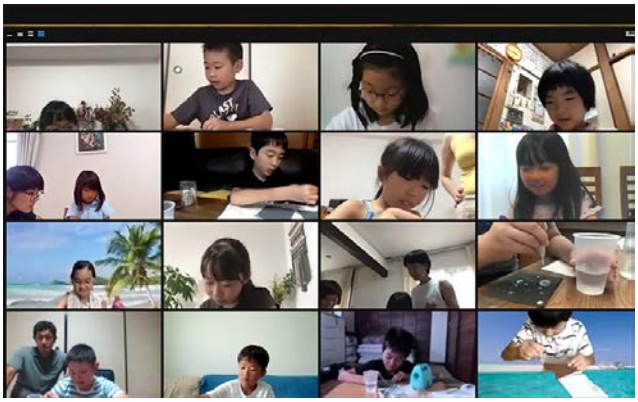
The four students representing Japan (Photo courtesy of the Japan Biology Olympiad Committee)

### Held Aozora Science School

Since 2015, Toray Industries has organized the Aozora Science School[1] to foster children's interest in and an affinity for science by offering fun activities that combine nature and science.
Until recently, the event has been held every summer since 2015 at a campsite at Lake Kawaguchi in Yamanashi Prefecture. In 2021, however, an interactive experiment class was held online instead, as a way to help prevent the spread of COVID-19 infections. The participants consisted of 90 elementary school students from all over Japan. Using an experiment kit sent to them in advance, the participants engaged in various science activities that could be enjoyed at home.
They put together an insect robot made with a small motor and scrub brush and conducted a "water dance experiment," in which they dripped water on a Toray water-repellent textile and observed the water drops rolling around the surface of the fabric. During the break, players from the Toray Arrows volleyball team made an appearance and conducted a quiz competition, which the students thoroughly enjoyed.
While this was the first such online event, it was clear that the children were learning science while having fun. The serious expressions and surprised exclamations of the students were apparent even through the monitors.

1 Aozora Science School is a hands-on educational camp designed by Toray Industries, supervised by Leave a Nest Co., Ltd. and provided by JTB Corporation.

Children listening intently to an online class



Students conduct a water-repellent fabric experiment remotely

Particpants build a simple robot using a kit sent in advance

An employee in California explains to the students in English how to make slime – an opportunity only possible through online learning

Players from the Toray Arrows volleyball teams add excitement to the learning program

## Related Information

- Aozora Science School official website (Japanese site)
- Aozora Science School Facebook page (Japanese site)

# Toray Science Foundations around the World

CSR Roadmap 2022
Main Initiatives (1)(2)(6)(7)

Science and Technology Promotion

Toray Group has outlined a corporate philosophy of “contributing to society through the creation of new value with innovative ideas, technologies and products,” which the Group delivers on by practicing innovation. In order to continuously deliver innovation, the Group must secure and develop talented human resources. For this reason, the Group takes a long-term perspective on human resource development. One way it does this is by contributing to the promotion and support of basic science and science education in society, which is one of the main social contribution activities of the Group, through the activities of Toray Science Foundation and Toray science foundations in Thailand, Indonesia, Malaysia, and the Republic of Korea.

**Related Information**

> Toray Science Foundations around the World

### Toray Science Foundation

Toray Science Foundation was established way back in 1960 to help advance science, technology and culture. The Foundation created quite a stir when it was first established, as it was a pioneering foundation of its kind, and its activities continue to win high praise today. Its support activities include grants and prizes in the fields of basic science and science education that are offered by no other similar organizations. The Foundation celebrated the 60th anniversary of its founding in June 2020.

### 62nd Toray Science and Technology Prizes, Toray Science and Technology Grants, and 53rd Toray Science Education Prizes

In February 2022, the Toray Science Foundation chose the latest recipients for the 62nd Toray Science and Technology Prizes, Toray Science and Technology Grants, and 53rd Toray Science Education Prizes. The presentation ceremony held in March 2022 was the first in three years. Toray Science and Technology Prizes were awarded to Dr. Ryoichiro Kageyama and Dr. Toru Okabe respectively. They and the science educators who were awarded Toray Science Education Prize received certificates, medals, and prize money. Grants totaling 130 million yen were awarded to 11 recipients of Science and Technology Grants.

Presentation ceremony

Chairman Nikkaku presents an award

Outside Director Ryoji Noyori gives a congratulatory address

**Dr. Ryoichiro Kageyama**

**The significance of oscillatory gene expression in development**

Dr. Kageyama discovered that gene expression oscillates periodically during the development of various tissues and also clarified the significance and molecular mechanism behind this. This important achievement is expected to lead developmental research and serve as a technological basis for tissue regeneration.

**Dr. Toru H. Okabe**

**Development of environmentally-sound recycling technologies for rare metals**

Dr. Okabe has made pioneering achievements, including the invention of recycling technology for separating and extracting rare metals without generating harmful substances. As demand grows worldwide for the rare metals essential for the production of lithium-ion batteries and other products, this technological achievement is expected to become increasingly important.

Junior and senior high school science education is a particular focus of the Toray Science Foundation. Mr. Takeya Nishimaki, a teacher at Matsumoto Fukashi High School in Nagano Prefecture, received the Toray Science Education Award in the name of the Minister of Education, Culture, Sports, Science and Technology. This award recognizes teachers who have achieved remarkable educational results through creativity and ingenuity.

**Mr. Takeya Nishimaki**

**Development of a High-output Battery using Agar Gel as a Classroom Teaching Tool**

Mr. Nishimaki developed a high-output Daniell cell in cubic form featuring a thin agar gel sheet sandwiched between two kinds of metal plates. The electrodes can be easily replaced, making it suitable for quantitative experiments and learning about battery mechanisms and the properties of various metals. Mr. Nishimaki's application of this as teaching material in the classroom has been highly appraised.

**Related Information**

> Toray Science Foundation

**Malaysia Toray Science Foundation (MTSF)**

In fiscal 2020, MTSF postponed the 27th Presentation Ceremony due to the COVID-19 pandemic. Accordingly, in fiscal 2021, the 27th and 28th Presentation Ceremonies were held jointly online. MTSF awarded a total of 628,000 ringgit (equivalent to about 17.16 million yen) in prize money and grants to 59 recipients for the two years.
As an honored guest, Dr. Adham Baba, Malaysia's Minister of Science, Technology and Innovation, expressed his appreciation for Toray's CSR activities on behalf of the Malaysian government. To deal with such challenges as the COVID-19 pandemic and climate change, the development of outstanding scientists is considered essential. As an organization that motivates young scientists and educators, MTSF is greatly appreciated for contributing to the medium and long-term development of science and technology in Malaysia. Mr. Kaname Araki, Charges d'affaires ad interim at the Embassy of Japan in Malaysia also conveyed deep gratitude for the role MTSF has played in deepening the bonds of friendship between Japan and Malaysia over the years.

MTSF Managing Director Teh Hock Soon thanks the participants

Award recipients

**Related Information**

> Malaysia Toray Science Foundation

### Thailand Toray Science Foundation (TTSF)

The 28th Thailand Toray Science Foundation Presentation Ceremony was held in March 2022.
In fiscal 2021, TTSF awarded two Science and Technology Prizes, 20 Science and Technology Research Grants, and 9 Science Education Prizes totaling 5.45 million baht (equivalent to about 20.98 million yen) in prize money and grants.
The presentation ceremony began with a video message from Toray Industries President and TTSF Honorary Chairman Akihiro Nikkaku. Dr. Suchinda Malaivijitnond of Chulalongkorn University then delivered a speech on behalf of the honorees, saying that past TTSF award winners have been successful on the frontlines in various fields and regions, and that researchers in Thailand consider it a source of encouragement and pride to receive awards and research grants from TTSF.
As a guest of honor, Japanese Ambassador to Thailand Kazuya Nashida offered the honorees his congratulations, saying that he was impressed by the efforts of the TTSF over the past 28 years. The ceremony concluded with a speech from the President of the Privy Council, General Surayud Chulanont, who, as the Chairman of the Ceremony Committee, expressed his deep appreciation for Toray's business activities in Thailand over the years and for TTSF's contribution to the development of science and technology in Thailand.

Video message from Toray Industries President and TTSF Honorary Chairman Akihiro Nikkaku opens the ceremony

Commemorative photo of Science and Technology Prize winners

**Related Information**

> Thailand Toray Science Foundation

### Indonesia Toray Science Foundation(ITSF)

The 28th presentation ceremony of ITSF was held online via web conferencing in March 2022, awarding one Science and Technology Prize, 18 Science and Technology Research Grants, and 10 Science Education Prizes totaling 975 million rupia (equivalent to about 7.22 million yen).
As a guest of honor, Mr. Kenji Kanasugi, the Japanese ambassador to Indonesia, said that he was impressed that Toray, as a Japanese company, has continued to contribute to the development of science and technology in Indonesia through the ITSF for many years. Mr. Nadiem Makarim, Indonesia's Minister of Education, Culture, Research, and Technology, noted that innovative science education is being accelerated with the Science Education Awards. He praised this type of education saying that it is also the aim of his ministry's Free Learning Program. On behalf of the Indonesian government, Dr. Laksana Tri Handoko, head of the National Research and Innovation Agency, also thanked ITSF for its contributions.

Prize winners and grant recipients at 28th presentation ceremony of ITSF

Attendees at P.T. Indonesia Toray Synthetics watch the presentation ceremony

**Related Information**

> Indonesia Toray Science Foundation

### Korea Toray Science Foundation (KTSF)

In 2021, KTSF awarded Science and Technology Prizes to two researchers for their outstanding research results and three-year Research Fund Grants to four young researchers to pursue new research projects. The 4th KTSF presentation ceremony was held in October with a minimum number of attendees, limited to the recipients, their families, and Toray Science Foundation staff, in order to prevent the spread of COVID-19 infections.
Toray Industries President and KTSF Honorary Chairman Akihiro Nikkaku congratulated the honorees via a video message from Japan. He expressed his hope that the Foundation's activities will help promote science and technology and nurture scientists and contribute to the friendship and goodwill between the Republic of Korea and Japan.

Toray Industries President and KTSF Honorary Chairman Akihiro Nikkaku addresses attendees via video message.

TKSF Chairman Lee Young-kwan and KTSF members together with the science and technology prize winners

**Related Information**

> Korea Toray Science Foundation

# Environmental Conservation in Communities

CSR Roadmap 2022
Main Initiatives (3)(4)(7)

Environment and Communities

In addition to implementing initiatives to conserve the environment around its production sites, Toray Group companies collaborate with non-profits and municipal governments on ongoing efforts to clean up rivers and shorelines, and maintain forests.

## Major Environmental Activities at Offices and Plants

Employees cleaned up litter around the factory as part of their efforts to contribute to the local community and beautify the neighborhood. By having employees participate in the cleanup, the plant aims to raise awareness and will continue this as an initiative related to environmental preservation. (Toray Industries, Inc. Ishikawa Plant)

Employees cleaned along the Maekawa River embankment adjacent to the factory as part of environmental preservation and community contribution activities. The collected garbage was sorted and properly disposed of as waste. (Toray Industries, Inc. Chiba Plant, plant affiliate companies)

As part of environmental preservation efforts, head office employees helped maintain flower planters in the square in front of Chitose-Funabashi Station on the Odakyu line (Setagaya-ku, Tokyo). Many employees commute to work through this station. (Suido Kiko Kaisha, Ltd., Suiki Technos, LTD.)

Employees regularly clean up around the plant as a community contribution activity. (Toray Coatex Co., Ltd.)

In Fukushima Prefecture, businesses set their own global warming countermeasure targets and participate in an environmental protocol initiative sponsored by the prefectural governor. As a result of reporting on its daily environmental activities, Toray Advanced Film received an Encouragement Award as part of the 2021 Fukushima Protocol Project. (Toray Advanced Film Co., Ltd.)

Employees cleaned up the public road in front of the factory. They will continue their cleanup activities to help promote environmental preservation by reducing litter, which can cause accidents and injuries to both people and animals. (Toray Composite Materials America, Inc.)

Employees carried out tree planting activities in Nantong, China, to promote local greening and nature preservation. (Toray Polytech (Nantong) Co., Ltd., China)

The group company donated grafted seedlings for local reforestation. (P.T. Indonesia Toray Synthetics)

On TBSK Environmental Protection Day, employees picked up litter around the factory. (Toray Battery Separator Film Korea Limited)

### Biodiversity Preservation and Interaction with Local Communities Using a Waterside Biotope[2]

The Tokai Plant of Toray Industries is promoting activities based on the Toray Group Greening Guidelines in order to maintain and nurture the green space that it has preserved since the start of operations in 1971.The plant marked its 50th anniversary in January 2021 by creating a waterside biotope in the green spaces on its premises. The plant has been promoting activities based on a deep awareness of the importance of social contribution, and has even expanded initiatives for biodiversity conservation and ecosystem preservation.

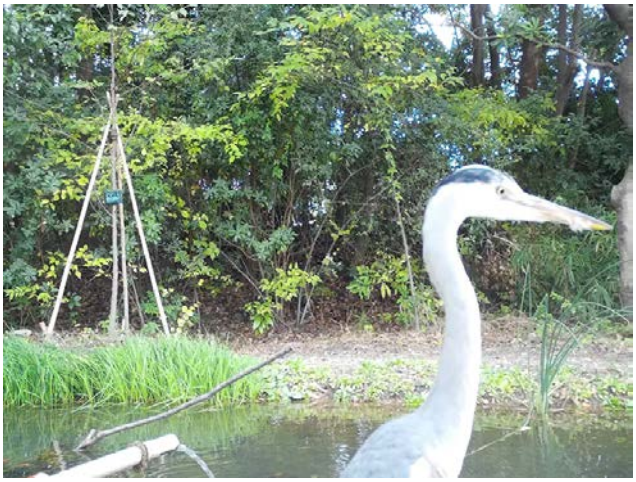
As part of these efforts, in 2019, the plant joined Project Linking Life with One Another,[3] which aims to form an ecological network of corporate greenbelts along the coast of the Chita Peninsula and foster the next generation of leadership. The project works with students, companies, government agencies, and experts from the local community to engage in activities that promote the coexistence of people and nature and the preservation of biodiversity. As part of the project activities, students gain access to the plant's green space for environmental study. Accordingly, the plant is helping to develop human resources using its green space, which also plays an important role as a tool for communicating with the local community.

Since its creation in January 2021, the plant's waterside biotope has been used as a fieldwork site for monitoring biodiversity conservation. It is regularly visited by local university and other students who belong to the Project Linking Life with One Another student executive committee.

In December 2021, the plant participated in an event called LOVE! GREEN DAY 2021, sponsored by the Japan Ecologist Association of Support, which allowed the public to experience the green spaces of companies participating in the Project Linking Life with One Another. The purpose of this event was to let people in the community experience the importance of living creatures and nature, while learning about the biodiversity conservation efforts of participating companies. At the Tokai Plant, visitors observed nature in the waterside biotope, took part in a quiz competition on living creatures, and experienced making nature-based crafts such as Christmas wreaths and stained glass using acorns, fallen leaves, and twigs collected from the green space. The visitors included many children with a strong interest in nature, living creatures, and manufacturing, and they appeared to learn a lot from the experience. Based on a clear management plan and targets, the Tokai Plant has been working on the preservation and further utilization of green spaces, while maintaining its green spaces for biodiversity conservation and next generation human resource development. Based on a favorable evaluation of these activities, the plant was certified as Excellent Stage 2 in the SEGES MOU (Maintenance, Operation and Utilization) category of the Social and Environmental Green Evaluation System[4] (SEGES), a green certification program provided by Japan's Organization for Landscape and Urban Green Infrastructure.

Visitors observe creatures at the waterside biotope during the LOVE GREEN DAY 2021 event

Visitors make Christmas wreaths and stained glass using acorns, fallen leaves, twigs and other materials collected from the plant's green space (during the LOVE GREEN DAY 2021 event)



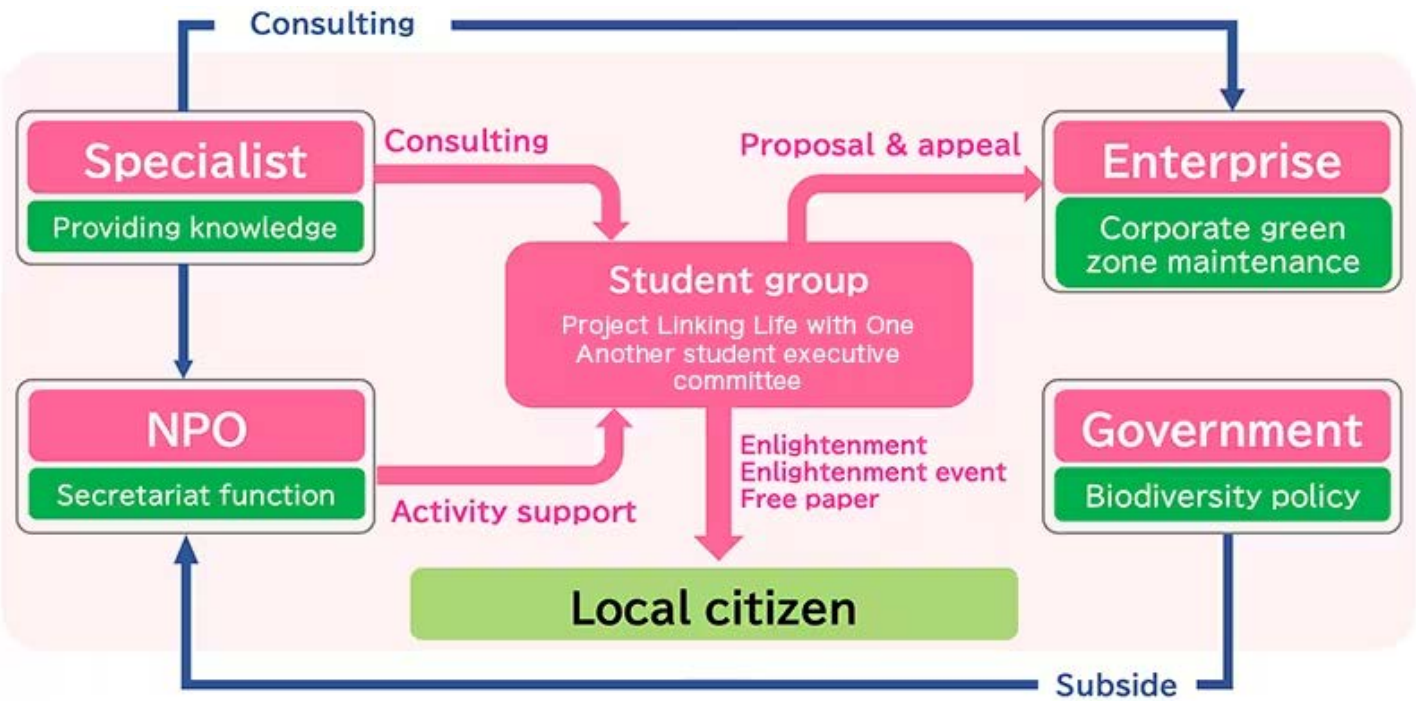
A gray heron visits the Tokai Plant biotope

SEGES Excellent Stage 2 certification

2 A term coined by combining the Greek words *bio* (life) and *topos* (place) that indicates a space inhabited by the wildlife native to an area.

3 A project based primarily in the corporate greenbelt along the coast of the Chita Peninsula that aims to form a network of ecosystems and nurture the next generation of leadership. Led by the student members of the Project Linking Life with One Another student executive committee, the project involves the collaboration of 12 companies, local government agencies, non-profit organizations, and experts who work together on a variety of activities to boost biodiversity in corporate greenbelts and raise environmental awareness among local residents. The Project Linking Life with One Another student executive committee received the Prime Minister's Award for the 2020 Greening Promotion Movement, which is awarded to individuals and groups that have made outstanding contributions to the greening promotion movement.

### Conceptual schematic of Project Linking Life with One Another




4 The Social and Environmental Green Evaluation System (SEGES) evaluates and certifies outstanding corporate green space initiatives that contribute to society and the environment. These initiatives include daily activities and efforts to help alleviate global warming and the heat island phenomenon, as well as conservation of local ecosystems, preservation and creation of good landscapes, building relationships with local communities, and safe and secure urban development. After being evaluated by a third-party review committee, successful candidates are certified by the Organization for Landscape and Urban Green Infrastructure. SEGES consists of three categories. In the SEGES MOU (Maintenance, Operation and Utilization) category, companies are evaluated and certified for outstanding activities to create or conserve their own green spaces. In the SEGES PDC (Planning, Designing and Construction) category, companies are evaluated and certified for outstanding green space environmental planning relating to property development and construction. In the SEGES ESW (Environmental Friendliness, Safety and Well-Being) category, companies are evaluated and certified for their efforts to provide comfortable and safe urban green spaces. As of April 2022, 144 corporate green spaces have been certified.

# Promoting Sports Participation by Sponsoring the Tokyo Marathon

CSR Roadmap 2022
Main Initiatives (1)(3)(7)

Environment and Communities

Health and Welfare

## Sponsorship of the Tokyo Marathon and Initiatives for Sustainability

Toray Industries has sponsored the Tokyo Marathon since 2011 as a way to contribute to society through the promotion of sporting events. The Tokyo Marathon also promotes sustainability initiatives as part of its activities. As an ongoing joint sustainability initiative with the Tokyo Marathon, Toray Industries provides its Ecodear™ plant-based polyester fiber to produce eco-friendly volunteer clothing, as well as carrier bags distributed to runners. At the Tokyo Marathon 2021, held in March 2022, used PET plastic bottles from the water provided to runners on the day of the race were collected for the purpose of making Toray's recycled fiber &+™. This fiber is being used for a new project to upcycle water bottles into volunteer clothing for the 2024 Tokyo Marathon. With the help of a large number of volunteers, the used water bottles were packed in numerous plastic bags bearing the recycling message, "See you later". It was an unusual but refreshing sight.

Used bottle collection bag with "See you later" written on it

Sorted plastic bottles to be recycled into &+™ textile

Used water bottles being taken to a collection vehicle

Volunteer clothing with the Toray corporate logo

**Related Information**

> &+™ (product site)

> Realizing a Circular Economy

### Promoting Sports Participation by Sponsoring the Shanghai Marathon

Toray Industries and Toray Industries (China) Co., Ltd. are helping to promote sports in China by sponsoring the Shanghai Marathon.The event is designated as a Platinum Label Road Race by World Athletics, a classification reserved for the leading road races around the world.
Toray Group has sponsored the event since its second year and currently provides support as a Founding Sponsor, the highest level of sponsorship.
The 2021 Shanghai Marathon was canceled due to the COVID-19 pandemic.

## Supporting Fureai Concerts

CSR Roadmap 2022
Main Initiatives (1)(3)(7)

Health and Welfare

To support culture, education, and welfare, Toray Industries co-sponsors Fureai Concerts. These concerts at venues across Japan, including elementary schools and social welfare facilities, bring music to the people through music instruction, concerts, and audience participation.
In fiscal 2021, COVID-19 infection prevention measures were implemented for the concerts, including temperature taking, mandatory mask-wearing, hand disinfecting, and limiting attendees to half the number of seats available. Six performances were held at three locations, and crowding at school venues was avoided by using gymnasiums. The concerts were enjoyed by many student and adult audience members.

Performance at Tokyo Opera City

Musicians perform at a school Fureai Concert

# Social Contribution Activities as a Good Corporate Citizen

CSR Roadmap 2022
Main Initiatives (1)(3)(4)(7)

Environment and Communities

Health and Welfare

Based on the corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products," Toray Group contributes to society through its business activities, and in other ways as well. As a good corporate citizen, the Group supports local communities through social contribution activities.

## Support for COVID-19 Infection Prevention

The Group donated one million ringgit to the Penang COVID-19 Fund as part of efforts to reduce the spread of COVID-19. Toray Group has been operating in Penang since the early 1970s. As a corporate citizen in Malaysia, Toray made this donation based on the belief that it is important to contribute to the communities and countries in which it operates. (Malaysia Toray Group)

Donating food to people impacted by COVID-19 (P.T. TI Matsuoka Winner Industry, Indonesia)

Donating hand washing stations and hand sanitizer to the local community as a measure to reduce COVID-19 infection (P.T. Indonesia Toray Synthetics)

Donating face masks and dry food to the local Department of Labour Protection and Welfare for distribution to people impacted by COVID-19 as a measure to help reduce infection (Carbon Magic (Thailand) Co., Ltd.)

Donating drinking water to the Thailand Social Security Office. The drinking water was distributed to those who came to get vaccinated, as part of a campaign to prevent the spread of COVID-19. (Thai Toray Synthetics Co., Ltd.)

The group company donated masks and antibacterial wipes to help prevent the spread of COVID-19. They were distributed to local welfare facilities for individuals with disabilities and low-income families. (Toray Advanced Materials Korea Inc.)

### Vocational Research Support for Junior High School Students in Ofunato City, Iwate Prefecture

Since 2012, Toray Industries has sent researchers each year to Career Challenge Day,[5] a career education event held in Ofunato City, Iwate Prefecture, as part of the Ministry of Education, Culture, Sports, Science and Technology Education Rebuilding Project. Researchers from the Company speak with local junior high school students and explain the nature of the R&D work done at a manufacturer. In fiscal 2021, the in-person event was cancelled due to the COVID-19 pandemic so the Company provided teaching videos and answered questions from junior high school students. The Company is committed to continuing to participate in this event, which helps the youth of Ofunato City find career paths.

5 Career Challenge Day is an alternative program for the workplace experience education that was no longer possible after the Great East Japan Earthquake. In fiscal 2012, the program was awarded the Minister of Education, Culture, Sports, Science and Technology Award.

### Volleyball Clinic to Support Great East Japan Earthquake Recovery

Since 2013, the Tohoku Branch of Toray Industries has used volleyball as a means of providing support for local reconstruction efforts. In November 2021, a volleyball clinic was held for fifth graders at Yamoto Nishi Elementary School in Higashi Matsushima City, Miyagi Prefecture. A former member of the Japanese national volleyball team and the Toray Arrows team, Kana Oyama, gave a talk to the fifth graders, and a practical training was provided by fellow Olympian and former Arrow Nobuharu Saito.
During the training, the students enjoyed the physical activity and teamwork, and the venue was filled with excited voices.
During the talk, Kana Oyama explained the importance of cooperating with teammates and caring for others, and the students listened intently. The question-and-answer session was also lively, and the clinic proved to a very meaningful experience for those involved.

Kana Oyama delivers her talk remotely

### Support for Local Community Development

The Group donated a total of 100,000 yuan to local charitable associations for community development in Nantong. The annual donation began in 2012, and 2021 marked the 10th year. (Five Toray Group companies in and around Nantong, China)

### Support for Wildfire Recovery

Toray Advanced Materials Korea Inc. donated 100 million won to the Korea Disaster Relief Association to support victims affected by forest fires on the east coast of the country, including Gangwon Province and Gyeongsangbuk Province. The donation will be used to provide support for disaster relief supplies and restore forest fire-hit areas.

### Humanitarian Assistance for Victims of the War in Ukraine

Toray Industries donated 30 million Hungarian forints (approximately 11 million yen) to the Hungarian Red Cross for humanitarian assistance for the victims of the war in Ukraine.
Toray Group is developing a wide range of business areas in Hungary, including carbon fiber, PPS resin compounds, and battery separator film for rechargeable lithium-ion batteries (LiBs).
Hungary has been providing assistance to refugees who have fled from neighboring Ukraine. With its base in Hungary, Toray Group decided to help these victims through the Hungarian Red Cross.
Group companies in the country are also providing additional support such as making company housing available to refugees.

Click here for the main initiatives for CSR Guideline 10, “Social Contribution Activities as a Good Corporate Citizen” in CSR Roadmap 2022.

# Toray Group's Approach to Climate Change

Toray Group is committed to its current corporate philosophy of "contributing to society through the creation of new value." This is in keeping with a principle since Toray's foundation in 1926 that corporations are public institutions that should contribute to society through business. Based on this corporate philosophy, Toray Group has for many decades focused on creating innovative technologies and advanced materials that provide solutions to various social challenges, including global environmental issues, and has helped to build a sustainable world.

The Group will help to reduce global greenhouse gas emissions and help to realize a carbon neutral world by 2050 by expanding the Green Innovation businesses that have long been a Toray focus. These businesses include renewable energy, hydrogen, and materials for electrification. The Group is also focused on developing new Green Innovation products that help with greenhouse gas absorption, such as $CO_2$ separation membranes.
In addition, Toray Group aims to reduce its own greenhouse gas emissions (Scope 1 and Scope 2) and become carbon neutral by 2050. It will do this by expanding Green Innovation businesses, which in return will provide Toray Group with sustainable energy and raw materials, as well as by developing and introducing innovative processes and $CO_2$ recycling technology that utilize $CO_2$ as a resource. Moreover, the Group is also committed to promoting the reduction of Scope 3 emissions that will reduce greenhouse gas emissions throughout the entire supply chain.
To accelerate initiatives to address climate change, the Group established the Sustainability Committee, chaired by the president, as an organization that oversees measures to combat climate change, as well as the Climate Change Subcommittee and the Circular Economy Subcommittee that work under the committee's auspices, in April 2021. The Climate Change Subcommittee works to reduce greenhouse gas emissions (Scope 1 and Scope 2) at Toray Group, as well as greenhouse gas emissions throughout the entire supply chain (Scope 3). The Circular Economy Subcommittee has formulated policies and action plans to promote a circular economy as an integral part of initiatives to address climate change. Progress on these activities is regularly reported to the Board of Directors.

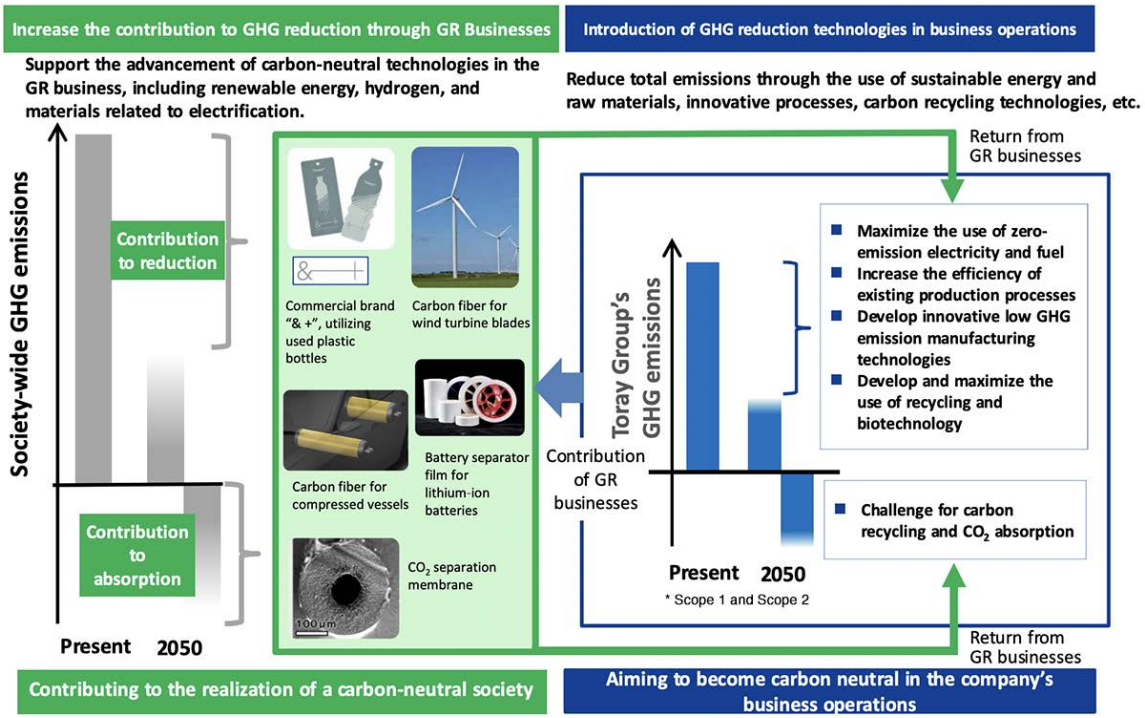
Further, in order to achieve carbon neutrality in 2050, Toray Group recognizes the need to make changes and take a leap in technological innovation based on non-conventional ideas, as well as the need for efforts that are not limited to single corporations, but involve industry, government, and broader society working together to achieve this goal. The Group holds discussions and pursues dialogue with affiliated economic organizations, industry associations, and government, working with these entities to achieve the goals of carbon neutrality and the Paris Agreement by 2050.

Major Affiliations: Organizations/Committees/Subcommittees (partial list)

- Nippon Keidanren (Japan Business Federation): Sub-Committee on Global Environment, Committee on Environment
- Japan Association of Corporate Executives: Environment and Energy Committee (Report in Japanese)
- Japan Chemical Industry Association: Technical Affairs Committee
- Japan Chemical Fibers Association
- Japan Environmental Management Association for Industry

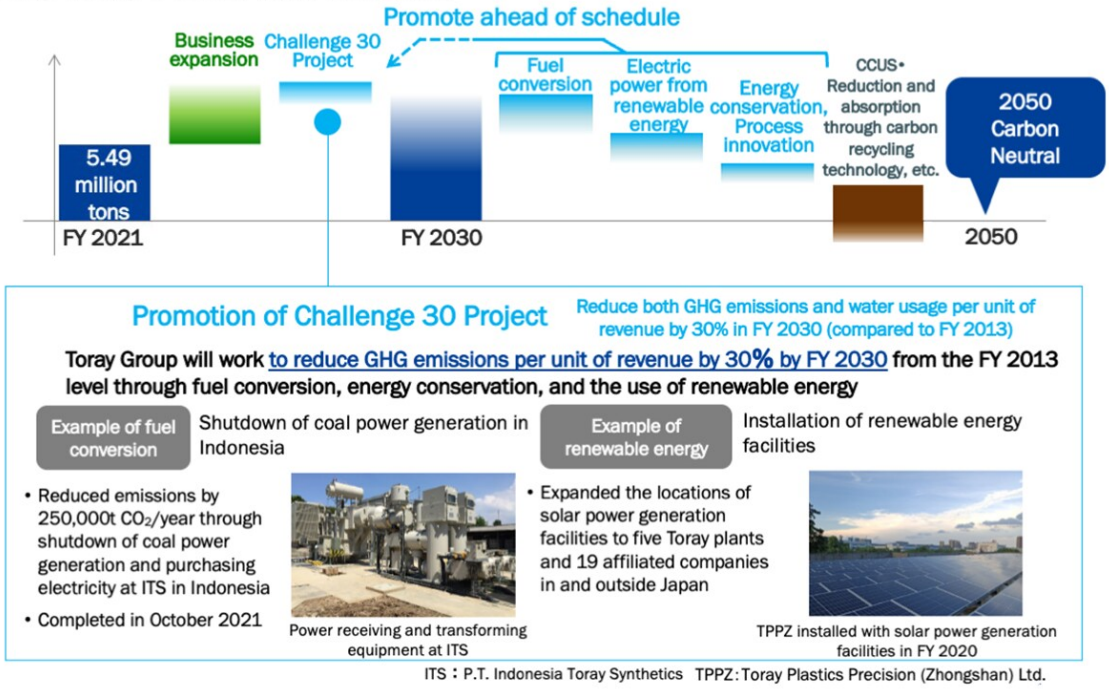
# Initiatives for Carbon Neutrality by 2050

**- Challenge to develop, promote, and implement technologies for the transition to a net zero emissions society -**

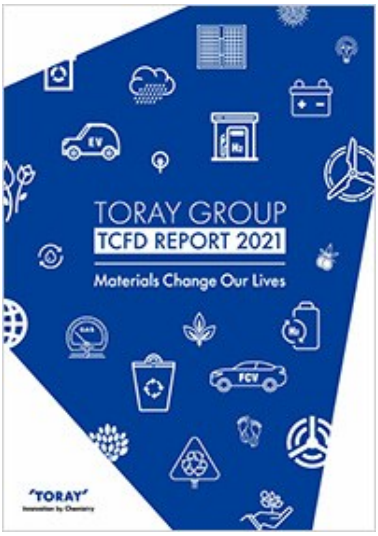



# Initiatives to Reduce GHG Emissions

## Toray Group's actual GHG emissions



In May 2019, Toray Group declared its support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and has proactively disclosed Group information in accordance with these TCFD recommendations.




Toray Group TCFD Report 2021 PDF
(2.88MB)

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Toray Group will continue to accelerate its pursuit of sustainable growth for the Group and initiatives to address climate change, as well as actively disclose information in accordance with the TCFD recommendations.

**Related Information**

Toray Group Sustainability Vision PDF

> Conserving Energy and Reducing Greenhouse Gas Emissions

> Risk Management

> Contributing Solutions to Social Issues through Business Activities

> Facilitating CSR Initiatives Throughout the Supply Chain

Click here (PDF:2.43MB) PDF for Toray answers to the CDP Climate Change 2022 questionnaire.
Click here (PDF:980KB) PDF for Toray answers to the CDP Water Security 2022 questionnaire.

## <Toray Group Efforts to Date>

One of the corporate commitments presented in Toray Group's Long-Term Corporate Vision, AP-G 2000, introduced in 1991, was to play an active role in protecting the global environment, and in the same year, the Group established the Global Environment Research Laboratory. In the following year (1992), the management of Toray Group affirmed its determination to take active steps to address global environmental issues, one of which was the formation of the company-wide Global Environment Committee.
In 2000, Toray Group formulated its Three-Year Environmental Plan of medium-term environmental preservation goals, which included targets for reducing greenhouse gas emissions. The Group continued to pursue activities in line with this plan through its Fifth Medium-Term Environmental Plan (targets set for FY2020).

In 2009, Toray Group established its Global Environment Business Strategic Planning Department under the direct control of the president for the purpose of promoting and supporting company-wide plans, development, and business integration of Toray Group global environment business strategies. Since 2011, under the Group's Long-Term Corporate Vision AP-Growth Toray 2020, this department has been central in efforts to expand the Group's Green Innovation businesses and promote Toray products and services that provide solutions to global environmental challenges and issues related to resources and energy.
Moreover, in the face of the increasing severity of such global environmental challenges as climate change, in July 2018 Toray Group announced the Toray Group Sustainability Vision, which sets out Toray Group initiatives and quantitative targets for fiscal 2030 with a view to realizing the World as Envisioned by Toray Group in 2050. The Group has continued to focus on promoting efforts to achieve this vision. In May 2020, Toray Group announced its Long-Term Corporate Vision, TORAY VISION 2030－Achieving sound, sustainable growth and creating social value, which runs through the end of fiscal 2030. At the same time, the Group released its Medium-Term Management Program, Project AP-G 2022 "Resilience and Proactive Management"－Sustainable Growth and New Development, which covers the three-year period starting in fiscal 2020.
Based on its core values of contributing to society through its business activities, management from a long-term perspective, and people-centric management, Toray Group has established TORAY VISION 2030 with the aim of providing new value to society by focusing on the four perspectives of the world envisioned under the Toray Group Sustainability Vision. This will be achieved by sharing Toray's management strengths in R&D, sales & marketing, and production, and by pursuing co-creation with the customers and business partners that make up the supply chain, all with a materials-oriented approach.

## <Progress on Project AP-G 2022 Sustainability Goals>

| (compared with FY2013) | FY2021 (Actual) | FY2022 (Target) |
|---|---|---|
| Revenue from Green Innovation businesses | 1.8 fold | 2.2 fold |
| Revenue from Life Innovation businesses | 2.6 fold | 2.5 fold |
| Contribution to $CO_2$ reduction | 8.0 fold | 5.3 fold |
| Contribution to water treatment | 2.2 fold | 2.4 fold |
| Greenhouse gas emission per unit of revenue | 21% reduction | 20% reduction |
| Water usage per unit of revenue | 27% reduction | 25% reduction |

> Sustainability The future

In 2022, Toray Group newly established the Environmental Solutions Department within the Corporate Marketing Planning Division for the purpose of promoting and supporting Group-wide plans, development, and business integration of Toray Group circular economy strategies.

# Comments from Thought Leaders

Comments are made on the basis of information publicly available as of September 2022.

**Sachiko Kishimoto**
Representative Director and Managing Director
Public Resources Foundation

**Profile of Sachiko Kishimoto**

Graduated from, College of Arts and Sciences, The University of Tokyo. After working for a trading company and think tank, she pursued studies outside Japan and then in 2000 joined the Public Resource Center, which later became the Public Resource Foundation she established in 2013. She has served as the foundation's Representative Director and Managing Director since it was established. The foundation promotes philanthropy by matching private and corporate endowments with exemplary non-profits and social entrepreneurs, as well as helping companies to pursue CSR and assess the impacts. Her recent published works include *Giving Japan 2021*.

These comments focus on the three sections of the Toray Group CSR Report 2022 entitled "Contributing Solutions to Social Issues through Business Activities" "Social Contribution Activities as a Good Corporate Citizen," and "Human Rights Promotion and Human Resources Development."

Since its founding, Toray Group has operated based on the principle of "realizing that corporations are public institutions of society and contributing to society through our business." The Group's slogan is "Innovation by Chemistry." Innovation is how Toray Group delivers on its corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products." When Toray says "innovation", it means not only development of radically new technologies, but also innovation across every other facet of corporate activity. Toray uses the word "chemistry" with two meanings. The first is the science that forms the basis for the advanced materials that the Group supplies. This allows Toray to create new value and support the development of a sustainable world while maintaining good relationships with everyone who encounters Toray Group, including customers, employees, shareholders, suppliers, consumers, and local communities. "Chemistry" also means collaboration and rapport. In this spirit, Toray Group companies and business sites around the world work together as one to deliver innovation. These concepts befit a global company that operates in 29 countries and regions worldwide, confronting today's global issues. Nevertheless, an incident occurred in 2021 involving inappropriate actions by Toray involving certain resin products identified as receiving certification from Underwriters Laboratories (UL). Given the Group's sincere commitment to contribute to society through business activities, I must say that this incident is truly regrettable. I therefore urge Toray to implement recurrence prevention measures based on the recommendations of the expert committee, along with thorough measures to bolster compliance awareness.

In the area of "Contributing Solutions to Social Issues through Business Activities," Toray Group has been promoting businesses that provide solutions for global environmental, resource, and energy issues, while advancing businesses that help improve the quality of healthcare, reduce the burden on medical staff, and contribute to health maintenance, longevity, and personal safety, as group-wide projects. Awareness of these global issues has become more important than ever, given the worldwide impact of the COVID-19 pandemic, the situation in Ukraine, and the further deterioration of the global environment. I hope that Toray Group's technological development capabilities will continue to provide breakthroughs to help solve global problems, just as Toray's new hydrocarbon-based electrolyte membranes will soon help to reduce the cost of green hydrogen.

Meanwhile, Toray is making some fantastic efforts in the area of "Social Contribution Activities as a Good Corporate Citizen." These include donating annually to Toray foundations, promoting environmental and science workshops taught by its employees, and pursuing initiatives to ensure that its business locations worldwide harmoniously coexist with local communities. On the other hand, it is regrettable that the amount the Group spent on social contribution activities in fiscal 2021 dropped below 90% of the level in the average year due to the impact of the COVID-19 pandemic. I would like to point out that monitoring society's needs and responding to them with agility is the most important aspect of social contribution activities. Accordingly, I have great expectations for Toray's efforts going forward.

Toray Group has also achieved some commendable results in the area of "Human Rights Promotion and Human Resources Development." This includes disclosing the annual number of hotline reports and consultation requests received across the entire Toray Group regarding workplace harassment and other human rights issues. It is also commendable that Toray is working with the hotline staff to take action on the reported issues, and that these activities are being shared with the Board of Directors and the Corporate Auditors. Creating a diverse and inclusive workplace is the source of competitiveness for any global company. Consequently, I hope that Toray will continue to work proactively on career advancement for its female employees with a sense of urgency.

**Shunsuke Managi**
Distinguished Professor
Kyushu University

**Profile of Shunsuke Managi**

Distinguished Professor of Technology and Policy, Director of the Urban Institute, Professor of the Department of Civil Engineering, and Assistant to the President at Kyushu University since 2015. Awarded the Japan Society for the Promotion of Science Prize, and member of Science Council of Japan and head of subcommittee on sustainable investment. Director for the UN Environment Programme's *Inclusive Wealth Report 2018*, lead author for Intergovernmental Panel on Climate Change (IPCC), coordinating lead author for Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and reviewer for the UN Global Sustainable Development Report 2013. Expert on global and national Inclusive Wealth Indexes and promotes development and natural capital for sustainability assessment. Written works include *Implementing ESG Management, Sustainable Community Development and Inclusive Wealth Theory*.

Reading through the Toray Group CSR Report 2022 gives a clear picture of how the Group is making steady progress on its CSR initiatives. The CSR activities are well summarized, with a focus on the ten themes of the CSR Guidelines, the CSR Roadmap, which is a medium-term CSR plan, and the initiative promotion systems.

Toray Group has created a three-year CSR Roadmap, and has set priority initiatives and KPIs for each CSR guideline to ensure systematic organizational promotion of CSR activities.
Among the CSR guideline activities, I took special note of the section, "Facilitating CSR Initiatives Throughout the Supply Chain."

In partnership with suppliers, processing vendors, customers and distribution companies, the Group is promoting CSR procurement throughout its entire supply chain, including environmental preservation and respect for human rights. The reason this caught my attention is that Toray Group is operating various businesses worldwide. Through these activities, it procures a wide range of raw and other materials, and deals with subcontractors in a variety of locations and industries. In such situations, issues involving preventing global warming, preserving the environment, protecting human rights, and improving workplace environments are complex.
Organizations everywhere are struggling to ascertain and mitigate the risks posed by these issues. Currently, the European Commission and others are discussing ways to prevent and rectify the negative effects that supply chains can have on the environment and the protection of human rights.

The Toray Group CSR Procurement Policies include a declaration to build a supply chain that takes the environment and human rights into consideration. The Toray Group CSR Procurement Guidelines have been created as specific requirements for the entire supply chain, and Toray Group requests that suppliers comply with them. In addition, the Group regularly conducts CSR procurement surveys of major suppliers, and the responses are evaluated and analyzed. Low-scoring companies are required to make improvements, and follow up activities are performed. In addition to these efforts, Toray is considering the adoption of a process to mitigate CSR procurement risks for the entire Group. This process starts with specifying key CSR procurement risks by country, region, and industry, and identifying suppliers that require investigation. It then moves on to investigations that uncover and audit actual risks and implement the necessary countermeasures.

While it may be difficult for a global enterprise like Toray Group to ascertain all risks across its entire supply chain, I would like Toray to continue promoting its efforts to identify risks.

Having a comprehensive understanding of the risks facing the Group worldwide can be the first step toward helping each region solve the issues they face. I look forward to seeing what further contributions Toray Group can make to the sustainable development of society as a whole.

CSR-Related Policies and Guidelines / ESG Data

# CSR-Related Policies and Guidelines

Policies and guidelines related to Toray Group CSR are listed below.

## Management

- Toray Group's Management Philosophy

## Governance

- Basic Policy on Corporate Governance
- Basic Policy on Internal Control System
- CSR Activity Report (CSR Guideline Activity Reports)
- Information Disclosure Principles
- Toray Group Information Security Basic Policy

## Ethics and Compliance

- Ethics & Compliance Code of Conduct
- Toray Group Tax Policy
- Toray Group Policy for Human Rights

## Safety and Environment

- Ten Basic Environmental Rules
- Recycling Activity Principles
- Toray Group's Basic Policy for Increasing Green Areas
- Toray Group Biodiversity Initiatives

## Quality Assurance and Product Safety

- Product Safety Management Basic Policy
- Toray Group Quality Policy

## Purchasing and Procurement

- Basic Purchasing Policies
- Basic Distribution Policies
- Toray Group CSR Procurement Policies

## Others

- Basic Policies to Promote Dialogue with Stakeholders
- Toray Global HR Management ("G-HRM") Fundamental Policy
- Toray Group Social Initiative Policies
- Statement on the UK's Modern Slavery Act

## CSR-Related Policies and Guidelines / ESG Data

# ESG Data

### Environment-Related

| | | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|---|
| Environment conservation costs | Investment | Toray Industries, Inc. | FY | 1.26 | 1.31 | 1.52 | 1.82 | billion Yen |
| | Cost | | | 6.98 | 7.12 | 7.56 | 6.75 | |
| Economic impact of environmental initiatives | | Toray Industries, Inc. | FY | 0.82 | 0.88 | 0.60 | 0.73 | billion Yen |
| Energy consumption | Total energy consumption | Toray Group total | FY | 89.1 | 94.6 | 81.5 | 96.4 | million gigajoules |
| | Consumption from non-renewable energy sources | | FY | 87.8 | 93.2 | 80.1 | 95.1 | |
| | Consumption from renewable energy sources | | FY | 1.2 | 1.4 | 1.4 | 1.3 | |
| | Total energy consumption | Toray Industries, Inc. | FY | 28.8 | 27.8 | 25.3 | 27.3 | |
| | Consumption from non-renewable energy sources | | FY | 27.6 | 26.5 | 24.0 | 26.1 | |
| | Consumption from renewable energy sources | | FY | 1.2 | 1.3 | 1.2 | 1.2 | |
| | Total energy consumption | Group companies in Japan | FY | 6.2 | 5.8 | 5.3 | 5.8 | |
| | Consumption from non-renewable energy sources | | FY | 6.2 | 5.8 | 5.3 | 5.8 | |
| | Consumption from renewable energy sources | | FY | 0.0 | 0.0 | 0.0 | 0.0 | |
| | Total energy consumption | Group companies outside Japan | FY | 54.1 | 61.0 | 50.9 | 63.4 | |
| | Consumption from non-renewable energy sources | | FY | 54.0 | 60.9 | 50.7 | 63.2 | |
| | Consumption from renewable energy sources | | FY | 0.1 | 0.1 | 0.2 | 0.1 | |
| Unit energy consumption index (% compared to fiscal 1990) | | Toray Industries, Inc. | FY | 83.3 | 85.9 | 90.9 | 79.9 | — |

| | | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|---|
| Water | | Toray Group total | FY | 232.9 | 227.1 | 214.7 | 223.8 | million tons |
| | | Toray Industries, Inc. | FY | 175.9 | 171.8 | 165.7 | 171.8 | |
| | | Group companies in Japan | FY | 13.3 | 13.4 | 11.5 | 11.5 | |
| | | Group companies outside Japan | FY | 43.7 | 41.9 | 37.6 | 40.5 | |
| Industrial wastewater | | Toray Group total | FY | 199.6 | 195.5 | 182.1 | 188.2 | million tons |
| | | Toray Industries, Inc. | FY | 166.6 | 160.4 | 150.1 | 154.4 | |
| | | Group companies in Japan | FY | 9.5 | 9.3 | 7.7 | 8.2 | |
| | | Group companies outside Japan | FY | 23.4 | 25.7 | 24.3 | 25.7 | |
| Greenhouse gas emissions[1] | Scope1 | Toray Group total | FY | 331.0 | 327.4 | 281.7 | 304.4 | 10,000 tons-$CO_2$eq |
| | Scope2 | | FY | 232.5 | 248.3 | 215.2 | 244.9 | |
| | Scope1+Scope2 | | FY | 563.5 | 575.7 | 496.9 | 549.2 | |
| | Scope1 | Toray Industries, Inc. | FY | 161.7 | 155.9 | 140.3 | 157.9 | |
| | Scope2 | | FY | 33.6 | 30.1 | 25.5 | 28.3 | |
| | Scope1+Scope2 | | FY | 195.3 | 186.0 | 165.7 | 186.2 | |
| | Scope1 | Group companies in Japan | FY | 5.1 | 4.7 | 4.1 | 5.5 | |
| | Scope2 | | FY | 32.3 | 28.7 | 26.6 | 27.7 | |
| | Scope1+Scope2 | | FY | 37.4 | 33.4 | 30.7 | 33.3 | |
| | Scope1 | Group companies outside Japan | FY | 164.2 | 166.8 | 137.3 | 140.9 | |
| | Scope2 | | FY | 166.6 | 189.5 | 163.1 | 188.8 | |
| | Scope1+Scope2 | | FY | 330.8 | 356.3 | 300.5 | 329.8 | |

| | | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|---|
| Greenhouse gas emissions (Scope3) | | Toray Industries, Inc. | FY | 74.4 | 86.4 | 77.1 | 267.5 | 10,000 tons-$CO_2$eq |
| | Category 1: Purchased goods and services | | FY | - | - | - | 231.5 | |
| | Category 2: Capital goods | | FY | 13.7 | 12.8 | 10.2 | 9.2 | |
| | Category 3: fuel and energy related activities | | FY | 56.1 | 68.9 | 63.1 | 19.0 | |
| | Category4: Upstream transportation and distribution | | FY | 4.6 | 4.7 | 3.8 | 4.3 | |
| | Category5: Waste generated in operations | | FY | - | - | - | 2.0 | |
| | Category6: Business travel | | FY | - | - | - | 1.3 | |
| | Category7: Employee commuting | | FY | - | - | - | 0.2 | |
| Atmospheric emissions (NOx) | | Toray Group total | FY | 2,047.1 | 2,182.6 | 2,189.5 | 2,689.9 | tons |
| | | Toray Industries, Inc. | FY | 1,305.7 | 1,274.0 | 1,139.2 | 1,302.6 | |
| | | Group companies in Japan | FY | 32.5 | 30.2 | 29.7 | 14.3 | |
| | | Group companies outside Japan | FY | 708.9 | 878.4 | 1,020.7 | 1,372.9 | |
| Atmospheric emissions (SOx) | | Toray Group total | FY | 2,552.5 | 1,862.0 | 1,582.7 | 1,333.1 | tons |
| | | Toray Industries, Inc. | FY | 244.9 | 254.9 | 160.1 | 219.4 | |
| | | Group companies in Japan | FY | 16.0 | 9.7 | 17.9 | 2.4 | |
| | | Group companies outside Japan | FY | 2,291.5 | 1,597.4 | 1,404.7 | 1,111.3 | |
| Emissions of substances subject to the PRTR Act (Atmospheric Emissions) | | Toray Group total | FY | 886.3 | 721.0 | 796.1 | 715.9 | tons |
| | | Toray Industries, Inc. | FY | 327.7 | 229.1 | 211.0 | 183.3 | |
| | | Group companies in Japan | FY | 101.5 | 99.7 | 104.4 | 89.8 | |
| | | Group companies outside Japan | FY | 457.0 | 392.2 | 480.6 | 442.8 | |

| | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|
| Emissions of substances subject to the PRTR Act (Water Emissions) | Toray Group total | FY | 28.8 | 24.6 | 26.0 | 30.2 | tons |
| | Toray Industries, Inc. | FY | 28.3 | 24.2 | 22.2 | 26.5 | |
| | Group companies in Japan | FY | 0.4 | 0.4 | 3.1 | 0.0 | |
| | Group companies outside Japan | FY | 0.2 | 0.0 | 0.7 | 3.7 | |
| Emissions of substances subject to the PRTR Act (transfers) | Toray Group total | FY | 4,878.5 | 4,868.6 | 7,323.2 | 6,067.7 | tons |
| | Toray Industries, Inc. | FY | 746.3 | 1,054.1 | 577.4 | 499.1 | |
| | Group companies in Japan | FY | 1,333.7 | 1,674.1 | 2,468.9 | 957.4 | |
| | Group companies outside Japan | FY | 2,798.5 | 2,140.4 | 4,276.9 | 4,611.1 | |
| VOC atmospheric emissions | Toray Group total | FY | 1,128.9 | 968.3 | 1,039.2 | 888.4 | tons |
| | Toray Industries, Inc. | FY | 422.1 | 307.4 | 309.2 | 266.1 | |
| | Group companies in Japan | FY | 178.1 | 175.0 | 172.2 | 136.4 | |
| | Group companies outside Japan | FY | 528.7 | 486.0 | 557.8 | 485.9 | |
| Atmospheric emissions (Dust) | Toray Group total | FY | 271.4 | 359.0 | 195.8 | 314.7 | tons |
| | Toray Industries, Inc. | FY | 96.5 | 121.9 | 60.9 | 102.6 | |
| | Group companies in Japan | FY | 1.0 | 3.1 | 1.5 | 4.7 | |
| | Group companies outside Japan | FY | 173.9 | 234.1 | 133.3 | 207.4 | |
| Coal ash (recycled) | Toray Industries, Inc. | FY | 68.7 | 68.1 | 66.6 | 69.0 | 1,000 tons |
| | Group companies in Japan | FY | – | – | – | – | |
| | Group companies outside Japan | FY | 22.6 | 19.0 | 12.5 | 15.8 | |

| | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|
| Waste (direct landfill disposal) | Toray Group total | FY | 21.3 | 27.2 | 18.6 | 19.5 | 1,000 tons |
| | Toray Industries, Inc. | FY | 0.1 | 0.2 | 0.0 | 0.0 | |
| | Group companies in Japan | FY | 0.4 | 4.3 | 0.9 | 0.3 | |
| | Group companies outside Japan | FY | 20.8 | 22.7 | 17.7 | 19.2 | |
| Waste (hazardous) | Toray Group total | FY | | | | 5.1 | 1,000 tons |
| | Toray Industries, Inc. | FY | – | – | 2.1 | 2.3 | |
| | Group companies in Japan | FY | – | – | 2.8 | 2.7 | |
| | Group companies outside Japan | FY | – | – | — | 0.0 | |
| Waste (non-hazardous) | Toray Group total | FY | | | | 169.5 | 1,000 tons |
| | Toray Industries, Inc. | FY | – | – | 25.0 | 25.7 | |
| | Group companies in Japan | FY | – | – | 12.5 | 9.2 | |
| | Group companies outside Japan | FY | – | – | — | 134.6 | |
| Water emissions (BOD) | Toray Group total | FY | 823.6 | 849.6 | 733.4 | 655.0 | tons |
| | Toray Industries, Inc. | FY | 624.2 | 606.9 | 523.5 | 464.7 | |
| | Group companies in Japan | FY | 32.1 | 31.3 | 21.6 | 16.3 | |
| | Group companies outside Japan | FY | 167.4 | 211.4 | 188.3 | 174.0 | |
| Water emissions (COD) | Toray Group total | FY | 1,957.1 | 2,302.5 | 1,945.4 | 2,137.9 | tons |
| | Toray Industries, Inc. | FY | 780.4 | 727.2 | 694.0 | 666.6 | |
| | Group companies in Japan | FY | 27.7 | 25.2 | 28.8 | 25.9 | |
| | Group companies outside Japan | FY | 1,149.0 | 1,550.0 | 1,222.6 | 1,445.4 | |

| | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|
| Wastewater: Total nitrogen emissions | Toray Industries, Inc. | FY | 393.5 | 341.2 | 340.4 | 405.8 | tons |
| | Group companies in Japan | FY | 13.8 | 13.5 | 8.6 | 7.6 | |
| | Group companies outside Japan | FY | – | – | — | — | |
| Wastewater: Total phosphorous emissions | Toray Industries, Inc. | FY | 31.0 | 24.8 | 18.7 | 19.0 | tons |
| | Group companies in Japan | FY | 1.6 | 1.3 | 0.6 | 0.7 | |
| | Group companies outside Japan | FY | – | – | — | — | |

1 Emissions of $CO_2$ equivalents for six gases ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, $SF_6$) are calculated according to conversion factors for each gas. There are no $NF_3$ emissions. For Scope-1 group companies outside Japan, only $CO_2$ emissions are calculated.

## Society-Related

| | | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|---|
| Number of employees | Total | Toray Industries, Inc. | As of the end of each fiscal year | 7,585 | 7,568 | 7,420 | 7,175 | persons |
| | Male | | | 6,749 | 6,708 | 6,552 | 6,314 | |
| | Female | | | 836 | 860 | 868 | 861 | |
| Percentage of women in unit manager or higher positions | | Toray Industries, Inc. | As of April each year | 9.3 | 9.7 | 9.8 | 10.0 | % |
| Women in management positions (%) | Management staff (Section manager or higher positions) | | | 4.9 | 5.1 | 5.6 | 6.0 | |
| Employment rate of persons with disabilities | | Toray Industries, Inc. | Year | 2.21 | 2.20 | 2.23 | 2.39 | % |
| Average time on the job | Total | Toray Industries, Inc. | FY | 15.0 | 15.4 | 15.9 | 16.6 | years |
| | Male | | | 14.9 | 15.3 | 15.8 | 16.5 | |
| | Female | | | 16.0 | 16.1 | 16.7 | 17.2 | |
| Percentage of available annual paid leave used by employees | Toray Industries' employees (non-managerial) | Toray Industries, Inc. | FY | 89.7 | 96.0 | 83.4 | 89.6 | % |
| Number of employees taking childcare leave | Total | Toray Industries, Inc. | FY | 62 | 70 | 88 | 96 | persons |
| | Male | | | 4 | 10 | 22 | 40 | |
| | Female | | | 58 | 60 | 66 | 56 | |
| Number of employees taking family care leave | | Toray Industries, Inc. | FY | 1 | 4 | 1 | 3 | persons |
| Number of employees hired | Total | Toray Industries, Inc. | FY | 338 | 332 | 223 | 180 | persons |
| | Male | | | 280 | 279 | 185 | 136 | |
| | Female | | | 58 | 53 | 38 | 44 | |
| Education and Training | Training expenditures per employee | Toray Industries, Inc. | FY | 90,261 | 96,821 | 36,092[2] | 58,899 | Yen |
| | Time dedicated to training per employee | | | 33.5 | 35.0 | 26.9 | 33.7 | Hours |
| Occupational accident frequency rate | | Toray Group (all accidents) | Year | 0.59 | 0.59 | 0.71 | 0.60 | — |
| | | Toray Group (accidents causing lost work time) | Year | 0.29 | 0.34 | 0.39 | 0.38 | — |
| | | Toray Industries' onsite contractors (accidents causing lost work time) | Year | — | — | 0.68 | 0.69 | — |
| Process Safety Events -Tier 1- | | Toray Group | Year | — | — | 0 | 0 | Events |

| | | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|---|
| Total social contribution expenditures | | Toray Group | FY | 1.73 | 1.85 | 1.54 | 1.43 | billion yen |
| Percentage by type | Academics, science research, education | Toray Group | FY | 54 | 51 | 59 | 66 | % |
| | Environment, communities | | | 14 | 11 | 9 | 13 | |
| | Health, welfare, sports | | | 21 | 28 | 22 | 10 | |
| | Culture, arts, other | | | 11 | 10 | 10 | 11 | |

2 The fiscal 2020 figure for education-related social contribution expenditures was impacted by the fact that the Company voluntarily cancelled activities that were deemed difficult to conduct in a safe manner that would prevent the spread of COVID-19, limiting these activities to online sessions and other methods that fully comply with measures to prevent infection.

## Governance-Related

| | | Scope | Period | 2018 | 2019 | 2020 | 2021 | Unit |
|---|---|---|---|---|---|---|---|---|
| Number of members of the Board | | Toray Industries, Inc. | FY | 19 | 19 | 12 | 12 | persons |
| Number of outside directors (independent officers) | | Toray Industries, Inc. | FY | 2 | 2 | 4 | 4 | persons |
| Number of female directors | | Toray Industries, Inc. | FY | 0 | 0 | 0 | 0 | persons |
| Ratio of female members of the Board | | Toray Industries, Inc. | FY | 0 | 0 | 0 | 0 | % |
| R&D expenses | | Toray Group | FY | 66.4 | 66.9 | 62.8 | 62.1 | billion yen |
| Ratio of R&D expenses to net sales | | Toray Group | FY | 2.8 | 3.0 | 3.3 | 2.8 | % |
| Number of major violations of laws or ordinances | | Toray Group | FY | 0 | 1 | 1 | 1 | violation |
| Number of whistleblowing reports and consultations received | Total | Toray Group | FY | – | 90 | 74 | 89 | Reports/ consultations |
| | Compliance related | | | – | 10 | 15 | 17 | |
| | Harassment related | | | – | 44 | 44 | 49 | |
| | Other | | | – | 36 | 15 | 23 | |
| Monetary contribution to Political fund-raising organization (The People's Political Association) | | Toray Industries, Inc. | FY | 30 | 30 | 30 | 30 | million yen |
| Ratio between the total annual compensation of the CEO and the mean employee compensation | | Toray Industries, Inc. | FY | 21.26 | 21.25 | 22.18 | 20.97 | times |

Comparative Tables with GRI Standards, SASB Standards, ISO 26000 Subjects, and ESG Topics

# Comparative Table with GRI Standards

## Universal Standards

### General Disclosures

| Organizational profile | | References |
|---|---|---|
| 102-1 | Name of the organization | > Corporate Outline |
| 102-2 | Activities, brands, products, and services | > Corporate Outline<br>> Our Businesses |
| 102-3 | Location of headquarters | > Head Office/Branches |
| 102-4 | Location of operations | > Head Office/Branches |
| 102-5 | Ownership and legal form | > Corporate Outline<br>> Securities Report (available only in Japanese)<br>> Financial Data |
| 102-6 | Markets served | > Corporate Outline<br>> Securities Report (available only in Japanese)<br>> Financial Data |
| 102-7 | Scale of the organization | > Corporate Outline<br>> Securities Report (available only in Japanese)<br>> Financial Data |
| 102-8 | Information on employees and other workers | > ESG Data |
| 102-9 | Supply chain | > Facilitating CSR Initiatives Throughout the Supply Chain |
| 102-10 | Significant changes to the organization and its supply chain | N/A |
| 102-11 | Precautionary Principle or approach | > Risk Management<br>> Ethics and Compliance<br>> Initiatives for Quality Assurance and Product Safety<br>> Facilitating CSR Initiatives Throughout the Supply Chain |
| 102-12 | External initiatives | > Human Rights Promotion and Human Resources Development<br>> Statement on the UK's Modern Slavery Act<br>> Toray Group's Approach to Climate Change |

| | | |
|---|---|---|
| 102-13 | Membership of associations | Toray Industries, Inc. belongs to the following associations:<br>• Nippon Keidanren (Japan Business Federation)<br>• Japan Association of Corporate Executives: Environment and Energy Committee<br>• Japan Chemical Industry Association<br>• Japan Chemical Fibers Association |
| Strategy | | References |
| 102-14 | Statement from senior decision-maker | > Message from the President |
| 102-15 | Key impacts, risks, and opportunities | > Securities Report (available only in Japanese)<br>> Financial Data<br>> Annual Reports<br>> Risk Management Initiatives |
| Ethics and Integrity | | References |
| 102-16 | Values, principles, standards, and norms of behavior | > Toray Philosophy |
| 102-17 | Mechanisms for advice and concerns about ethics | > Establishing a Corporate Culture of Total Respect for Ethics and Compliance |
| Governance | | References |
| 102-18 | Governance structure | > Corporate Governance<br>Corporate Governance Report PDF |
| 102-19 | Delegating authority | > Toray Group Corporate Social Responsibility Initiatives |
| 102-20 | Executive-level responsibility for economic, environmental, and social topics | > CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)<br>> Toray Group Corporate Social Responsibility Initiatives |
| 102-21 | Consulting stakeholders on economic, environmental, and social topics | > Communication |
| 102-22 | Composition of the highest governance body and its committees | Corporate Governance Report PDF<br>> Basic Policy on Corporate Governance<br>> Corporate Governance |
| 102-23 | Chair of the highest governance body | Corporate Governance Report PDF |
| 102-24 | Nominating and selecting the highest governance body | Corporate Governance Report PDF |
| 102-25 | Conflicts of interest | Corporate Governance Report PDF |
| 102-26 | Role of highest governance body in setting purpose, values, and strategy | > Basic Policy on Corporate Governance |
| 102-27 | Collective knowledge of highest governance body | |
| 102-28 | Evaluating the highest governance body's performance | Corporate Governance Report PDF |
| 102-29 | Identifying and managing economic, environmental, and social impacts | > Toray Group's Approach to Climate Change |
| 102-30 | Effectiveness of risk management processes | > Risk Management |

| | | |
|---|---|---|
| 102-31 | Review of economic, environmental, and social topics | |
| 102-32 | Highest governance body's role in sustainability reporting | |
| 102-33 | Communicating critical concerns | Corporate Governance Report PDF<br>> Ethics and Compliance<br>> Establishing a Corporate Culture of Total Respect for Ethics and Compliance<br>> Risk Management |
| 102-34 | Nature and total number of critical concerns | > Establishing a Corporate Culture of Total Respect for Ethics and Compliance |
| 102-35 | Remuneration policies | Corporate Governance Report PDF |
| 102-36 | Process for determining remuneration | Corporate Governance Report PDF |
| 102-37 | Stakeholders' involvement in remuneration | Corporate Governance Report PDF |
| 102-38 | Annual total compensation ratio | > ESG Data |
| 102-39 | Percentage increase in annual total compensation ratio | > ESG Data |
| Stakeholder Engagement | | References |
| 102-40 | List of stakeholder groups | > Communication<br>> Comments from Thought Leaders<br>> Creating a Positive Workplace for Employees<br>> Communication with Local Communities |
| 102-41 | Collective bargaining agreements | > Creating a Positive Workplace for Employees |
| 102-42 | Identifying and selecting stakeholders | > Communication |
| 102-43 | Approach to stakeholder engagement | > Communication |
| 102-44 | Key topics and concerns raised | > Comments from Thought Leaders<br>> Materiality |
| Reporting practice | | References |
| 102-45 | Entities included in the consolidated financial statements | > Corporate Outline<br>> Securities Report (available only in Japanese)<br>> Financial Data |
| 102-46 | Defining report content and topic Boundaries | > Materiality<br>> Editorial Policy |
| 102-47 | List of material topics | > Materiality<br>> CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022) |
| 102-48 | Restatements of information | N/A |
| 102-49 | Changes in reporting | N/A |
| 102-50 | Reporting period | > Editorial Policy |
| 102-51 | Date of most recent report | September, 2021 |
| 102-52 | Reporting cycle | End of September yearly |

| | | |
|---|---|---|
| 102-53 | Contact point for questions regarding the report | > Contact Us |
| 102-54 | Claims of reporting in accordance with the GRI Standards | > Comparative Table with GRI Standards |
| 102-55 | GRI content index | > Comparative Table with GRI Standards |
| 102-56 | External assurance | > Third-Party Assurance |

| Management Approach | | |
|---|---|---|
| General Requirements for Reporting the Management Approach | | References |
| 103-1 | Explanation of the material topic and its Boundary | > Materiality |
| 103-2 | The management approach and its components | > Toray Group Corporate Social Responsibility Initiatives<br>> CSR Activity Report (CSR Guideline Activity Reports)<br>> CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)<br>> Corporate Governance<br>> Ethics and Compliance<br>> Safety, Accident Prevention, and Environmental Preservation<br>> Product Quality and Safety<br>> Risk Management<br>> Communication<br>> Contributing Solutions to Social Issues through Business Activities<br>> Human Rights Promotion and Human Resources Development<br>> Facilitating CSR Initiatives Throughout the Supply Chain<br>> Social Contribution Activities as a Good Corporate Citizen |
| 103-3 | Evaluation of the management approach | > Toray Group Corporate Social Responsibility Initiatives<br>> CSR Activity Report (CSR Guideline Activity Reports)<br>> CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)<br>> Corporate Governance<br>> Ethics and Compliance<br>> Safety, Accident Prevention, and Environmental Preservation<br>> Product Quality and Safety<br>> Risk Management<br>> Communication<br>> Contributing Solutions to Social Issues through Business Activities<br>> Human Rights Promotion and Human Resources Development<br>> Facilitating CSR Initiatives Throughout the Supply Chain<br>> Social Contribution Activities as a Good Corporate Citizen |

## Topic-Specific Standards

| Economic | | |
|---|---|---|
| Economic Performance | | References |
| 201-1 | Direct economic value generated and distributed | > Securities Report (available only in Japanese)<br>> Financial Data<br>> Social Contribution Activities as a Good Corporate Citizen Fiscal 2021 Results (Data edition) |

| | | |
|---|---|---|
| 201-2 | Financial implications and other risks and opportunities due to climate change | > Toray Group's Approach to Climate Change |
| 201-3 | Defined benefit plan obligations and other retirement plans | > Securities Report (available only in Japanese)<br>> Financial Data |
| 201-4 | Financial assistance received from government | Restrictions related to confidentiality and/or information difficult to obtain |
| Market Presence | | References |
| 202-1 | Ratios of standard entry level wage by gender compared to local minimum wage | > Information on hiring new graduates (available only in Japanese) |
| 202-2 | Proportion of senior management hired from the local community | |
| Indirect Economic Impacts | | References |
| 203-1 | Infrastructure investments and services supported | |
| 203-2 | Significant indirect economic impacts | |
| Procurement Practices | | References |
| 204-1 | Proportion of spending on local suppliers | > Facilitating CSR Initiatives Throughout the Supply Chain |
| Anti-corruption | | References |
| 205-1 | Operations assessed for risks related to corruption | > Establishing a Corporate Culture of Total Respect for Ethics and Compliance<br>> Antitrust Compliance and Corruption/Bribery Prevention |
| 205-2 | Operations assessed for risks related to corruption | > Establishing a Corporate Culture of Total Respect for Ethics and Compliance<br>> Antitrust Compliance and Corruption/Bribery Prevention<br>> Socially Responsible Procurement Initiatives at Toray Group |
| 205-3 | Confirmed incidents of corruption and actions taken | No incidents |
| Anti-competitive Behavior | | References |
| 206-1 | Legal actions for anti-competitive behavior, anti-trust, and monopoly practices | N/A |
| Tax | | References |
| 207-1 | Approach to tax | > Ensuring Tax Compliance |
| 207-2 | Tax governance, control, and risk management | > Ensuring Tax Compliance |
| 207-3 | Stakeholder engagement and management of concerns related to tax | > Ensuring Tax Compliance |
| 207-4 | Country-by-country reporting | |

| Environment | | |
|---|---|---|
| Materials | | References |
| 301-1 | Materials used by weight or volume | |
| 301-2 | Recycled input materials used | Information difficult to obtain |
| 301-3 | Reclaimed products and their packaging materials | > Initiatives to Reduce Waste<br>> Toray Group Distribution Initiatives (Expanding Collection and Reuse of Packaging Materials) |
| Energy | | References |
| 302-1 | Energy consumption within the organization | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Environmental Impact Overview |
| 302-2 | Energy consumption outside of the organization | > Third-Party Assurance |
| 302-3 | Energy intensity | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Environmental Impact Overview |
| 302-4 | Reduction of energy consumption | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Environmental Impact Overview |
| 302-5 | Reductions in energy requirements of products and services | > Green Innovation Business Expansion Project |
| Water and Effluents | | References |
| 303-1 | Interactions with water as a shared Sustainably managed resources | > Initiatives for Managing Water Resources |
| 303-2 | Management of water discharge-related impacts | > Initiatives to Prevent Air and Water Pollution |
| 303-3 | Water withdrawal | > Environmental Impact Overview<br>> SASB Standards |
| 303-4 | Water discharge | > Initiatives to Prevent Air and Water Pollution<br>> Environmental Impact Overview |
| 303-5 | Water consumption | > Environmental Impact Overview<br>> SASB Standards |
| Biodiversity | | References |
| 304-1 | Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas Biodiversity Initiatives | > Biodiversity Initiatives |
| 304-2 | Significant impacts of activities, products, and services on biodiversity | > Biodiversity Initiatives |
| 304-3 | Habitats protected or restored | > Biodiversity Initiatives<br>> Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2021 (Environmental Conservation in Communities) |

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|---|---|---|
| 304-4 | IUCN Red List species and national conservation list species with habitats in areas affected by operations | Information difficult to obtain |
| Emissions | | References |
| 305-1 | Direct (Scope 1) GHG emissions | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Environmental Impact Overview<br>> Third-Party Assurance |
| 305-2 | Energy indirect (Scope 2) GHG emissions | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Environmental Impact Overview<br>> Third-Party Assurance |
| 305-3 | Other indirect (Scope 3) GHG emissions | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Environmental Impact Overview<br>> Third-Party Assurance |
| 305-4 | GHG emissions intensity | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Environmental Impact Overview |
| 305-5 | Reduction of GHG emissions | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Environmental Impact Overview |
| 305-6 | Emissions of ozone-depleting substances (ODS) | > Conserving Energy and Reducing Greenhouse Gas Emissions (Initiatives to Protect the Ozone Layer) |
| 305-7 | Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions | > Initiatives to Prevent Air and Water Pollution<br>> Environmental Impact Overview<br>> Chemical Substance Emissions and Transfer Data |
| Waste | | References |
| 306-1 | Waste generation and significant waste-related impacts | > Initiatives to Reduce Waste<br>> Realizing a Circular Economy |
| 306-2 | Management of significant waste-related impacts | > Safety, Accident Prevention, and Environmental Preservation<br>> Initiatives to Reduce Waste<br>> Realizing a Circular Economy |
| 306-3 | Waste generated | > Environmental Impact Overview |
| 306-4 | Waste diverted from disposal | > Environmental Impact Overview<br>> Initiatives to Reduce Waste |
| 306-5 | Waste directed to disposal | > Environmental Impact Overview<br>> Initiatives to Reduce Waste |
| Environmental Compliance | | References |
| 307-1 | Non-compliance with environmental laws and regulations | > Environmental Risk Management |
| Supplier Environmental Assessment | | References |
| 308-1 | New suppliers that were screened using environmental criteria | > Socially Responsible Procurement Initiatives at Toray Group |

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|---|---|---|
| 308-2 | Negative environmental impacts in the supply chain and actions taken New suppliers that were screened using environmental criteria | > Socially Responsible Procurement Initiatives at Toray Group<br>> Risk Management Initiatives |
| Social Initiatives | | |
| Employment | | References |
| 401-1 | New employee hires and employee turnover | > Securing and Developing Human Resources to Create New Value<br>> ESG Data |
| 401-2 | Benefits provided to full-time employees that are not provided to temporary or part-time employees | > Creating a Positive Workplace for Employees |
| 401-3 | Parental leave | > Creating a Positive Workplace for Employees |
| Labor Management Relations | | References |
| 402-1 | Minimum notice periods regarding operational changes | In principle, cases involving the transfer of multiple personnel in the same month are submitted to the labor union at least 30 days in advance. The period of advanced notice may, however, vary depending on the details of the specific case. |
| Occupational Health and Safety | | References |
| 403-1 | Occupational health and safety management system | > Safety, Accident Prevention, and Environmental Preservation |
| 403-2 | Hazard identification, risk assessment, and incident investigation | > Safety, Accident Prevention, and Environmental Preservation |
| 403-3 | Occupational health services | > Safety, Accident Prevention, and Environmental Preservation |
| 403-4 | Worker participation, consultation, and communication on occupational health and safety | > Occupational Safety and Accident Prevention Activities |
| 403-5 | Worker training on occupational health and safety | > Occupational Safety and Accident Prevention Activities |
| 403-6 | Promotion of worker health | > Creating a Positive Workplace for Employees |
| 403-7 | Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | > Occupational Safety and Accident Prevention Activities |
| 403-8 | Workers covered by an occupational health and safety management system | > Occupational Safety and Accident Prevention Activities |
| 403-9 | Work-related injuries | > Occupational Safety and Accident Prevention Activities |
| 403-10 | Work-related ill health | > Occupational Safety and Accident Prevention Activities |
| Training and Education | | References |
| 404-1 | Average hours of training per year per employee | > Securing and Developing Human Resources to Create New Value |

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|---|---|---|
| 404-2 | Programs for upgrading employee skills and transition assistance programs | > Securing and Developing Human Resources to Create New Value<br>> Promoting Diversity |
| 404-3 | Percentage of employees receiving regular performance and career | > Securing and Developing Human Resources to Create New Value |
| Diversity and Equal Opportunity | | References |
| 405-1 | Diversity of governance bodies and employees | > Promoting Diversity<br>> ESG Data |
| 405-2 | Ratio of basic salary and remuneration of women to men | |
| Non-discrimination | | References |
| 406-1 | Incidents of discrimination and corrective actions taken | > Human Rights Activity Report<br>> Establishing a Corporate Culture of Total Respect for Ethics and Compliance |
| Freedom of Association and Collective Bargaining | | References |
| 407-1 | Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk | > Socially Responsible Procurement Initiatives at Toray Group |
| Child Labor | | References |
| 408-1 | Operations and suppliers at significant risk for incidents of child labor | > Human Rights Promotion and Human Resources Development<br>> Socially Responsible Procurement Initiatives at Toray Group |
| Forced or Compulsory Labor | | References |
| 409-1 | Operations and suppliers at significant risk for incidents of forced or compulsory labor | > Human Rights Promotion and Human Resources Development<br>> Socially Responsible Procurement Initiatives at Toray Group |
| Security Practices | | References |
| 410-1 | Security personnel trained in human rights policies or procedures | > Socially Responsible Procurement Initiatives at Toray Group |
| Rights of Indigenous People | | References |
| 411-1 | Incidents of violations involving rights of indigenous peoples | |
| Human Rights Assessment | | References |
| 412-1 | Operations that have been subject to human rights reviews or impact assessments | |
| 412-2 | Employee training on human rights policies or procedures | > Human Rights Activity Report |
| 412-3 | Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening | > Socially Responsible Procurement Initiatives at Toray Group |

| Local Communities | | References |
|---|---|---|
| 413-1 | Operations with local community engagement, impact assessments, and development programs | > Environmental Accounting<br>> Social Contribution Activities as a Good Corporate Citizen |
| 413-2 | Operations with significant actual and potential negative impacts on local communities | N/A |
| Supplier Social Assessment | | References |
| 414-1 | New suppliers that were screened using social criteria | > Socially Responsible Procurement Initiatives at Toray Group |
| 414-2 | Negative social impacts in the supply chain and actions taken | > Socially Responsible Procurement Initiatives at Toray Group<br>> Risk Management Initiatives |
| Public Policy | | References |
| 415-1 | Political contributions | > ESG Data |
| Customer Health and Safety | | References |
| 416-1 | Assessment of the health and safety impacts of product and service categories | > Initiatives for Quality Assurance and Product Safety |
| 416-2 | Incidents of non-compliance concerning the health and safety impacts of products and services | > Initiatives for Quality Assurance and Product Safety |
| Marketing and Labeling | | References |
| 417-1 | Requirements for product and service information and labeling | > Product Quality and Safety<br>> Our Businesses<br>> Initiatives for Quality Assurance and Product Safety |
| 417-2 | Incidents of non-compliance concerning product and service information and labeling | > Ethics and Compliance |
| 417-3 | Incidents of non-compliance concerning marketing communications | > Ethics and Compliance |
| Customer Privacy | | References |
| 418-1 | Substantiated complaints concerning breaches of customer privacy and losses of customer data | > Protection of Personal Information |
| Socioeconomic Compliance | | References |
| 419-1 | Non-compliance with laws and regulations in the social and economic area | N/A |

Comparative Tables with GRI Standards, SASB Standards, ISO 26000 Subjects, and ESG Topics

# Comparative Table with SASB Standards

## Chemicals

| TOPIC | CODE | ACCOUNTING METRIC | UNIT OF MEASURE | Progress/CSR Report Coverage |
|---|---|---|---|---|
| Greenhouse Gas Emissions | RT-CH-110a.1 | Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations | Metric tons (t) $CO_2$-e, Percentage (%) | Gross global Scope 1 emissions: 3.04 million tons-$CO_2$[1]<br>Percentage subject to emissions limits : 72%[2]<br>Notes:<br>1 $CO_2$-equivalent emissions for six gases ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, $SF_6$) are calculated according to conversion factors for each gas. There are no NF3 emissions. Data is compiled for Toray Industries, Inc. and its group companies in and outside Japan. Only $CO_2$ emissions are calculated for group companies outside Japan. See the following page for a breakdown of figures for each category.<br>> Environmental Impact Overview<br>2 The numerator is the sum of the Group's emissions in the regions listed in the World Bank's Carbon Pricing Dashboard as having a carbon tax and/or emissions trading scheme (ETS) in place as of 2020; specifically, Japan, the Republic of Korea, European countries, Mexico, U.S. (California, Rhode Island, and Virginia) and China (Guangdong Province, Beijing, and Shanghai). |
| | RT-CH-110a.2 | Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets | n/a | > Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Toray Group's Approach to Climate Change |
| Air Quality | RT-CH-120a.1 | Air emissions of the following pollutants:<br>(1) NOx (excluding $N_2O$),<br>(2) SOx,<br>(3) volatile organic compounds (VOCs), and<br>(4) hazardous air pollutants (HAPs) | Metric tons (t) | (1) NOx<br>(2) SOx<br>> Initiatives to Prevent Air and Water Pollution<br>(3) VOC<br>(4) hazardous air pollutants (HAPs)<br>> Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances<br>Note: (4) applies to atmospheric emissions of PRTR Law-specified substances |

| TOPIC | CODE | ACCOUNTING METRIC | UNIT OF MEASURE | Progress/CSR Report Coverage |
|---|---|---|---|---|
| Energy Management | RT-CH-130a.1 | (1) Total energy consumed,<br>(2) percentage grid electricity,<br>(3) percentage renewable,<br>(4) total self-generated energy | Gigajoules (GJ), Percentage (%) | (1) Total energy consumed<br>> Environmental Impact Overview<br>(2) Percentage grid electricity: 20.3%<br>(3) Percentage renewable energy: 1.72%<br>Notes: Percentage of renewable energy represents the ratio of solar power, wind power, biomass fuel, and electricity procured from renewable energy sources to total Toray Group fuel consumption.<br>(4) Total self-generated energy<br>> Conserving Energy and Reducing Greenhouse Gas Emissions |
| Water Management | RT-CH-140a.1 | (1) Total water withdrawn,<br>(2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress | Thousand cubic meters ($m^3$), Percentage (%) | (1) Total water withdrawn: 223,997 thousand tons<br>Of which, percentage of water withdrawn in regions with High Baseline Water Stress: 2.7%<br>Of which, percentage of water withdrawn in regions with Extremely High Baseline Water Stress: 1.8%<br>(2) Total water consumed: 35,823 thousand tons<br>Of which, percentage of water consumed in regions with High or Extremely High Baseline Water Stress: 2.2%<br>Of which, percentage of water consumed in regions with Extremely High Baseline Water Stress: 1.0%<br>Note: Total water consumed is calculated by subtracting water discharged from water withdrawn. Water stress is surveyed for each Toray Group business site based on the World Resources Institute's Aqueduct Water Risk Atlas. The amount of water withdrawn and the amount of water consumed by business sites located in regions with High or Extremely High Baseline Water Stress are summed up, respectively, yielding the percentages shown above. |
| | RT-CH-140a.2 | Number of incidents of non-compliance associated with water quality permits, standards, and regulations | Number | 3<br>> Environmental Risk Management |
| | RT-CH-140a.3 | Description of water management risks and discussion of strategies and practices to mitigate those risks | n/a | > Initiatives for Managing Water Resources |
| Hazardous Waste Management | RT-CH-150a.1 | Amount of hazardous waste generated, percentage recycled | Metric tons (t), Percentage (%) | (1) Amount of hazardous waste generated: 5,064 tons<br>(2) Percentage recycled: 98%<br>Note: The scope of aggregation for waste generated is Toray Industries, Inc. and its group companies in Japan. Data corresponding to "industrial waste subject to special control," as defined in Japan's Waste Disposal and Public Cleansing Act, is recorded as hazardous waste generated. |

| TOPIC | CODE | ACCOUNTING METRIC | UNIT OF MEASURE | Progress/CSR Report Coverage |
|---|---|---|---|---|
| Community Relations | RT-CH-210a.1 | Discussion of engagement processes to manage risks and opportunities associated with community interests | n/a | > Communication |
| Workforce Health & Safety | RT-CH-320a.1 | (1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees | Rate | (1) TRIR<br>(a) Toray Group (Calculated by actual working hours of employees including temporary staff): 0.71<br>(b) Onsite business partner companies (Only staff stationed at Toray Industries plants; working hours used in the calculations are estimates): 1.15<br>(2) Fatality rate<br>(a) Toray Group: 0<br>(b) Onsite business partner companies: 0<br>Note: Because Toray Group's safety record includes data on temporary staff, they are calculated using the definition above. |
| | RT-CH-320a.2 | Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks | n/a | > Occupational Safety and Accident Prevention Activities |
| Product Design for Use-phase Efficiency | RT-CH-410a.1 | Revenue from products designed for use-phase resource efficiency | Yen | > Green Innovation Business Expansion Project<br>Note: Products that contribute to solving global environmental, resource and energy issues are internally certified as Green Innovation products based on life cycle management and other criteria, and the net sales of those products are monitored. Certification of Green Innovation products are done according to subcategories that include energy-saving, water treatment, air purification, low environmental impact, recycling, new energy, and biomass-derived. |
| Safety & Environmental Stewardship of Chemicals | RT-CH-410b.1 | (1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment | Percentage (%) by revenue, Percentage (%) | Not disclosed<br>Note: At Toray Industries, Inc. and its group companies, safety reviews are conducted for all products. For more information, please visit the webpage<br>> Initiatives for Quality Assurance and Product Safety |
| | RT-CH-410b.2 | Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact | n/a | (1) Discussion of strategy to manage chemicals of concern<br>> Safety, Accident Prevention, and Environmental Preservation<br>> Product Quality and Safety<br>> Initiatives for Quality Assurance and Product Safety<br>(2) Discussion of strategy to develop alternatives with reduced human and/or environmental impact<br>> Safety, Accident Prevention, and Environmental Preservation |

| TOPIC | CODE | ACCOUNTING METRIC | UNIT OF MEASURE | Progress/CSR Report Coverage |
|---|---|---|---|---|
| Genetically Modified Organisms | RT-CH-410c.1 | Percentage of products by revenue that contain genetically modified organisms (GMOs) | Percentage (%) by revenue | Not disclosed |
| Management of the Legal & Regulatory Environment | RT-CH-530a.1 | Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry | n/a | Through the participation in following economic and industry associations, Toray Group works to grasp policy trends in order to identify opportunities or risks for the Group and engage in dialogue with the government and others to help build a better world.<br>• Nippon Keidanren (Japan Business Federation)<br>• Japan Association of Corporate Executives: Environment and Energy Committee<br>• Japan Chemical Industry Association<br>• Japan Chemical Fibers Association |
| Operational Safety, Emergency Preparedness & Response | RT-CH-540a.1 | Process Safety Incidents Count (PSIC), Process<br>Safety Total Incident Rate (PSTIR), and Process<br>Safety Incident Severity Rate (PSISR) | Number, Rate | • PSIC[1]: 0<br>• PSTIR[2]: 0<br>• PSISR[3]: 0<br>All figures are for the 2021 calendar year.<br>Notes:<br>1 PSIC is defined as the total annual count of all incidents that meet the definition of a Tier 1 Process Safety Incidents (PSI) per ANSI/API RP 754.<br>2 PSTIR is calculated as the total number of PSI multiplied by 200,000 and divided by the total annual hours worked by employees, contractors, and subcontractors.<br>3 PSISR is calculated as the Total Severity Score for all Process Safety Incidents multiplied by 200,000 and divided by the total annual hours worked by employees, contractors, and subcontractors. |
| | RT-CH-540a.2 | Number of transport incidents | Number | No accidents fall within the definition of “serious transport incident” in International Council of Chemical Associations (ICCA) Information Guidance |

## Activity Metrics

| Activity Metrics | CODE | UNIT OF MEASURE | Progress/CSR Report Coverage |
|---|---|---|---|
| Production by reportable segment | RT-CH-000.A | Cubic meters ($m^3$) and/or metric tons (t) | Not disclosed |

Comparative Tables with GRI Standards, SASB Standards, ISO 26000 Subjects, and ESG Topics

# Comparative Table with ISO 26000 Subjects

Core subjects

▼ Organizational governance ▼ Human rights ▼ Labor practices ▼ The environment
▼ Fair operating practices ▼ Consumer issues
▼ Community involvement and development

## Organizational governance

| Issues | Toray's initiatives |
|---|---|
| 1.Organizational governance | Toray Philosophy and CSR |
| | Message from the President |
| | Management Strategies and CSR |
| | Toray Group Corporate Social Responsibility |
| | Toray Group Corporate Social Responsibility Initiatives |
| | Materiality |
| | CSR Activity Report (CSR Guideline Activity Reports) |
| | CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022) |
| | Corporate Governance |
| | Communication with Employees |
| | Ethics and Compliance |
| | Promoting Diversity |
| | Communication |

## Human rights

| Issues | Toray's initiatives |
|---|---|
| 1. Due diligence | Human Rights Promotion and Human Resources Development |
| | Risk Management Initiatives |
| | Facilitating CSR Initiatives Throughout the Supply Chain |
| | Socially Responsible Procurement Initiatives at Toray Group |
| 2. Human rights risk situations | Human Rights Promotion and Human Resources Development |
| | Socially Responsible Procurement Initiatives at Toray Group |
| 3. Avoidance of complicity | Human Rights Promotion and Human Resources Development |
| | Facilitating CSR Initiatives Throughout the Supply Chain |
| | Socially Responsible Procurement Initiatives at Toray Group |
| 4. Resolving grievances | Establishing a Corporate Culture of Total Respect for Ethics and Compliance |
| | Human Rights Promotion and Human Resources Development |
| | Facilitating CSR Initiatives Throughout the Supply Chain |
| 5. Discrimination and vulnerable groups | Human Rights Promotion and Human Resources Development |
| | Promoting Diversity |
| 6. Civil and political rights | Ethics and Compliance |
| | Human Rights Promotion and Human Resources Development |

| | |
|---|---|
| 7. Economic, social and cultural rights | Human Rights Promotion and Human Resources Development |
| | Securing and Developing Human Resources to Create New Value |
| | Social Contribution Activities as a Good Corporate Citizen |
| 8. Fundamental principles and rights at work | Human Rights Promotion and Human Resources Development |

## Labor practices

| Issues | Toray's initiatives |
| --- | --- |
| 1. Employment and employment relationship | Human Rights Promotion and Human Resources Development |
| | Securing and Developing Human Resources to Create New Value |
| | Promoting Diversity |
| 2. Conditions of work and social protection | Creating a Positive Workplace for Employees |
| 3. Social dialogue | Creating a Positive Workplace for Employees |
| | Communication with Employees |
| 4. Health and safety at work | Occupational Safety and Accident Prevention Activities |
| 5. Human development and training in the workplace | Securing and Developing Human Resources to Create New Value |

## The environment

| Issues | Toray's initiatives |
|---|---|
| 1. Prevention of pollution | Safety, Accident Prevention and Environmental Preservation (Safety, Health, Accident Prevention and Environmental Preservation Management) |
| | Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances |
| | Initiatives to Prevent Air and Water Pollution |
| | Initiatives to Reduce Waste |
| | Environmental Risk Management |
| | Environmental Impact Overview |
| | Risk Management Initiatives |
| | Facilitating CSR Initiatives Throughout the Supply Chain |
| | Socially Responsible Procurement Initiatives at Toray Group |
| 2. Sustainable resource use | Approach to Green Innovation Products |
| | Realizing a Circular Economy |
| | Toray Group Distribution Initiatives |
| | Conserving Energy and Reducing Greenhouse Gas Emissions |
| | Initiatives for Managing Water Resources |
| | Initiatives to Reduce Waste |
| | Environmental Impact Overview |

| | |
|---|---|
| 3. Climate change mitigation and adaptation | Toray Group's Approach to Climate Change |
| | Contributing Solutions to Social Issues through Business Activities |
| | Green Innovation Business Expansion Project |
| | Toray Group Distribution Initiatives |
| | Conserving Energy and Reducing Greenhouse Gas Emissions |
| | Environmental Impact Overview |
| 4. Protection of the environment, biodiversity and restoration of natural habitats | Biodiversity Initiatives |
| | Environmental Risk Management |
| | Social Contribution Activities as a Good Corporate Citizen<br>Activities Carried Out in Fiscal 2021 (Environmental Conservation in Communities) |

## Fair operating practices

| Issues | Toray's initiatives |
|---|---|
| 1. Anti-corruption | Ethics and Compliance |
| | Establishing a Corporate Culture of Total Respect for Ethics and Compliance |
| | Antitrust Compliance and Corruption/Bribery Prevention |
| 2. Responsible political involvement | Establishing a Corporate Culture of Total Respect for Ethics and Compliance |
| 3. Fair competition | Establishing a Corporate Culture of Total Respect for Ethics and Compliance |
| | Antitrust Compliance and Corruption/Bribery Prevention |
| 4. Promoting social responsibility in the value chain | Risk Management Initiatives |
| | Socially Responsible Procurement Initiatives at Toray Group |
| | Toray Group Distribution Initiatives |
| | Occupational Safety and Accident Prevention Activities |
| | Communication with Stockholders and Investors |
| 5. Respect for property rights | Communication with Stockholders and Investors |
| | Human Rights Promotion and Human Resources Development |

## Consumer issues

| Issues | Toray's initiatives |
|---|---|
| 1. Fair marketing, factual and unbiased information and fair contractual practices | Communication with Customers |
| 2. Protecting consumers' health and safety | Initiatives for Quality Assurance and Product Safety |
| 3. Sustainable consumption | Contributing Solutions to Social Issues through Business Activities |
| | Green Innovation Business Expansion Project |
| | Promoting Life Cycle Management |
| | Approach to Green Innovation Products |
| | Realizing a Circular Economy |
| 4. Consumer service, support, and complaint and dispute resolution | Initiatives for Quality Assurance and Product Safety |
| 5. Consumer data protection and privacy | Protection of Personal Information |
| | Addressing Information Security Risks |
| 6. Access to essential services | Business Continuity Plan Initiatives |
| 7. Education and awareness | Initiatives for Quality Assurance and Product Safety |

## Community involvement and development

| Issues | Toray's initiatives |
| --- | --- |
| 1. Community involvement | Communication with Local Communities |
| | Social Contribution Activities as a Good Corporate Citizen |
| | The Future |
| 2. Education and culture | Social Contribution Activities as a Good Corporate Citizen<br>Activities Carried Out in Fiscal 2021 |
| 3. Employment creation and skills development | Social Contribution Activities as a Good Corporate Citizen<br>Activities Carried Out in Fiscal 2021 |
| 4. Technology development and access | Social Contribution Activities as a Good Corporate Citizen<br>Activities Carried Out in Fiscal 2021 |
| 5. Wealth and income creation | Social Contribution Activities as a Good Corporate Citizen<br>Activities Carried Out in Fiscal 2021 |
| | Ensuring Tax Compliance |
| 6. Health | Social Contribution Activities as a Good Corporate Citizen<br>Activities Carried Out in Fiscal 2021 |
| 7. Social investment | Social Contribution Activities as a Good Corporate Citizen<br>Fiscal 2021 Results (Data edition) |

### Comparative Tables with GRI Standards, SASB Standards, ISO 26000 Subjects, and ESG Topics

# Comparative Table with ESG Topics

| Topic | | Basic Approach/Policy | Structure | Initiatives/Results/Other |
|---|---|---|---|---|
| E:Environment | Climate change/energy | > Toray Group Sustainability Vision PDF<br>> Toray Group's Approach to Climate Change<br>> Toray Group TCFD Report 2021 PDF<br>> Safety, Accident Prevention, and Environmental Preservation | > Toray Group's Approach to Climate Change<br>> Toray Group TCFD Report 2021 PDF<br>> Safety, Accident Prevention, and Environmental Preservation | > Toray Group's Approach to Climate Change<br>> Toray Group TCFD Report 2021 PDF<br>> Conserving Energy and Reducing Greenhouse Gas Emissions<br>> Risk Management Initiatives<br>> Environmental Impact Overview<br>> Third-Party Assurance<br>> Green Innovation Business Expansion Project<br>> Approach to Green Innovation Products<br>> Realizing a Circular Economy<br>> Toray Group Distribution Initiatives<br>> Environmental Accounting |
| | Water resource management | > Toray Group Sustainability Vision PDF<br>> Toray Group's Approach to Climate Change<br>> Toray Group TCFD Report 2021 PDF<br>> Safety, Accident Prevention, and Environmental Preservation | > Toray Group's Approach to Climate Change<br>> Toray Group TCFD Report 2021 PDF<br>> Safety, Accident Prevention, and Environmental Preservation | > Toray Group's Approach to Climate Change<br>> Toray Group TCFD Report 2021 PDF<br>> Initiatives to Prevent Air and Water Pollution<br>> Initiatives for Managing Water Resources<br>> Environmental Impact Overview<br>> Risk Management Initiatives<br>> Business Continuity Plan Initiatives<br>> Approach to Green Innovation Products<br>> Environmental Accounting |
| | Biodiversity | > Toray Group Sustainability Vision PDF<br>> Safety, Accident Prevention, and Environmental Preservation<br>> Biodiversity Initiatives | > Safety, Accident Prevention, and Environmental Preservation | > Biodiversity Initiatives<br>> Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2021<br>> Environmental Accounting |

| Topic | | Basic Approach/Policy | Structure | Initiatives/Results/Other |
|---|---|---|---|---|
| E:Environment | Use of resources/waste | > Toray Group Sustainability Vision PDF<br>> Safety, Accident Prevention, and Environmental Preservation | > Safety, Accident Prevention, and Environmental Preservation | > Toray Group's Approach to Climate Change<br>> Toray Group TCFD Report 2021 PDF<br>> Initiatives to Reduce Waste<br>> Environmental Impact Overview<br>> Realizing a Circular Economy<br>> Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2021<br>> Environmental Accounting |
| | Pollution prevention/chemical substance management | > Toray Group Sustainability Vision PDF<br>> Safety, Accident Prevention, and Environmental Preservation | > Safety, Accident Prevention, and Environmental Preservation | > Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances<br>> Initiatives to Prevent Air and Water Pollution<br>> Environmental Impact Overview<br>> Chemical Substance Emissions and Transfer Data<br>> Environmental Accounting |
| | Supply chain (environment) | > Toray Group Sustainability Vision PDF<br>> Promoting Life Cycle Management<br>> Realizing a Circular Economy<br>> Facilitating CSR Initiatives Throughout the Supply Chain | > Facilitating CSR Initiatives Throughout the Supply Chain | > Risk Management Initiatives<br>> Promoting Life Cycle Management<br>> Realizing a Circular Economy<br>> Socially Responsible Procurement Initiatives at Toray Group<br>> Toray Group Distribution Initiatives |
| | Green Innovation | > Toray Group Sustainability Vision PDF<br>> Contributing Solutions to Social Issues through Business Activities | > Contributing Solutions to Social Issues through Business Activities | > Green Innovation Business Expansion Project<br>> Approach to Green Innovation Products<br>> Realizing a Circular Economy |

| Topic | | Basic Approach/Policy | Structure | Initiatives/Results/Other |
|---|---|---|---|---|
| S:Social Initiatives | Human Rights | > Human Rights Promotion and Human Resources Development<br>> Facilitating CSR Initiatives Throughout the Supply Chain | > Human Rights Promotion and Human Resources Development<br>> Facilitating CSR Initiatives Throughout the Supply Chain | > Risk Management Initiatives<br>> Human Rights Activity Report<br>> Statement on the UK's Modern Slavery Act<br>> Socially Responsible Procurement Initiatives at Toray Group |
| | Securing/developing human resources | > Human Rights Promotion and Human Resources Development | > Human Rights Promotion and Human Resources Development | > Securing and Developing Human Resources to Create New Value<br>> Communication with Employees<br>> ESG Data |
| | Promoting diversity | | | > Securing and Developing Human Resources to Create New Value<br>> Promoting Diversity<br>> ESG Data |
| | Creating comfortable workplace environments | | | > Creating a Positive Workplace for Employees<br>> Establishing a Corporate Culture of Total Respect for Ethics and Compliance<br>> ESG Data |
| | Ensuring occupational health and safety and employee healthcare | > Safety, Accident Prevention, and Environmental Preservation<br>> Creating a Positive Workplace for Employees (Employee Health) | > Safety, Accident Prevention, and Environmental Preservation<br>> Creating a Positive Workplace for Employees (Employee Health) | > Occupational Safety and Accident Prevention Activities<br>> Third-Party Assurance<br>> Creating a Positive Workplace for Employees (Employee Health)<br>> ESG Data |
| | Accident Prevention | > Safety, Accident Prevention, and Environmental Preservation<br>> Risk Management | > Safety, Accident Prevention, and Environmental Preservation<br>> Risk Management | > Occupational Safety and Accident Prevention Activities<br>> Risk Management Initiatives<br>> Business Continuity Plan Initiatives |
| | Quality Assurance | > Product Quality and Safety | > Product Quality and Safety | > Initiatives for Quality Assurance and Product Safety<br>> Sites with ISO 9001 Certification |

| Topic | | Basic Approach/Policy | Structure | Initiatives/Results/Other |
|---|---|---|---|---|
| S:Social Initiatives | Supply chain (social) | > Facilitating CSR Initiatives Throughout the Supply Chain | > Facilitating CSR Initiatives Throughout the Supply Chain | > Risk Management Initiatives<br>> Socially Responsible Procurement Initiatives at Toray Group<br>> Toray Group Distribution Initiatives<br>> Statement on the UK's Modern Slavery Act |
| | Life Innovation | > Toray Group Sustainability Vision PDF<br>> Contributing Solutions to Social Issues through Business Activities | > Contributing Solutions to Social Issues through Business Activities | > Life Innovation Business Expansion Project |
| | Social Contribution Activities | > Toray Group Sustainability Vision PDF<br>> Social Contribution Activities as a Good Corporate Citizen | > Social Contribution Activities as a Good Corporate Citizen | > Social Contribution Activities as a Good Corporate Citizen Fiscal 2021 Results (Data edition)<br>> Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2021<br>> Communication with Local Communities |
| | Stakeholder engagement | > Communication | > Communication | > Materiality<br>> Comments from Thought Leaders<br>> Communication via Corporate Websites<br>> Communication with Customers<br>> Communication with Stockholders and Investors<br>> Communication with Business Partners<br>> Communication with Employees<br>> Communication with the Media<br>> Communication with Local Communities<br>> Creating a Positive Workplace for Employees |

| Topic | | Basic Approach/Policy | Structure | Initiatives/Results/Other |
|---|---|---|---|---|
| G:Governance | Corporate Governance | > Corporate Governance (Overall Policy)<br>> Basic Policy on Corporate Governance | > Corporate Governance Structures<br>> Basic Policy on Corporate Governance | > Corporate Governance<br>> Corporate Governance Report PDF<br>> ESG Data |
| | Risk Management | > Risk Management | > Risk Management | > Risk Management Initiatives<br>> Business Continuity Plan Initiatives<br>> Addressing Information Security Risks |
| | Compliance/preventing corruption and bribery | > Ethics and Compliance<br>> Ethics & Compliance Code of Conduct PDF | > Ethics and Compliance | > Establishing a Corporate Culture of Total Respect for Ethics and Compliance<br>> Ensuring Tax Compliance<br>> Environmental Risk Management<br>> Improving Security Trade Controls<br>> Antitrust Compliance and Corruption/Bribery Prevention<br>> Protection of Personal Information<br>> Ethics Review Committee on Research Involving Human Biological Subjects<br>> Disclosure of Information Regarding the Ethical Treatment of Laboratory Animals |
| | Promoting CSR | > Toray Group Sustainability Vision PDF<br>> Toray Group Corporate Social Responsibility<br>> Toray Philosophy and CSR<br>> Management Strategies and CSR<br>> Toray Group Corporate Social Responsibility Initiatives (CSR Guidelines, CSR Roadmap)<br>> CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)<br>> Materiality | > Toray Group Corporate Social Responsibility Initiatives (Organizational Structure for Social Responsibility) | > CSR Activity Report (CSR Guideline Activity Reports)<br>> Progress on CSR Roadmap 2022 KPIs in Fiscal 2021 PDF<br>> Materiality View of CSR Roadmap PDF |

# Editorial Policy

Toray Group issues an annual corporate social responsibility (CSR) report in order to communicate its CSR initiatives to stakeholders.
The latest report, the content of which is available here in web format, focuses primarily on the Group's efforts in fiscal 2020 based on the Toray Group CSR Guidelines, which spell out the overarching policy governing the Group's CSR initiatives. The information provided here on this website is also available for download in a PDF report format at the CSR report download page.

## Period Covered by this Report

This report covers fiscal 2021, the period from April 1, 2021 to March 31, 2022. Contents may include efforts underway after this period.

## Scope of this Report

### Environmental Data

Covers Toray Industries, Inc. and the following 89 manufacturing subsidiaries (90 companies in all).

Notes:

1. For group companies newly covered under the scope of environmental data, results are published using performance data for fiscal years since joining Toray Group.
2. Environmental data used in this report concerning greenhouse gas emissions, energy consumption, industrial waste, water use, wastewater, air emissions (SOx, NOx, dust, and VOC), and chemical oxygen demand (COD) by Toray Industries has been verified by a third party, LRQA Limited.

**Group companies in Japan: 26**

Toray Opelontex Co., Ltd., Ogaki Fuso Spinning Co., Ltd., Toray Textiles, Inc., Toray Coatex Co., Ltd., Toray Amtecs Inc., Toray Monofilament Co., Ltd., Toray Hybrid Cord, Inc., Maruichi Fiber Co., Ltd., Sowa Textile Co., Ltd., Du Pont-Toray Co., Ltd., Toray Plastics Precision Co., Ltd., Toray PEF Products Inc., Toray Advanced Film Co., Ltd., Toray KP Films Inc., Dow Toray Co., Ltd., DuPont Toray Specialty Materials Kabushiki Kaisha, Toray Fine Chemicals Co., Ltd., Soda Aromatic Co., Ltd., Toray Amenity and Civil Engineering Co., Ltd., Toray Engineering Co., Ltd., Toray Precision Co., Ltd., Suido Kiko Kaisha, Ltd., Toray Medical Co., Ltd., Toray Research Center, Inc., Toyo Jitsugyo Co., Ltd., Toray Carbon Magic Co., Ltd.

**Group companies outside Japan: 63**

**North America**

Toray Fluorofibers (America), Inc., Toray Plastics (America), Inc., Toray Resin Co., Toray Membrane USA, Inc., Toray Composite Materials America, Inc., Zoltek Corporation, Engineering Technology Corp., Zoltek de Mexico, S.A. de C.V., Toray Resin Mexico, S.A. de C.V., Toray Advanced Textile Mexico, S.A. de C.V., Performance Materials Corp., Toray Advanced Composites USA Inc., Toray Advanced Composites ADS LLC

**Europe**

Toray Textiles Europe Ltd., Toray Advanced Composites UK Ltd, Euro Advanced Carbon Fiber Composite GmbH, Toray Films Europe S.A.S., Toray Carbon Fibers Europe S.A., Alcantara S.p.A., Toray Textiles Central Europe s.r.o., Zoltek Zrt., Greenerity GmbH, Composite Materials (Italy) s.r.l., Delta-Tech S.p.A., Delta-Preg S.p.A., Nyergesi Vizszolgaltato Kft., Toray Advaned Composites Netherlands B.V.

**Asia**

P.T. Acryl Textile Mills, P.T. Century Textile Industry Tbk, P.T. Easterntex, P.T. Indonesia Synthetic Textile Mills, P.T. Indonesia Toray Synthetics, P.T. Toray Polytech Jakarta, Toray Textiles (Thailand) Public Company Limited, Thai Toray Synthetics Co., Ltd., Penfabric Sdn. Berhad, Penfibre Sdn. Berhad, Toray Plastics (Malaysia) Sdn. Berhad, Toray BASF PBT Resin Sdn. Berhad, Toray Fibers (Nantong) Co., Ltd., Toray Polytech (Nantong) Co., Ltd., Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd., Toray WBD Membrane Technology (JS) Co., Ltd., Toray Plastics (Suzhou) Co., Ltd., Toray BlueStar Membrane Co., Ltd., Toray Fibers & Textiles Research Laboratories (China) Co., Ltd., Toray Advanced Materials Research Laboratories (China) Co., Ltd., PMC Performance Materials (Guangzhou) Ltd., Toray Plastics (Shenzhen) Ltd., Toray Plastics Precision (Zhongshan) Ltd., Toray Film Products (Zhongshan) Ltd., Toray Medical (Qingdao) Co., Ltd., Cangzhou Toray Fine Chemicals Co., Ltd., Toray Plastics (Chengdu) Co., Ltd., Toray Polytech（Foshan）Co., Ltd., Toray Advanced Film Kaohsiung Co., Ltd., Toray Advanced Materials Korea Inc., STEMCO, Ltd., Toray Kusumgar Advanced Textile Private Limited, Toray Industries (India) Private Limited, Toray Membrane Middle East LLC, Toray Battery Separator Film Korea Limited, Toray BSF Coating Korea Limited

### Safety Data

Covers Toray Industries, Inc. and 51 group companies in Japan and 91group companies outside of Japan, including the major manufacturers listed in environmental data above and non-manufacturing companies such as Toray International, Inc., Toray Systems Center, Inc., and Toray Industries (America), Inc. (143 companies in all)

Note: The occupational frequency rates at Toray Industries and its group companies in and outside Japan and the occupational frequency rate for subcontractors working at Toray Industries have been verified by a third party, LRQA Limited.

### Social Data

Covers Toray Industries, Inc. and its consolidated subsidiaries (64 companies in Japan, 131companies outside of Japan), but scope of reporting may differ for some items.

### Economic Data

Covers Toray Industries, Inc. and its 290 consolidated companies (291 companies in all).

## Disclaimer

This report contains forward-looking statements in addition to historical and current facts. These forward-looking statements are assertions or assumptions that were prepared on the basis of available information at the time of publication. Actual future social conditions and results of business activities may differ from any forecasts contained in this report, as a result of changing circumstances.

## Reference Guidelines

- GRI Standards
  Note: The comparative table referencing the GRI Standards is available at the Toray website.
- Responsible Care Code issued by the Responsible Care Council of the Japan Chemical Industry Association
- Sustainable Accounting Standards Board (SASB): Chemicals Sustainability Standard, 2018
  Note: The comparative table referencing this standard is available at the Toray website.
- Environmental Accounting Guidelines 2005 issued by the Ministry of the Environment, Japan
- ISO 26000:2010 (Guidance on social responsibility)
  Note: The comparative table referencing ISO 26000:2010 is available at the Toray website.

**Issued**

September 2022 (Next issue scheduled for August 2023. Previous report issued in September 2021.)