

# TORAY GROUP CSR REPORT 2021





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## Message from the President

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

President, Toray Industries, Inc.



The world faces many challenges that must be overcome to ensure global sustainability, including climate change, food and water shortages that come with population growth, sustainability of resources and energy, and safety and health concerns. However, our common goals and the issues we must address 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. Toray Group has established the corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products.” 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.

In July 2018, we announced the Toray Group Sustainability Vision, which 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

In order to accelerate and promote group-wide activities to address the challenges of building the world we envision, Toray Group established the Sustainability Committee on April 1, 2021, and I assumed the position of chair.

With regard to climate change, a particularly urgent matter that affects all of humankind, we believe that hydrogen-related technologies and technologies for circular economies are important technological contributions to the achievement of carbon neutrality. Working on collaborations between industry, government, and academia to establish the infrastructure needed for a hydrogen-based society, we are currently focused on developing technology for hydrogen and fuel cell components, enhancing production facilities, and developing CO<sub>2</sub> separation membranes. At the same time, we are working to promote fiber made from recycled PET bottles.

With the creation of innovative technologies and advanced materials such as these, we will contribute to the reduction of CO<sub>2</sub> 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 in our business operations, as well as developing and introducing carbon recycling technologies.

In working to realize the Toray Group Sustainability Vision, we aim to be a corporate group that achieves sound, sustainable growth. Since fiscal 2020, we have been implementing the Medium-Term Management Program, Project AP-G 2022, under the Long-Term Corporate Vision, TORAY VISION 2030. 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. Toray Group implements management strategies and CSR initiatives in an integrated manner and continues to realize its corporate philosophy, which outlines the principles and values the Group has upheld since the beginning.

# 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 and to continue to meet the expectations of our stakeholders.**

### Hideki Hirabayashi

Senior Vice President,  
Chief CSR Officer,  
Toray Industries, Inc.



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; human rights promotion and human resources development; and contributing solutions to social issues through businesses activities. Based on the guidelines, Toray Group creates a CSR Roadmap as our medium-term CSR activity plan and is currently facilitating systematic, organization-wide CSR initiatives under the CSR Roadmap 2022, which covers fiscal 2020-2022. Toray Group's business activities and CSR realize the corporate philosophy of "Contributing to society through the creation of new value with innovative ideas, technologies and products." We work together as a united group to ensure the sustainable development of Toray Group and society as a whole.

Toray Group also proactively discloses information on its initiatives to help build a sustainable world. In addition to complying with GRI, SASB, and other standards for information disclosure, the Group annually compiles and discloses CSR initiatives and the results of activities in accordance with the themes laid out in the CSR Guidelines. Moreover, in line with the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD), Toray Group identified opportunities and risks related to climate change, conducted a scenario analysis of the impact on the Group, and on April 1, 2021 published the Toray Group TCFD Report 2021, which summarizes the Group's efforts to address the issue of climate change.

We will continue to disclose information in an appropriate manner 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

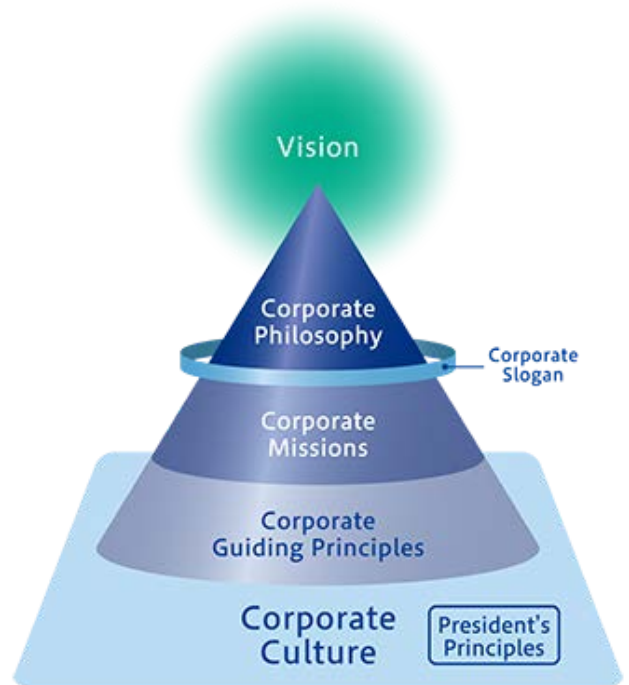
> [Toray Philosophy](#)

# 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.



| Toray Philosophy |

## 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.

**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.

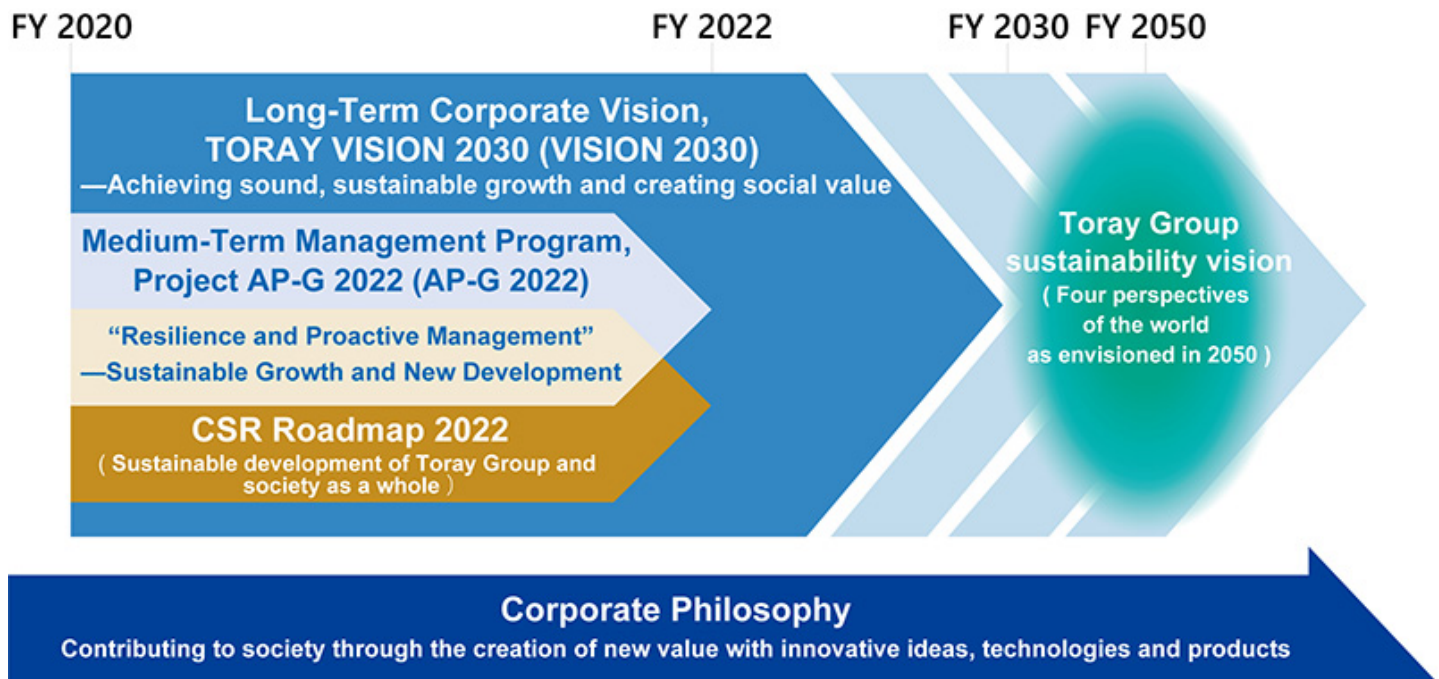
### **Have the integrity to do the right thing in the right way**

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 program also includes new initiatives to promote structural reforms and reinforce the Group’s financial structure, which 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](#) 

> [Long-Term Corporate Vision](#)

> [Medium-Term Management Program](#)

# Long-Term Corporate Vision

## TORAY VISION 2030

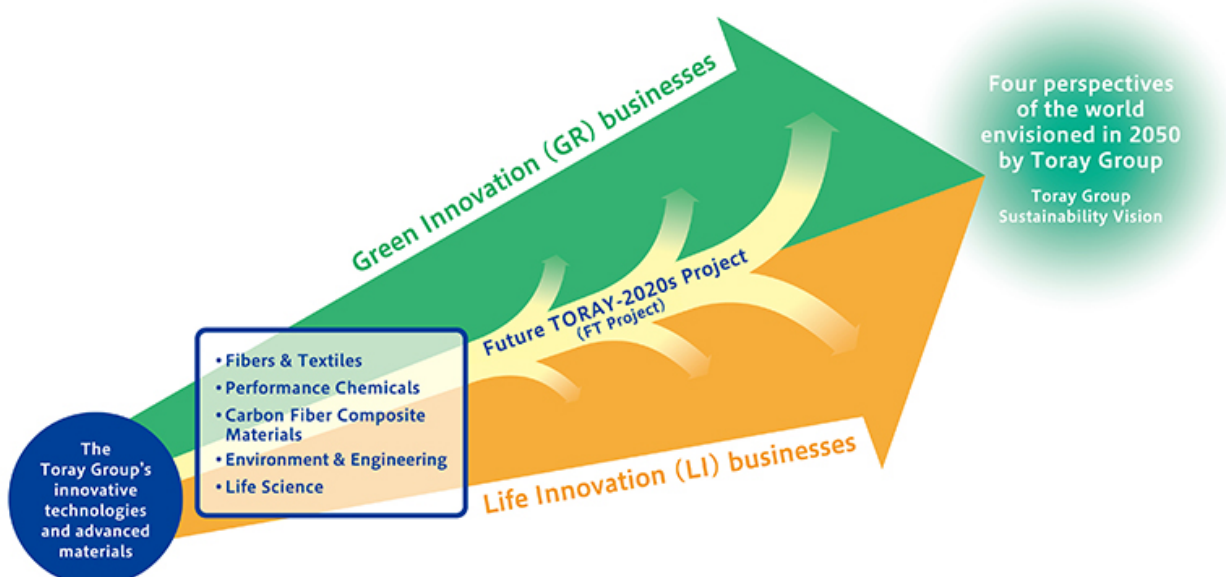
### —Achieving sound, sustainable growth and creating social value

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).



## 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 <sub>2</sub> 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.

# Long-Term Corporate Vision TORAY VISION 2030

## Medium-Term Management Program Project AP-G 2022

3 Basic Strategies	Specific Measures
1. Global expansion in growth business fields	(1) Expanding Green Innovation businesses <b>GR Project</b> (2) Expanding Life Innovation businesses <b>LI Project</b>
2. Strengthening competitiveness	(1) Total cost reductions <b>NTC Project</b> (2) Business advancement and high added value creation (3) Enhancing workplace competency in sales & marketing and production
3. Strengthening the management foundation	(1) Strengthening financial structure by improving cash efficiency (2) Business structure reform of low-growth and low-profitability businesses

### 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 <sub>2</sub> 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
<p><b>1. Corporate Governance</b> Continually revise management systems, strengthen internal controls as part of efforts to fulfill the company's social responsibilities.</p>
<p><b>2. Ethics and Compliance</b> 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.</p>
<p><b>3. Safety, Accident Prevention, and Environmental Preservation</b> 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.</p>
<p><b>4. Product Quality and Safety</b> Provide safe, highly reliable products by striving to enhance management systems for product quality assurance and safety, and disclose appropriate information.</p>
<p><b>5. Risk Management</b> 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.</p>
<p><b>6. Communication</b> 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.</p>

**7. 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.

**8. 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.

**9. 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.

**10. 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.

## CSR Roadmap

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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"

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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.



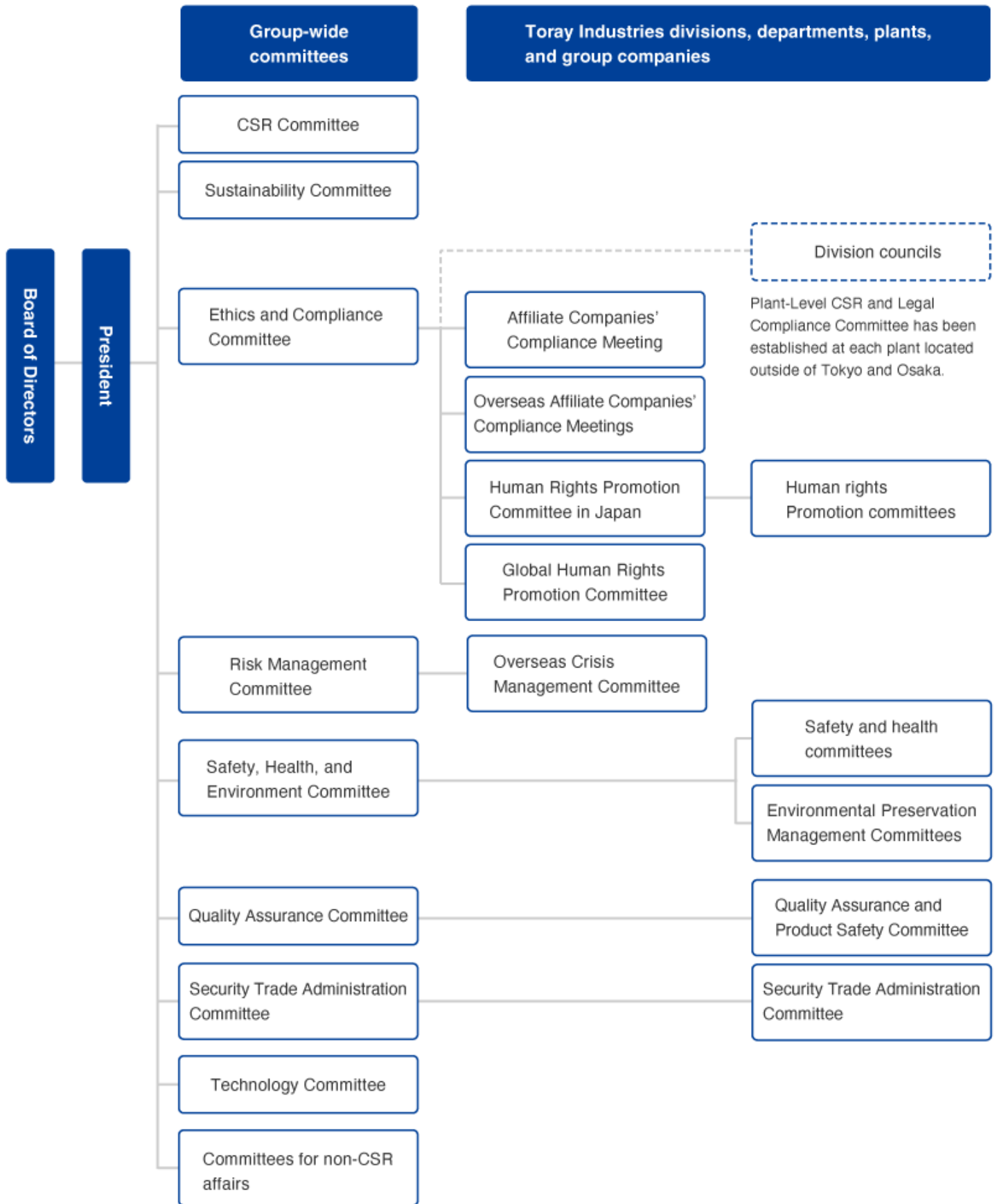
## Organizational Structure for Social Responsibility

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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.



(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	● Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number)	8 times	8 times	8 times	※ 1
	● Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%)	90%	90%	90%	※ 1
2 Ethics and Compliance	● Number of major violations of laws or ordinances	0	0	0	※ 1
	● 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 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

### **Achieving the Toray Group Sustainability Vision**

- (1) 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

### **Remaining a highly valuable corporate group**

- (2) 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

### **Enhancing the Toray Group’s CSR activities**

- (3) 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	1-①
(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	1-②

## 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	2-①
(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	2-②
(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	2-③

### 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	3-①
(2) Achieve world's best standard for safety management	3-②
(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	3-③
Environmental Prevention	
(5) Aim for zero environmental accidents	3-④
(6) Reduce greenhouse gas emissions per unit of revenue [Related initiatives] 7-(3)(5)(6), 9-(3)(4)	3-⑤
(7) Reduce water consumption per unit of revenue	3-⑥
(8) Reduce atmospheric VOC <sup>1</sup> emissions	3-⑦
(9) Aim for a high waste recycling rate [Related main initiatives] 7-(5)(6)	3-⑧
(10) Conduct a survey of palm oil contained in raw materials and switch to certified products	3-⑨
(11) Systematically adopt renewable energy [Related main initiatives] 7-(6)	—
(12) Reduce atmospheric emissions of substances subject to the PRTR Act <sup>2</sup>	—
(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)	—

<sup>1</sup> Volatile organic compounds

<sup>2</sup> 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	4-①
(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	4-②

### 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	5-①
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	5-②

## 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	6-①
(3) Facilitate exchange of opinions between management and employees	6-②
(4) Facilitate communication between management and stockholders and investors	6-③
(5) Encourage communication with mass media	6-④
(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	7-①
(2) Increase revenue from Life Innovation products	7-②
(3) Expand contribution to CO <sub>2</sub> reduction in the value chain [Related main initiatives] 3-(6)、9-(3)(4)	7-③
(4) Expand water filtration throughput contribution by Toray's water treatment membranes [Related main initiatives]3-(7)	7-④
(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	8-①
(2) Achieve the legally mandated employment rate of persons with disabilities	8-②
(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	8-③
(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	8-④
(8) Reduce the number of employees who exceed non-statutory working hours	8-⑤
(9) Encourage the use of annual paid leave by labor union members	8-⑥

### 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	9-①②
(2)	Address issues in the supply chain such as human rights challenges and conflict mineral issues [Related main initiatives] 8-(3)	—
(3)	Reduce CO <sub>2</sub> emissions intensity from distribution activities [Related main initiatives]3-(6)、 7-(3)	9-③
(4)	Promote modal shift <sup>3</sup> across distances of 500 km or more [Related main initiatives]3-(6)、 7-(3)	9-④
(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, <sup>4</sup> contribute to sustainable logistics, for instance by selecting logistics companies that are engaged in working style reform, etc.	—

<sup>3</sup> The shifting of freight transportation by truck or other vehicle to railways and ships, which have a smaller environmental impact

<sup>4</sup> 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

## Social Contribution 10 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	10-①
(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)	10-②
(5) Develop a wide range of educational support activities such as sending employees to teach science, environmental, and career education classes at schools	10-③
(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	① Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number)	8 times	8 times	8 times	※ 1
	② Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%)	90%	90%	90%	※ 1
2 Ethics and Compliance	① Number of major violations of laws or ordinances	0	0	0	※ 1
	② 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 Percent that improved: 100% for all audits by the following fiscal year			※ 1
	③ 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	① Number of major accidents	0	0	0	※ 1
	② 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
	③ Number of fire and explosion accidents	0	0	0	※ 1
	④ Number of environmental accidents	0	0	0	※ 1
	⑤ Reduction of greenhouse gas emissions per unit of revenue (%)	At least 20% lower than fiscal 2013 (Fiscal 2022)			※ 1
	⑥ Water usage per unit of revenue (%)	At least 25% lower than fiscal 2013 (Fiscal 2022)			※ 1
	⑦ 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
	⑧ Waste recycling rate (%)	At least 86%	At least 86%	At least 86%	※ 1
	⑨ 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)		※ 2
4 Product Quality and Safety	① Number of product accidents	0	0	0	※ 1
	② Group companies implementing product quality assurance and safety education (%)	100%	100%	100%	※ 1
5 Risk Management	① Group companies conducting follow-up on the Toray Group's priority risks (%)	100%	100%	100%	※ 1
	② 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	① Number of corporate website page views (per month)	1 million page views	1 million page views	1 million page views	※ 2
	② Interviews conducted to exchange opinions within the company (rate of progress)	40%	60%	80%	※ 1
	③ Interviews with key investors in which management participates (number)	Cumulative total of 80	Cumulative total of 80	Cumulative total of 80	※ 1
	④ News releases (number)	200	200	200	※ 1
7 Contributing Solutions to Social Issues through Business Activities	① Revenue of Green Innovation products (IFRS)	1,000 billion yen (Fiscal 2022)			※ 1
	② Revenue of Life Innovation products (IFRS)	300 billion yen (Fiscal 2022)			※ 1
	③ Contribution to CO <sub>2</sub> reduction in value chain <sup>3</sup>	5.3 times compared to fiscal 2013 (Fiscal 2022)			※ 1
	④ Contribution of Toray water treatment products <sup>4</sup>	2.4 times compared to fiscal 2013 (Fiscal 2022)			※ 1
8 Human Rights Promotion and Human Resources Development	① Group companies implementing human rights education and training (%)	100%	100%	100%	※ 1
	② Group companies that have achieved legally mandated employment rate of persons with disabilities (%)	100%	100%	100%	Toray Group (Japan)
	③ Career development of core staff using the new personnel information system (% of staff using a career path worksheet)	20%	30%	100%	※ 2
	④ Employees returning to work from childcare leave (%)	100%	100%	100%	Employees of Toray Industries, Inc.
	⑤ 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
	⑥ Available annual paid leave used by labor union members (%)	About 90%	About 90%	About 90%	※ 2
9 Facilitating CSR Initiatives throughout the Supply Chain	① Group companies requesting their suppliers to practice CSR (%)	At least 80%	At least 90%	At least 95%	※ 1
	② Suppliers confirming the status of CSR initiatives as requested by Toray Group (%)	At least 70%	At least 70%	At least 70%	※ 1
	③ Reduction in CO <sub>2</sub> emissions intensity from distribution activities (year-on-year)	1%	1%	1%	Toray Group (Only specified consigners)
	④ 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	① Social contribution expenditure (% change from average expenditure over last six years)	100% or higher	100% or higher	100% or higher	※ 1
	② Social contribution activities (number)	2,500 or more	2,500 or more	2,500 or more	※ 1
	③ 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

<sup>3</sup> Toray calculates the CO<sub>2</sub> 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).

<sup>4</sup> 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

CSR Guideline		1	2	3	4	5	6	7	8	9	10
		Corporate Governance	Ethics and Compliance	Safety/Accident Prevention, and Environmental Preservation	Product Quality and Safety	Risk Management	Communication	Contributing Solutions to Social Issues through Business Activities	Human Rights Promotion and Human Resources Development	Facilitating CSR Initiatives Throughout the Supply Chain	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	<b>E</b> Environment			●				●		●	●
	<b>S</b> Social			●	●		●	●	●	●	●
	<b>G</b> Governance	●	●		●	●					

Progress on CSR Roadmap 2022 KPIs in Fiscal 2020

CSR Guidelines	CSR Roadmap goals	Key performance indicators	Reporting Scope <sup>1</sup>
<b>1 Corporate Governance</b>  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.  (2) Perform monitoring based on the Basic Policy for Internal Control Systems, in accordance with Japan's Companies Act.	<b>①</b> Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number)	<b>①</b> Toray Group
		<b>②</b> Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%)	<b>②</b> Toray Group
<b>2 Ethics and Compliance</b>  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 (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  Related Materiality for CSR <ul style="list-style-type: none"> <li>● Corporate ethics and legal compliance</li> </ul>	<b>①</b> Number of major violations of laws or ordinances	<b>①</b> Toray Group
		<b>②</b> Implementing internal legal audits of group companies, group companies improving problems found in internal legal audits in the previous year (%)	<b>②</b> Toray Group
		<b>③</b> Group companies providing information and implementing education on major laws and regulations and other compliance-related matters (%)	<b>③</b> Toray Group
<b>3 Safety, Accident Prevention, and Environmental Preservation</b>  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  (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  Related Materiality for CSR <ul style="list-style-type: none"> <li>● Ensuring safety and disaster preparedness</li> <li>● Reducing greenhouse gas emissions</li> <li>● Initiatives for managing water resources</li> <li>● Addressing substances with negative environmental impact</li> <li>● Addressing resource and energy issues</li> <li>● Conserving biodiversity</li> </ul>	<b>①</b> Number of major accidents	<b>①</b> Toray Group
		<b>②</b> Achieve world's best standard for safety management (not exceeding 0.05 frequency rate for occupational accidents resulting in lost work time)	<b>②</b> Toray Group
		<b>③</b> Number of fire and explosion accidents	<b>③</b> Toray Group
		<b>④</b> Number of environmental accidents	<b>④</b> Toray Group
		<b>⑤</b> Reduction of greenhouse gas emissions per unit of revenue (%)	<b>⑤</b> Toray Group
		<b>⑥</b> Water usage per unit of revenue (%)	<b>⑥</b> Toray Group
		<b>⑦</b> Reduction of atmospheric VOC emissions (%)	<b>⑦</b> Toray Group
		<b>⑧</b> Waste recycling rate (%)	<b>⑧</b> Toray Group
		<b>⑨</b> Conduct a survey of palm oil contained in raw materials (%)	<b>⑨</b> Toray Industries, Inc.

	Targets			Results		Implementation leader <sup>3</sup>
	Fiscal 2020	Fiscal 2021	Fiscal 2022	Fiscal 2020	Degree of success <sup>2</sup>	
	① 8 times	① 8 times	① 8 times	① 8 times	① ○	Yukichi Deguchi Executive Vice President (Representative Member of the Board), Corporate Strategic Planning Division, Quality Assurance Division, Legal & Compliance Division (Security Trade Administration Dept.), HS Business Development Dept., Toray Industries, Inc.
	② 90%	② 90%	② 90%	② 94%	② ○	
	① 0	① 0	① 0	① 1	① ×	Yoshio Yamamoto Vice President, Legal & Compliance Division, Toray Industries, Inc.
	② 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			② 100% (including companies under improvement)	② ○	
	③ 100%	③ 100%	③ 100%	③ 100%	③ ○	
	① 0	① 0	① 0	① 1	① ×	Kazuyuki Adachi Senior Vice President (Member of the Board), Purchasing & Logistics Division, Manufacturing Division, Toray Industries, Inc.
	② No more than 0.05	② No more than 0.05	② No more than 0.05	② 0.39	② ×	
	③ 0	③ 0	③ 0	③ 1 <sup>4</sup>	③ ×	
	④ 0	④ 0	④ 0	④ 4 <sup>5</sup>	④ ×	
	⑤ At least 20% lower than fiscal 2013 (Fiscal 2022)			⑤ 13.7%	⑤ N.A.	
	⑥ At least 25% lower than fiscal 2013 (Fiscal 2022)			⑥ 18%	⑥ N.A.	
	⑦ At least 70% lower than fiscal 2000	⑦ At least 70% lower than fiscal 2000	⑦ At least 70% lower than fiscal 2000	⑦ 74%	⑦ ○	
	⑧ At least 86%	⑧ At least 86%	⑧ At least 86%	⑧ 86.2%	⑧ ○	
	⑨ Usage survey of certified products : 100%	⑨ Decision making (Yes/No) of shifting to certified raw materials : 100% (Fiscal 2022)		⑨ 93%	⑨ △	

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3 Names and job titles of implementation leaders are current as of March 31 2021.

4 This is the same accident as the one major accident listed above. 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 Each of these environmental accidents were extremely minor. For further detail, see the "Environmental Risk Management" page of the "Safety, Accident Prevention and Environmental Preservation" section of the report.

6 No health hazard has been reported in association with this accident. 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 2020

CSR Guidelines	CSR Roadmap goals	Key performance indicators	Reporting Scope <sup>1</sup>
<p><b>4 Product Quality and Safety</b></p> <p>Provide safe, highly reliable products by striving to enhance management systems for product quality assurance and safety, and disclose appropriate information.</p>	<p>(1) Achieve zero product accidents</p> <p>(2) Enhance the group-wide framework for product safety and quality assurance</p> <p>Related Materiality for CSR</p> <ul style="list-style-type: none"> <li>● Ensuring product quality and safety</li> </ul>	<p>❶ Number of product accidents</p>	<p>❶ Toray Group</p>
		<p>❷ Group companies implementing product quality assurance and safety education (%)</p>	<p>❷ Toray Group</p>
<p><b>5 Risk Management</b></p> <p>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</p>	<p>(1) Strengthen corporate risk management throughout the Toray Group and mitigate risks</p> <p>(2) Instill greater risk management among employees by rolling out risk management education throughout the Toray Group</p>	<p>❶ Group companies conducting follow-up on the Toray Group's priority risks (%)</p>	<p>❶ Toray Group</p>
		<p>❷ Group companies implementing risk management education (% achieved compared to the plan at the beginning of the fiscal year)</p>	<p>❷ Toray Group</p>
<p><b>6 Communication</b></p> <p>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</p>	<p>(1) Reflect results of dialogue and collaboration with each stakeholder group in management activities in a timely and appropriate manner</p> <p>(2) Reflect information obtained through dialogue and collaboration with each stakeholder group in management decisions in a timely and appropriate manner</p>	<p>❶ Number of corporate website page views (per month)</p>	<p>❶ Toray Industries, Inc.</p>
		<p>❷ Interviews conducted to exchange opinions within the company (rate of progress)</p>	<p>❷ Toray Group</p>
		<p>❸ Interviews with key investors in which management participates (number)</p>	<p>❸ Toray Group</p>
		<p>❹ News releases (number)</p>	<p>❹ Toray Group</p>
<p><b>7 Contributing Solutions to Social Issues through Business Activities</b></p> <p>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.</p>	<p>(1) Help address social issues by developing innovative materials and new technologies, focusing on the fields of Green Innovation and Life Innovation</p> <p>Related Materiality for CSR</p> <ul style="list-style-type: none"> <li>● Contributing to the solution of environmental issues through business activities</li> <li>● Contributing to health maintenance and longevity through business activities</li> <li>● Initiatives for managing water resources</li> </ul>	<p>❶ Revenue of Green Innovation products (IFRS)</p>	<p>❶ Toray Group</p>
		<p>❷ Revenue of Life Innovation products (IFRS)</p>	<p>❷ Toray Group</p>
		<p>❸ Contribution to CO<sub>2</sub> reduction in value chain</p>	<p>❸ Toray Group</p>
		<p>❹ Contribution of Toray water treatment products</p>	<p>❹ Toray Group</p>

	Targets			Results		Implementation leader <sup>3</sup>
	Fiscal 2020	Fiscal 2021	Fiscal 2022	Fiscal 2020	Degree of success <sup>2</sup>	
	① 0	① 0	① 0	① 1 <sup>6</sup>	① ×	Yukichi Deguchi Executive Vice President (Representative Member of the Board), Corporate Strategic Planning Division, Quality Assurance Division, Legal & Compliance Division (Security Trade Administration Dept.), HS Business Development Dept., Toray Industries, Inc.
	② 100%	② 100%	② 100%	② 100%	② ○	
	① 100%	① 100%	① 100%	① 100%	① ○	Yukichi Deguchi Executive Vice President (Representative Member of the Board), Corporate Strategic Planning Division, Quality Assurance Division, Legal & Compliance Division (Security Trade Administration Dept.), HS Business Development Dept., Toray Industries, Inc.
	② 100%	② 100%	② 100%	② 80%	② △	
	① 1 million page views	① 1 million page views	① 1 million page views	① 1.11 million page views	① ○	Hideki Hirabayashi Corporate Vice President, CSR & Investor Relations, Legal & Compliance Division, General Administration & Communications Division, Tokyo Head Office, Toray Industries, Inc.
	② 40%	② 60%	② 80%	② 25%	② △	
	③ Cumulative total of 80	③ Cumulative total of 80	③ Cumulative total of 80	③ Cumulative total of 98	③ ○	
	④ 200	④ 200	④ 200	④ 152	④ △	
	① 1,000 billion yen (Fiscal 2022)			① 711.8 billion yen	① N.A.	Koichi Abe Executive Vice President (Representative Member of the Board), Intellectual Property Division, Global Environment Business Strategic Planning Dept., Life Innovation Business Strategic Planning Dept., Technology Center, Toray Human Resources Development Center, Toray Industries, Inc.
	② 300 billion yen (Fiscal 2022)			② 275.6 billion yen	② N.A.	
	③ 5.3 times compared to fiscal 2013 (Fiscal 2022)			③ 6.4 times	③ N.A.	
	④ 2.4 times compared to fiscal 2013 (Fiscal 2022)			④ 2.0 times	④ N.A.	

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Progress on CSR Roadmap 2022 KPIs in Fiscal 2020

CSR Guidelines	CSR Roadmap goals	Key performance indicators	Reporting Scope <sup>1</sup>
<p><b>8 Human Rights Promotion and Human Resources Development</b></p> <p>Respect human rights, provide safe and healthy workplaces for employees, secure and train personnel, and diversify while striving to protect employment.</p>	<p>(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</p> <p>(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</p> <p>Related Materiality for CSR</p> <ul style="list-style-type: none"> <li>● Respecting human rights</li> <li>● Creating a positive workplace</li> <li>● Securing and developing human resources</li> </ul>	<p>① Group companies implementing human rights education and training (%)</p>	<p>① Toray Group</p>
		<p>② Group companies that have achieved legally mandated employment rate of persons with disabilities (%)</p>	<p>② Toray Group (Japan)</p>
		<p>③ Career development of core staff using the new personnel information system (% of staff using a career path worksheet)</p>	<p>③ Toray Industries, Inc.</p>
		<p>④ Employees returning to work from childcare leave (%)</p>	<p>④ Employees of Toray Industries, Inc.</p>
		<p>⑤ Reduction in employees who exceed 45 hours/month of non-statutory working hours (%)</p>	<p>⑤ Toray Industries, Inc.</p>
		<p>⑥ Available annual paid leave used by labor union members (%)</p>	<p>⑥ Toray Industries, Inc.</p>
<p><b>9 Facilitating CSR Initiatives Throughout the Supply Chain</b></p> <p>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.</p>	<p>(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</p> <p>Related Materiality for CSR</p> <ul style="list-style-type: none"> <li>● Managing social and environmental impact of suppliers</li> </ul>	<p>① Group companies requesting their suppliers to practice CSR (%)</p>	<p>① Toray Group</p>
		<p>② Suppliers confirming the status of CSR initiatives as requested by Toray Group (%)</p>	<p>② Toray Group</p>
		<p>③ Reduction in CO<sub>2</sub> emissions per unit of sales from distribution activities (year-on-year)</p>	<p>③ Toray Group (Only specified consigners)</p>
		<p>④ Modal shift to sea or rail for transport across distances for 500 km or more (%)</p>	<p>④ Toray Industries, Inc.</p>
<p><b>10 Social Contribution Activities as a Good Corporate Citizen</b></p> <p>Proactively participate in local communities and the larger society in order to contribute to development in a way betting a good corporate citizen.</p>	<p>(1) As a member of society, implement social contribution activities that help to solve the global issues addressed by the SDGs and other initiatives</p> <p>(2) Voluntarily and continuously engage in the priority areas of "science and technology promotion," "environment and communities," and "health and welfare"</p>	<p>① Social contribution expenditure (% change from average expenditure over last six years)</p>	<p>① Toray Group</p>
		<p>② Social contribution activities (number)</p>	<p>② Toray Group</p>
		<p>③ Beneficiaries of educational support activities such as science classes for schools and career education (number)</p>	<p>③ Toray Group</p>

	Targets			Results		Implementation leader <sup>3</sup>
	Fiscal 2020	Fiscal 2021	Fiscal 2022	Fiscal 2020	Degree of success <sup>2</sup>	
①	100%	100%	100%	100%	○	Shigeki Taniguchi Senior Vice President, Human Resources Division , Toray Industries, Inc.
②	100%	100%	100%	62.5%	△	
③	20%	30%	100%	23%	○	
④	100%	100%	100%	97.6%	△	
⑤	Year-on-year reduction	Year-on-year reduction	Year-on-year reduction	67.7%	○	
⑥	About 90%	About 90%	About 90%	83.4%	△	
①	At least 80%	At least 90%	At least 95%	85%	○	Osamu Tsuneki Vice President, Purchasing & Logistics Division, Raw Materials Purchasing Dept., Toray Industries, Inc.
②	At least 70%	At least 70%	At least 70%	86%	○	
③	1%	1%	1%	-9.9%	×	
④	40% (Fiscal 2022 target)			32%	N.A.	
①	100% or higher	100% or higher	100% or higher	94%	△	Hideki Hirabayashi Corporate Vice President, CSR & Investor Relations, Legal & Compliance Division, General Administration & Communications Division, Tokyo Head Office, Toray Industries, Inc.
②	2,500 or more	2,500 or more	2,500 or more	1,625	△	
③	15,000 or more	15,000 or more	15,000 or more	7,017	×	

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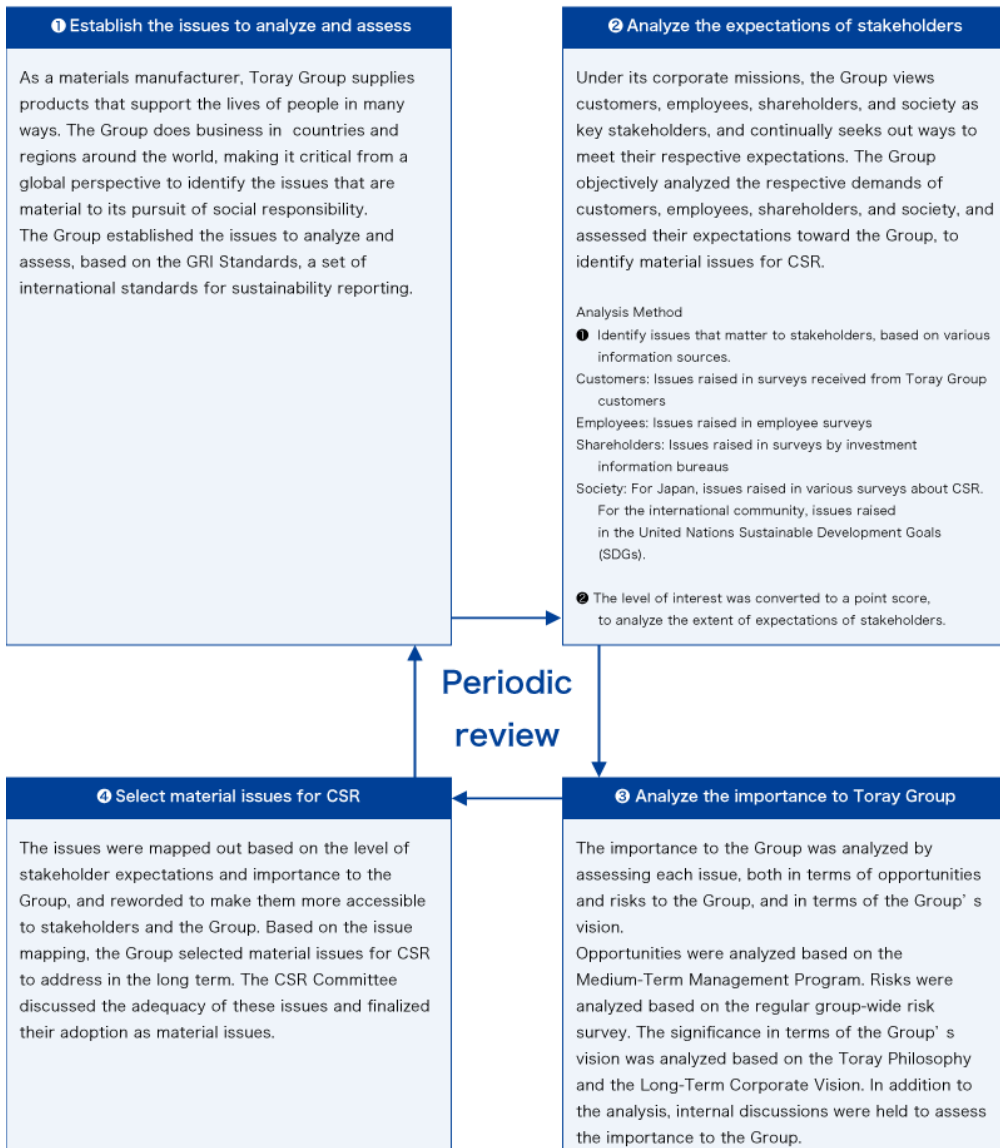
## Toray Group Corporate Social Responsibility

# 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.



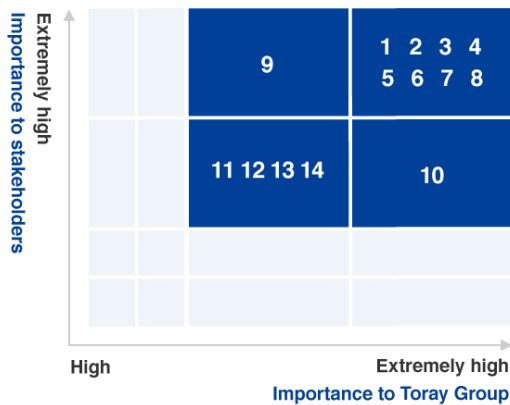


# Updated Material Issues and Key Performance Indicators Reflected in the CSR Roadmap

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.


Materiality	Main Initiatives of CSR Roadmap 2022	KPIs of CSR Roadmap 2022	Fiscal 2020		Fiscal 2021		Fiscal 2022		Activities of Fiscal 2024		Related SDGs
			Targets	Results	Targets	Results	Targets	Results	Degree of Success*	Related Initiatives	
1 Contributing to the solution of environmental issues through business activities	Increase revenue from Green Innovation products.	Net Sales/Revenue of Green Innovation products (USD/AMPE)	1,000 billion yen (FY2022)	1,000 billion yen (Q3/2021)	1,000 billion yen (FY2022)	1,000 billion yen (Q3/2021)	1,000 billion yen (FY2022)	1,000 billion yen (Q3/2021)	1,000 billion yen (FY2022)	1,000 billion yen (Q3/2021)	2, 3, 6, 13, 14, 15
	Expand contribution to CO <sub>2</sub> reduction in the value chain.	Contribution to CO <sub>2</sub> reduction in value chain	Approx. 5.3 times compared to Fiscal 2013 (FY2022)	4.5	5.3	5.3	5.3	5.3	5.3	5.3	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
	Expand water circulation through contribution by Toray's water treatment technologies.	Contribution of Toray water treatment products	Approx. 3.8 times compared to Fiscal 2013 (FY2022)	10 million tons/yr	10 million tons/yr	10 million tons/yr	10 million tons/yr	10 million tons/yr	10 million tons/yr	10 million tons/yr	6, 7, 14, 15
	Conduct a wide variety of product research and technology development to help build a low-carbon, circular economy.	-	-	-	-	-	-	-	-	-	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
2 Contributing to health maintenance and longevity through business activities	Increase revenue from Life Innovation products.	Net Sales/Revenue of Life Innovation products (USD/AMPE)	500 billion yen (FY2022)	500 billion yen (Q3/2021)	500 billion yen (FY2022)	500 billion yen (Q3/2021)	500 billion yen (FY2022)	500 billion yen (Q3/2021)	500 billion yen (FY2022)	500 billion yen (Q3/2021)	2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
	Contribute to contributions to public health, including infectious diseases, by developing and supplying materials and products for protective clothing and personal protective equipment, as well as materials to protect environmental hygiene including of air and water.	-	-	-	-	-	-	-	-	-	2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
	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, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
	-	-	-	-	-	-	-	-	-	-	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
3 Addressing resource and energy issues	Reduce greenhouse gas emissions per unit of revenue.	Reduction of greenhouse gas emissions per unit of revenue (%)	At least 20% lower than Fiscal 2013 (FY2022)	17%	20%	20%	20%	20%	20%	20%	13, 14, 15
	Reduce water consumption per unit of revenue.	Water usage per unit of revenue (%)	At least 20% lower than Fiscal 2013 (FY2022)	10%	20%	20%	20%	20%	20%	20%	6, 7, 14, 15
	Aim for a high waste recycling rate.	Waste recycling rate (%)	At least 80%	80%	80%	80%	80%	80%	80%	80%	12, 13, 14, 15
	Systematically adopt renewable energy.	-	-	-	-	-	-	-	-	-	7, 13, 14, 15

## Materiality View of CSR Roadmap

Materiality	Main initiatives of CSR Roadmap 2022	KPIs of CSR Roadmap 2022
<b>1</b> <b>Contributing to the solution of environmental issues through business activities</b>	Increase revenue from Green Innovation products	Revenue of Green Innovation products (IFRS)
	Expand contribution to CO <sub>2</sub> reduction in the value chain <sup>3</sup>	Contribution to CO <sub>2</sub> reduction in value chain
	Expand water filtration throughput contribution by Toray's water treatment membranes <sup>4</sup>	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	
<b>2</b> <b>Contributing to health maintenance and longevity through business activities</b>	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	
<b>3</b> <b>Addressing resource and energy issues</b>	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 2020			Related SDGs	
			Targets	Results	Degree of success <sup>1</sup>		Related initiatives
			1,000 billion yen (Fiscal 2022)	711.8 billion yen	N.A.	<a href="#">Green Innovation Business Expansion Project</a>	        
			5.3 times compared to fiscal 2013 (Fiscal 2022)	6.4 times	N.A.	<a href="#">Green Innovation Business Expansion Project</a>	
			2.4 times compared to fiscal 2013 (Fiscal 2022)	2.0 times	N.A.	<a href="#">Contributing Solutions to Social Issues through Business Activities</a>	
						<a href="#">Approach to Green Innovation Products</a>	
						<a href="#">Realizing a Circular Economy</a>	
			300 billion yen (Fiscal 2022)	275.6 billion yen	N.A.	<a href="#">Life Innovation Business Expansion Project</a>	    
						<a href="#">Life Innovation Business Expansion Project</a>	
			At least 20% lower than fiscal 2013 (Fiscal 2022)	13.7%	N.A.	<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>	     
			At least 25% lower than fiscal 2013 (Fiscal 2022)	18%	N.A.	<a href="#">Initiatives for Managing Water Resources</a>	
	At least 86%	At least 86%	At least 86%	86.2%	○	<a href="#">Initiatives to Reduce Waste</a>	   
						<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>	

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

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
<b>4 Reducing greenhouse gas emissions</b>	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	
<b>5 Addressing substances with negative environmental impact</b>	Reduce greenhouse gas emissions per unit of revenue	Reduction of greenhouse gas emissions per unit of revenue (%)
	Reduce atmospheric VOC <sup>5</sup> 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 <sup>6</sup>	

Fiscal 2020			Fiscal 2021	Fiscal 2022	Activities of Fiscal 2020			Related SDGs
Targets			Results	Degree of success <sup>1</sup>	Related initiatives			
At least 20% lower than fiscal 2013 (Fiscal 2022)			13.7%	N.A.	<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>			         
At least 86%	At least 86%	At least 86%	86.2%	○	<a href="#">Initiatives to Reduce Waste</a>			
					<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>			
					<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>			
At least 20% lower than fiscal 2013 (Fiscal 2022)			13.7%	N.A.	<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>			         
At least 70% lower than fiscal 2000	At least 70% lower than fiscal 2000	At least 70% lower than fiscal 2000	74%	○	<a href="#">Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances</a>			
At least 86%	At least 86%	At least 86%	86.2%	○	<a href="#">Initiatives to Reduce Waste</a>			
					<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>			
					<a href="#">Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances</a>			

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

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
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 2020			Related SDGs
			Targets	Results	Degree of success <sup>1</sup>	
0	0	0	1	×	<a href="#">Ethics and Compliance</a>	
					<a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a>	
					<a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a>	
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% (Including companies under improvement)	○	<a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a>	
					<a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a>	
					<a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a>	
100%	100%	100%	100%	○	<a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a>	
0	0	0	1	×	<a href="#">Occupational Safety and Accident Prevention Activities</a>	
No more than 0.05	No more than 0.05	No more than 0.05	0.39	×	<a href="#">Occupational Safety and Accident Prevention Activities</a>	
					<a href="#">Occupational Safety and Accident Prevention Activities</a>	
0	0	0	1	×	<a href="#">Occupational Safety and Accident Prevention Activities</a>	 
0	0	0	4	×	<a href="#">Environmental Risk Management</a>	
At least 20% lower than fiscal 2013 (Fiscal 2022)			13.7%	N.A.	<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>	
At least 25% lower than fiscal 2013 (Fiscal 2022)			18%	N.A.	<a href="#">Initiatives for Managing Water Resources</a>	
At least 70% lower than fiscal 2000	At least 70% lower than fiscal 2000	At least 70% lower than fiscal 2000	74%	○	<a href="#">Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances</a>	
At least 86%	At least 86%	At least 86%	86.2%	○	<a href="#">Initiatives to Reduce Waste</a>	
					<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>	
					<a href="#">Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances</a>	
					<a href="#">Biodiversity Initiatives</a>	

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

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
<b>8</b> <b>Ensuring product quality and safety</b>	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 (%)
<b>9</b> <b>Initiatives for managing water resources</b>	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 2020			Related SDGs
Targets			Results			Degree of success <sup>1</sup>			Related initiatives			
0	0	0	1	×			<a href="#">Initiatives for Quality Assurance and Product Safety</a>					
									<a href="#">Product Quality and Safety</a>			
									<a href="#">Initiatives for Quality Assurance and Product Safety</a>			
									<a href="#">Product Quality and Safety</a>			
100%	100%	100%	100%	○			<a href="#">Initiatives for Quality Assurance and Product Safety</a>			         		
At least 25% lower than fiscal 2013 (Fiscal 2022)			18%	N.A.			<a href="#">Initiatives for Managing Water Resources</a>					
At least 86%	At least 86%	At least 86%	86.2%	○			<a href="#">Initiatives to Reduce Waste</a>					
2.4 times compared to fiscal 2013 (Fiscal 2022)			2.0 times	N.A.			<a href="#">Contributing Solutions to Social Issues through Business Activities</a>					
									<a href="#">Approach to Green Innovation Products</a>			
									<a href="#">Realizing a Circular Economy</a>			

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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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


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## Materiality View of CSR Roadmap

Materiality	Main initiatives of CSR Roadmap 2022	KPIs of CSR Roadmap 2022
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 <sub>2</sub> emissions intensity from distribution activities	Reduction in CO <sub>2</sub> emissions intensity from distribution activities (year-on-year)
	Promote modal shift <sup>7</sup> 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 <sup>8</sup> , 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 key national staff members 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 2020			Related SDGs
			Targets	Results	Degree of success <sup>1</sup>	
At least 80%	At least 90%	At least 95%	85%	○	<a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>	
At least 70%	At least 70%	At least 70%	86%	○	<a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>	
					<a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>	
1%	1%	1%	-9.9%	×	<a href="#">Toray Group Distribution Initiatives</a>	
40% (Fiscal 2022 target)			32%	N.A.	<a href="#">Toray Group Distribution Initiatives</a>	
					<a href="#">Toray Group Distribution Initiatives</a>	
					<a href="#">Toray Group Distribution Initiatives</a>	
100%	100%	100%	100%	○	<a href="#">Human Rights Activity Report</a>	
100%	100%	100%	62.5%	△	<a href="#">Promoting Diversity</a>	
					<a href="#">Human Rights Activity Report</a>	
20%	30%	100%	23%	○	<a href="#">Securing and Developing Human Resources to Create New Value</a>	
					<a href="#">Securing and Developing Human Resources to Create New Value</a>	
					<a href="#">Promoting Diversity</a>	
100%	100%	100%	97.6%	△	<a href="#">Creating a Positive Workplace for Employees</a>	
Year-on-year reduction	Year-on-year reduction	Year-on-year reduction	67.7%	○	<a href="#">Creating a Positive Workplace for Employees</a>	
About 90%	About 90%	About 90%	83.4%	△	<a href="#">Creating a Positive Workplace for Employees</a>	

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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5 Volatile organic compounds



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## Materiality View of CSR Roadmap

Materiality	Main initiatives of CSR Roadmap 2022	KPIs of CSR Roadmap 2022
<b>13 Securing and developing human resources</b>	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 key national staff members 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 (%)
<b>14 Conserving biodiversity</b>	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 2020			Related SDGs
Targets			Results	Degree of success <sup>1</sup>	Related initiatives							
20%	30%	100%	23%	○	<a href="#">Securing and Developing Human Resources to Create New Value</a>							
					<a href="#">Securing and Developing Human Resources to Create New Value</a>							
					<a href="#">Promoting Diversity</a>							
100%	100%	100%	97.6%	△	<a href="#">Creating a Positive Workplace for Employees</a>							
Year-on-year reduction	Year-on-year reduction	Year-on-year reduction	67.7%	○	<a href="#">Creating a Positive Workplace for Employees</a>							
At least 20% lower than fiscal 2013 (Fiscal 2022)			13.7%	N.A.	<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>							
At least 70% lower than fiscal 2000	At least 70% lower than fiscal 2000	At least 70% lower than fiscal 2000	74%	○	<a href="#">Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances</a>							
At least 86%	At least 86%	At least 86%	86.2%	○	<a href="#">Initiatives to Reduce Waste</a>							
Usage survey of certified products : 100%	Decision making (Yes/No) of shifting to certified raw materials : 100% (Fiscal 2022)		93%	△	<a href="#">Biodiversity Initiatives</a>							
					<a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>							
					<a href="#">Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances</a>							

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.

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# External Evaluation

## Evaluations from the Perspective of Socially Responsible Investment

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### 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 Dow Jones that evaluate corporate performance in terms of sustainability.



### FTSE4Good Index and FTSE Blossom Japan 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.



## MSCI ESG Rating: AAA

Toray Industries has received an AAA rating, the highest MSCI ESG Rating and 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.
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## 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 second consecutive year. In 2020, the Company was given a B rating on climate change performance.



## Sompo Sustainability Index

Toray Industries has been selected for inclusion in the Sompo Sustainability Index, which is managed by Sompo Asset Management Co., Ltd. The index is a socially responsible investment (SRI) product for pension funds and institutional investors which invest broadly in companies highly regarded for their environmental, social and governance initiatives.



## External Evaluation of Information Disclosure to Investors

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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 2020, 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 2020
Nikko Investor Relations Co., Ltd.	2020 All Japanese Listed Companies' Website Ranking (AAA Website in overall ranking and AAA Website in sector ranking)
GOMEZ	Silver Prize (top in textile sector) in IR Site Ranking 2020 First place in environment category, ESG Site Ranking 2020



# Sustainability



## 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

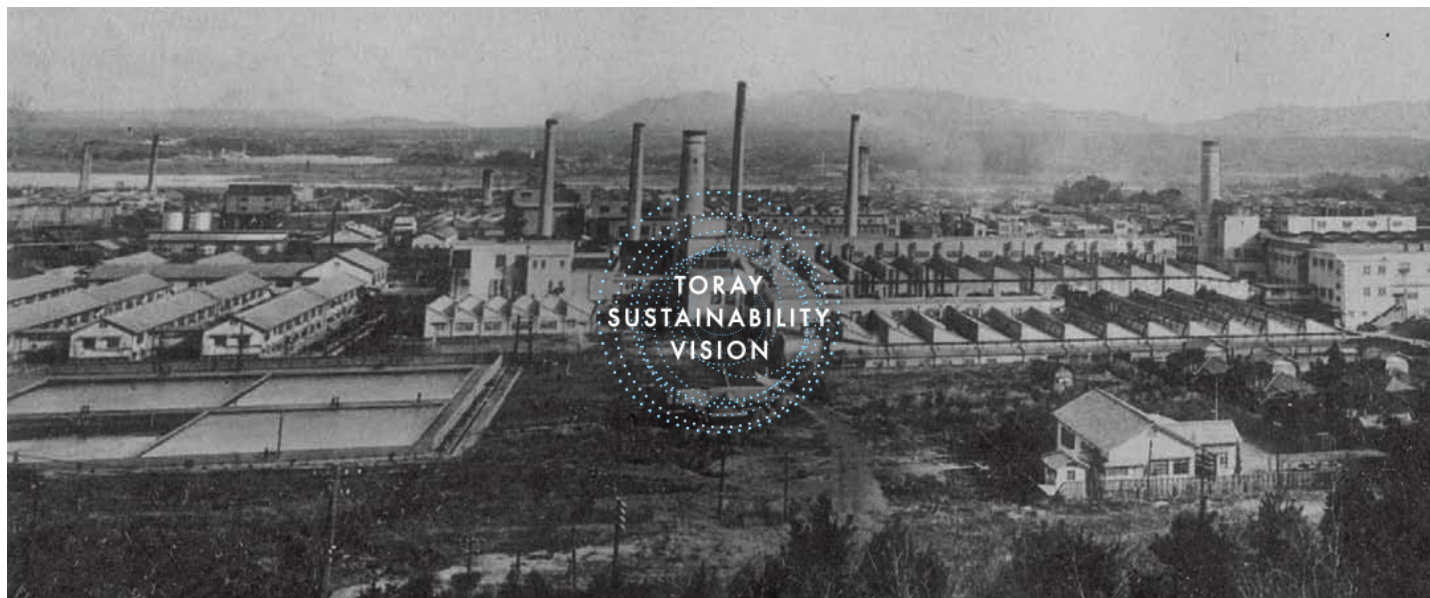
Toray Group strategically practices social responsibility guided by its three-year CSR Road Map, aiming to achieve sustainable growth while helping to build a more sustainable world.

## Related Information

[Toray Group Sustainability Vision](#) PDF

A MATERIALS WORLD

# 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.

## 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)



## 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

## 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)



## 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.

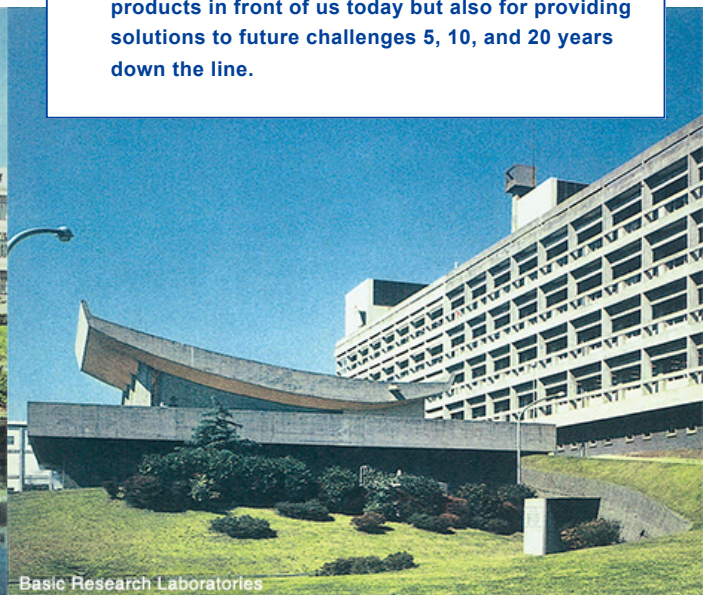
In 1956, Toray established the Central Research Laboratory in Otsu (Shiga Prefecture) and, in 1962, its Basic Research Laboratory in Kamakura (Kanagawa Prefecture). From here, it devoted itself to developing new products. At the Basic Research Laboratory, Toray anticipated strong results from the creative 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

## 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 prosperity lasting until 1970.

## 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™

## 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.

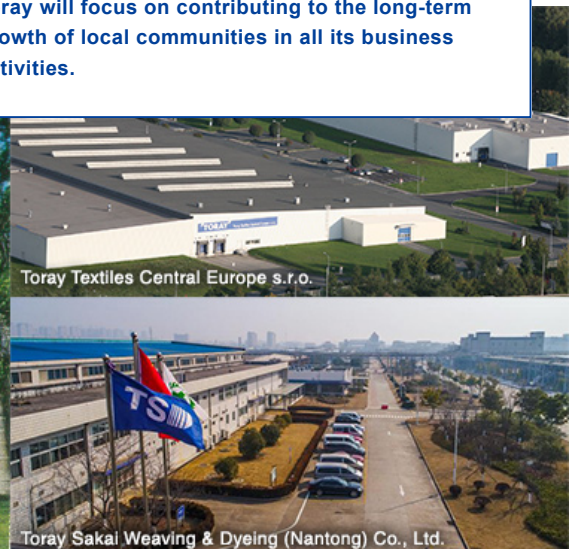
### TORAY'S Episode

**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.**



## 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

## 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™



## 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™

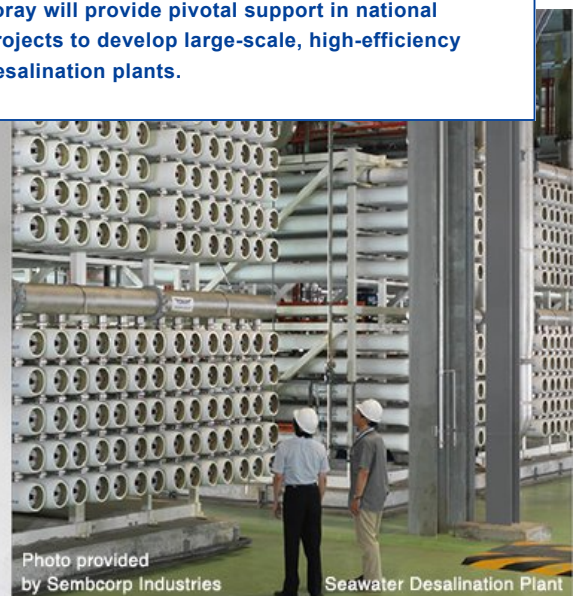


Photo provided by Sembcorp Industries

Seawater Desalination Plant

# 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



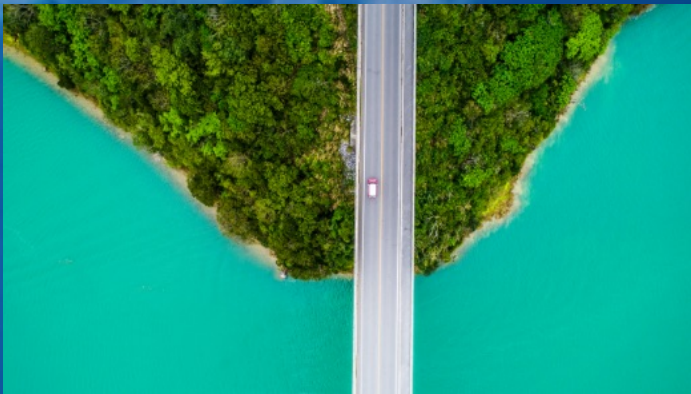
Toray Pan Pacific Open Tennis Tournament



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



**4**fold

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<sub>2</sub> emissions in the value chain. ※1

### Supplying Life Innovation Products



**6**fold

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



**3**fold

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 FY2020		Target FY2030 (Compared to FY2013)
			Compared to FY2013	
<b>Green Innovation product sales</b>	463.1 billion yen	711.8 billion yen	1.5times	4times
<b>Contribution to CO<sub>2</sub> reduction in value chain</b>	38.45 million tons	244.6 million tons	6.4 times	8times
<b>Life Innovation product sales</b>	119.6 billion yen	275.6 billion yen	2.3 times	6times
<b>Contribution to water treatment (conversion to water volume)</b>	27.23 million tons	55.69 million tons	2.0 times	3times
<b>Greenhouse gas emission per unit of sales</b>	3.37 thousand tons /billion yen	2.90 thousand tons /billion yen	14% reduction	30% reduction
<b>Water usage per unit of sales</b>	152 thousand tons /billion yen	125 thousand tons /billion yen	18% reduction	30% reduction

The baseline year for quantitative targets is fiscal 2013.

- ※1 For CO<sub>2</sub> emissions avoided in the value chain, Toray calculates the CO<sub>2</sub> emissions reduced throughout the value chain of products in accordance with the chemical sector guidelines of the Japan Chemical Industry Association, the International Council of Chemical Associations (ICCA), and the World Business Council For Sustainable Development (WBCSD).
- ※2 Toray calculates water treated with Toray's water treatment membranes by multiplying the amount of fresh water that its ultrafiltration water treatment membranes can produce per day, including reverse osmosis (RO), ultrafiltration (UF) and membrane separation bioreactors (MBR), by the number of membrane elements sold.
- ※3 In Japan, Toray works to surpass the reduction target set for the industrial sector by the Japanese government (absolute emissions reduced by 7%), which is based on the Paris Agreement. With the use of renewable energies and other zero emission power sources rising worldwide, 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

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<sub>2</sub> 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<sub>2</sub> emissions.



### **Building a renewable energy economy**

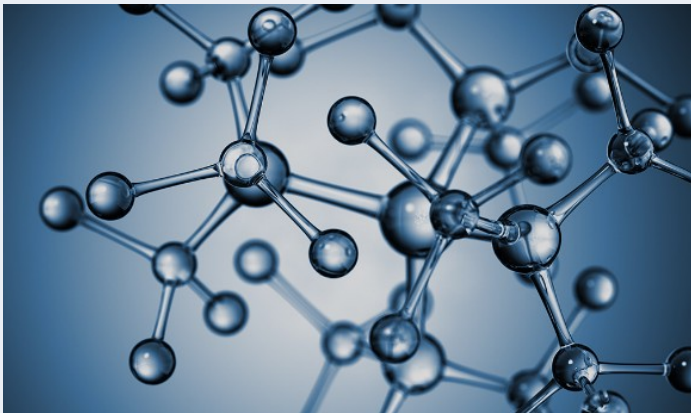
Toray supplies materials for use in renewable energy technologies including wind and solar energy, and in hydrogen conversion, storage, and fuel cells.



### **Reducing CO<sub>2</sub> emissions in manufacturing**

Toray actively strives to reduce CO<sub>2</sub> 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](#)

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

## Sustainably managed resources

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](#)

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

## Restored natural environment

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](#)



### 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](#)



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

## Healthier lives

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**

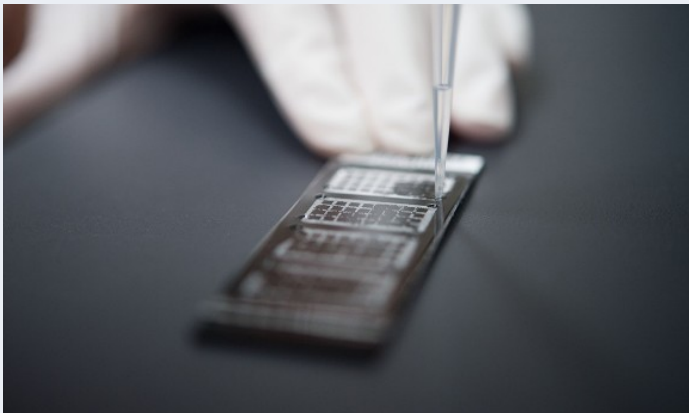
Toray supplies DNA microarrays for early diagnosis of diseases and innovative drugs that support people’s health.



**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**

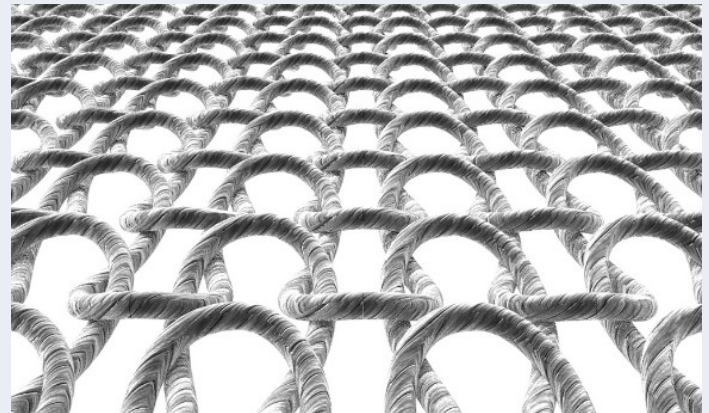


**Synthetic innovation helps translate nature’s greatest narrative: our genes**

[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](#)

# 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](#)

<p><b>1 Corporate Governance</b></p>	<p><b>2 Ethics and Compliance</b></p>	 <p><b>1 Corporate Governance</b></p> <p>Continually revise management systems, strengthen internal controls as part of efforts to fulfill the company's social responsibilities.</p> <p>&gt; <a href="#">Read more</a></p>
<p><b>3 Safety, Accident Prevention, and Environmental Preservation</b></p>	<p><b>4 Product Quality and Safety</b></p>	
<p><b>5 Risk Management</b></p>	<p><b>6 Communication</b></p>	
<p><b>7 Contributing Solutions to Social Issues through Business Activities</b></p>	<p><b>8 Human Rights Promotion and Human Resources Development</b></p>	
<p><b>9 Facilitating CSR Initiatives Throughout the Supply Chain</b></p>	<p><b>10 Social Contribution Activities as a Good Corporate Citizen</b></p>	

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

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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

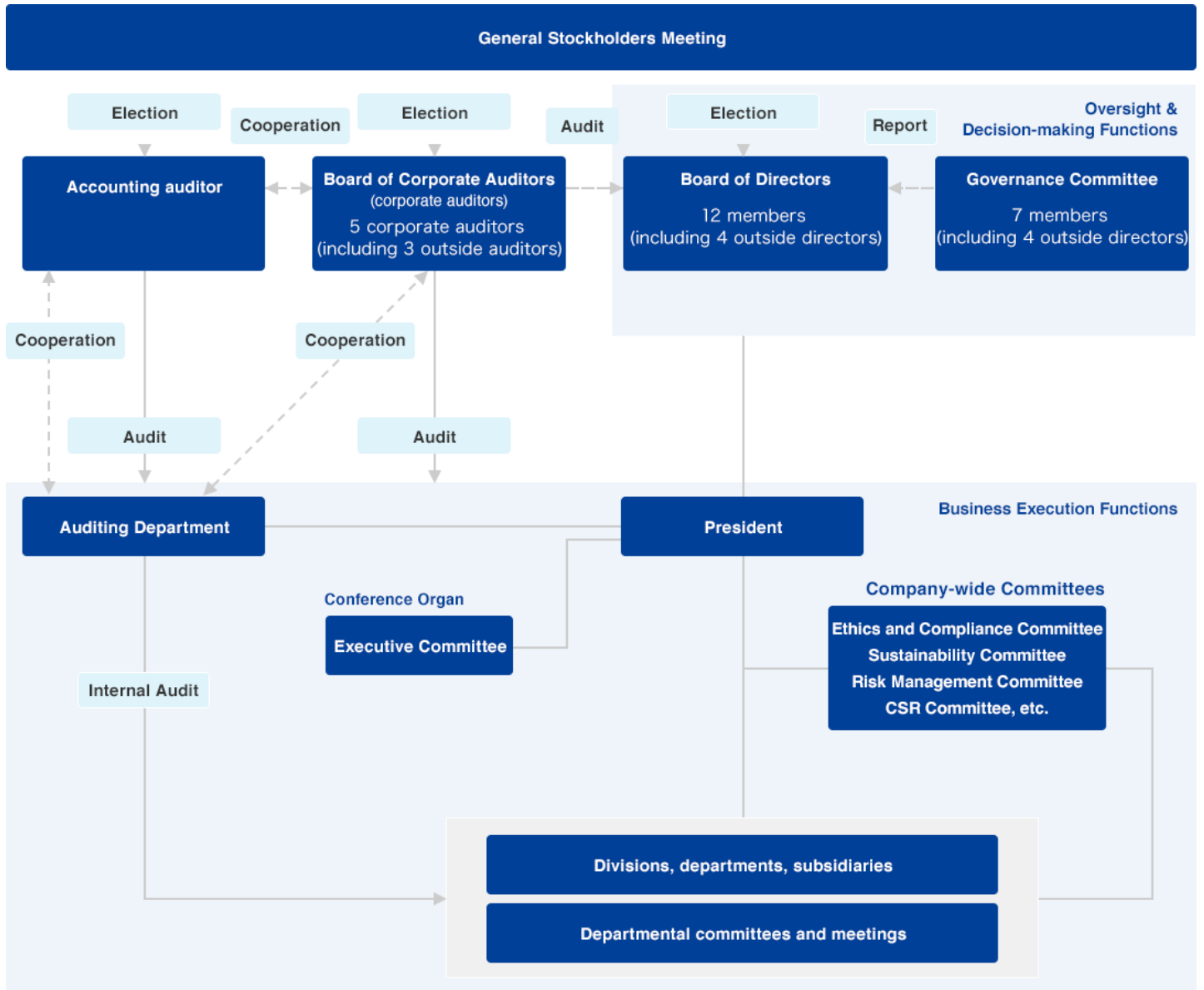
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Toray Industries, Inc. operates as a company with a Board of Corporate Auditors and Board of Directors. The Board of Directors, which includes outside directors, decides on the business execution and supervises the execution of duties by the directors. 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.



## 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	1-①
(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	1-②

Key Performance Indicator (KPI)	Target			Fiscal 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
1-① Toray Group Business Strategy Discussion sessions held at Board of Directors meetings (number)	8 times	8 times	8 times	8 times
1-② Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%)	90%	90%	90%	94%

Reporting scope : Toray Group

## Looking to the Future

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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, 2021." 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 2020. With regard to the matter, "further activating discussions at the Board of Directors meetings," however, the process indicated that specific measures for improvement should be taken from a practical standpoint, continuing from fiscal 2020, to further improve the effectiveness of the Board of Directors in fiscal 2021 and beyond. In addition, the Company will promote the provision of opportunities for outside directors to communicate with people who execute the business in order to improve the functionality of the outside director system.

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.



## Ensuring Proper Business Conduct and Transparency

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

■Reporting scope  
Toray Group

■Target in fiscal 2020  
8 times

Result in fiscal 2020

**8 times**

### Board of Directors' positive assessment of the implementation of the Basic Policy for Internal Control Systems (%)<sup>1</sup>

■Reporting scope  
Toray Group

■Target in fiscal 2020  
90%

Result in fiscal 2020

**94 %**

<sup>1</sup> 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.

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 will continue to make every effort to ensure compliance with laws and regulations, efficient execution of duties, preservation and management of information, and control over risks of loss.

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 2020 was 94%, 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

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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

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#### 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

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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 2020, the Ethics and Compliance Committee convened twice to deliberate on and discuss the results of fiscal 2019 initiatives, action plans for fiscal 2020, and the progress of implementation thus far. The committee also discussed individual measures such as revision of the Toray Group Ethics & Compliance Code of Conduct and implementation of the compliance month.

In each workplace, the general manager of the division or department serves as a leader, facilitating initiatives in a top-down manner.

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

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### 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	2-①
(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	2-②
(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	2-③

Key Performance Indicator (KPI)	Target			Fiscal 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
<b>2-①</b> Number of major violations of laws or ordinances	0	0	0	1 <sup>1</sup>
<b>2-②</b> 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 Percent that improved: 100% for all audits by the following fiscal year			Improvement rate: 100% <sup>2</sup>
<b>2-③</b> 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

<sup>1</sup> Toray International, Inc., a trading subsidiary of the Toray Group, received a warning from the Director-General of the Trade and Economic Cooperation Bureau at Japan's Ministry of Economy, Trade and Industry. The warning cited the fact that a portion of carbon fiber that the company had been exporting to China with an export license under the Foreign Exchange and Foreign Trade Act was transferred to unauthorized third parties, and the fact that there were inadequate transaction screening which allowed the unauthorized transfer. It requested the company to implement recurrence prevention measures and to strictly comply with export control. Having caused such a situation, Toray Group will work to thoroughly implement export control and ensure compliance throughout the Group to prevent a recurrence.

<sup>2</sup> Including companies under improvement.

## 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

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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<sup>3</sup> approach – Look to the facts!
- **R** : Responsibility as a member of our excellent company



<sup>3</sup> 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 2020, Toray Industries continued to assist compliance initiatives at group companies and actively share compliance-related best practices, such as the Compliance Month, new educational tools, and educational materials in videos that employees can learn from even while working remotely. Through the 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 May 2020, 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. They 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 (3.2MB)

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%**  
Toray Group

### 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	■Target in fiscal 2020
Toray Group	0

### Result in fiscal 2020

1<sup>1</sup>

<sup>1</sup> Toray International, Inc., a trading subsidiary of the Toray Group, received a warning from the Director-General of the Trade and Economic Cooperation Bureau at Japan's Ministry of Economy, Trade and Industry. The warning cited the fact that a portion of carbon fiber that the company had been exporting to China with an export license under the Foreign Exchange and Foreign Trade Act was transferred to unauthorized third parties, and the fact that there were inadequate transaction screening which allowed the unauthorized transfer. It requested the company to implement recurrence prevention measures and to strictly comply with export control. Having caused such a situation, Toray Group will work to thoroughly implement export control and ensure compliance throughout the Group to prevent a recurrence.

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

■Reporting scope  
Toray Group

■Target in fiscal 2020  
100%

Result in fiscal 2020

**100%**

Toray Industries posts 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 corporate ethics and legal compliance for all executives and employees, including contracted, part-time and dispatched workers.

In fiscal 2020, the Company conducted online training on human rights issues and the Toray Group Ethics & Compliance Code of Conduct, which was revised in May 2020. For human rights issues, the Company worked to raise awareness using case studies based on actual reports and consultations within Toray Group, reminding all participants that issues can occur in any department. Group companies in Japan are using these materials to implement their own training.

## Expanding the Whistle-Blowing System

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. By introducing this system, the Company expects employees first to take the initiative in managing conduct with regard to corporate ethics and legal compliance, and to consult with a supervisor as soon as an issue arises.

Recognizing that reporting or consulting with supervisors may be difficult, the Company ensures that employees have access to alternative means of reporting and consulting such as via contact points at its offices, plants and labor unions 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.

In fiscal 2020, Toray Industries and its group companies in Japan received a total of 45 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.

In addition, 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.

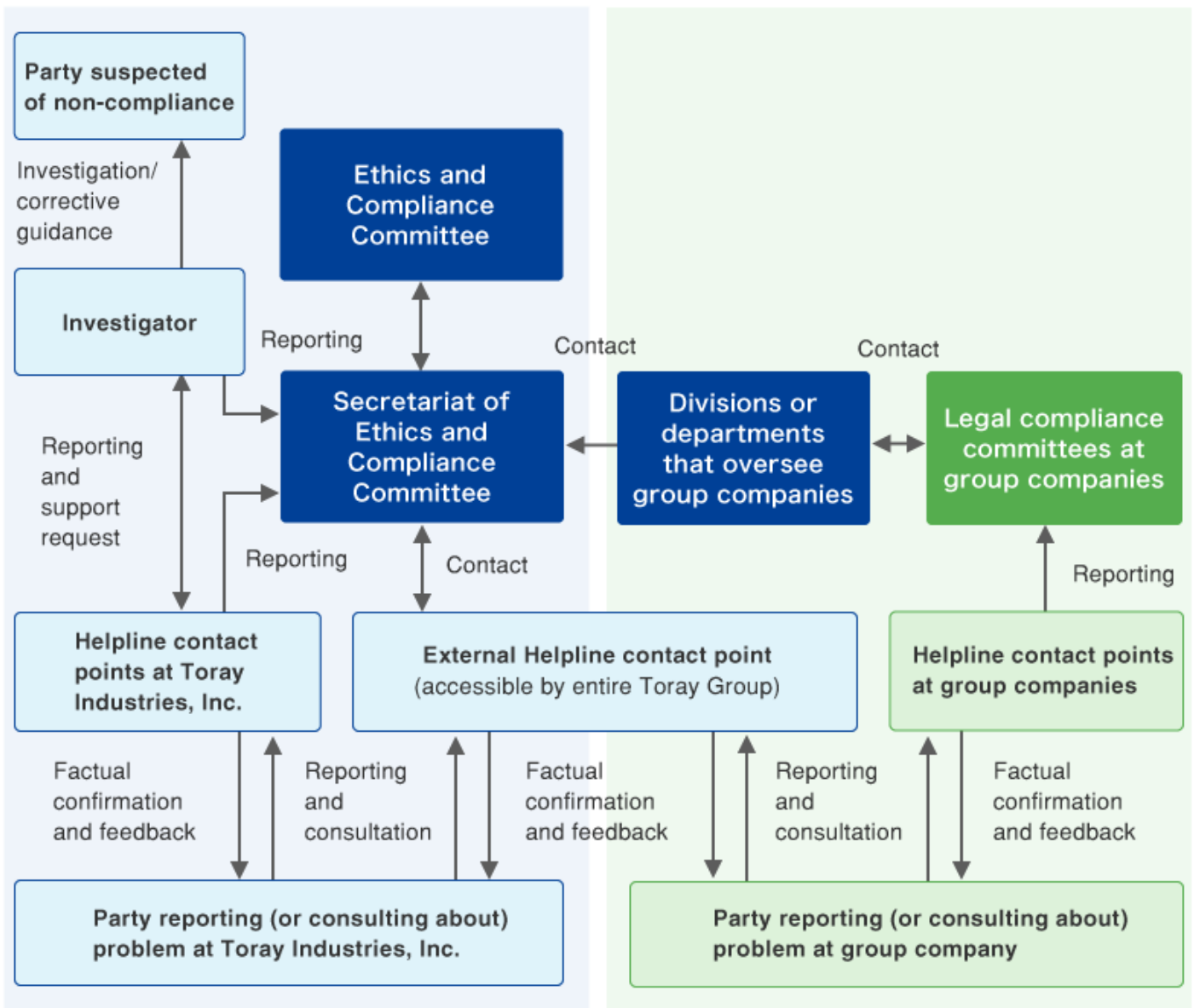
There have been reports in several countries/regions, and Toray Group has worked to resolve the issues, while carefully confirming circumstances in interviews and investigations, based on the laws, customs, and so on of each country and region.

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.

The number of inquiries (consultations) received through the hotline and the details of the cases are reported to directors by the Ethics and Compliance Committee, which convenes twice a year.

<b>Group companies in and outside Japan that have established a whistle-blowing system</b>	<b>100%</b>
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**Corporate Ethics and Legal Compliance Helpline System (Toray Industries, Inc. and its Group Companies in Japan)<sup>2</sup>**



<sup>2</sup> 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 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 2020

Improvement rate: **100%**

(Including companies under improvement.)

In fiscal 2016, Toray Group adopted a group-wide system for self-inspections and mutual internal control audits. Designated divisions of Toray Industries and designated group companies in and outside Japan must receive an internal legal and compliance audit once every three years.

In fiscal 2019, Toray Industries undertook an internal legal and compliance audit of the designated divisions of Toray and the designated group companies in and outside Japan. In fiscal 2020, the Company confirmed the improvement status of problems found in the audit, verifying that 100% of the companies had made improvements (including companies under improvement).

Audits are carried out to ensure compliance with the highly important antitrust laws, anti-bribery regulations, insider trading regulations, and contract signing rules. To enhance the effectiveness of these legal and compliance audits, the methods were revised in fiscal 2019, and internal legal audits were conducted in fiscal 2020. Although no inappropriate transactions were found under any of the audit items, the Company plans to continue pushing 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.

## Ensuring Tax Compliance

### Toray Group Tax Policy

CSR Roadmap 2022  
Main Initiatives (1)

With the recent 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 been enhancing 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 in 2020.

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.

#### 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 officers) 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 when cooperation is required.

## Other Initiatives

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.

## 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 2020, 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 nine courses were held with 670 employees participating in the web conference courses and 4,758 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 four courses were held with 176 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 2020, 166 Toray Group employees passed the exam, bringing the cumulative number of Toray Group employees who have passed the exam to 4,159 persons.

Cumulative number of Toray Group employees who have passed the exam authorized by the Center for Information on Security Trade Controls in Japan **4,159 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.



# Antitrust Compliance and Corruption/Bribery Prevention

## 1. Compliance with Antitrust Laws

The Toray Group Ethics & Compliance Code of Conduct, revised in May 2020, 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 2020, 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 2020, 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 2020, 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.

# Human Subject Research Ethics Review Committees

Toray Industries, Inc. has established two ethics review committees to comprehensively review the propriety of research involving human subjects in relation to ethics, science, protection of personal information, and other aspects. The committees review human genome and genetic research, clinical research, and epidemiological research that uses samples collected from the human body and medical information from donors. These ethics review committees include members from outside the Company and conduct rigorous reviews in accordance with the Ethical Guidelines for Human Genome and Gene Analysis Research and the Ethical Guidelines for Medical and Health Research Involving Human Subjects issued by the Ministry of Health, Labour and Welfare and others.

## Ethics Review Committee on Human Genome and Gene Analysis Research

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This committee reviews the objectives of human genome and gene analysis research 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 Human Genome and Gene Analysis Research \(PDF : 57KB\)](#) **PDF**

[Minutes of 1st Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 85KB\)](#) **PDF**

[Minutes of 2nd Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 79KB\)](#) **PDF**

[Minutes of 3rd Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 83KB\)](#) **PDF**

[Minutes of 4th Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 84KB\)](#) **PDF**

[Minutes of 5th Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 83KB\)](#) **PDF**

[Minutes of 6th Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 84KB\)](#) **PDF**

[Minutes of 7th Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 84KB\)](#) **PDF**

[Minutes of 8th Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 84KB\)](#) **PDF**

[Minutes of 9th Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 84KB\)](#) **PDF**

[Minutes of 10th Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 84KB\)](#) **PDF**

[Minutes of 11th Ethics Review Committee on Human Genome and Gene Analysis Research \(PDF : 84KB\)](#) **PDF**

## Ethics Review Committee on Research Involving Human Biological Subjects

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This committee reviews the objectives of 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](#)

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.

We believe 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, we have 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.

We have also set up the Animal Care and Use Committee, which carries out ethical and scientific review of all animal testing conducted at the company. All of our staff involved in animal testing receive training in standards of care and ethics on the use of animals in research to ensure appropriate conduct of animal testing based on the 3R principles.

We carry out self-monitoring and evaluation of animal tests to verify that each test is conducted appropriately.

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

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

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For information on Toray Group's basic approach and policies on safety, accident prevention and environmental preservation, please visit the links for the related topics in the Activity Reports below.

#### 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 2020

Action policy		Main activities
Safety	Pursue zero occupational accidents	<ul style="list-style-type: none"><li>• Thoroughly practice 3S/5S<sup>1</sup></li><li>• Thorough elimination of similar accidents</li></ul>
Healthier lives	Emphasize occupational health management	<ul style="list-style-type: none"><li>• Enhance and strengthen mental health management</li><li>• Rigorous chemical substance management</li></ul>

Action policy		Main activities
Accident prevention	Pursue zero fire accidents	<ul style="list-style-type: none"> <li>Enhance Fire Prevention Project Part II activities and extend them internationally</li> </ul>
	Strengthen crisis management for large-scale earthquake risks	<ul style="list-style-type: none"> <li>Strengthen response capabilities for large-scale earthquakes</li> </ul>
Environment	Pursue zero environmental accidents	<ul style="list-style-type: none"> <li>Thorough elimination of similar accidents</li> </ul>
	Help to build a sustainable world	<ul style="list-style-type: none"> <li>Accomplish the Fifth Medium-Term Environmental Plan and drive initiatives for Toray Group Sustainability Vision</li> <li>Address the problem of marine plastic waste</li> </ul>

<sup>1</sup> 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

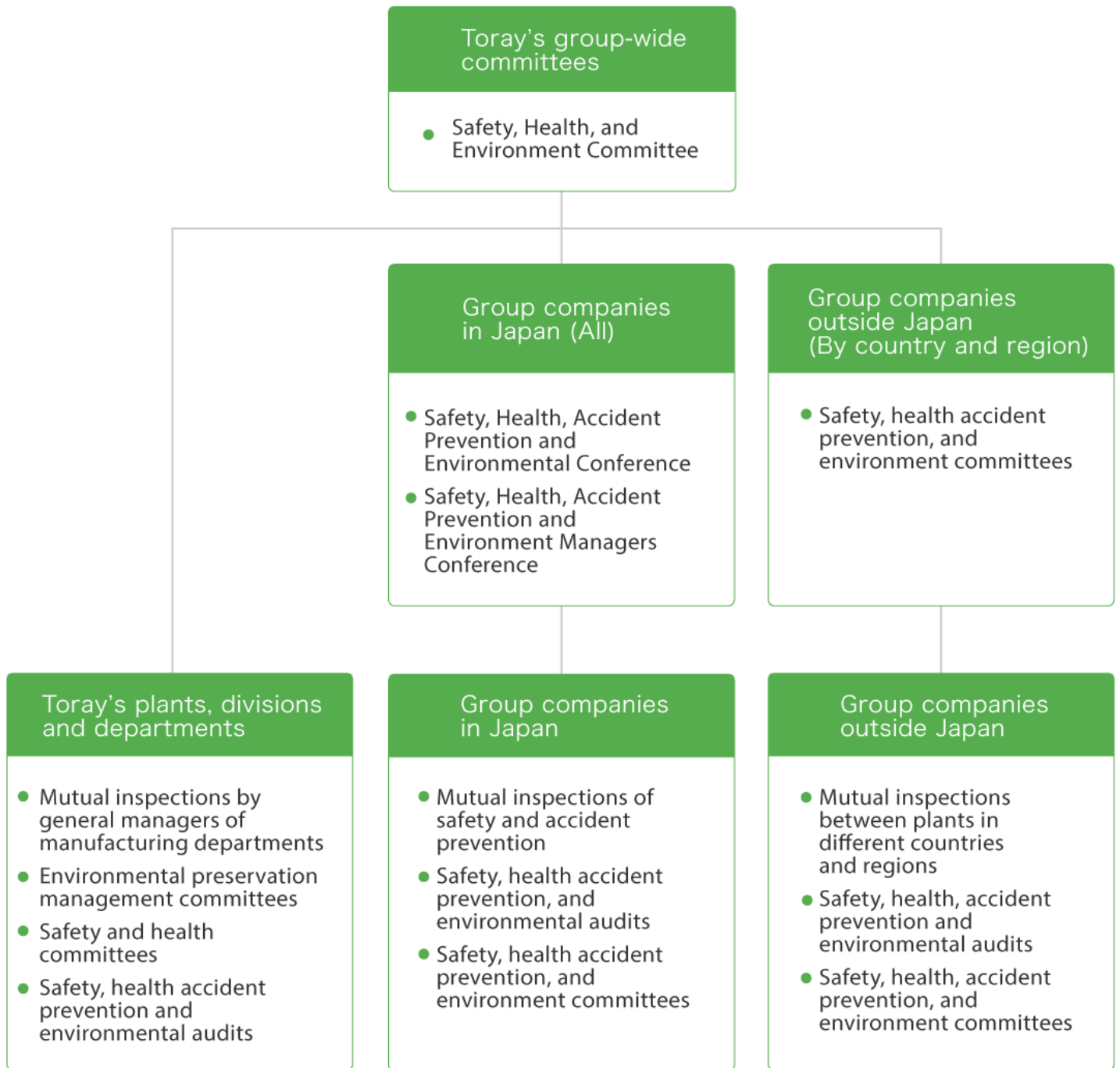
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### Safety, Health, Accident Prevention, and Environmental Preservation Promotion System

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.





## 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 2020, audits were conducted for all 13 plants and one research laboratory at Toray Industries, 28 plants operated by 28 group companies in Japan, and 75 plants operated by 56 group companies outside Japan. The audits focused on the following areas: thoroughly practice 3S/5S; comprehensive measures to prevent similar accidents; inspection status based on a fire prevention check list; measures to prevent the release of micro plastics; and progress on Fifth Medium-Term Environmental Plan activities. The audits helped to secure systematic improvements by identifying and addressing facility issues and issues relating to management.

## ISO 14001 Certification

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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 2020, 36 plants at 23 group companies in Japan and 63 plants at 45 group companies outside Japan were certified.

In fiscal 2020, two plants at TAMX in Mexico and TMME in Saudi Arabia, newly acquired ISO 14001 certification.

### 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.<sup>2</sup> In fiscal 2020, the Company set priority issues: implementing the Fifth Medium-Term Environmental Plan and rigorous chemical substance management.

<sup>2</sup> 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.

## Complying with REACH and Other International Chemical Substance Regulations

All business divisions of Toray Industries, as well as its group companies in and outside Japan, have systems in place for securing compliance with regulations on the restriction of chemical substances such as the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in Europe. Toray Group complies with international chemical substance regulations and conducts chemical substance safety management according to the regulations. As a part of this effort, the Group registers chemical substances registration in accordance with national laws and regulations. The Group also manages substances of high concern, a category that includes substances of very high concern (SVHC) under REACH, and studies the use of alternative substances. Chemical substances are checked for compliance with national chemical substance regulations both during product development and when bringing products to market, to ensure that marketed products do not contain unregistered or banned substances.

## Complying with Japan's Chemical Substances Control Law

Since the revision of Japan's Chemical Substances Control Law<sup>3</sup> in April 2011, companies have been required to report on the manufacture, import, and utilization of general chemical substances. Toray Industries and its group companies in Japan made the necessary preparations and completed their report covering fiscal 2020 in July 2021.

<sup>3</sup> Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

## 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
<b>Safety</b>	
(1) Aim for zero major accidents	3-①
(2) Achieve world's best standard for safety management	3-②
(3) Create a comfortable working environment to ensure the safety and health of employees and to raise the level of safety and health	-
<b>Accident Prevention</b>	
(4) Aim for zero fire and explosion accidents	3-③
<b>Environmental Prevention</b>	
(5) Aim for zero environmental accidents	3-④
(6) Reduce greenhouse gas emissions per unit of revenue	3-⑤

(7) Reduce water consumption per unit of revenue	3-⑥
(8) Reduce atmospheric VOC <sup>4</sup> emissions	3-⑦
(9) Aim for a high waste recycling rate	3-⑧
(10) Conduct a survey of palm oil contained in raw materials and switch to certified products	3-⑨
(11) Systematically adopt renewable energy	-
(12) Reduce atmospheric emissions of substances subject to the PRTR Act <sup>5</sup>	-
(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 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
3-① Number of major accidents	0	0	0	1
3-② 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	0.39
3-③ Number of fire and explosion accidents	0	0	0	1 <sup>6</sup>
3-④ Number of environmental accidents	0	0	0	4
3-⑤ Reduction of greenhouse gas emissions per unit of revenue (%)	At least 20% lower than fiscal 2013 (Fiscal 2022)			13.7%
3-⑥ Water usage per unit of revenue (%)	At least 25% lower than fiscal 2013 (Fiscal 2022)			18%
3-⑦ 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	74%
3-⑧ Waste recycling rate (%)	At least 86%	At least 86%	At least 86%	86.2%
3-⑨ 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)		93%

Reporting scope : Toray Group (3-①, 3-②, 3-③, 3-④, 3-⑤, 3-⑥, 3-⑦ and 3-⑧)

Toray Industries, Inc. (3-⑨)

<sup>4</sup> Volatile organic compounds

<sup>5</sup> Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

<sup>6</sup> This accident was counted as a major accident in accordance with the internal definition of Toray Industries, Inc. This was the one accident counted as a major accident.

## 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

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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.

## Activity Reports and Environmental Data

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Click below on activity reports for fiscal 2020

**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 2020, 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 health and safety laws in the countries in which it operations. These efforts help to ensure a pleasant working environment.

### **2020 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 2020, the meeting was held online with Toray plants and its group companies in Japan, with the Tokyo Head Office 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.



2020 Toray Group Safety Meeting at Tokyo Head Office

## Toray Group Safety Record

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

### Number of major accidents

■Reporting scope	■Target in 2020 (calendar year)
Toray Group	0

Result in 2020

1

### Number of fire and explosion accidents

■Reporting scope	■Target in 2020 (calendar year)
Toray Group	0

Result in 2020

1<sup>1</sup>

<sup>1</sup> This accident was counted as a major accident in accordance with the internal definition of Toray Industries, Inc. This was the one accident counted as a major accident.

**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 2020 (calendar year)  
No more than 0.05

Result in 2020

**0.39**

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 2020 was 0.39. Although this is a positive result compared with that of Japan's manufacturing industry (1.21), 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, a small-scale explosion and fire occurred at one group company outside Japan, and the fire was extinguished with a fire extinguisher. This accident did not affect equipment or any area outside of plant premises, but three people suffered minor burns due to the fire and one person twisted and broke his ankle when he jumped from a height of 50 cm when startled by the sound of the explosion. It is presumed that the incident was caused by sparks emitted when a battery-driven electric screwdriver was used nearby to where flammable gas had collected on the floor. The Group has reconsidered what equipment can be used within zones where there is a risk of fire or explosion, in order to prevent a recurrence. This incident was counted as a major accident in accordance with the internal definition of Toray Industries, Inc. This was the one accident counted as a major accident for the year.



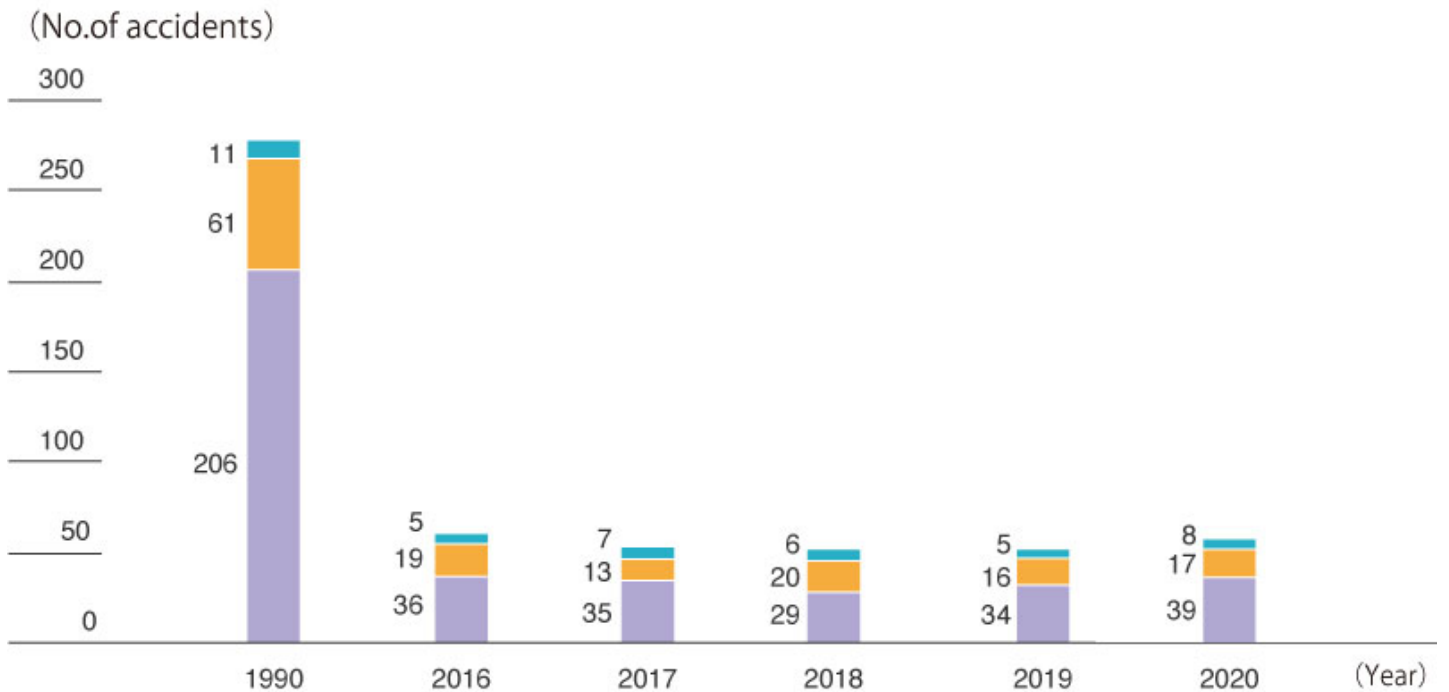
In an effort to eliminate similar fire-related accidents, the Group has a system to enable Group companies to rapidly share critical information on fire-related accidents. The Group uses knowledge gained from previous accidents to adopt effective fire prevention strategies and implement unified accident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



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

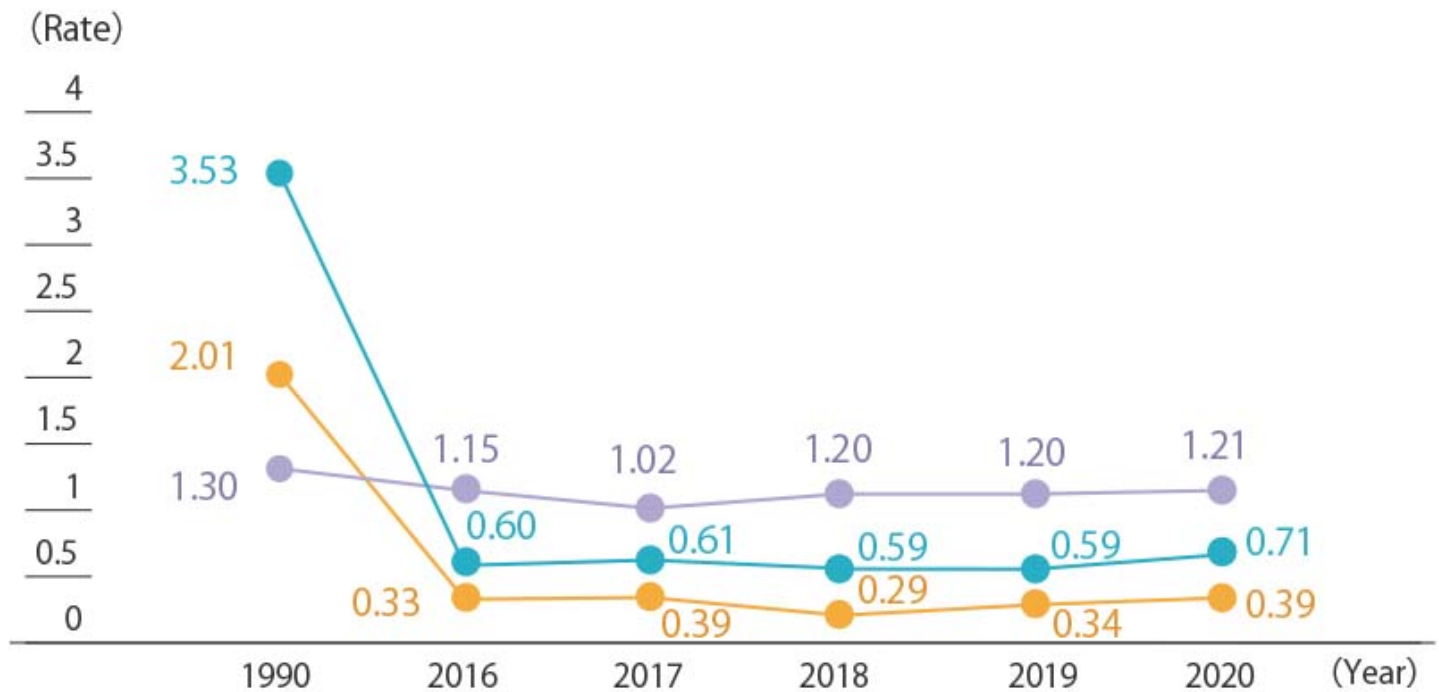
**Number of Occupational Accidents<sup>2</sup>: Toray Group (Lost work time and non-lost work time)**

■ Toray Industries, Inc. ■ Group companies in Japan ■ Group companies outside Japan



## Occupational Accident Frequency Rate<sup>3</sup>: Toray Group

- Toray Group ( all accidents )
- Toray Group ( accidents causing lost work time )
- Japanese manufacturing Industries ( accidents causing lost work time )



<sup>2</sup> 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.

<sup>3</sup> Occupational accident frequency rate: The number of fatalities and injuries at worksites per one million cumulative working hours.

## 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

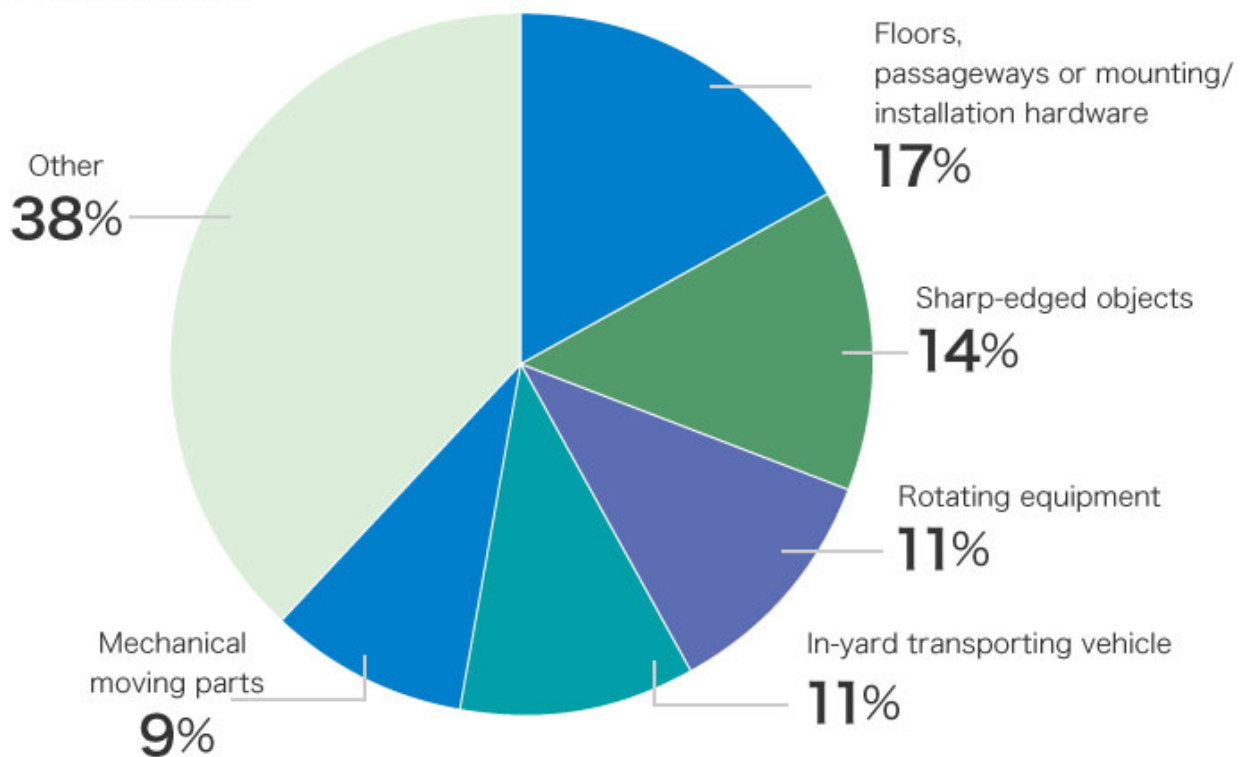
In the event of an occupational accident, the emergency response review meeting and the countermeasure meeting are convened to clarify the chain of events leading up to the accident, identify the cause, and decide on and execute countermeasures. In addition, information about the accident is shared throughout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

### 3. Prioritized risk reduction activities

The Group analyzed the factors involved in occupational accidents at Group companies in 2020, which indicated that floors, passageways or mounting/installation hardware were the leading cause of accidents at 17%, followed by sharp-edged objects at 14%. Many of the accidents relating to floors, passageways or mounting/installation hardware involved falls during everyday movement, which is seen as a risk to everyone who works at Toray Group worksites. To mitigate this risk, the Group has comprehensively implemented 3S and 5S at its worksites, to secure passageways and working space. The Group is also working to raise the safety awareness of all employees to ensure they practice safety first.

Accidents involving sharp-edged objects and rotating equipment can lead to significant injury and are considered major risk factors. All work involving rotating equipment and sharp-edged objects is subject to an annual risk assessment and classified based on the degree of risk, so that safety measures can be implemented according to the risk level. The Group implements risk management using 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**



### 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.

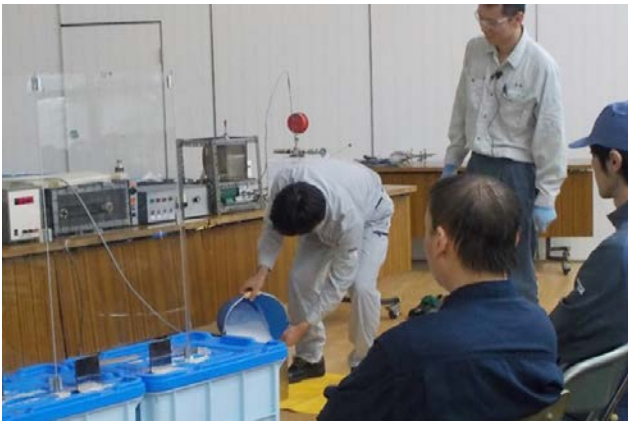
Additionally, the Group publishes on familiar topics regarding safety and accident prevention in its in-house magazine, *People*, in an effort to spread understanding of the fundamentals of accident prevention.



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.)

## 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<sup>4</sup> 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.)

<sup>4</sup> 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)

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. Representative employees from subcontractors also participate in monthly meetings of occupational health and safety committees. Regular safety and liaison meetings are conducted to gain input from subcontractors, and are used to communicate the Group's policies and measures. 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.



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

## 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 2020, 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.)

# Initiatives for Improving Fire-Prevention Capabilities

In 2020, Toray Group continued to implement Fire Prevention Project Part II to execute the four key tasks (see below) and entrench them into worksites in order to strengthen its fire prevention. The 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.

## Four Tasks

Tasks	Results of 2020 activities
Effectively use fire-prevention checklists	<ol style="list-style-type: none"> <li>1. Promoted use of fire-prevention checklists in and outside Japan</li> <li>2. Fostered leaders who can facilitate the use of fire-prevention checklists while giving instructions (in Japan)</li> <li>3. Fostered sub-leaders who actually use fire-prevention checklists at plants (in Japan)</li> </ol>
Enhance fire-prevention training	<ol style="list-style-type: none"> <li>1. Provided fire-prevention training for engineers, etc., company-wide (elementary and intermediate levels)</li> <li>2. Conducted advanced training for leaders who can facilitate the use of fire-prevention checklists (Strengthened case studies of internal and external fire incidents)</li> <li>3. Provided fire-prevention training for operators at plants (younger operators and leader courses)</li> </ol>
Enhance change management	<ol style="list-style-type: none"> <li>1. Conducted change management on manufacturing conditions, work contents, workers and equipment (in and outside Japan)</li> <li>2. Production engineering staff from Toray's main plant provided operational guidance to Group companies outside of Japan</li> </ol>
Build a safety management system for hot work	<ol style="list-style-type: none"> <li>1. Conducted hot work safety management at Group companies and plants (in and outside of Japan)</li> <li>2. Engineering staff from Toray Industries conducted inspections and provided guidance on hot work management at Group companies outside Japan</li> </ol>



Company-wide fire-prevention training for engineers and others  
(Toray Human Resources Development Center)

## 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, 2021 are as follows.

Certified occupational accidents arising from handling asbestos (Toray Group): 111 (93)

Certified health victims based on Japan's Act on Asbestos Health Damage Relief (Toray Group): 8 (8)

Medical examination recipients involving asbestos (Toray Group): 4,037

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

## Progress on the Fifth Medium-Term Environmental Plan

CSR Roadmap 2022  
Main Initiatives (6)(8)(9)(12)

Toray Group has finished carrying out its Fifth Medium-Term Environmental Plan, which ran from fiscal 2016 to fiscal 2020.

In July 2018, Toray Group published its Sustainability Vision, which outlines the following goals in aiming to further reduce the Group's environmental impact.

- Toray Group: Achieve a 30% reduction of greenhouse gas emissions per unit of sales by fiscal 2030, compared with the fiscal 2013 level.
- Toray Industries and plants in Japan: Achieve a 7% reduction in the absolute volume of greenhouse emissions by fiscal 2030, compared with the fiscal 2013 level.

The Group will continue to work to reduce emissions in beyond fiscal 2020 in order to achieve the goals outlined in the Sustainability Vision.

### Progress on the Fifth Medium-Term Environmental Plan Target

Area	Toray Group fiscal 2020 target	Fiscal 2020 results
Curb global warming	Maintain greenhouse gas emissions at least 15% below the fiscal 1990 level (Toray Industries, Inc.)	35% reduction
	15% or greater reduction in greenhouse gas emissions per unit of sales compared to fiscal 1990 (Toray Group in Japan)	30% reduction
Management of chemical substances	Atmospheric emissions of PRTR Law-Specified substances: Maintain at least 70% below the fiscal 2000 level (Toray Group)	70% reduction
	Atmospheric emissions of volatile organic compounds (VOCs): Maintain at least 70% below the fiscal 2000 level (Toray Group)	74% reduction
Waste reduction	Zero emissions goal: Achieve at 45 or more Toray Group plants	Achieved at 48 plants
	Simply disposed waste rate: 22.5% or lower (Toray Group)	20.8%
	Recycling rate: Maintain at 86% or more (Toray Group)	86.2%
	Landfill waste rate: 1.3% or lower (Toray Group in Japan)	2.4%

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

### Initiatives for Reducing Greenhouse Gas Emissions

CSR Roadmap 2022  
Main Initiatives (6)

Seeking to help build sustainable, low-carbon societies, Toray Group pursues initiatives for reducing greenhouse gas emissions. In fiscal 2016, the Group established the Fifth Medium-Term Environmental Plan. In the Toray Group Sustainability Vision announced in July 2018, the Group set out the target of reducing greenhouse gas emissions<sup>1</sup> 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<sup>1</sup> Group-wide by 20% compared with fiscal 2013. Toward this end, the Group is working to reduce CO<sub>2</sub> emissions during manufacturing by conserving energy with improved manufacturing processes, increasing utilization of renewable energy, and reducing coal consumption.

<sup>1</sup> Scope 1 and Scope 2 emissions.

### Toray Industries' Energy Conserving Activities

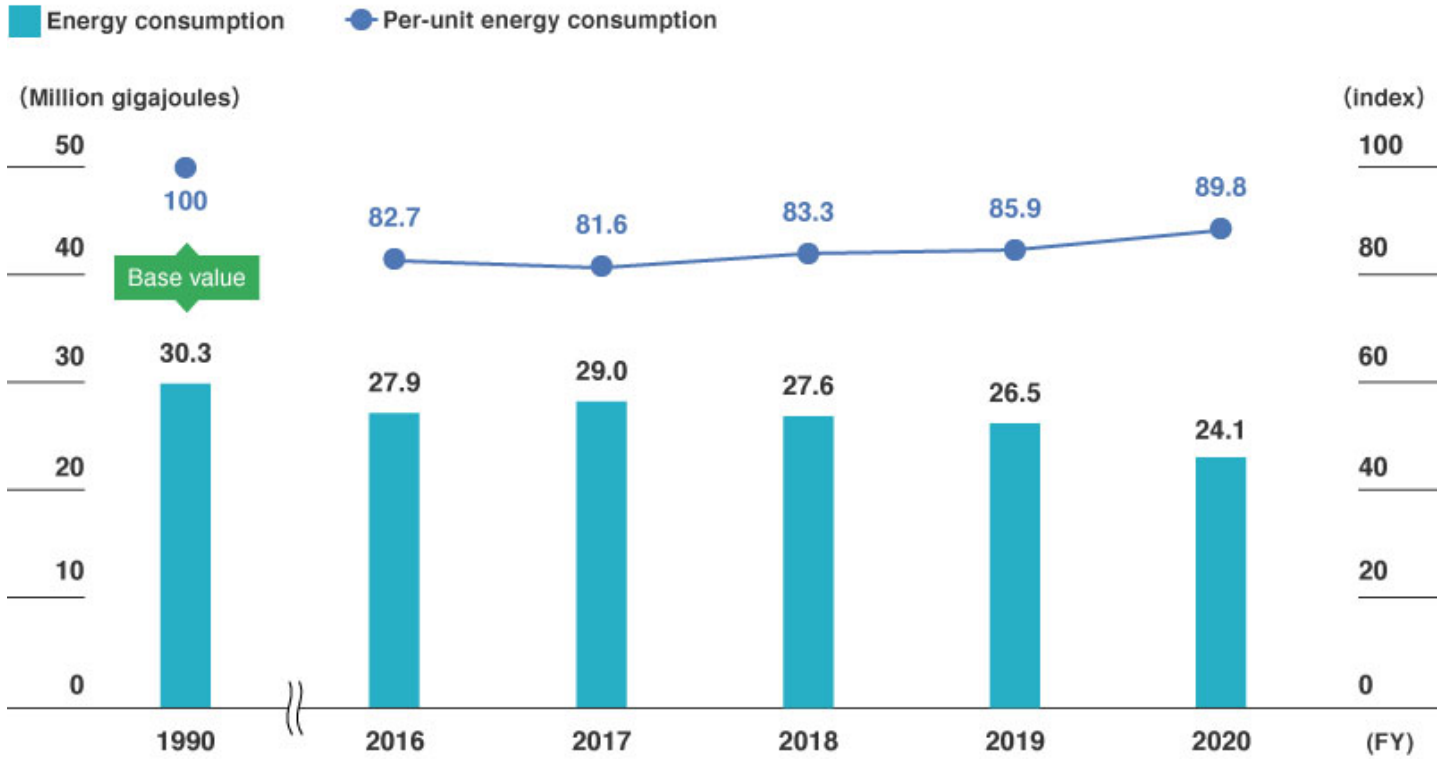
CSR Roadmap 2022  
Main Initiatives (6)

Toray Industries, Inc. has set a goal of reducing its per-unit energy consumption<sup>2</sup> by 2% annually. In fiscal 2020, the Company's energy consumption was down 9.3% year on year due especially to a decrease in production volumes, mainly as a result of the COVID-19 pandemic. Meanwhile, per-unit energy consumption was up 4.6 % year-on-year. This was due to an increase in the fixed energy ratio unrelated to production, stemming from lower production volumes.

However, per-unit energy consumption was down 10.2% compared with fiscal 1990, the baseline year set for reduction of per-unit energy consumption in the Fifth Medium-Term Environmental Plan.

<sup>2</sup> Energy consumption per converted production volume

## Energy Consumption and Per-unit Energy Consumption Index (Toray Industries, Inc.)<sup>3</sup>



<sup>3</sup> The energy consumption shown in this graph does not include renewable energy.

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 2020, these activities were conducted at three of Toray Industries' plants, with some activities conducted via web conferencing due to the COVID-19 pandemic. Thanks to these proactive energy-conserving initiatives, the Group reduced greenhouse gas emissions by about 6,000 tons-CO<sub>2</sub> equivalent.



Review of energy conserving diagnostics via web conferencing

## Toray Industries' Efforts to Reduce Greenhouse Gas Emissions

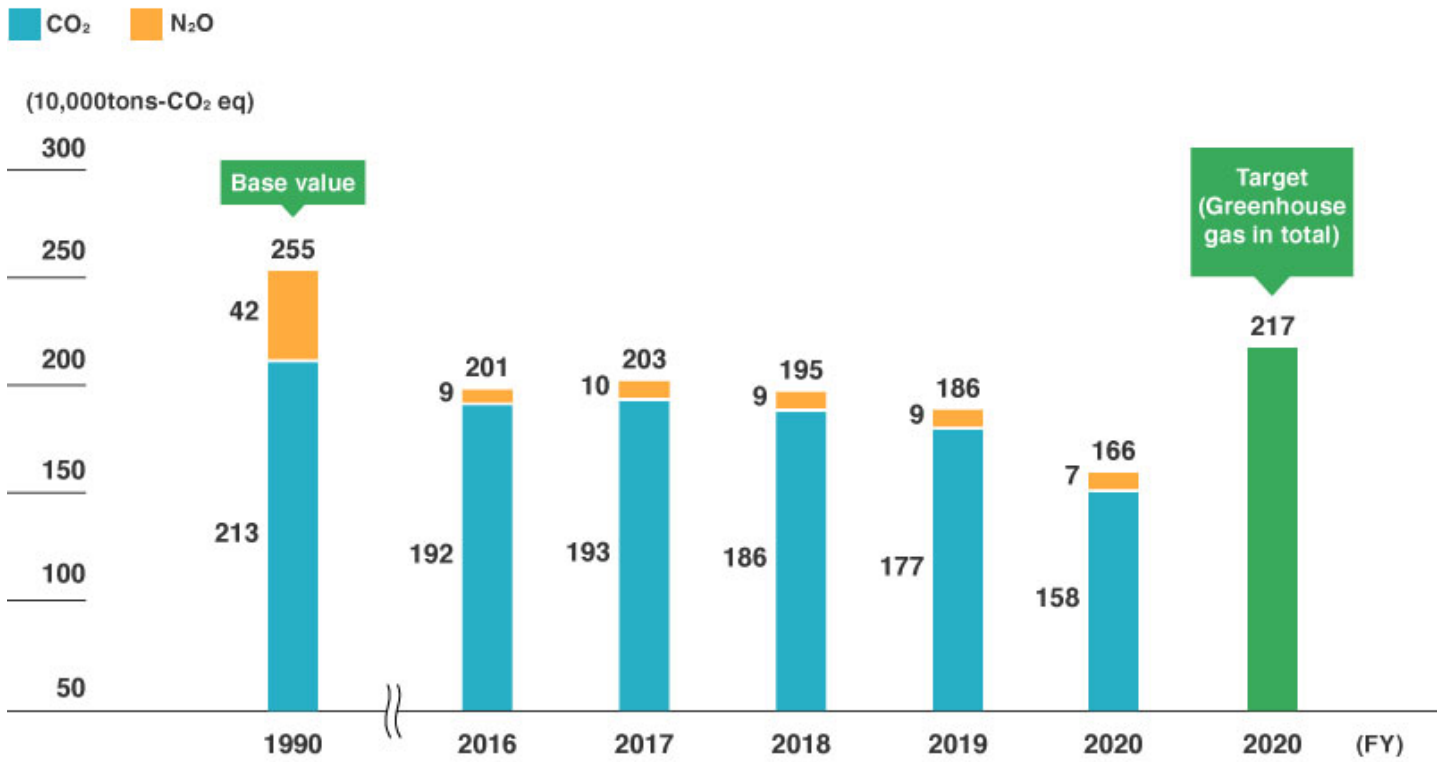
CSR Roadmap 2022  
Main Initiatives (6)

Toray Industries has systematically worked to reduce greenhouse gas emissions, with the goal of maintaining absolute greenhouse gas emissions at least 15% lower than the 1990 level by 2020, in accordance with the Fifth Medium-Term Environmental Plan.

In fiscal 2020, the Company's CO<sub>2</sub> emissions decreased by 188,000 tons-CO<sub>2</sub> equivalent year on year.

Greenhouse gas emissions were down 10.9% year on year at 1.66 million tons-CO<sub>2</sub> equivalent, which was 35.0% below the 1990 level, continuing to meet the Fifth Medium-Term Environmental Plan's reduction target.

## Greenhouse Gas Emissions (Toray Industries, Inc.)



### Related Information

Toray Industries has obtained third-party assurance of its greenhouse gas emissions from Lloyd's Register Quality Assurance Limited (LRQA) for Scope 1 (direct emissions from plants, offices, vehicles, etc. owned by the Company), Scope 2 (indirect emissions from the generation of energy), and Scope 3 (other indirect emissions).<sup>4</sup>

Scope 1: 1,402,697 ton

Scope 2: 254,742 ton

Scope 3: 770,949 ton

<sup>4</sup> Scope 3 emissions are calculated for Category 2 (capital goods), Category 3 (fuel and energy-related activities not included in Scope 1 or Scope 2), and Category 4 (upstream shipping and distribution).

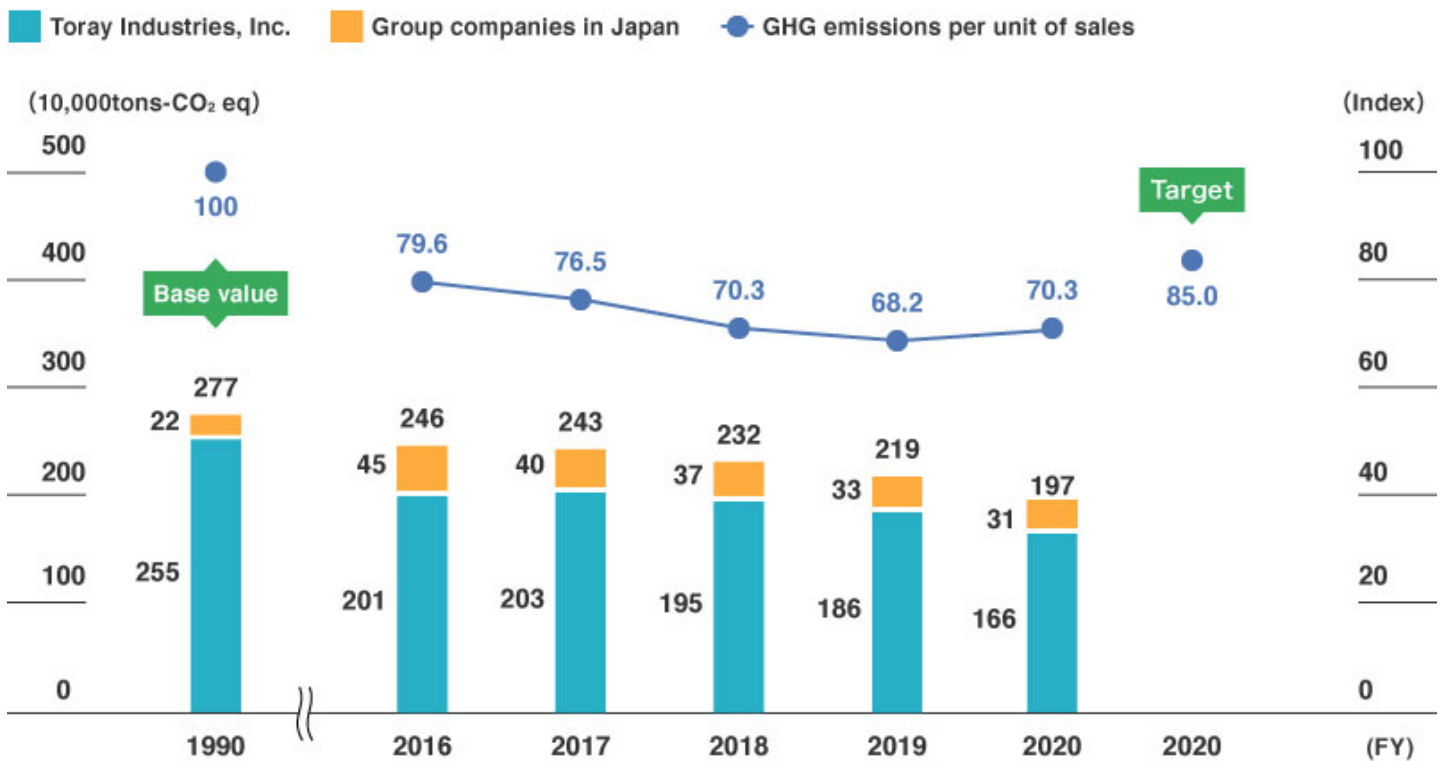
> [Third-Party Assurance](#)

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

Toray Industries and its group companies in Japan are addressing climate change by achieving the goal, set out in the Fifth Medium-Term Environmental Plan, of reducing greenhouse gas emissions per unit of sales revenue by 15% or greater by fiscal 2020 compared to fiscal 1990.

Greenhouse gas emissions were down 10.4% in fiscal 2020 compared to the previous fiscal year. Greenhouse gas emissions per unit of revenue worsened by 3.1% compared to the previous fiscal year, but were still 29.7% below the baseline year established in the Fifth Medium-Term Environmental Plan.

## Greenhouse Gas Emissions and Greenhouse Gas Emissions Per Unit of Net Sales (Per Unit of Revenue)<sup>5</sup> (Toray Group in Japan)



<sup>5</sup> 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.

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

■ Reporting scope  
Toray Group

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

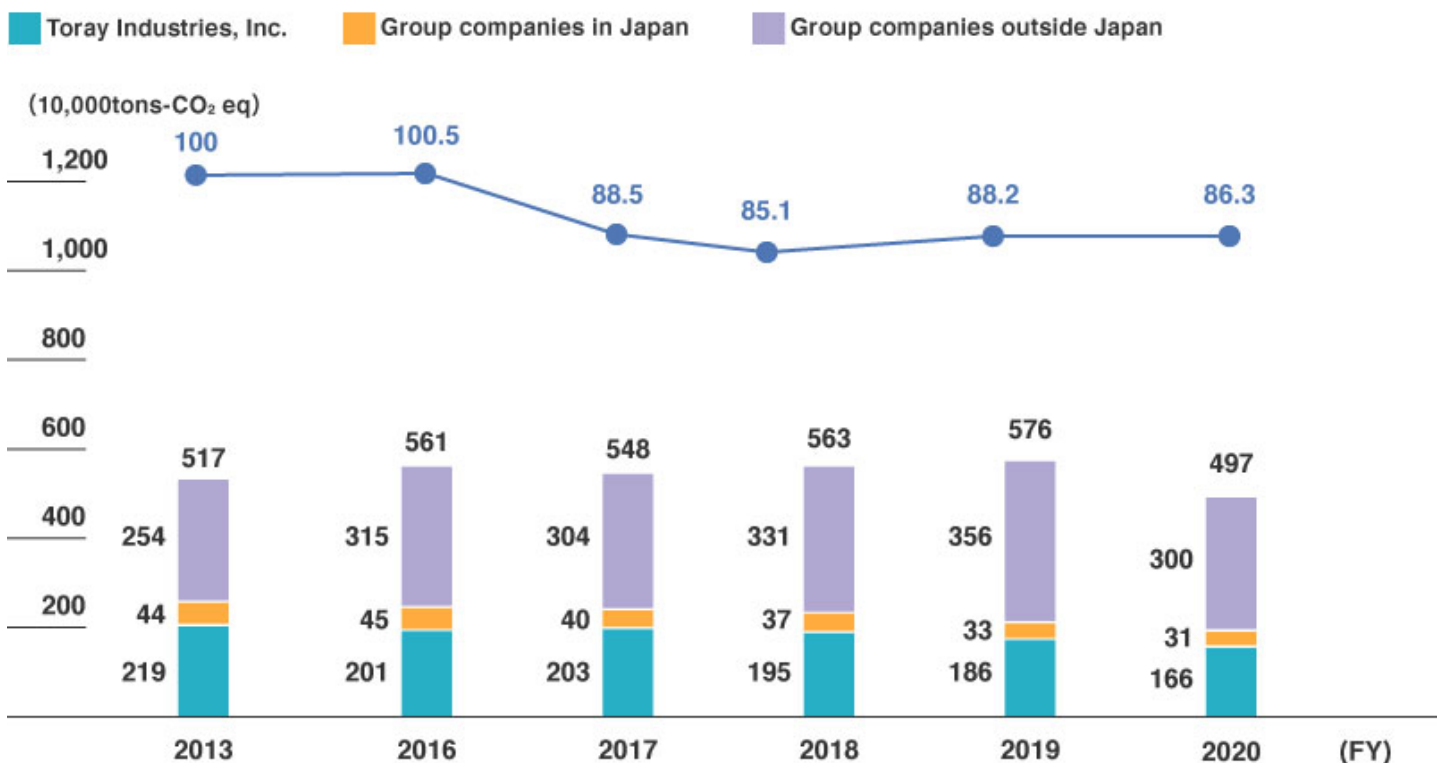
Result in fiscal 2020

**13.7%**

Fiscal 2020 greenhouse gas emissions for Toray Group worldwide were 4.97 million tons-CO<sub>2</sub> equivalent, a decrease of 13.7% compared to the previous year, attributable mainly to a decrease in production caused by the COVID-19 pandemic and to the Group's initiatives for reducing greenhouse gas emissions. Greenhouse gas emissions per unit of revenue were 13.7% below fiscal 2013, the baseline year established in the Group's Sustainability Vision and CSR Roadmap 2022.

Amid the expectation of increased production with business expansion in the future, all Toray Group manufacturing companies and plants will continue to work to achieve the Group's goal of reducing its per-unit energy consumption by 2% annually, and strive to reduce greenhouse gas emissions group-wide, looking to achieve the fiscal 2030 reduction target set out in the Sustainability Vision.

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



# Installing Renewable Energy Systems

Toray Group is systematically installing renewable energy systems. Toray Industries installed and started to operate solar power generation systems at Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd. in fiscal 2019, and Toray Plastics Precision (Zhongshan) Ltd. in fiscal 2020. In addition, the Tokai Plant of Toray Industries began co-combusting sludge fuel, which is carbon neutral, as boiler fuel from fiscal 2017.



A solar power generation system of Toray Plastics Precision (Zhongshan) Ltd. (China)

**Renewable energy generated in fiscal 2020**

**74,714 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 Engineering Co., Ltd.
- Toray Engineering Central Co., Ltd.
- Toray Engineering West Co., Ltd.
- Toray Construction 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.

# 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.

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)

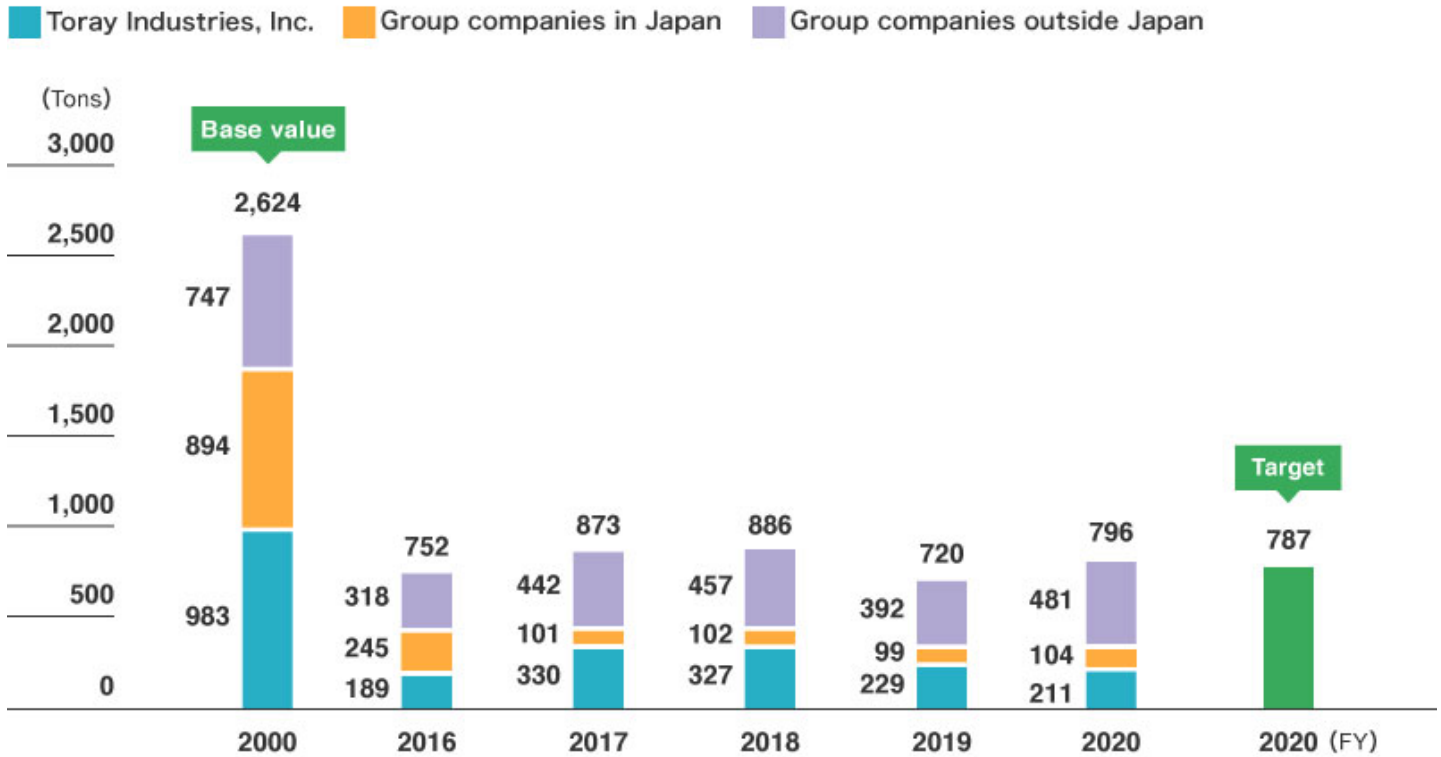
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In fiscal 2020, Toray Group's atmospheric emissions of PRTR Law-specified substances were 796 tons, which represented a 69.7% reduction compared to the base year of fiscal 2000, falling just short of the target of a 70% reduction compared with the base year under the Fifth Medium-Term Environmental Plan.

Going forward, The Group will set reduction targets focusing on chemicals with particularly high PRTR substance atmospheric emissions and change its policy on initiatives to ensure that it can make further reductions.



## 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 2020  
At least 70% lower than fiscal 2000

Result in fiscal 2020

**74%**

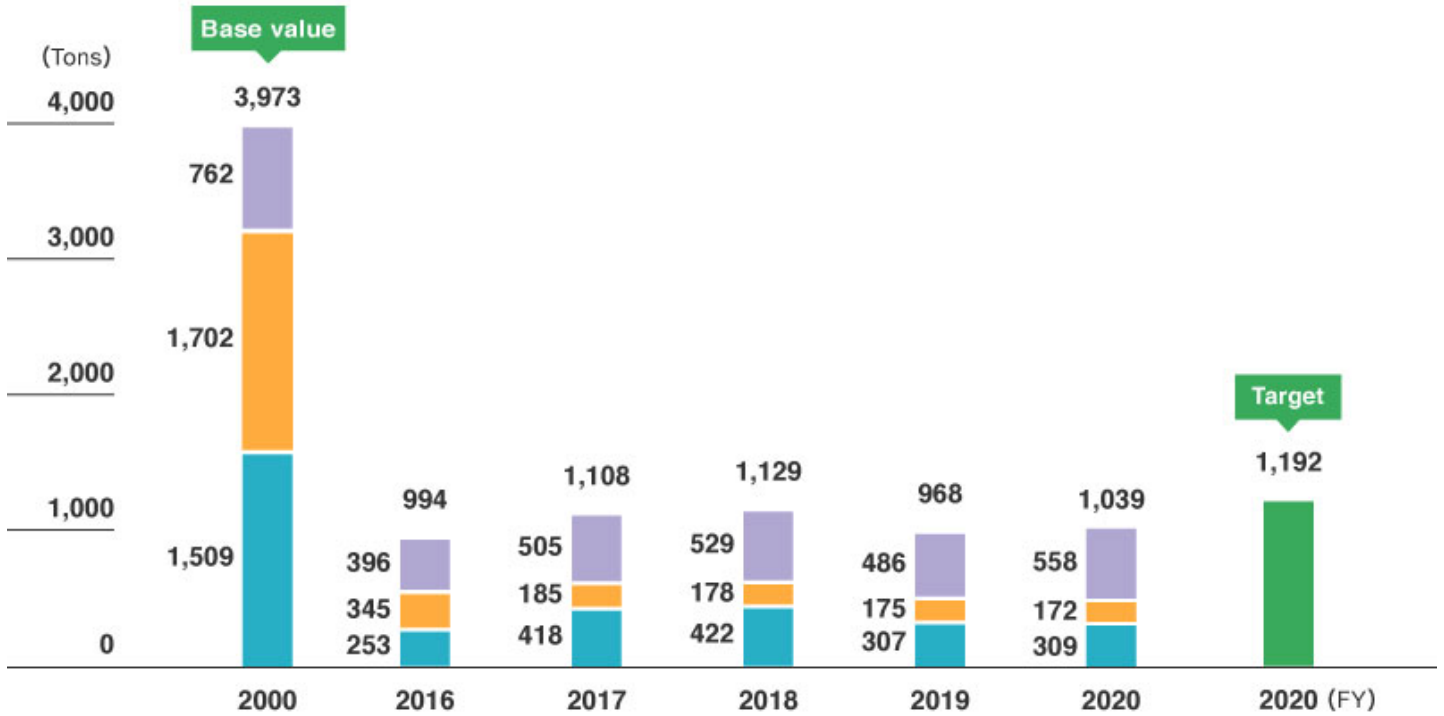
In fiscal 2020, Toray Group's atmospheric VOC emissions were 1,039 tons, up 7.3% (71 tons) compared to the previous fiscal year.

The emissions were 74% 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 increase of PRTR substance and VOC emissions was the leakage of PRTR substances into the atmosphere at Toray Battery Separator Film Korea Limited due to the aging of equipment. Currently, the company is working to improve the equipment to prevent a recurrence.

## Atmospheric VOC Emissions

■ Toray Industries, Inc. 
 ■ Group companies in Japan 
 ■ Group companies outside Japan



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

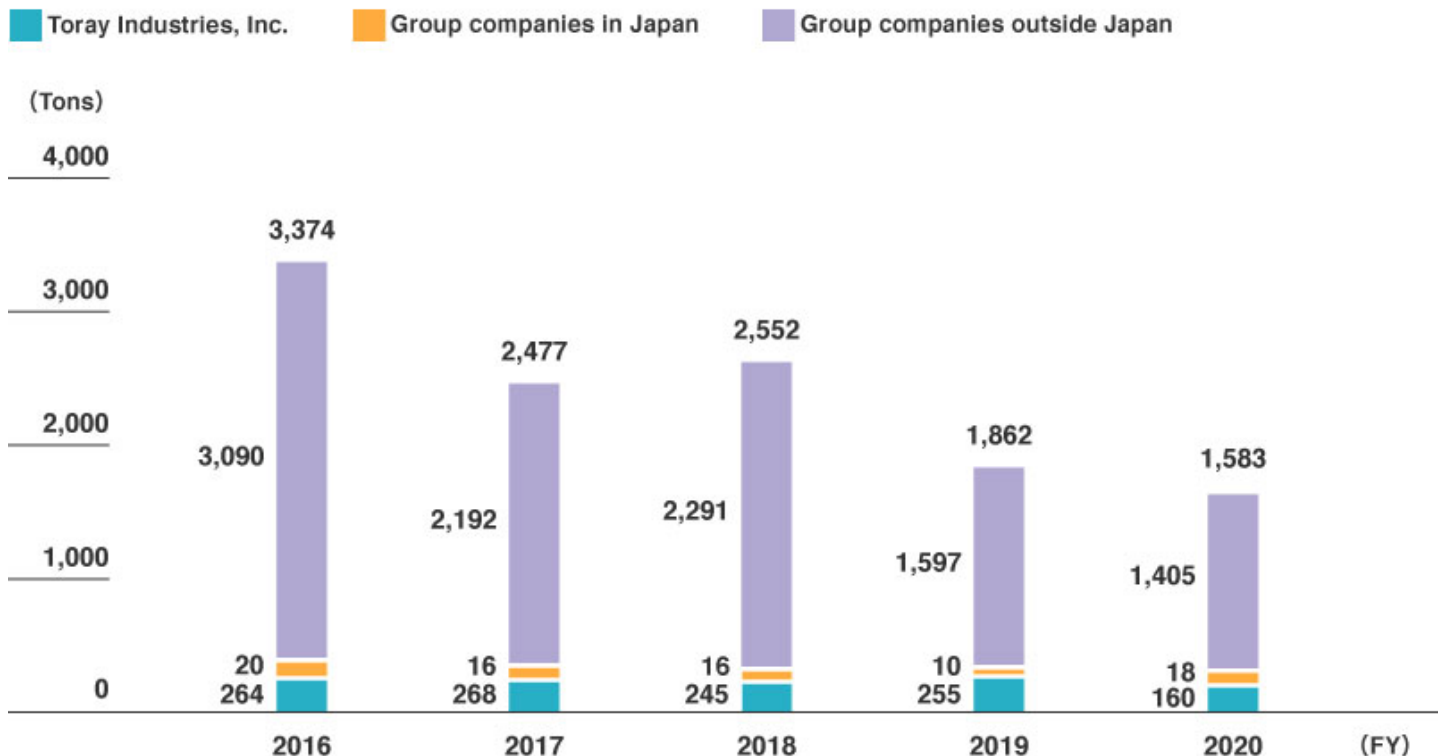
## Initiatives to Prevent Air and Water Pollution

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.

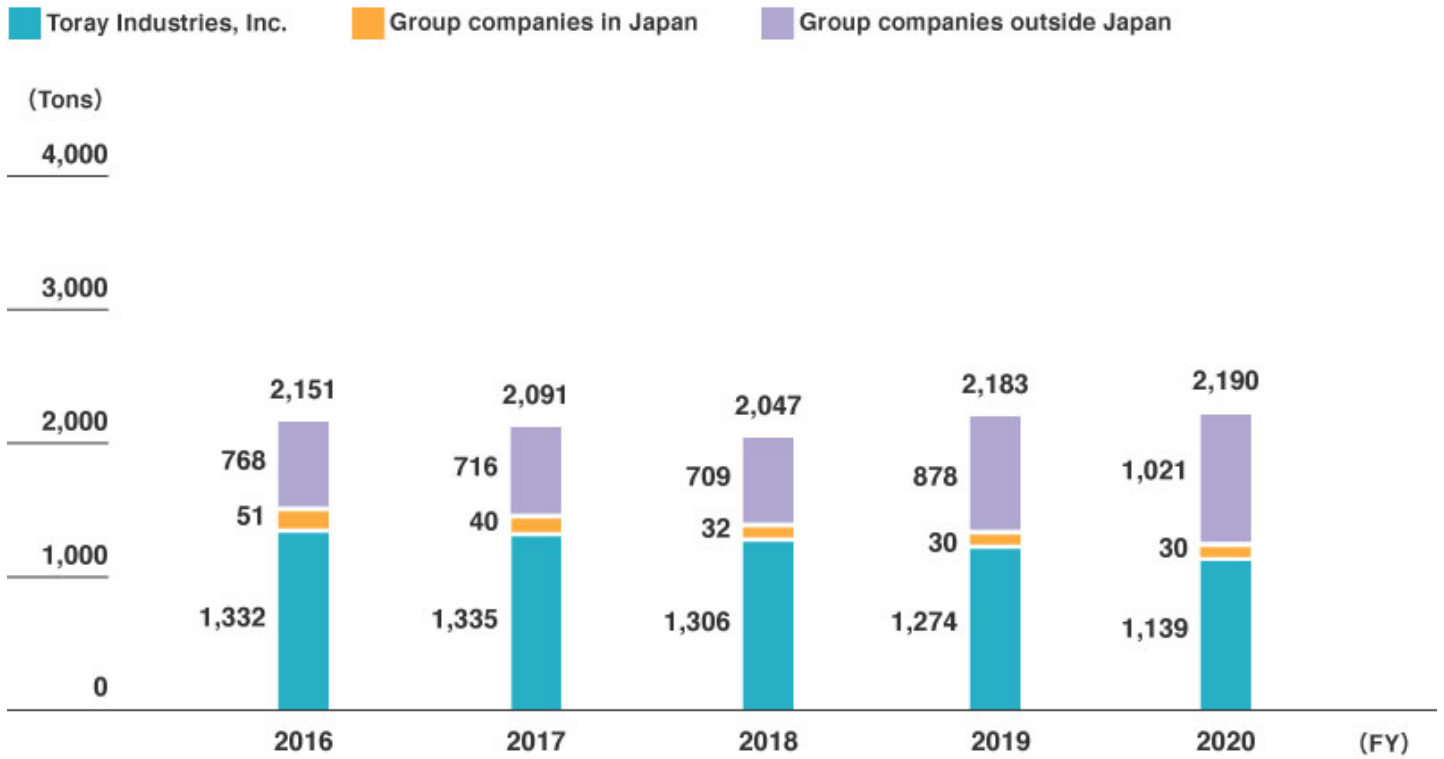
### Air Emission Management

In fiscal 2020, Toray Group recorded 1,583 tons of SOx emissions (down 15% year on year), 2,190 tons of nitrogen oxide (NOx) emissions (flat year on year), and 196 tons of dust emissions (down 45% year on year). The year-on-year reduction in SOx emissions was due to the use of low sulfur concentration coal by group companies outside of Japan, and that of dust was due to the stable operation of dust removal equipment.

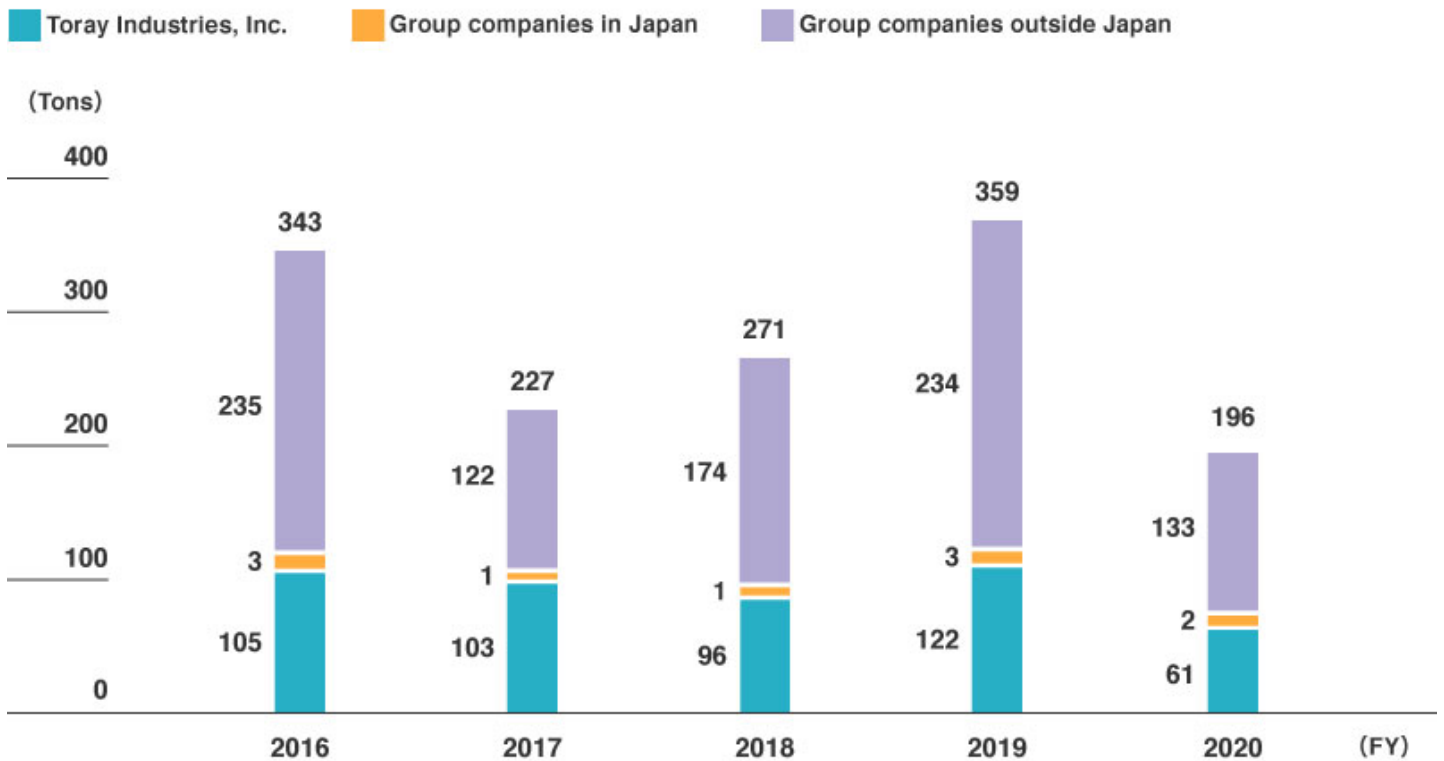
#### Atmospheric Emissions (SOx)



## Atmospheric Emissions (NOx)



## Atmospheric Emissions (Dust)

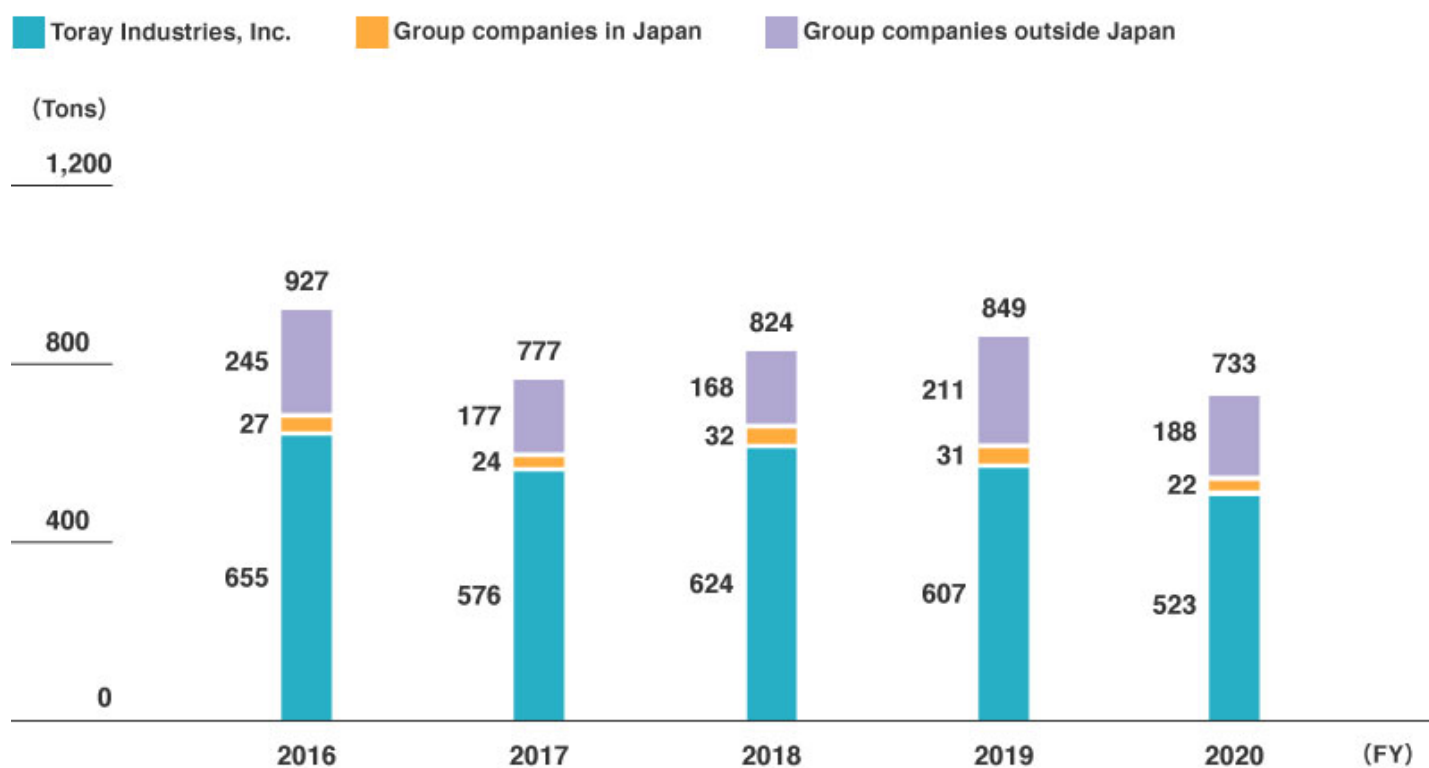


## Wastewater Quality Management

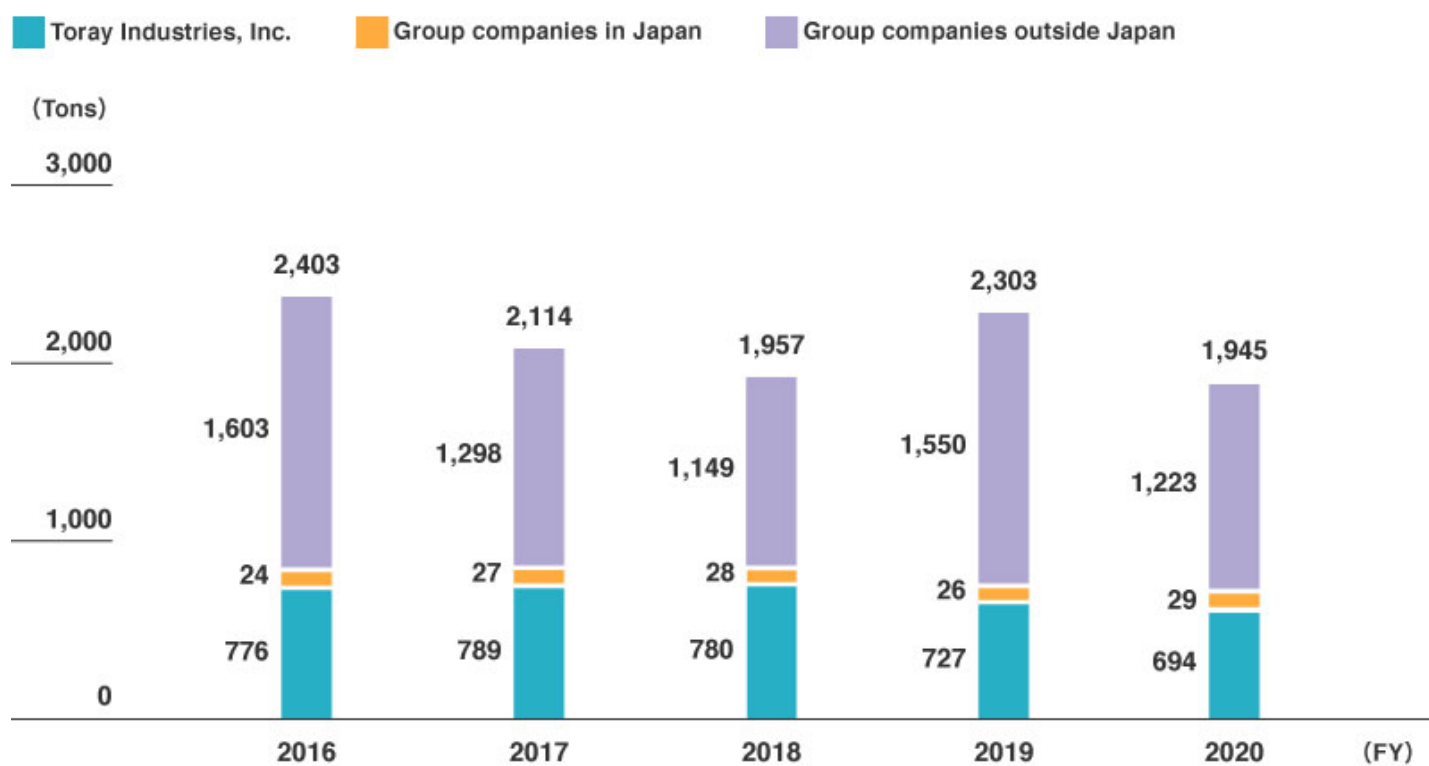
Toray Group monitors and complies with regulations concerning BODs, CODs, and nitrogen in countries and regions where it operates plants and implements water quality management for plant wastewater. Plants with high effluent loads are reducing effluents by installing wastewater treatment facilities (activated 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 2020, Toray Group recorded 733 tons of BOD emissions (down 14% year on year) and 1,945 tons of COD emissions (down 16% year on year). This year, the water quality of plant effluent improved with a decrease in the effluent load on activated sludge equipment due to a decrease in production volume.

### 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 2020 meeting was attended by 38 persons from Toray Industries' plants and 15 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.

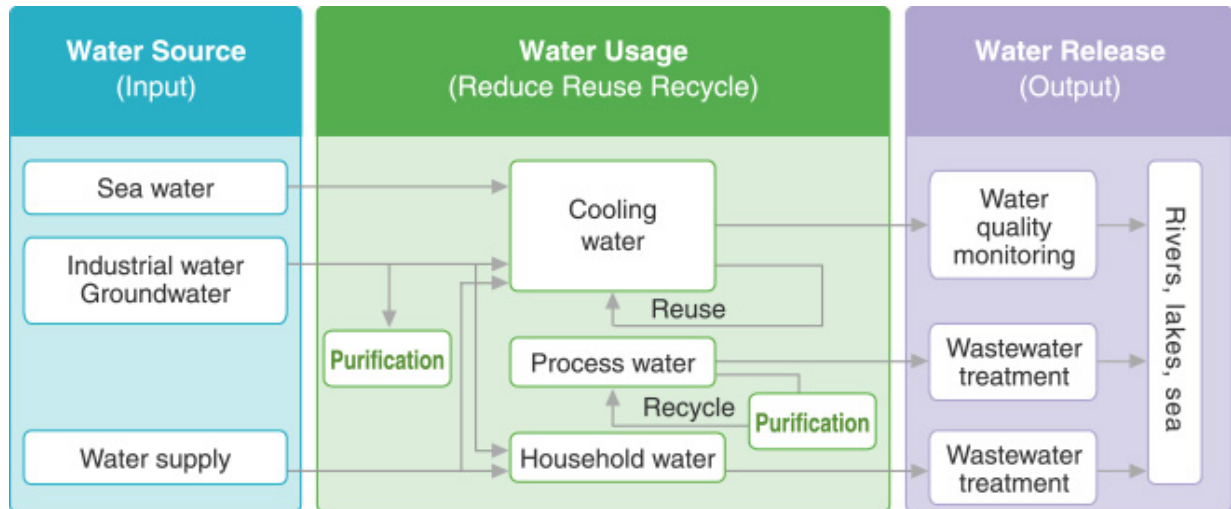
Toray Group has determined that approximately 1.3% of its entire water withdrawals at all sites, including plants and offices, comes from regions where water stress is assessed to be high or extremely high.

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 2020

**18%**

In fiscal 2020, Toray Group used 214 million tons of water, approximately 130,000 tons less 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 2020 was 82.4 points, up 5.3 points from the previous fiscal year. In fiscal 2020, Toray's water usage decreased due to factors such as decreased production, but usage on a per-unit basis increased due to the strong effect of a decrease in revenue.

### Related Information

> [Environmental Data \(Water Usage\)](#)



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

(FY)	2014	2015	2016	2017	2018	2019	2020
Comparative Water Usage Per Unit of Net Sales (Per Unit of Revenue)	90.1	84.9	90.0	82.5	77.9	77.1	82.4

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


<sup>1</sup> Simply disposed waste rate = (incineration + landfill) / total waste

<sup>2</sup> Landfill waste rate = landfill waste / total waste

<sup>3</sup> Recycling rate = (recycled resources + resources with monetary worth) / (total waste + resources with monetary worth)

In recent years, Europe in particular has embraced a business model aligned with the concept of a circular economy, which is a resource circulation policy aimed at reducing the procurement of natural resources and the production of waste. Adding to its previous initiatives, Toray Corporate Business Research, Inc. now publicizes its survey results regarding the circular economy as part of its economic trends survey.

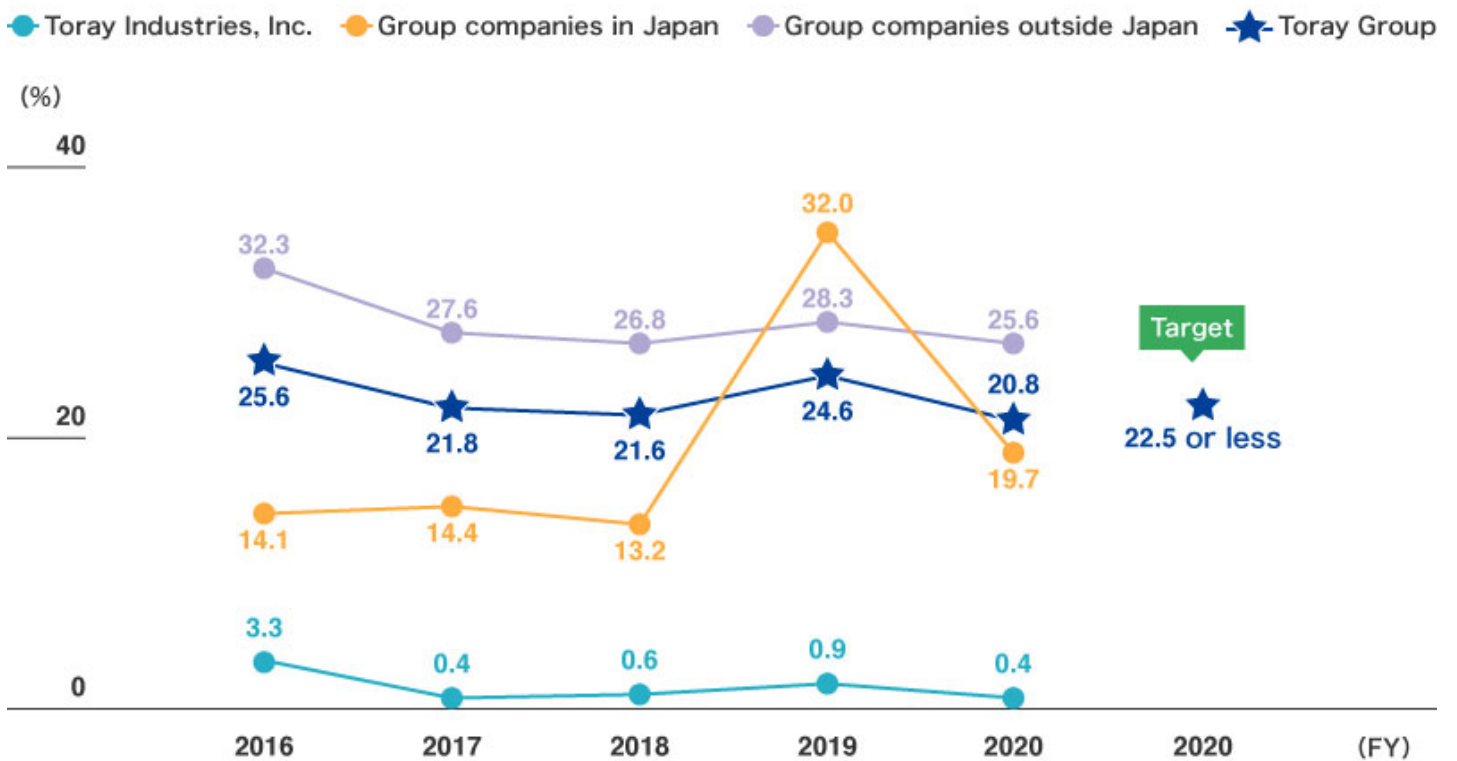
#### Related Information

- > [Toray Corporate Business Research, Inc.: Business Strategies in the Age of the Circular Economy \(Japanese site\)](#) 

## Simply Disposed Waste Rate

The simply disposed waste rate for Toray Group was 20.8%, down 3.8 percentage points year on year. The result was that the Group met its target under the Fifth Medium-Term Environmental Plan of 22.5% or less. In fiscal 2020, the Group was able to return to the level before fiscal 2018 because the waste disposal associated with the merger of plants by group companies in Japan that occurred in fiscal 2019 was duly completed. Going forward, the Group will keep striving to reduce the simply dispose waste rate.

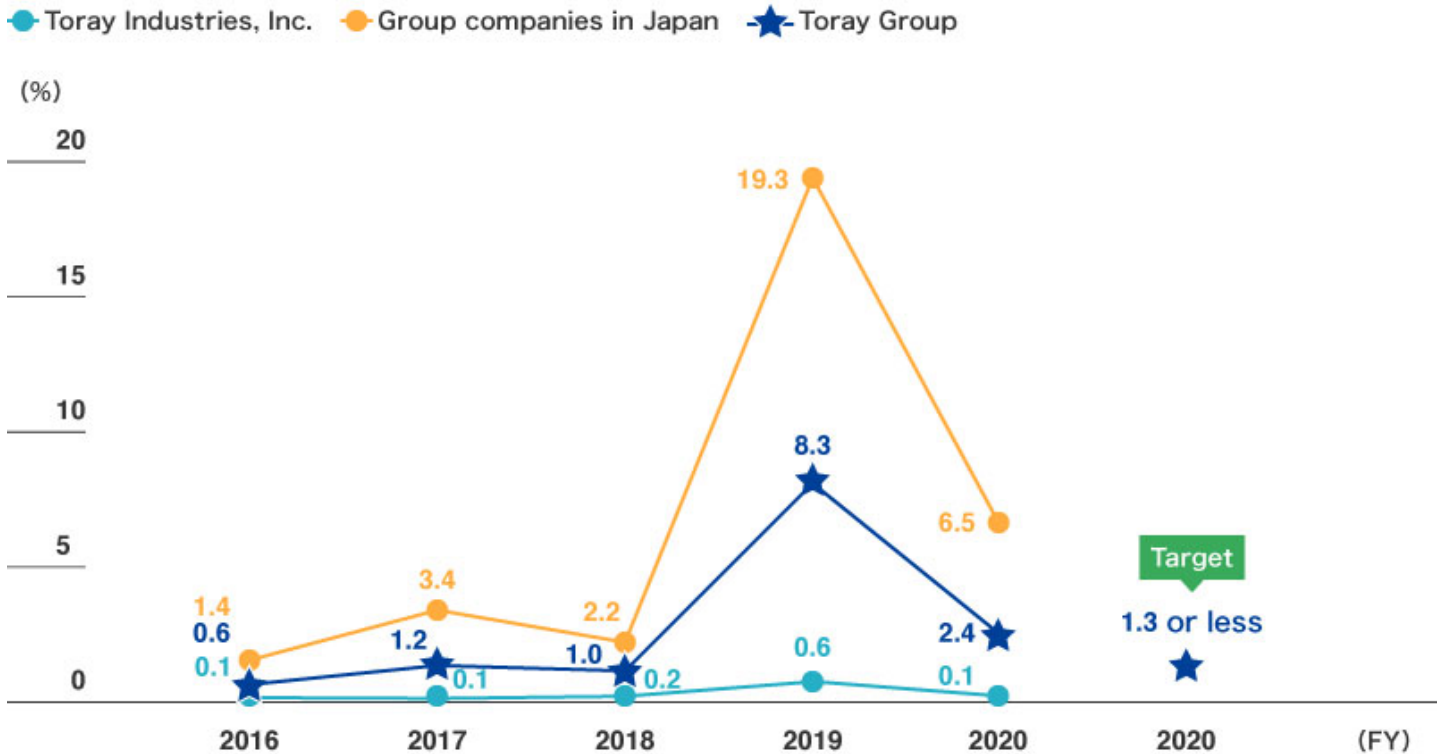
## Simply Disposed Waste Rate (Toray Group)



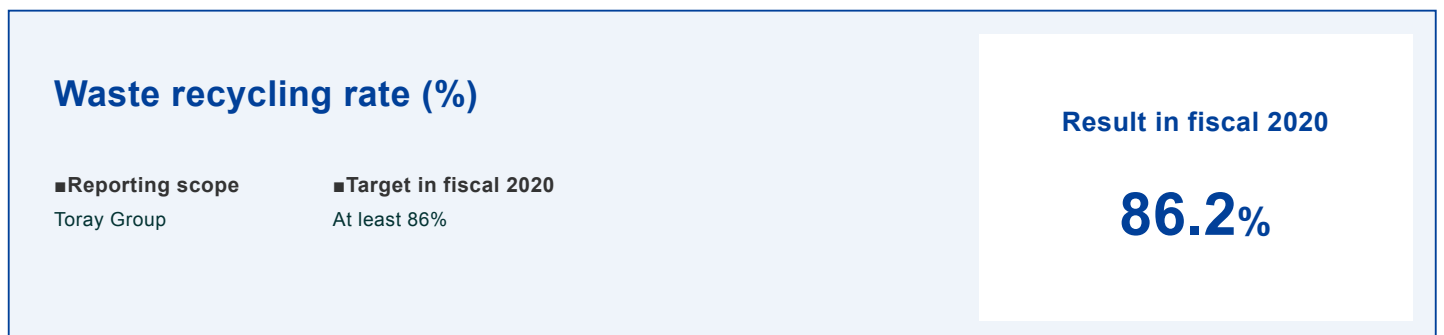
## Landfill Waste Rate

The landfill waste rate for Toray Group was 2.4%, down 5.9 percentage points year on year, but falling short of the target 1.3% or less. The target was not achieved because, in fiscal 2020, there was a temporary generation of waste that could not be treated as industrial waste at group companies in Japan. The landfill waste rate is expected to decrease in fiscal 2021 and beyond.

### Landfill Waste Rate (Toray Industries, Inc. and Its Group Companies in Japan)

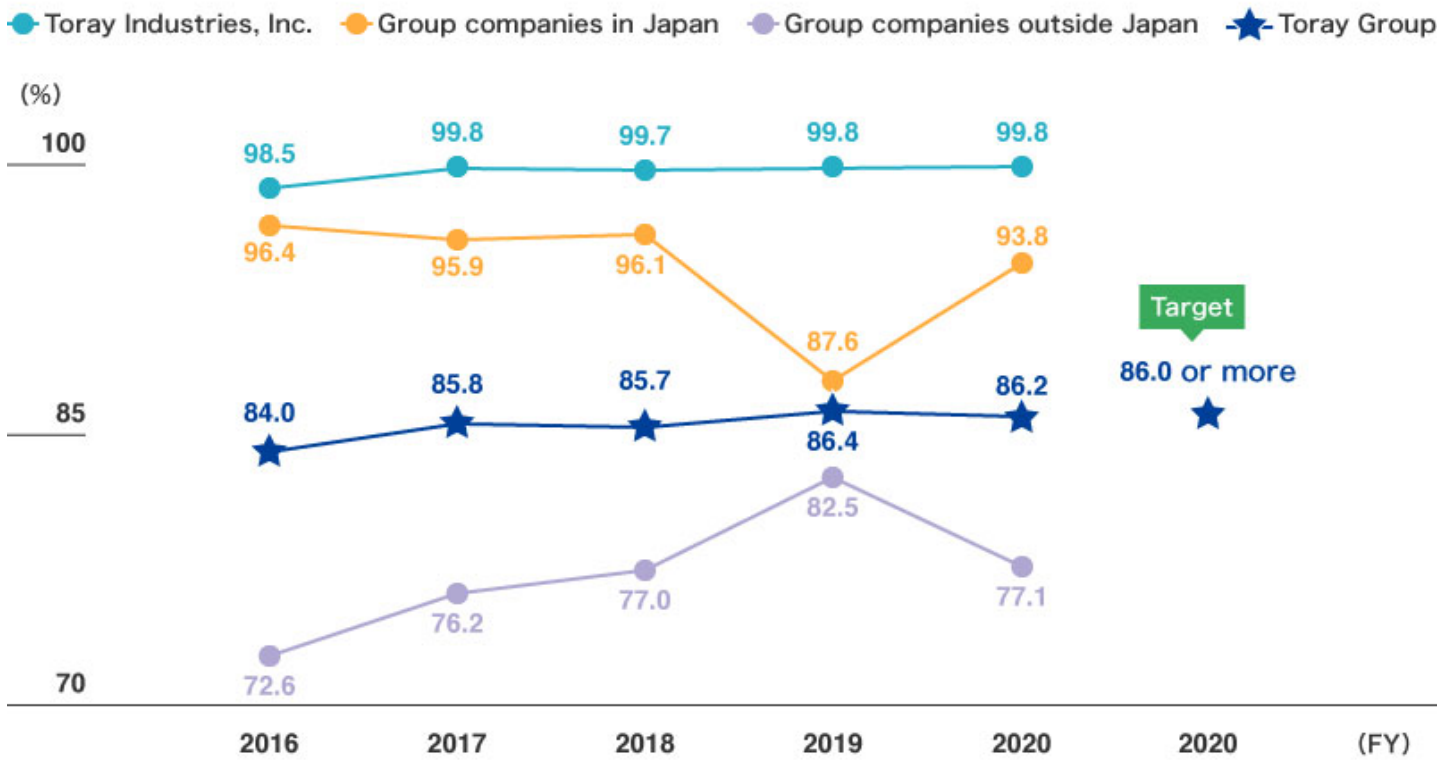


## Recycling Rate



The recycling rate for the Toray Group was 86.2%, down by 0.2 percentage points year on year, but achieving the target 86% or higher. The rate increased at group companies in Japan with the completion during the previous fiscal year of all the simply disposed waste associated with the closing of plants in the previous year as well as a decrease in the absolute amount of simply disposed waste in fiscal 2020. At group companies outside Japan, the recycling rate was at the same level as fiscal 2018, as the amount of valuables decreased compared to the previous fiscal year.

## Recycling Rate (Toray Group)



## Zero Emissions Initiatives at Companies and Plants

CSR Roadmap 2022  
Main Initiatives (9)

Toray Group considers a plant to have achieved zero emissions when the amount of simply disposed waste accounts for 1% or less of the total waste it generates. Under the Fifth Medium-Term Environmental Plan, the Group worked on its fiscal 2020 target of achieving zero emissions at 45 or more plants. In fiscal 2020, the number of plants with zero emissions totaled 48, at 28 companies, achieving the target.

## Companies and Plants Achieved Zero Emissions Target in Fiscal 2020

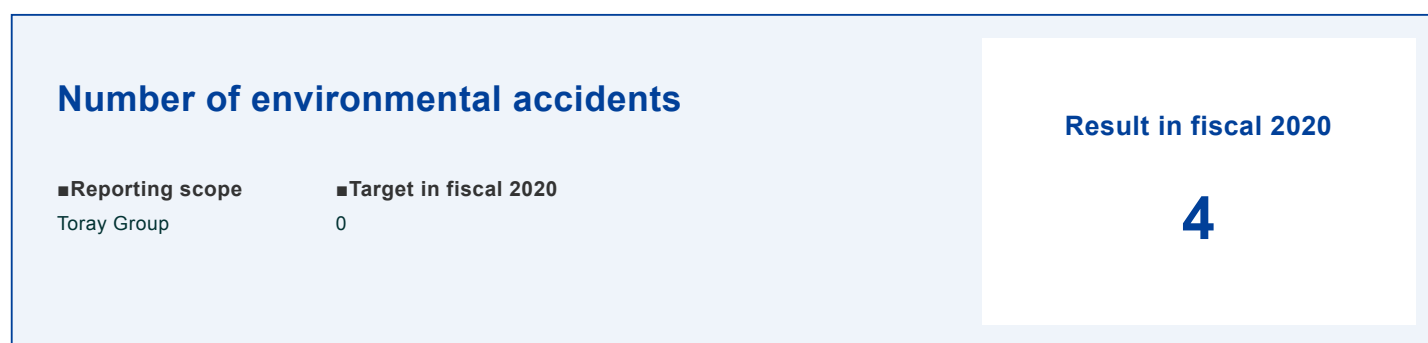
<p>Toray Industries, Inc. 13 plants at 1 company</p>	<p>Shiga Plant, Seta Plant, Ehime Plant, Nagoya Plant, Tokai Plant, Aichi Plant, Okazaki Plant, Mishima Plant, Chiba Plant, Tsuchiura Plant, Gifu Plant, Ishikawa Plant, Nasu Plant</p>
<p>Group companies in Japan 24 plants at 17 companies</p>	<p>Toray Coatex Co., Ltd., Maruichi Fiber Co., Ltd., Toray Monofilament Co., Ltd., Toray Hybrid Cord, Inc., Toray Engineering Co., Ltd. [Shiga, Numazu], Toray Precision Co., Ltd., Du Pont-Toray Co., Ltd. [Tokai], Dow Toray Co., Ltd. [Fukui], DuPont Toray Specialty Materials Kabushiki Kaisha, Soda Aromatic Co., Ltd. [Koriyama], Toray Opelontex Co., Ltd., Toray Plastics Precision Co., Ltd. [Okazaki, Mishima, Koriyama], Suido Kiko Kaisha, Ltd., Toray Fine Chemicals Co., Ltd. [Moriyama, Tokai, Matsuyama], Toray Advanced Film Co., Ltd. [Takatsuki, Nakatsugawa, Fukushima], Toray Medical Co., Ltd., Toray KP Films Inc</p>
<p>Group companies outside Japan 11 plants at 10 companies</p>	<p>P.T.Easterntex, P.T.Toray Polytech Jakarta, Penfabric Sdn. Berhad [M2] , Toray Polytech (Foshan) Co., Ltd., Toray WBD Membrane Technology (JS) Co., Ltd., Toray Advanced Film Kaohsiung Co., Ltd., Toray Advanced Materials Korea Inc. [M5、Anseong] , Toray BSF Coating Korea Limited, Toray Kusumgar Advanced Textile Private Limited</p>

Note: Information in brackets refers to the names of the plants.

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



## Compliance with Environmental Laws and Accidents in Fiscal 2020

CSR Roadmap 2022  
Main Initiatives (5)

In fiscal 2020, four environmental accidents occurred within Toray Group, two of which were minor. These were all accidents in which leaked chemical solutions flowed outside of plant premises. 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 valve setting errors when changing piping lines, aging of drainage channels, equipment operation errors, and electrical equipment setting problems. To prevent recurrences, the Group will thoroughly implement measures against aging facilities, conduct employee education, and take other measures to prevent abnormal drainage off plant premises. The Group received seven 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 2020 (Toray Group)

Administrative disposition due to violations of laws or ordinances <sup>1</sup>	0
Accidents (environmental accidents, etc.)	2
Slight but temporary exceeding of standard values <sup>2</sup>	2
Complaints/requests (noise, odor, etc.)	7

<sup>1</sup> Includes improvement orders and fines. Improvement guidance and recommendations are included in accident figures.

<sup>2</sup> No improvement guidance or recommendations were received from local governments, as there was no harm to the environment.

## Preventing Soil and Groundwater Pollution

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 2020, 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 2020 Environmental Accounting Report (Toray Industries)

Toray Industries, Inc. has been practicing environmental accounting since 1999, to track investments and gauge their cost effectiveness.

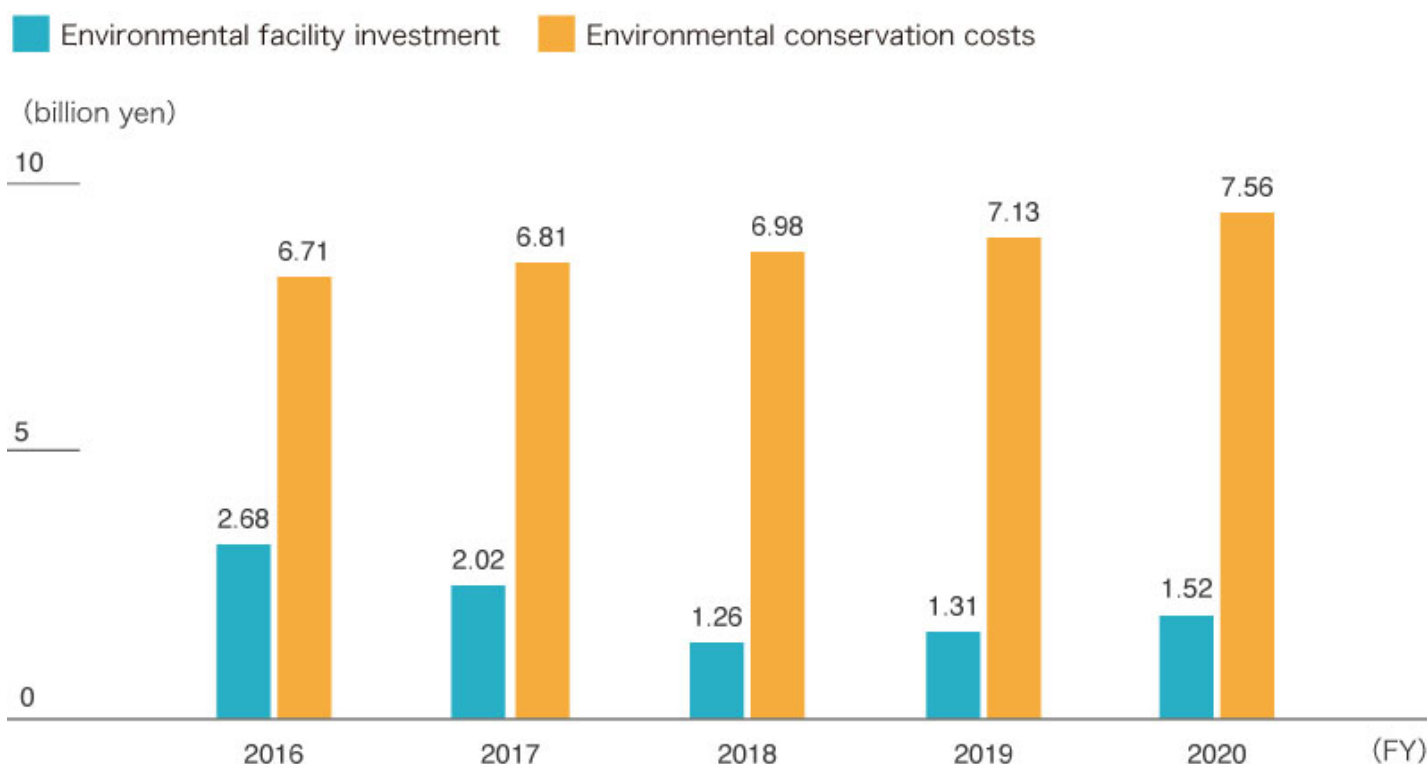
In fiscal 2020, the Company's environment-related investment amounted to 1.52 billion yen, up 0.21 billion yen compared to the previous year. Cost totaled 7.56 billion yen, up 0.43 billion yen compared to the previous year.

#### Fiscal 2020 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)	754	2,329
		Water quality	477	2,155
		Noise and vibration	2	13
		Greening	0	312
		Odors and other	190	165
	Global environment conservation costs	Energy conservation and combating global warming	70	76
	Resource recycling costs	Industrial waste reduction, recycling, disposal, and PCB waste disposal services	0	1,750
Upstream and downstream costs		Product recycling	28	52
		Container and package recycling	0	1
Management activity costs		Indirect labor costs, ISO certification and maintenance, environmental communications, and education	0	423
Social initiative costs		Regional initiatives, support for organizations, etc.	0	103
Environmental remediation costs		SOx fines, soil purification, etc.	0	180
Total			1,521	7,559

Effectiveness		
Item		Amount (million yen)
Financial effects	Reduction in energy costs	76
	Reduction in industrial waste disposal costs	39
	Sale of valuable recycled resources with monetary value	482
Quantitative environmental effects	Reduction of greenhouse gas emissions	2,200 tons-CO <sub>2</sub> eq

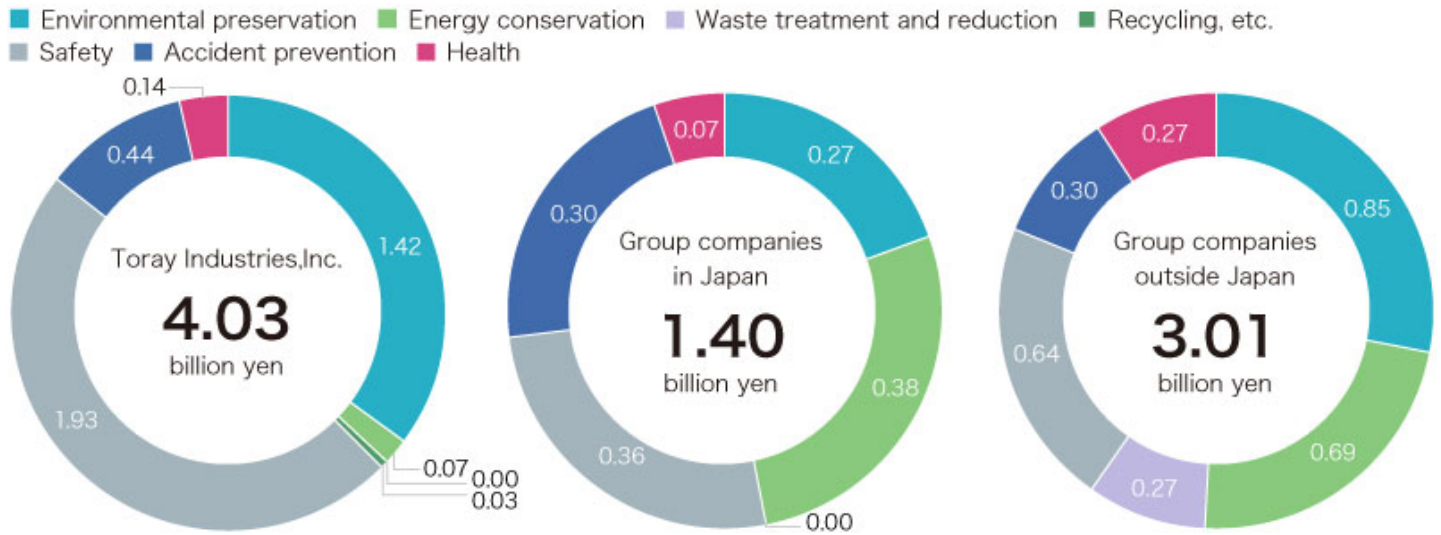
### Environmental Facility Investment and Environmental Conservation Costs (Toray Industries, Inc.)



### 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 2020 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

Biodiversity is being destroyed at a dangerously fast pace with the advance of climate change, the depletion of natural resources, the destruction of ecosystems, and the extinction of species. This is one of the most urgent problems facing the world.

Toray Group views conservation of biodiversity as a critical global environmental issue that is of equal importance to reducing greenhouse gas emissions. The Group conducts risk assessments during the facilities design phase as well as the product safety review phase of all products. This encompasses the use of environmental assessment checklists to assess impacts on biodiversity, as part of the Group's commitment to help build a sustainable world.

### Working Group Considers Initiatives for Biodiversity

CSR Roadmap 2022  
Main Initiatives (10)

Toray Group develops biodiversity initiatives, which are prioritized and implemented under the guidance of the Toray Group Biodiversity Basic Policy. In fiscal 2020, 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.

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

■Reporting scope  
Toray Industries, Inc.

■Target in fiscal 2020  
Usage survey of certified products : 100%

Result in fiscal 2020

**93%**

As one of its biodiversity conservation initiatives, Toray Group conducted a survey of products to determine the usage of bio-based raw materials in product manufacturing. The Group developed rules for checking the biodiversity impacts of products in fiscal 2015, and has applied the rules to all products.

Among them, palm oil in particular has attracted a high level of attention for its environmental impact risk. Accordingly, the Group regards it as a key raw material for follow-up action. It will conduct an investigation into certified products and push 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 made with palm oil used certified products. Although some suppliers did not respond, a survey of 93% of suppliers was completed.

Going forward, Toray Group will continue its investigation with suppliers that have not responded, determine the feasibility of switching to certified products for each raw material, and push to make the switchover.

## Social Initiatives

Toray Group carries out biodiversity conservation through social contribution activities as a good corporate citizen. See the following page for information on the creation of biotopes at a Group plant and the participation of employees in cleanup volunteering.

### Related Information

> [Activities Carried Out in Fiscal 2020](#)

## Increasing Green Areas

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.<sup>1</sup> The plans encompass initiatives to conserve green areas, including natural forests<sup>2</sup> 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 m<sup>2</sup> 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 m<sup>2</sup> at 12 plants, including Mishima Plant and the Basic Research Laboratories (now the Basic Research Center) through the shrine forest method.<sup>3</sup>

<sup>1</sup> Toray Group Basic Policy on Increasing Green Areas was established in 2012, evolving out of greenery policies that were first established in 1973.

<sup>2</sup> Natural groves or forestation by species based on potential native vegetation

<sup>3</sup> 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 seedlings 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)

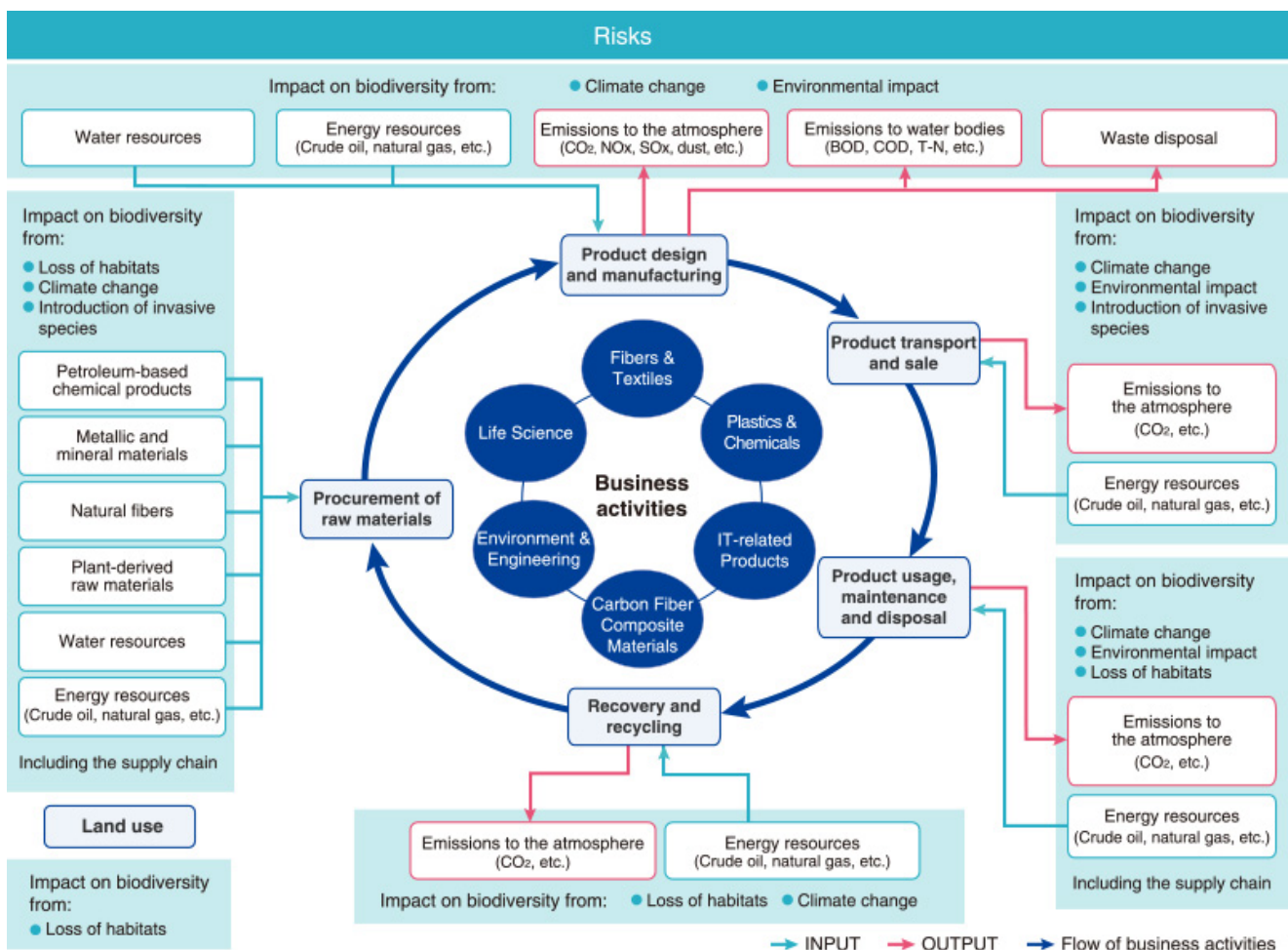
**Toray Group's Basic Policy for Increasing Green Areas** Established June 2012

- 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.

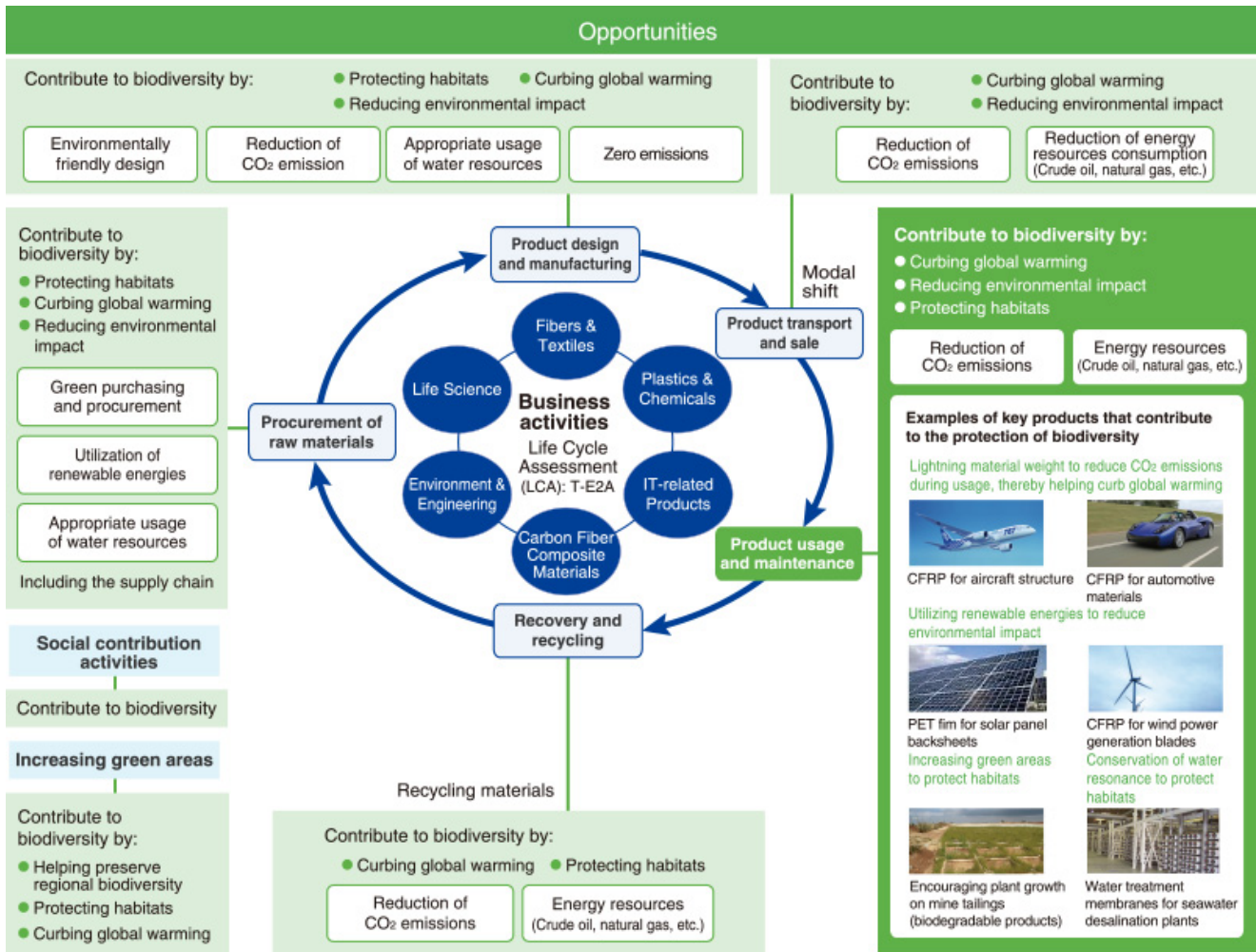
## Toray Group's Approach to the Relationship between Corporate Activities and Biodiversity

Starting from the procurement of raw materials, the entire lifecycle of Toray Group's business activities has a wide range of effects on biodiversity. On the risk side, these effects include the use of water resources and energy resources and emissions into the atmosphere and water, while on the opportunity side, these effects include reductions to CO<sub>2</sub> emissions by offering products that reduce the weight of parts for aircraft and other equipment and 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<sup>®</sup> published by the Japan Business Initiative for Biodiversity.



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 2020

	Toray Industries, Inc.					Group companies in Japan					Group companies outside Japan				
	FY2017	FY2018	FY2019	FY2020	Compared to previous year (%)	FY2017	FY2018	FY2019	FY2020	Compared to previous year (%)	FY2017	FY2018	FY2019	FY2020	Compared to previous year (%)
<b>INPUT</b>															
Energy (1,000,000 gigajoules)	30.0	28.8	27.8	25.3	90.9	6.5	6.2	5.8	5.3	91.4	50.8	54.1	61.4	51.0	83.1
Derived from non-renewable energy sources	29.0	27.6	26.5	24.1	90.9	6.5	6.2	5.8	5.3	91.4	50.8	54.0	61.3	50.8	82.8
Derived from renewable energy sources	1.0	1.2	1.3	1.2	90.4	0.0	0.0	0.0	0.0	100.9	0.0	0.1	0.1	0.2	329.1
Water usage (1,000,000 tons)	174.5	175.9	171.7	165.7	96.5	13.3	13.3	13.4	11.5	85.8	42.0	40.9	41.9	37.5	89.5
Industrial water	139.0	139.1	132.1	129.9	98.3	4.3	4.5	4.0	3.5	86.3	17.6	16.1	18.3	16.5	90.2
Public water	0.2	0.2	0.2	0.2	92.0	0.3	0.3	0.2	0.3	129.2	11.0	11.1	10.3	10.3	100.0
Seawater	5.1	6.0	7.7	6.2	81.0	1.1	1.2	1.4	1.3	92.8	7.0	7.3	6.1	4.0	64.8
Groundwater	24.8	24.6	25.5	23.4	91.7	7.5	7.2	7.6	6.3	83.1	0.4	0.6	0.0	2.0	-
Others	5.4	6.0	6.2	6.0	96.9	0.1	0.1	0.2	0.1	68.2	6.0	5.8	7.2	4.8	67.1
<b>OUTPUT</b>															
<b>GHG (10,000 tons CO<sub>2</sub>eq)<sup>1, 2</sup></b>															
6 gases including CO <sub>2</sub>	203.2	195.3	186.0	165.7	89.1	40.0	37.4	33.3	30.7	92.2	304.1	330.8	356.3	300.4	84.3
SCOPE-1 <sup>3</sup>	165.0	161.7	156.0	140.2	89.9	5.6	5.2	4.6	4.1	89.1	150.0	173.0	166.8	137.3	82.3
CO <sub>2</sub>	155.6	152.6	146.9	132.6	90.3	5.5	5.1	4.6	4.1	89.1	150.0	173.0	166.8	137.3	82.3
CH <sub>4</sub>	0.3	0.4	0.4	0.3	83.8	0.0	0.0	0.0	0.0	103.4	-	-	-	-	-
N <sub>2</sub> O	9.0	8.6	8.7	7.3	83.7	0.0	0.0	0.0	0.0	109.7	-	-	-	-	-
Other gases (HFCs, PFCs, SF <sub>6</sub> )	0.1	0.2	0.0	0.0	84.5	0.0	0.0	0.0	0.0	428.1	-	-	-	-	-
SCOPE-2	38.3	33.6	30.1	25.5	84.7	34.4	32.2	28.7	26.6	92.7	154.1	157.8	189.5	163.1	86.1

	Toray Industries, Inc.					Group companies in Japan					Group companies outside Japan				
	FY2017	FY2018	FY2019	FY2020	Compared to previous year (%)	FY2017	FY2018	FY2019	FY2020	Compared to previous year (%)	FY2017	FY2018	FY2019	FY2020	Compared to previous year (%)
<b>PRTR Law-specified substances (tons)</b>															
Atmospheric emissions	330	327	229	211	92.2	101	102	99	104	105.1	442	457	392	481	122.6
Water emissions	27	28	24	22	92.5	0	0	0	3	-	0	0	0	1	-
Waste transfers	1,023	746	1,054	577	54.8	1,554	1,334	1,674	2,469	147.5	7,628	2,799	2,140	4,277	199.9
<b>Air pollutants (tons)</b>															
SOx	268	245	255	160	62.8	16	16	10	18	179.1	2,192	2,291	1,597	1,405	88.0
NOx	1,335	1,306	1,274	1,139	89.4	40	32	30	30	98.8	716	709	878	1,021	116.3
Dust	103	96	122	61	49.9	1	1	3	2	50.1	122	174	234	133	57.0
VOC	418	422	307	309	100.7	185	178	175	172	98.4	505	529	486	558	114.8
<b>Industrial wastewater (million tons)</b>															
	164	167	160	150	93.8	10	10	9	8	88.9	24	23	26	24	92.3
<b>Total water consumed (million tons)</b>															
<b>Note: Calculated by subtracting industrial wastewater from water withdrawn</b>															
	10	9	11	15	136.4	3	3	5	2	40.0	17	19	15	14	93.3
<b>Water pollutants (tons)</b>															
BOD	576	624	607	523	86.2	24	32	31	22	69.6	177	168	211	188	89.3
COD	789	780	727	694	95.5	27	28	26	29	110.8	1,298	1,149	1,550	1,223	78.9
Nitrogen	415	394	341	340	99.8	14	14	14	9	61.7	-	-	-	-	-
Phosphorus	25	31	25	19	74.7	1	2	1	1	56.6	-	-	-	-	-
<b>Waste (1,000 tons)</b>															
Recycled	32.4	30.6	30.0	27.0	90.0	14.7	15.9	15.1	12.3	81.5	101.7	112.8	108.9	84.3	77.4
Incinerated and other	0.1	0.1	0.1	0.1	100.0	1.9	2.0	2.8	2.0	71.4	16.6	20.5	20.2	11.5	56.9
Direct landfill Diposal	0.0	0.1	0.1	0.0	-	0.6	0.4	4.3	1.0	23.3	24.1	24.1	22.7	17.7	78.0
<b>Coal ash (1,000 tons)</b>															
Recycled	57.8	68.7	68.1	66.6	97.8	-	-	-	-	-	19.1	22.6	16.8	12.3	73.2
Direct landfill Diposal	1.9	3.2	3.2	1.3	41.0	-	-	-	-	-	0.2	0.2	0.3	0.3	100.0
<b>Hazardous waste (1,000 tons)<sup>4</sup></b>															
Hazardous waste	-	-	-	2.1	-	-	-	-	2.8	-	-	-	-	-	-
Non-hazardous waste	-	-	-	25.0	-	-	-	-	12.5	-	-	-	-	=	-

1 Toray greenhouse gas emissions have obtained a third-party guarantee from Lloyd's Register Quality Assurance Limited (LRQA).

2 CO<sub>2</sub>-equivalent emissions are calculated from the conversion factor for each gas.

3 CO<sub>2</sub> 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.

## Index of Environmental Impact Per Unit of Sales<sup>5</sup>

	Toray Industries, Inc.					Group companies in Japan					Group companies outside Japan				
	FY2017	FY2018	FY2019	FY2020	Year-on-year comparison (points)	FY2017	FY2018	FY2019	FY2020	Year-on-year comparison (points)	FY2017	FY2018	FY2019	FY2020	Year-on-year comparison (points)
GHG emissions	62.2	57.1	55.4	59.8	4.4	58.7	57.8	62.1	74.2	12.1	67.8	64.7	67.1	58.4	-8.7
PRTR atmospheric emissions	27.2	26.0	20.5	41.0	20.5	31.1	29.1	24.9	11.0	-13.9	29.7	28.1	23.2	34.1	10.9
SOx emissions	4.5	3.9	4.1	3.2	-0.9	10.5	9.9	6.9	38.5	31.6	12.6	12.1	9.0	6.8	-2.2
Water usage volume	70.4	68.6	70.5	84.3	13.8	41.1	36.8	37.6	66.4	28.8	54.0	51.0	51.9	37.6	-14.3
BOD emissions	34.8	36.6	36.7	40.8	4.1	13.3	11.3	14.3	22.0	7.7	25.1	24.9	26.1	14.2	-11.9
Landfilled waste volume	11.2	8.3	79.3	0.9	-78.4	47.7	37.3	40.6	31.5	-9.1	73.6	59.3	76.3	35.3	-41.0

<sup>5</sup> 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	86 plants at 64 companies
PRTR Law-specified substances	All 13 plants and 1 research laboratory	48 plants at 26 companies	86 plants at 64 companies
Sox, Nox, dust	All 13 plants and 1 research laboratory	41 plants at 24 companies	86 plants at 64 companies
BOD	All 13 plants and 1 research laboratory	41 plants at 24 companies	86 plants at 64 companies
COD <sup>6</sup>	All 13 plants and 1 research laboratory	41 plants at 24 companies	86 plants at 64 companies
Nitrogen and phosphorus	All 13 plants and 1 research laboratory	41 plants at 24 companies	-
Waste	All 13 plants and 1 research laboratory	48 plants at 26 companies	86 plants at 64 companies

<sup>6</sup> COD figures for Toray, group companies in Japan and Korea are given in COD<sub>mn</sub> (using the potassium permanganate method). Other group companies outside Japan are given in COD<sub>cr</sub> (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<sup>1</sup> Emissions and Transfer Data for Fiscal 2020

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

Substance name	Toray Industries, Inc. Tons (dioxins: mg-TEQ)			
	Atmospheric emissions	Water emissions	Soil emissions / company landfill	Waste transfers
Methyl acrylate	0.3	0.3	0	0
Acrylonitrile	7.8	1.5	0	273.8
Acetaldehyde	2.5	0	0	0
Antimony and its compounds	0	0	0	0.4
Asbestos	0	0	0	0
Ethylbenzene	2.5	0	0	0
ε-Caprolactam	0.2	10.8	0	9.9
Xylene	6.8	0	0	0
Chlorobenzene	0.1	0	0	2.9
Chloroform	3.1	0	0	39.6
Cobalt and its compounds	0	0.9	0	1.5
4,4'-diaminodiphenyl ether	0	0	0	0.2
Inorganic cyanide	18.8	0	0	0
1,4-Dioxane	0	2.7	0	0
Diuron	0	0	0	0.3
Dichlorobenzene	9.1	0	0	1.2
Dichloromethane	96.5	0	0	0.1
N, N-dimethylacetamide	0.1	0	0	5.9
N, N-dimethylformamide	6.1	0.3	0	104.9
Styrene	7.3	0	0	1.2
Terephthalic acid	0	0	0	10.2
Dimethyl terephthalate	0	0	0	3.1

Toray Industries, Inc. Tons (dioxins: mg-TEQ)	Toray Industries, Inc. Tons (dioxins: mg-TEQ)			
Substance name	Atmospheric emissions	Water emissions	Soil emissions / company landfill	Waste transfers
Trichloroethylene	0.4	0	0	0.4
Toluene	3.8	0	0	34.9
Nitrobenzene	0	0	0	17.5
O-, m- and p-Phenylenediamine	0	2.2	0	0
Phenol	0	2.4	0	0
Bromomethane	40.5	0	0	0
Benzene	1.6	1.0	0	0
Poly (oxyethylene) alkyl ether	0.5	0	0	9.2
Manganese and its compounds	0	0.2	0	1.2
Methyl methacrylate	3.1	0	0	6.6
Methylenebis (4,1-phenylene) diisocyanate	0	0	0	44
Nickel and its compounds	0	0	0	8.5
Dioxins	2.1	11.9	0	11.7
<b>Total</b>	<b>211.0</b>	<b>22.2</b>	<b>0</b>	<b>577.4</b>

Note: The list shows emissions and transfers of 34 substances (out of Toray Industries' 90 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
Butyl acrylate	0.1	0	0	0.2
Acrylonitrile	0	0	0	0
Acetonitrile	0.1	0	0	7.9
Allyl alcohol	0.1	0	0	0.7
Ethylbenzene	7.4	0	0	14.3
Ethylene oxide	0.1	0	0	0
Ethylene glycol monoethyl ether	0.2	0	0	0.3
Epichlorohydrin	0	0	0	17
Xylene	6.1	0	0	9.7
1-chloro-2,4-dinitrobenzene	0	0	0	0.1
Dichloromethane	1.7	0	0	20.3
N, N-dimethylacetamide	14.7	0	0	360.7
N, N-dimethylformamide	16	0	0	124.5
Styrene	0	0	0	0
Triethylamine	0.1	0	0	4.6

Group companies in Japan	Tons (dioxins: mg-TEQ)			
	Substance name	Atmospheric emissions	Water emissions	Soil emissions / company landfill
Toluene	51.7	0	0	1,742.8
Carbon disulfide	0.3	0.4	0	0
1-nonanol	0	0	0	2.4
Hydroquinone	0	0	0	0.5
Pyridine	0.1	0	0	2.1
n-hexane	2.1	0	0	58.9
Poly (oxyethylene) alkyl ether	0	2.7	0	43.8
Formaldehyde	0.1	0	0	0.1
Maleic anhydride	0	0	0	2.5
Methacrylate acid	0	0	0	5.5
Methyl methacrylate	0.1	0	0	8
3-methylpyridine	0.5	0	0	35.2
Methylnaphthalene	2.5	0	0	0
Molybdenum and its compounds	0	0	0	2.0
Dioxins	0	0	0	0
<b>Total</b>	<b>103.9</b>	<b>3.1</b>	<b>0</b>	<b>2,464.2</b>

Note: The list shows emissions and transfers of 29 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 March 2021)

<b>Toray Industries, Inc. : All 13 plants</b>
Shiga, Seta, Ehime, Nagoya, Tokai, Aichi, Okazaki, Mishima, Chiba, Tsuchiura, Gifu, Ishikawa, Nasu
<b>Group companies in Japan: 36 plants at 23 companies<sup>1・2</sup></b>
<ul style="list-style-type: none"> <li>• Du Pont-Toray Co., Ltd. [Tokai]</li> <li>• Toray Opelontex Co., Ltd.</li> <li>• Toray Textiles, Inc. [Tokai]</li> <li>• Toray CoatexCo., Ltd. [Kyoto, Chemical Products]</li> <li>• Toray Hybrid Cord, Inc.</li> <li>• Toray Plastics Precision Co., Ltd. [Mishima, Koriyama]</li> <li>• Toray PEF Products Inc. [Konan]</li> <li>• Toray Monofilament Co., Ltd.</li> <li>• Toray Advanced Film Co., Ltd. [Mishima, Takatsuki, Fukushima, Nakatsugawa]</li> <li>• Toray KP Films Inc.</li> <li>• Toray Fine Chemicals Co., Ltd. [Moriyama, Matsuyama, Tokai, Chiba]</li> <li>• Toray Engineering Co., Ltd. [Numazu]</li> <li>• Soda Aromatic Co., Ltd. [Noda, Koriyama, Okayama Chemicals]</li> <li>• Toray Amenity and Civil Engineering Co., Ltd. [Ehime, Fukushima]</li> <li>• Dow Toray Co., Ltd. [Chiba, Fukui, Komatsu]</li> <li>• DuPont Toray Specialty Materials Kabushiki Kaisha</li> <li>• Suido Kiko Kaisha, Ltd.</li> <li>• Toray Medical Co., Ltd.</li> <li>• Ichimura Sangyo Co., Ltd.</li> <li>• Toray International, Inc.</li> <li>• Chori Co., Ltd.</li> <li>• Toray Carbon Magic Co., Ltd.</li> <li>• Sowa Textile Co., Ltd. [Hakui]</li> </ul>

**Group companies outside Japan: 63 plants at 45 companies<sup>2</sup>**

USA	<ul style="list-style-type: none"><li>• Toray Plastics (America), Inc. (Rhode Island, Virginia)</li><li>• Toray Resin Co.</li><li>• Toray Fluorofibers (America), Inc.</li><li>• Toray Composite Materials America, Inc. (Decatur, Tacoma)</li><li>• Toray Membrane USA, Inc.</li></ul>
Mexico	<ul style="list-style-type: none"><li>• Toray Advanced Textile Mexico, S.A. de C.V.<sup>3</sup></li></ul>
UK	<ul style="list-style-type: none"><li>• Toray Textiles Europe Ltd.</li></ul>
France	<ul style="list-style-type: none"><li>• Toray Films Europe S.A.S.</li><li>• Toray Carbon Fibers Europe [Abidos, Lacq]</li></ul>
Germany	<ul style="list-style-type: none"><li>• Euro Advanced Carbon Fiber Composites GmbH</li><li>• Greenerity GmbH</li></ul>
Italy	<ul style="list-style-type: none"><li>• Alcantara S.p.A.</li><li>• Delta-Tech S.p.A.</li></ul>
Czech Republic	<ul style="list-style-type: none"><li>• Toray Textiles Central Europe s.r.o.</li></ul>
Hungary	<ul style="list-style-type: none"><li>• Zoltek Zrt. (ZHU)</li></ul>
Indonesia	<ul style="list-style-type: none"><li>• P.T. Century Textile Industry Tbk</li><li>• P.T. Easterntex</li><li>• P.T. Indonesia Toray Synthetics</li><li>• P.T. Acryl Textile Mills</li><li>• P.T. Indonesia Synthetic Textile Mills</li><li>• P.T. Toray Polytech Jakarta</li></ul>
Thailand	<ul style="list-style-type: none"><li>• Toray Textiles (Thailand) Public Company Limited (NPT, M1, M2, M3)</li><li>• Thai Toray Synthetics Co., Ltd. (Bangkok, Ayutthaya, Nakhonpathom)</li></ul>
Malaysia	<ul style="list-style-type: none"><li>• Penfibre Sdn. Berhad</li><li>• Penfabric Sdn. Berhad (M1, M2, M3, M4)</li><li>• Toray Plastics (Malaysia) Sdn. Berhad</li><li>• Toray BASF PBT Resin Sdn. Berhad</li></ul>



**Group companies outside Japan: 63 plants at 45 companies<sup>2</sup>**

China	<ul style="list-style-type: none"><li>• Toray Fibers (Nantong) Co., Ltd.</li><li>• Toray Sakai Weaving &amp; Dyeing (Nantong) Co., Ltd.</li><li>• Toray Plastics (Shenzhen) Ltd.</li><li>• Toray Film Products (Zhongshan) Ltd.</li><li>• Toray Plastics Precision (Zhongshan) Ltd.</li><li>• Toray Plastics (Suzhou) Co., Ltd.</li><li>• Toray Fibers &amp; Textiles Research Laboratories (China) Co., Ltd.</li><li>• Toray Advanced Materials Research Laboratories (China) Co., Ltd.</li><li>• Toray Polytech (Nantong) Co., Ltd.</li><li>• Toray BlueStar Membrane Co., Ltd.</li><li>• Toray Plastics (Chengdu) Co., Ltd.</li><li>• Toray Medical (Qingdao) Co., Ltd.</li></ul>
Republic of Korea	<ul style="list-style-type: none"><li>• Toray Advanced Materials Korea Inc. (M1、 M2、 M3、 M4、 M5、 Anseong、 Yugu)</li><li>• STEMCO, Ltd.</li><li>• Toray Battery Separator Film Korea, Limited</li><li>• Toray BSF Coating Korea Limited</li></ul>
Taiwan	<ul style="list-style-type: none"><li>• Toray Advanced Film Kaohsiung Co., Ltd.</li></ul>
Saudi Arabia	<ul style="list-style-type: none"><li>• Toray Membrane Middle East LLC<sup>3</sup></li></ul>

<sup>1</sup> In addition, 12 companies received certification as affiliated companies on Toray Industries' sites.

<sup>2</sup> Information in brackets refers to the names of the plants.

<sup>3</sup> A company that newly acquired ISO 14001 certification in fiscal 2020.

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

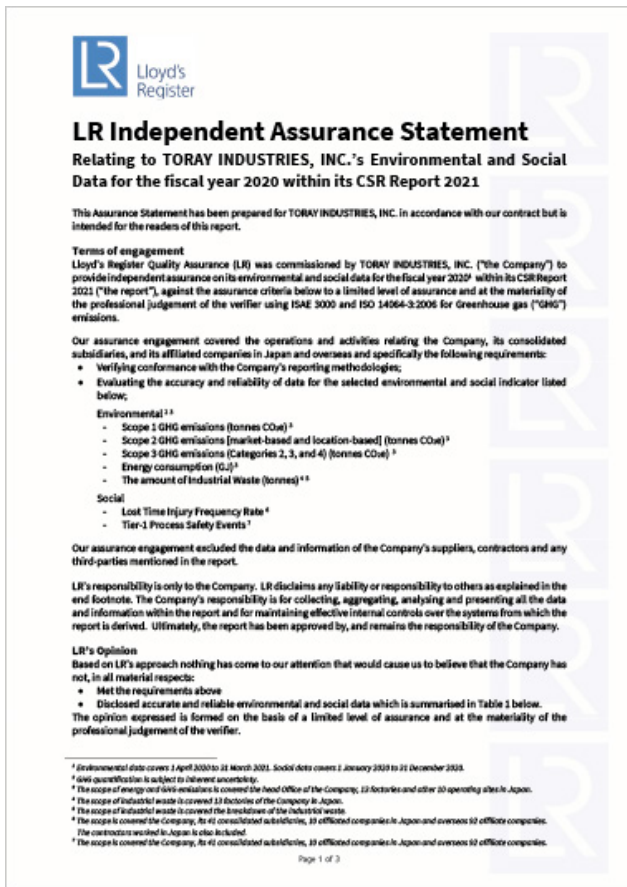
	Emission Volume														Principal manufactured products
	GHG emissions	PRTR				Gas emissions			Water emissions			Waste			
		Emissions			Waste transfers	SOx	NOx	Dust	BOD	COD	Effluent	Recycled	Simple incineration	Landfill disposal	
		Air Water	Water	Soil & landfill	Waste										
10,000 tons CO2/year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	million m <sup>3</sup> /year	tons/year	tons/year	tons/year			
Shiga Plant	5.9	0.8	0	0	21.4	0	10.8	2.1	33.4	40	12.9	3,325	11.8	0	<ul style="list-style-type: none"> <li>• Base material of ultrasuede™ man-made suede</li> <li>• TOPTICAL™ color filter</li> <li>• TORAYVINO™ home water purifier</li> </ul>
Seta Plant	0.2	0	0	0	0	0	0.2	0	0	0.1	0.1	162.8	0.1	0	<ul style="list-style-type: none"> <li>• TORAYLON™ acrylic fiber</li> <li>• Medical devices(Inoue Balloon catheters,ANTHRON™ P-U catheters)</li> </ul>
Ehime Plant	51.2	28.3	6	0	386.6	155.6	566.1	51.7	95.8	119.3	26.2	4,617.9	28.5	0	<ul style="list-style-type: none"> <li>• TORAY TETORON™ polyester staple fiber</li> <li>• TORAYCA™ carbon fiber</li> <li>• ROMEMBRA™ reverse osmosis membrane module</li> <li>• TORAYCON™ PBT resin</li> </ul>
Nagoya Plant	8	18.8	0.2	0	55.6	0	44	1.7	45.8	93	25.4	3,100.9	0	8.1	<ul style="list-style-type: none"> <li>• AMILAN™ nylon resin</li> <li>• TORAYCON™ PBT resin</li> <li>• Various fine chemicals</li> </ul>

	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 <sub>2</sub> /year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	million m <sup>3</sup> /year	tons/year	tons/year	tons/year		
Tokai Plant	60.4	45.2	16	0	22.2	1.9	377.7	1	297.7	314.2	18.9	6,219.3	33.3	0	<ul style="list-style-type: none"> <li>Caprolactam</li> <li>Terephthalic acid</li> <li>TORAY TETORON™ polyester chips</li> <li>TORELINA™ PPS resin</li> </ul>
Aichi Plant	1.8	0	0	0	6	0	1	0	2.2	0	1.6	188.2	0.7	0	<ul style="list-style-type: none"> <li>Nylon filament yarn</li> <li>RAYTELA™ plastic optical fiber</li> </ul>
Okazaki Plant	7.5	7.7	0	0	64.8	0	37.7	1.6	9.7	25.2	5.9	3,263.3	0	0.3	<ul style="list-style-type: none"> <li>Nylon filament yarn</li> <li>TORAY WATERLESS PLATE™ printing plate</li> <li>Filtrizer™ hemodialyzers</li> <li>TORAYVINO™ home water purifier</li> </ul>
Mishima Plant	12.2	1.4	0	0	3.4	2.6	57.1	0.2	12.4	25.8	36.0	1,537.4	0.8	0.2	<ul style="list-style-type: none"> <li>LUMIRROR™ polyester film</li> <li>TORAY TETORON™ polyester filament yarn</li> <li>DORNER™ oral administration prostacyclin PGI<sub>2</sub> derivative</li> <li>FERON™ natural interferon-β preparation</li> </ul>
Chiba Plant	1.5	12.3	0	0	1.4	0	9.6	0	6	64.4	5	1,902.7	8.2	2.9	<ul style="list-style-type: none"> <li>TOYOLAC™ ABS resin</li> </ul>
Tsuchiura Plant	1.9	0	0	0	0	0	4.2	0.1	1.2	0	0.4	401.9	0	0	<ul style="list-style-type: none"> <li>TORAYFAN™ BO polypropylene film</li> </ul>
Gifu Plant	7	0.6	0	0	15.1	0	21.7	0.7	11.7	7.2	9.7	770.7	0	0.7	<ul style="list-style-type: none"> <li>ultrasuede™ man-made suede</li> <li>LUMIRROR™ polyester film</li> <li>TORELINA™ PPS film</li> </ul>
Ishikawa Plant	4.3	0.6	0	0	1	0	2.7	0	7.1	3.6	7.1	1,270.5	2.9	4.5	<ul style="list-style-type: none"> <li>TORAY TETORON™ polyester filament yarn</li> <li>Nylon filament yarn</li> <li>TORAYCA™ prepreg</li> </ul>
Nasu Plant	3	95.2	0	0	0	0	5.4	1.9	0.2	0	0.1	781.5	6.1	0.4	<ul style="list-style-type: none"> <li>Lithium-ion rechargeable battery</li> </ul>

	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 <sub>2</sub> /year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	tons/year	million m <sup>3</sup> /year	tons/year	tons/year	tons/year			
Toray Hybrid Cord, Inc.	1.0	2.2	0	0	0.6	0	1.6	0	0.5	8.6	0.4	585	0.7	0.7	<ul style="list-style-type: none"> <li>Tire cord</li> <li>Carpet pile fiber</li> </ul>
Toray Fine Chemicals Co., Ltd. [Chiba]	2.5	1.8	0	0	72.5	0.4	13.8	0	0	0	0	1,355	1,635	0.4	<ul style="list-style-type: none"> <li>DMSO and DMS</li> <li>Functional acrylic resin</li> </ul>
Malaysia Penfibre Sdn. Berhad [Fibers & Textiles]	3.2	0	0	0	116.6	11.4	22.1	4.1	0.4	6	0.1	76	10.1	94.9	<ul style="list-style-type: none"> <li>TORAY TETORON™ polyester staple fiber</li> </ul>
France Toray Films Europe S.A.S.	3.1	0	0	0	104	0	30.2	0	1.7	16.1	1.2	1,406.1	5	1,588	<ul style="list-style-type: none"> <li>LUMIRROR™ polyester film</li> </ul>

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

Third-Party Assurance



(PDF : 589KB)

PDF



(PDF : 562KB)

PDF

**Table 1. Summary of Toray's Environmental and Social data in FY2020**

Scope	
Scope 1 GHG emissions <sup>1</sup>	1,801,874 tonnes CO <sub>2</sub> e
GHG emissions relating supply to external organizations	199,177 tonnes CO <sub>2</sub> e
GHG emissions after deduction	1,402,697 tonnes CO <sub>2</sub> e
Scope 2 GHG emissions <sup>2</sup> (Market-based)	277,774 tonnes CO <sub>2</sub> e
GHG emissions relating supply to external organizations	23,032 tonnes CO <sub>2</sub> e
GHG emissions after deduction	254,742 tonnes CO <sub>2</sub> e
Scope 2 GHG emissions <sup>2</sup> (Location-based)	310,470 tonnes CO <sub>2</sub> e
GHG emissions relating supply to external organizations	27,617 tonnes CO <sub>2</sub> e
GHG emissions after deduction	282,853 tonnes CO <sub>2</sub> e
Scope 3 GHG emissions <sup>3</sup> (Categories 2, 3, and 4)	770,949 tonnes CO <sub>2</sub> e
2. Capital goods	101,824 tonnes CO <sub>2</sub> e
3. Fuel- and energy-related activities not included in Scope 1 or Scope 2	631,213 tonnes CO <sub>2</sub> e
4. Upstream transportation & distribution	37,912 tonnes CO <sub>2</sub> e
Energy consumption <sup>3</sup>	25,250,381 GJ
Industrial waste <sup>4</sup>	—
Disposal amount	105 tonnes
Recycled amount	26,985 tonnes
Total amount of industrial waste	27,071 tonnes
The amount of industrial hazardous waste	2,058 tonnes
The amount of coal ash	67,887 tonnes
Lost Time Injury and Occupational Illness Frequency Rate <sup>4</sup>	—
TORAY INDUSTRIES, INC.	0.12
Affiliated companies	0
Consolidated subsidiaries in Japan	0.15
Overseas consolidated subsidiaries	0.57
Entire the scope	0.39
Contractors in Japan <sup>5</sup>	0.68
Tier-1 Process Safety Events <sup>6</sup>	0

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

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# LR Independent Assurance Statement

## Relating to TORAY INDUSTRIES, INC.'s Environmental and Social Data for the fiscal year 2020 within its CSR Report 2021

This Assurance Statement has been prepared for TORAY INDUSTRIES, INC. in accordance with our contract but is intended for the readers of this report.

### Terms of engagement

Lloyd's Register Quality Assurance (LR) was commissioned by TORAY INDUSTRIES, INC. ("the Company") to provide independent assurance on its environmental and social data for the fiscal year 2020<sup>1</sup> within its CSR Report 2021 ("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 and ISO 14064-3:2006 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<sup>2 3</sup>

- Scope 1 GHG emissions (tonnes CO<sub>2</sub>e)<sup>3</sup>
- Scope 2 GHG emissions [market-based and location-based] (tonnes CO<sub>2</sub>e)<sup>3</sup>
- Scope 3 GHG emissions (Categories 2, 3, and 4) (tonnes CO<sub>2</sub>e)<sup>3</sup>
- Energy consumption (GJ)<sup>3</sup>
- The amount of Industrial Waste (tonnes)<sup>4 5</sup>

#### Social

- Lost Time Injury Frequency Rate<sup>6</sup>
- Tier-1 Process Safety Events<sup>7</sup>

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

LR's responsibility is only to the Company. LR 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.

### LR's Opinion

Based on LR'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.

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

<sup>1</sup> Environmental data covers 1 April 2020 to 31 March 2021. Social data covers 1 January 2020 to 31 December 2020.

<sup>2</sup> GHG quantification is subject to inherent uncertainty.

<sup>3</sup> The scope of energy and GHG emissions is covered the head Office of the Company, 13 factories and other 10 operating sites in Japan.

<sup>4</sup> The scope of industrial waste is covered 13 factories of the Company in Japan.

<sup>5</sup> The scope of industrial waste is covered the breakdown of the industrial waste.

<sup>6</sup> The scope is covered the Company, its 41 consolidated subsidiaries, 10 affiliated companies in Japan and overseas 92 affiliate companies. The contractors worked in Japan is also included.

<sup>7</sup> The scope is covered the Company, its 41 consolidated subsidiaries, 10 affiliated companies in Japan and overseas 92 affiliate companies.

**Note:** 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 substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

### LR's approach

LR's assurance engagements are carried out in accordance with ISAE3000 and ISO14064-3 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 2020<sup>1</sup>; and
- By implementing the Company's "No Visitor" Policy due to the global infection spread of COVID-19, conducting the remote verification to Gifu Factory and Shiga Factory for confirming the effectiveness of its data management systems via emails, telephone, and Microsoft Teams.

### 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.

### LR's standards, competence and independence

LR 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.

LR 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.

The verification and certification assessments are the only work undertaken by LR for the Company and as such do not compromise our independence or impartiality.

Signed



Takahiro Iio

LR Lead Verifier

On behalf of Lloyd's Register Quality Assurance Limited

10th Floor, Queen's Tower A, 2-3-1 Minatomirai, Nishi-ku, Yokohama, JAPAN

LR reference: YKA4005148

Dated: 2 July 2021



**Table 1. Summary of Toray's Environmental and Social data in FY2020**

Scope	
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The amount of coal ash	67,887 tonnes
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TORAY INDUSTRIES, INC.	0.12
Affiliated companies	0
Consolidated subsidiaries in Japan	0.15
Overseas consolidated subsidiaries	0.57
Entire the scope	0.39
Contractors in Japan <sup>7</sup>	0.68
Tier-1 Process Safety Events <sup>8</sup>	0

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

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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

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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 2020.

## 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.

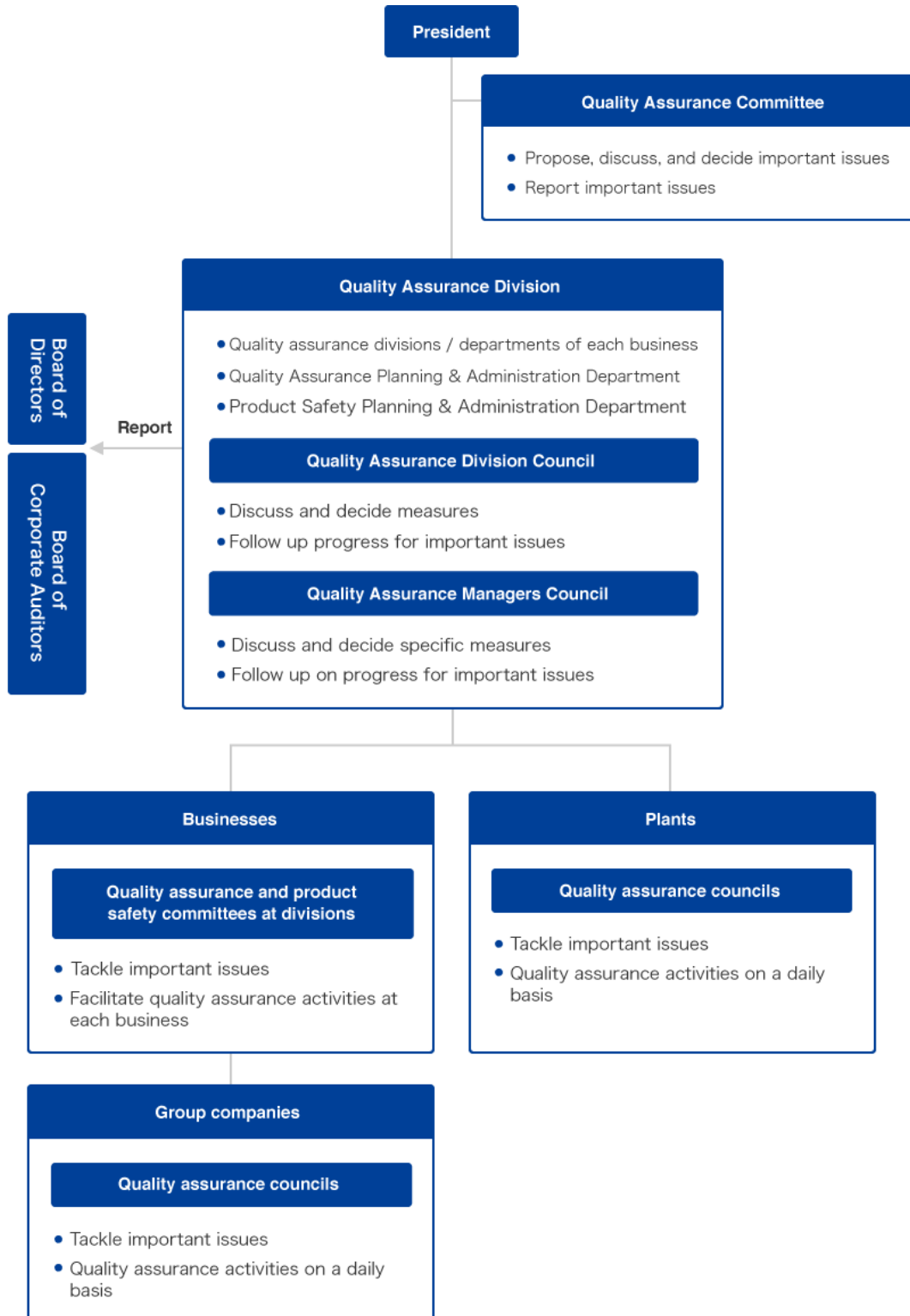
## Structure

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### **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



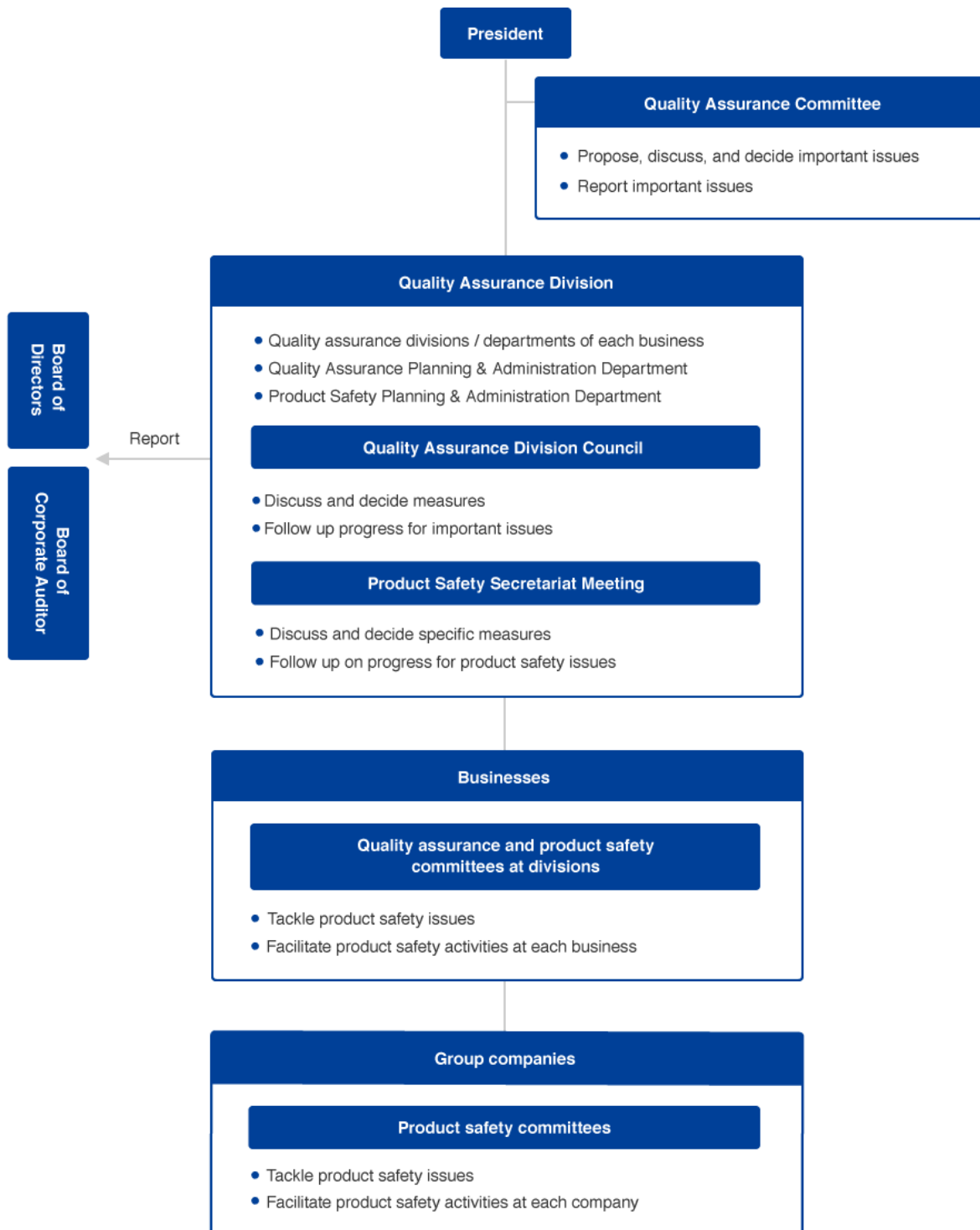
## Framework for Product Safety

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.

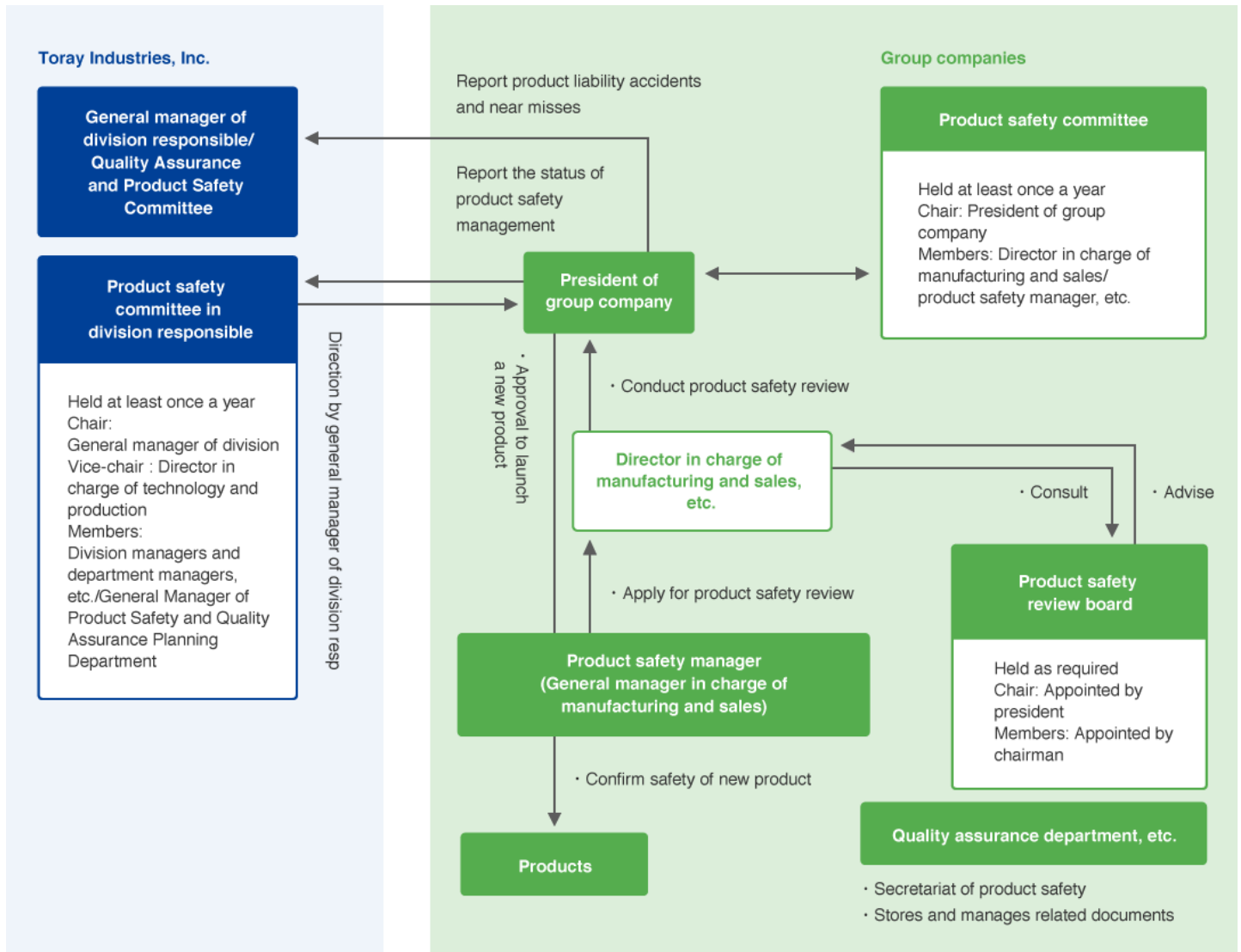
Quality assurance and product safety committees at the divisions further examine the group-wide issues that have been identified by the Product Safety Secretariat Meeting, breaking them down into action items that are designated every year for implementation. The action items are executed in cooperation 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.

## 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	4-①
(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	4-②

Key Performance Indicator (KPI)	Target			Fiscal 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
4-① Number of product accidents	0	0	0	1 <sup>1</sup>
4-② Group companies implementing product quality assurance and safety education (%)	100%	100%	100%	100%

Reporting Scope : Toray Group

<sup>1</sup> Custom-made uniforms transferred color to shirts when they were worn. The affected products were treated in a cleaning process to prevent the transfer of color. The transfer of color caused no health hazards.

## 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

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In fiscal 2021 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.



## 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.
- 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 2020  
100%

Result in fiscal 2020

**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. 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

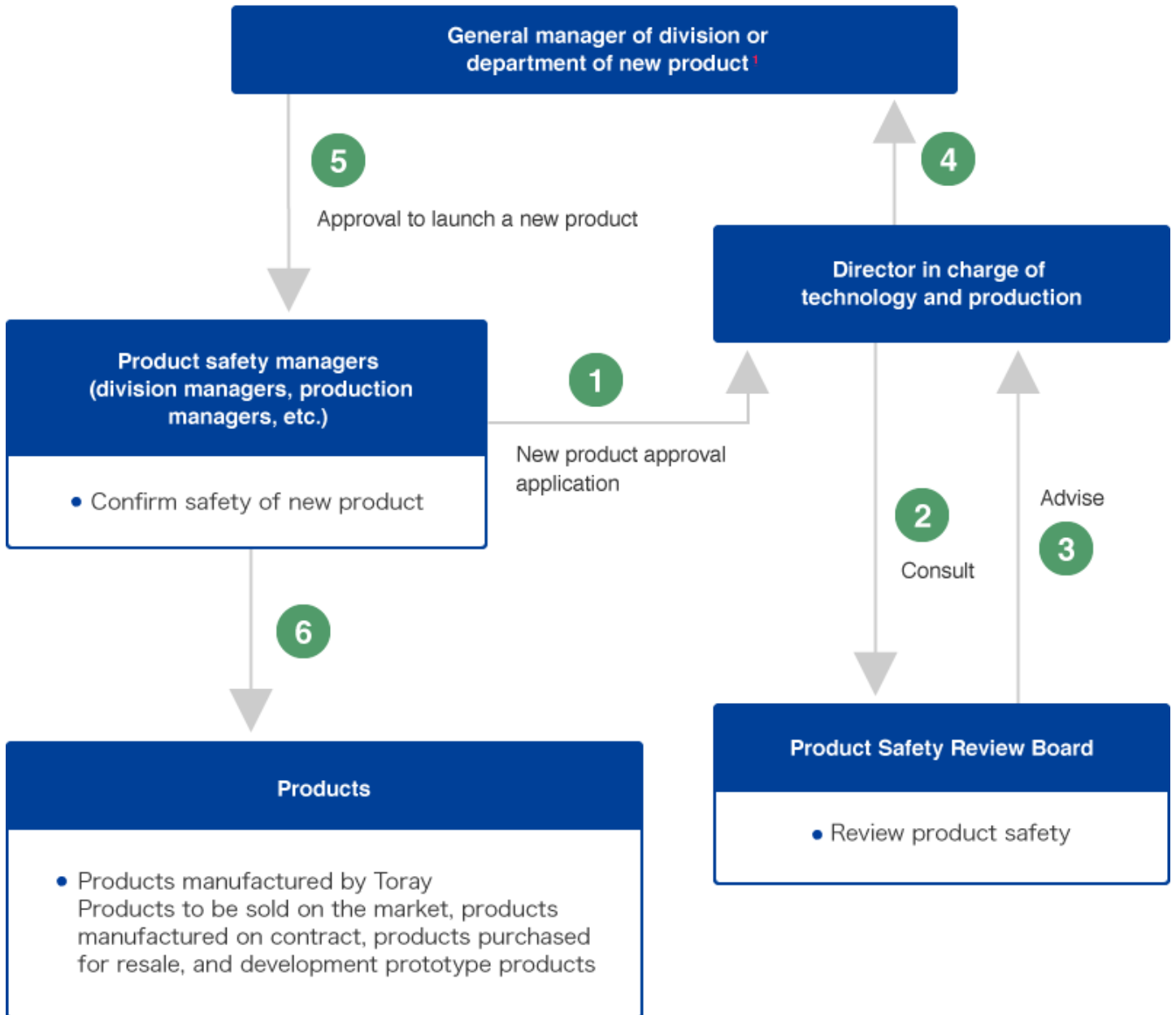
CSR Roadmap 2022  
Main Initiatives (1)(2)

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**

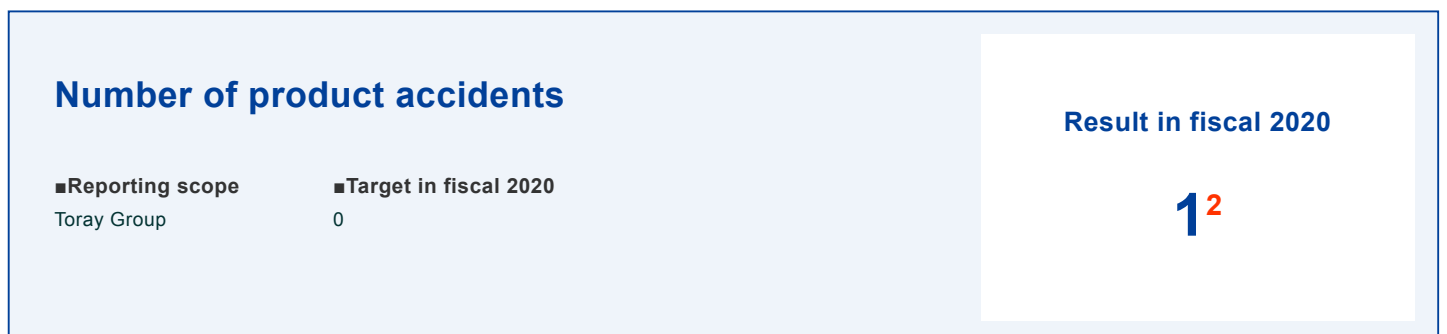
## Product Safety Review Flow Chart (Toray Industries, Inc.)



<sup>1</sup> 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)



<sup>2</sup> Custom-made uniforms transferred color to shirts when they were worn. The affected products were treated in a cleaning process to prevent the transfer of color.

The transfer of color caused no health hazards.

## Providing Product Safety Information

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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

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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 June 2021)

CSR Roadmap 2022  
Main Initiatives (2)

#### Toray Industries, Inc.: All 13 plants

Shiga, Seta, Ehime, Nagoya, Tokai, Aichi, Okazaki, Mishima, Chiba, Tsuchiura, Gifu, Ishikawa, Nasu

#### Group companies in Japan: 22 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 Amenity and Civil Engineering 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.

#### Group companies outside Japan: 39 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.

**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.

**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

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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

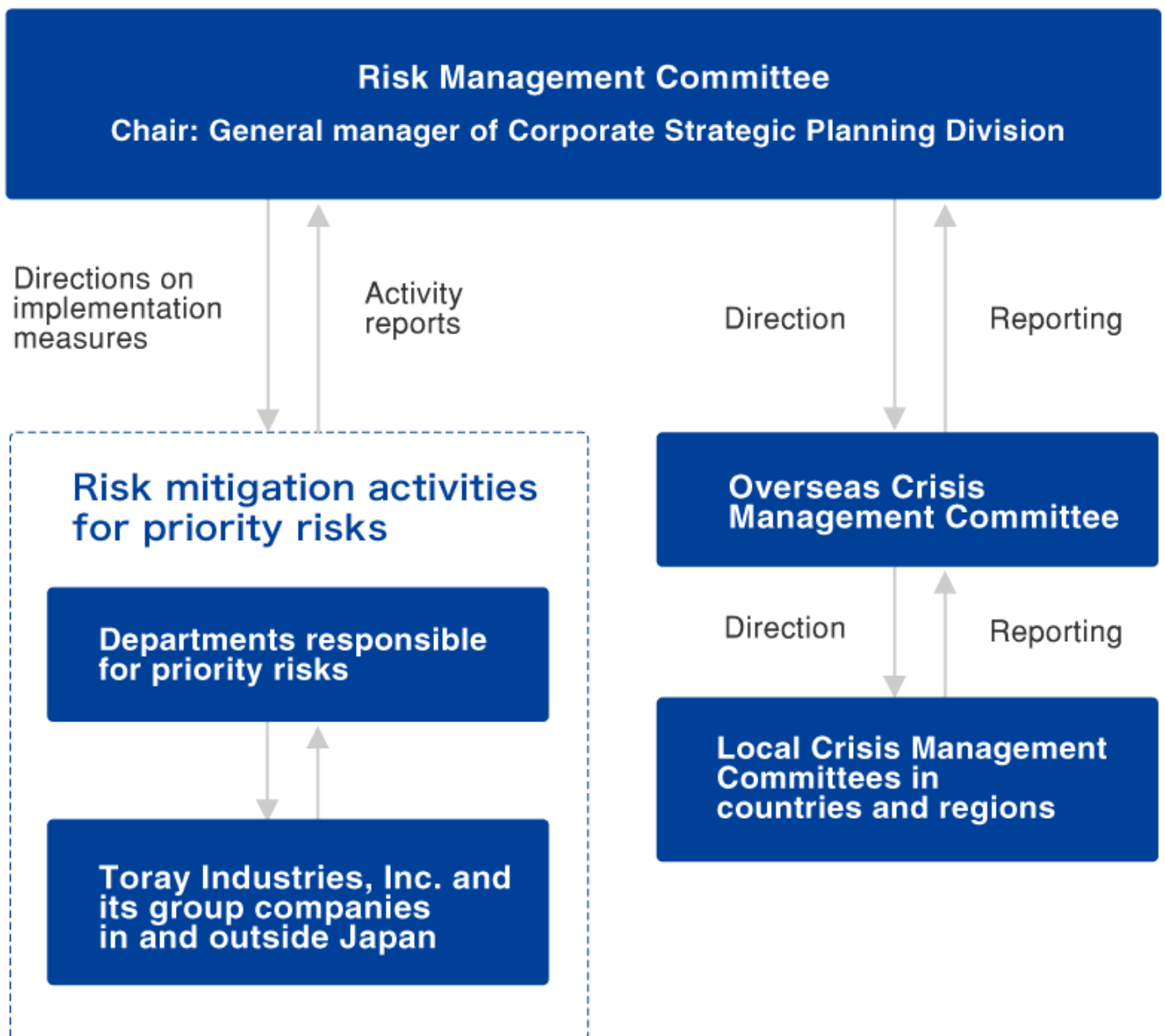
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The risks affecting Toray Group are constantly changing, and the Group recognizes the critical importance of reinforcing its system for responding to risks that materialize suddenly due to changes in the surrounding environment and for responding promptly when crises do occur. To this end, in April 2018, Toray Industries, Inc. established a dedicated team 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.

## Establishment of Risk Management Committee

In May 2018 Toray Industries established the Risk Management Committee, which is chaired by the general manager of the Corporate Strategic Planning Division, tasking it 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

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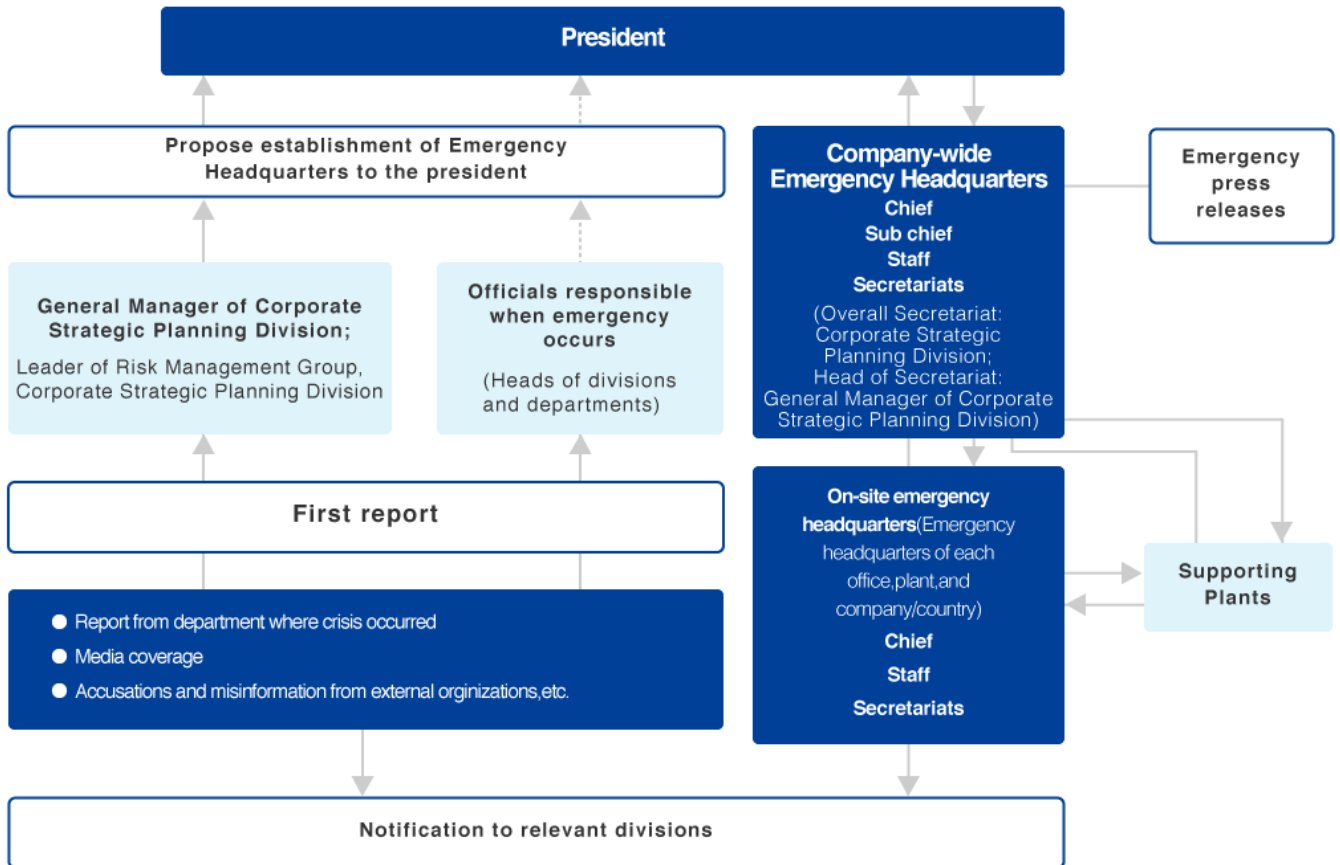
Toray Group has established Risk Management Regulations, a set of clear fundamental principles that form the basis of a company-wide response in the event of a major crisis. The Group works to ensure the thorough implementation of these rules when required. Moreover, the Group reviews the rules as appropriate 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<sup>1</sup>. The emergency headquarters is steering the Group's response to COVID-19, implementing the following measures in accordance with the pandemic measures and directives issued by local and national governments in countries where the Group operates.

- Planning for and executing measures to secure the safety of employees
- Monitoring the health status of employees worldwide including in Japan, and responding appropriately to positive cases of COVID-19
- Providing appropriate assistance to Group companies, etc.

<sup>1</sup> The headquarters is headed by a Senior Vice President (Member of the Board) as of July 2021.

## 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   | 5-① |
| (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   | 5-② |

Key Performance Indicator (KPI)	Target			Fiscal 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
5-① Group companies conducting follow-up on the Toray Group's priority risks (%)	100%	100%	100%	100%
5-② Group companies implementing risk management education (%) achieved compared to the plan at the beginning of the fiscal year)	100%	100%	100%	80% <sup>2</sup>

Reporting scope : Toray Group

<sup>2</sup> Some group training sessions were postponed to prevent the spread of COVID-19.

## Looking to the Future

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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.

Based on the CSR Roadmap 2022, with regard to natural disasters, in fiscal 2020 the Group finished formulating a business continuity plan (BCP) that would take effect in the event of a large-scale earthquake. In addition, the Group has included water hazard risks caused by floods or other events in its fifth three-year set of priority risks, to be addressed from 2021 to 2023, in order to scrutinize the risks at each site and take appropriate measures if the risk is high. Since group-wide initiatives are also needed to tackle the risks in information security and global socially responsible procurement, the Group will continue to treat these as priority risks and take action to address them.

## Risk Management Initiatives

### Basic System for Group-Wide Risk Management

CSR Roadmap 2022  
Main Initiatives (1)(2)

- ▼ **1.Periodic risk management (priority risk mitigation activities)**
- ▼ **2.Routine risk management (monitoring trends in and outside Japan, identifying, assessing and monitoring risks)**
- ▼ **3.Response in the event of a crisis**

#### 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 cycle of mitigation activities for the fourth three-year set of priority risks (fiscal 2018-2020), Toray Industries set quality management, earthquake response, information management and socially responsible procurement<sup>1</sup>, as priority risks. These efforts extend to the Group overall, including group companies in and outside Japan. In the fifth three-year set (fiscal 2021–2023), information security, socially responsible procurement, and water hazard countermeasures were selected.  
<sup>1</sup> For more information, please refer to "[Facilitating CSR Initiatives Throughout the Supply Chain](#)"
- (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 (%)

Result in fiscal 2020

**100%**

■Reporting scope

Toray Group

■Target in fiscal 2020

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

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Toray Group has identified the following business and other risks, as noted in its annual securities reports.

1. Risks related to the COVID-19 infection
2. Risks related to environmental issues such as climate change, water shortages, and resource depletion
3. Risks related to domestic and overseas demand and market trends
4. Risks related to procurement of raw materials and fuel
5. Risks related to capital expenditures, joint ventures, alliances and acquisitions
6. Risks related to foreign currency, interest rate and securities market fluctuations
7. Risks related to changes in assumptions on which forecasts are based that might affect employee retirement benefit obligations and deferred tax assets
8. Risks related to global business development
9. Risks related to product liability
10. Risks related to lawsuits
11. Risks related to laws and regulations, taxes, competition policies and internal controls
12. Risks related to natural disasters and accidents
13. Risks related to information security and cyber threats

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 2020, group education on risk management was provided remotely to Toray Group's new employees, newly appointed managers, and group companies in and outside Japan by using a Web conference system. Some training sessions that could not be held remotely were postponed to prevent the spread of COVID-19.

## Group companies implementing risk management education (% achieved compared to the plan at the beginning of the fiscal year)

■Reporting scope	■Target in fiscal 2020
Toray Group	100%

## Result in fiscal 2020

80%<sup>2</sup>

<sup>2</sup> Some group training sessions were postponed to prevent the spread of COVID-19.

Click [here](#) for the main initiatives for CSR Guideline 5, "Risk Management" in CSR Roadmap 2022.

## 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 2020, 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.



In recent years, storm and flood disaster, such as a typhoon and heavy rain, has been in an increasing trend, causing devastating damage, especially in Japan. In light of this, the Risk Management Committee decided in fiscal 2020 to include business continuity risks from water hazard risks as part of the fifth three-year set of priority risks (fiscal 2021–2023).

Specifically, 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 in March 2020. In fiscal 2020, Toray Industries and its group companies in Japan started reinspecting wind and flood damage control measures at manufacturing sites in Japan. In fiscal 2021, the companies will revise relevant measures, such as for ensuring the safety of employees and preventing secondary damage to the surrounding area, based on the issues identified in the re-inspection, and formulate a BCP for flood disasters.

In addition, Toray Group plans to investigate the risk of flood disasters at manufacturing sites outside Japan in fiscal 2021.

### 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.

## 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) 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.

In terms of the electronic information security sector, which has been faced with growing risk of late, the Group formulated the Electronic Information Security Standards based on the Confidential Information Management Regulations in order to appropriately manage intellectual property and to implement measures designed to prevent information leaks.

Each group company in and outside Japan formulates basic rules in accordance with the regulations and standards of Toray Industries, Inc., and promotes measures related to information security. 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. The plan for and progress regarding priority risks are reported to the Board of Directors on a regular basis.

## Combating Cyber Attacks

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 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

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 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

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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 recently 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 — it has upheld since the beginning — in the form of the Toray Philosophy. Toray Group is implementing 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.

**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

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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

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### 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	6-①
(3) Facilitate exchange of opinions between management and employees	6-②
(4) Facilitate communication between management and stockholders and investors	6-③
(5) Encourage communication with mass media	6-④
(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 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
6-① Number of corporate website page views (per month)	1 million page views	1 million page views	1 million page views	1.11 million page views
6-② Interviews conducted to exchange opinions within the company (rate of progress)	40%	60%	80%	25%
6-③ Interviews with key investors in which management participates (number)	Cumulative total of 80	Cumulative total of 80	Cumulative total of 80	Cumulative total of 98
6-④ News releases (number)	200	200	200	152

Reporting scope : Toray Industries, Inc. (6-①)

Toray Group (6-②, 6-③ and 6-④)

## 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.

## Communication via Corporate Websites

CSR Roadmap 2022  
Main Initiatives (2)/(6)



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.”

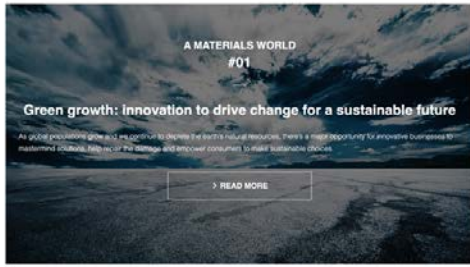
In fiscal 2020, the Group created a new “Our Stories” section on the Home page of the corporate website to help stakeholders get an even better understanding of Toray. The section features articles introducing Toray Group’s specific initiatives on sustainability, interviews with Toray senior management personnel focusing on people-centric business management, and articles introducing the development and advanced applications of materials.

In addition, 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.



## Featured Articles

Written by The Wall Street Journal Custom Studios, 2018  
WSJ CUSTOM STUDIOS



Articles introducing examples of Toray's sustainability initiatives (produced in collaboration with the Wall Street Journal)

## A World of Cutting-Edge Materials

"A World of Cutting-Edge Materials" is the tied-up project with NewsPicks Brand Design telling us the power of "materials". Exciting topics from how Toray creates materials and utilize them in the society, and you can learn our broad-based approach in R&D with three keywords, "Transformational Continuity", "Pursuit of Ultimate Limits", and "Technological Fusion".



**Illustrated Guide:** How small materials can make a big difference



**[R&D Theory]** Why has Toray been able to continue conducting basic research, even with no market, for half a century?



**[Story behind the Development]** The functional beauty of synthetic fibers designed at the nanometer level



**[From Zero to ¥240,000,000,000]** How Toray built its number one share of the global carbon fiber market



**[The New Era of Digitalization]** How printable RFID tags are building the future



**Can AI innovate in the realm of materials?** The vanguard of material science for the next fifty years

Articles introducing the development and advanced applications of materials (produced in collaboration with NewsPicks)

## Essential Materials

A Materials World

A multi-part series, produced in collaboration with the Wall Street Journal, featuring in-depth interviews with Toray senior management personnel discussing the people and partnerships behind Toray innovation and the company's efforts to create a better future.

Written by The Wall Street Journal Custom Studios, 2018-2021  
WSJ CUSTOM STUDIOS



For nearly a century, Toray has believed in the power of materials to change the world. Akihiko Nikkaku, Toray's Global CEO, speaks about the "Toray way" of human-centered innovation.



Unique research and development strategies enable Toray to create some of the world's most remarkable materials. Koichi Abe, Toray's Executive Vice President and CTO, speaks about curiosity-driven research, pursuit of ultimate limits and other secrets to forging groundbreaking, life-enhancing solutions.



When it comes to being a global innovator, no company can succeed alone. Toray Executive Vice President Mitsuo Ohta speaks about the value of nurturing creative partnerships and embracing diverse perspectives.



Enterprises thrive on the collective effort of teams that nurture individual talent. Mike Brandmeier, President and CEO of Toray Plastics (America), Inc., speaks about building team spirit based on values that resonate across the Pacific Ocean.

Interviews with Toray senior management personnel (produced in collaboration with the Wall Street Journal)

Toray's official social media site (on LinkedIn)

## Related Information

- › [Our Stories](#)
- › [Toray's official social media site \(on LinkedIn\)](#)
- › [Articles introducing sustainability initiatives](#)
- › [Interviews with senior management personnel](#)
- › [Articles introducing the development and advanced applications of materials](#)

Click [here](#) for the main initiatives for CSR Guideline 6, "Communication" in CSR Roadmap 2022.

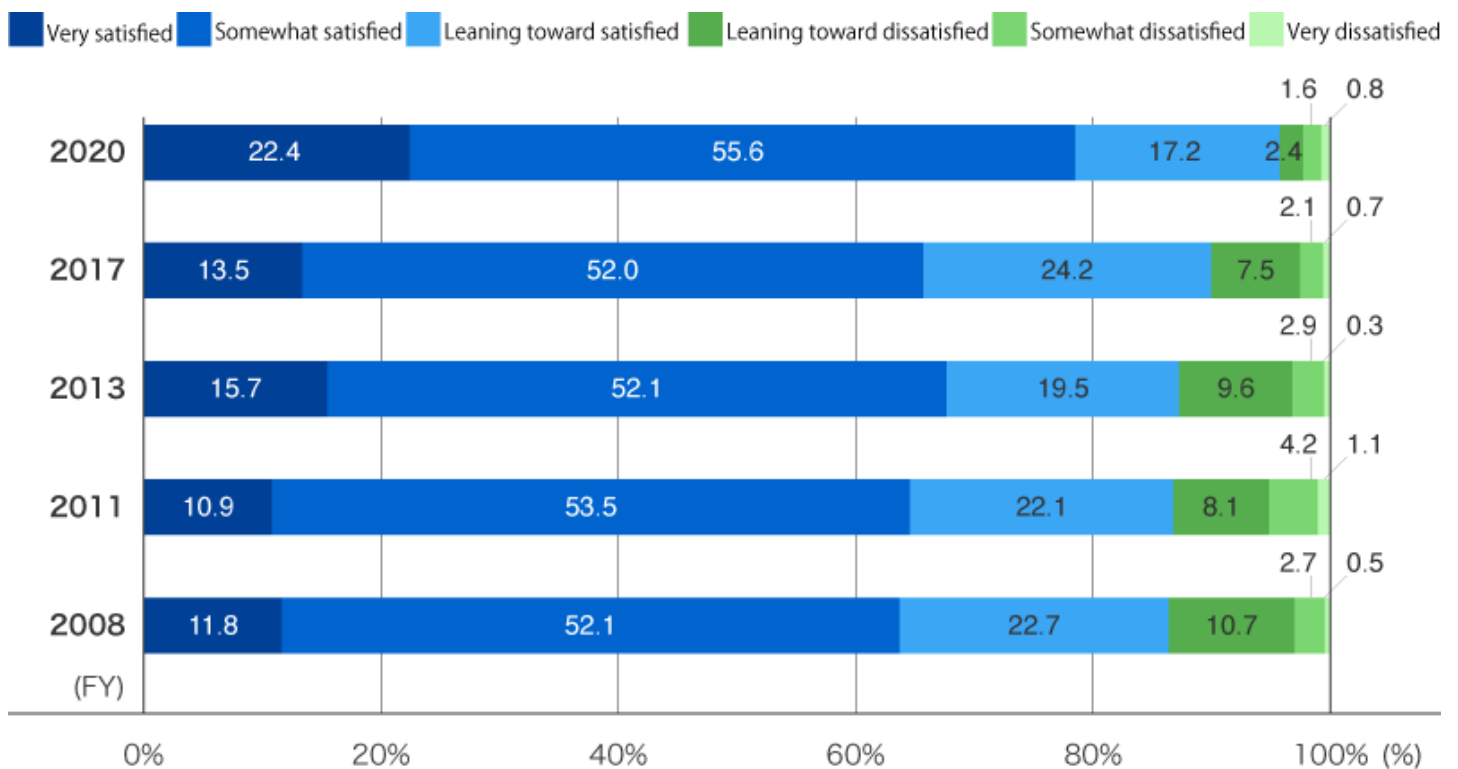
CSR Activity Report (CSR Guideline Activity Reports) - Communication

## Communication with Customers

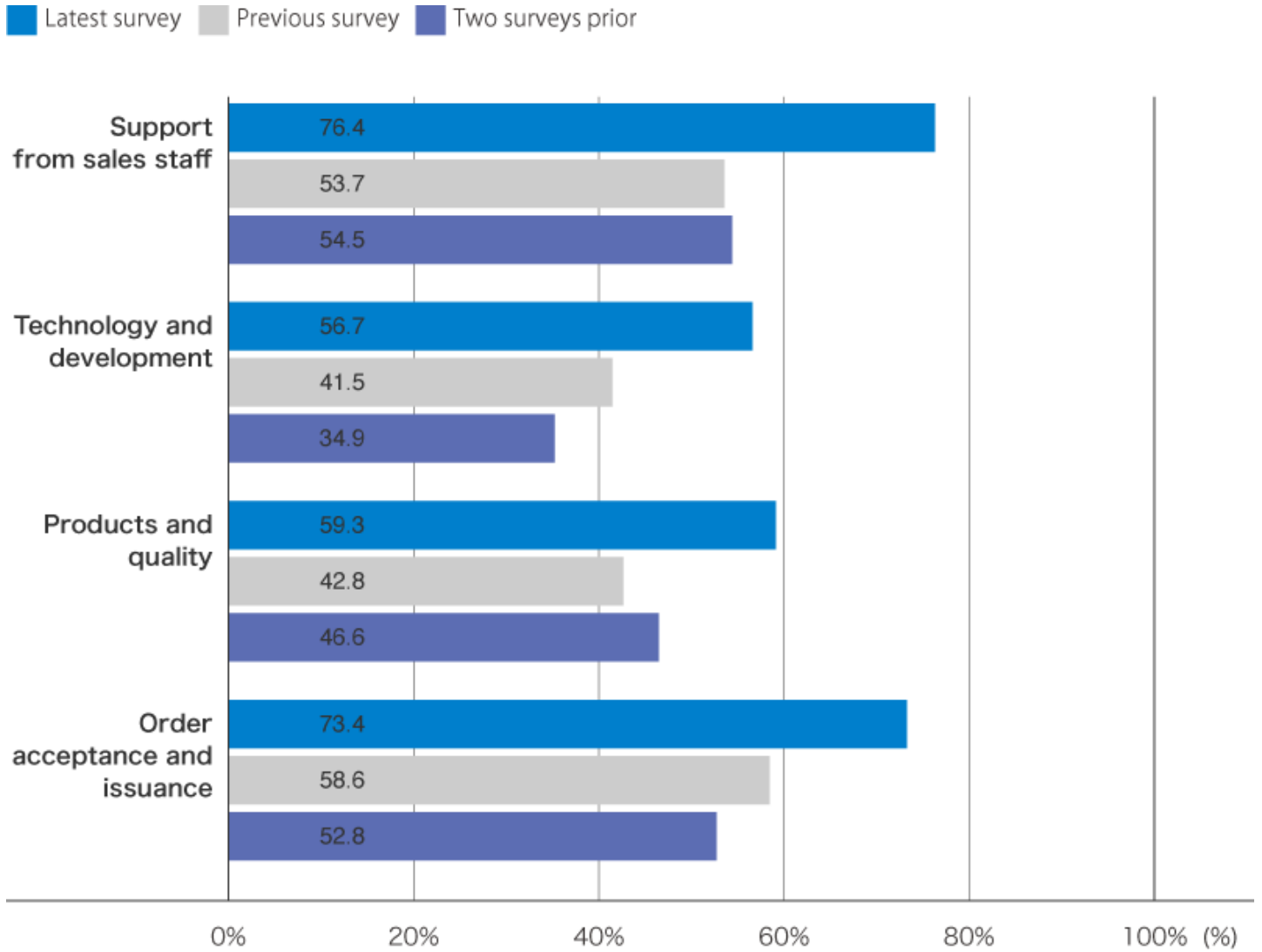
### Customer Satisfaction Survey

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."

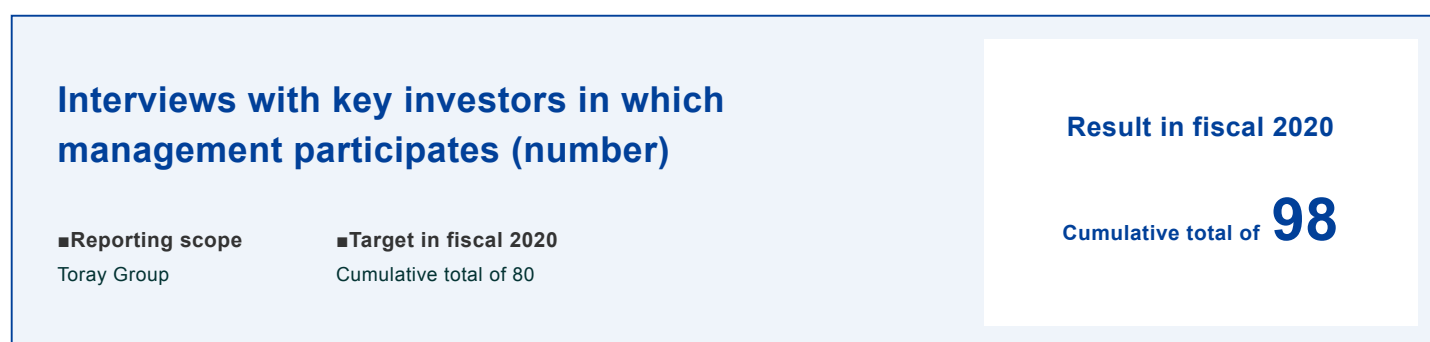
## Showrooms

Toray has set up showrooms in its offices and plants as a space for communication with customers, including in Tokyo (at the head office), at the Shiga Plant, and at the Toray Human Resources Development Center in Mishima. 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.

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.



## 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	468 meetings
Briefing sessions for individual investors	Yearly	297 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 2020, 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 2020
Nikko Investor Relations Co., Ltd.	2020 All Japanese Listed Companies' Website Ranking (AAA Website in overall ranking and AAA Website in sector ranking)
GOMEZ	Silver Prize (top in textile sector) in IR Site Ranking 2020 First place in environment category, ESG Site Ranking 2020

## Evaluations from the Perspective of Socially Responsible Investment

CSR Roadmap 2022  
Main Initiatives (2)

- DJSI Asia Pacific
- FTSE 4Good Index/FTSE Blossom Japan Index
- MSCI ESG Rating: AAA/MSCI Japan ESG Select Leaders Index
- CDP Water Security A List
- SOMPO Sustainability Index

## 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 23, 2020. Every year, the general stockholders' meeting notice and agenda are sent approximately three 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

> [Facilitating CSR Initiatives Throughout the Supply Chain](#)

## Communication with Employees

### Toray Philosophy Project

CSR Roadmap 2022  
Main Initiatives (1)

Toray Group is implementing 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 Toray Philosophy embodies management concepts that have been handed down in unbroken succession within the Company since its founding.

Toray Group is implementing the Toray Philosophy Project to instill a renewed understanding of the Toray Philosophy among employees. This philosophy is evident in the corporate history and notable events. The Toray Philosophy provides a common footing that is shared with managers and colleagues, and it exposes employees to the common values of the Group. This in turn sets a standard for conduct and decisions made by each employee in the course of executing their work. Toray Group has issued the Toray Philosophy Book and mini-book to help Toray Group employees better understand the concepts of the Toray Philosophy. The Toray Philosophy Book has been published in 17 languages, 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 is also implementing an initiative that asks personnel to describe what the Toray Philosophy means to them. This started with a message where the president did this, which was published in the in-house magazine and on the intranet. Working down the chain of management to directors and then division/department managers and presidents of Toray Group companies in and outside of Japan, each person is taking a turn to write about what the Toray Philosophy means to them. The aim is to encourage each employee to think about the Toray Philosophy and envision concrete ways in which they can positively impact society through their own work.

In addition, Toray Group holds lectures and roundtable discussions led by directors 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. Toray Group continuously communicates about how its innovative technologies and products deliver on the Toray Philosophy via various external channels including print and online media. These initiatives help to reinforce a correct understanding of Toray Group’s corporate stance outside of the company as well as to establish the Group’s presence as a corporate entity where people are proud to work.



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 employees of the Company and its group companies 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 2020  
40%

Result in fiscal 2020

**25%**

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. In fiscal 2020, there was a period of time when the department was not unable to conduct in-person interviews due to the COVID-19 pandemic. As a result, the progress rate of the initiative for fiscal 2020 was 25%, falling short of the target of 40% (The assumption was that if the CSR Operations Department visited all target departments and group companies by the end of fiscal 2023, the progress rate would be 100%). 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 publishes an internal CSR newsletter to increase CSR awareness and help employees understand the necessity of implementing CSR in each workplace. An e-learning course covering the fundamentals of CSR was developed by Toray Industries and, continued to be offered throughout the Toray Group to increase CSR awareness in fiscal 2020. Toray Industries conducted the CSR e-learning course over two phases in fiscal 2020 for every executive and employee including contracted, part-time, and dispatched workers. The course was taken a total of 13,947 times.

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	■Target in fiscal 2020
Toray Group	200

Result in fiscal 2020

**152**

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 2020, Toray Group issued 152 press releases and carried out 236 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.

In fiscal 2020, most usual events were canceled due to COVID-19, but Toray Group still worked actively to **contribute to local communities**, mainly by providing support during the pandemic.



Sponsoring "Let's Support COVID-19 Fighters! Feeding the Front Line in New York" Project (Toray Industries (America), Inc.)



Donation of masks and protective suits to local Emergency Management Agencies (Toray Plastics (America), Inc.)



Donation of a ventilator set to a local hospital (TM Textiles & Garments Limited (Bangladesh))



Donation of hand sanitizer to the local council (Toray Industries (Malaysia) Sdn. Berhad)



Donation of masks and disinfectants to the local welfare bureau (Toray Advanced Materials Korea Inc.)

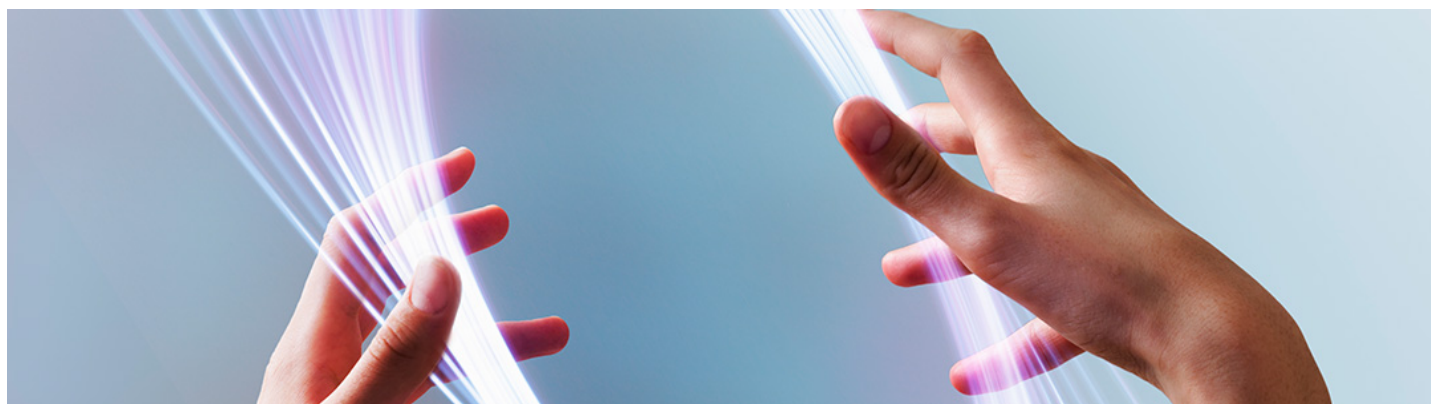


Donation of masks and disinfectants to nearby villages (Toray Industries (India) Private Limited)

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

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Global environmental issues continue to escalate, marked by climate change, rising CO<sub>2</sub> concentrations, and population growth-induced water scarcity and resource depletion. More than seven billion people live on Earth, 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, 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,” “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 CO2 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 the sustainable use of recycled 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

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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<sup>1</sup>—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 is additionally responsible for overseeing the implementation of efforts to address climate change and discusses important policy matters and topics related to climate change. In order to address this topic as it relates to the entire Toray Group, the committee also collaborates with the CSR Committee, Risk Management Committee, Safety, Health and Environment Committee, and Technology Committee, all of which deal with issues related to climate change. 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](#).

<sup>1</sup> 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

## 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	7-①
(2) Increase revenue from Life Innovation products	7-②
(3) Expand contribution to CO <sub>2</sub> reduction in the value chain <sup>1</sup>	7-③
(4) Expand water filtration throughput contribution by Toray's water treatment membranes <sup>2</sup>	7-④
(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 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
7-① Revenue of Green Innovation products (IFRS)	1,000 billion yen (Fiscal 2022)			711.8 billion yen
7-② Revenue of Life Innovation products (IFRS)	300.0 billion yen (Fiscal 2022)			275.6 billion yen
7-③ Contribution to CO <sub>2</sub> reduction in value chain	5.3 times compared to fiscal 2013 (Fiscal 2022)			6.4 times compared to fiscal 2013
7-④ Contribution of Toray water treatment products	2.4 times compared to fiscal 2013 (Fiscal 2022)			2.0 times compared to fiscal 2013

Reporting scope : Toray Group

- 1 Toray calculates the CO<sub>2</sub> 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.

### 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

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In fiscal 2020, the Green Innovation Project generated revenue of 711.8 billion yen on a consolidated basis. This was a year-on-year decline, attributed partly to the impact of the COVID-19 pandemic, and is expected to be a temporary decline. On the other hand, the CO<sub>2</sub> emissions avoided by 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 2020, the Life Innovation Project generated revenue of 275.6 billion yen on a consolidated basis, growing year on year due to the addition of personal safety products to this business area as well as increased shipments of non-woven fabrics for medical gowns and masks. Moving forward, Toray Group will continue to leverage its strengths in advanced materials in Life Innovation fields. In the Pharmaceuticals & Medical Products Business, the Group will accelerate its entry into new fields such as diagnostic medicines.

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	■Target
Toray Group	1,000 billion yen (Fiscal 2022)

Fiscal 2020 Result

**711.8**

**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 711.8 billion yen in fiscal 2020. 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<sub>2</sub> emission reduction<sup>1</sup> and water filtration<sup>2</sup> from the use of Toray Group products has steadily increased as the business has expanded. In fiscal 2020, Toray Group products helped to reduce CO<sub>2</sub> emissions in the value chain by 244.61 million tons (6.4 times higher than in fiscal 2013) and added 55.69 million tons of water filtration (2.0 times higher than in fiscal 2013).

**Contribution to CO<sub>2</sub> reduction<sup>1</sup> in value chain in fiscal 2020**

**244.6 million tons-CO<sub>2</sub>**  
(6.4 times compared to fiscal 2013)

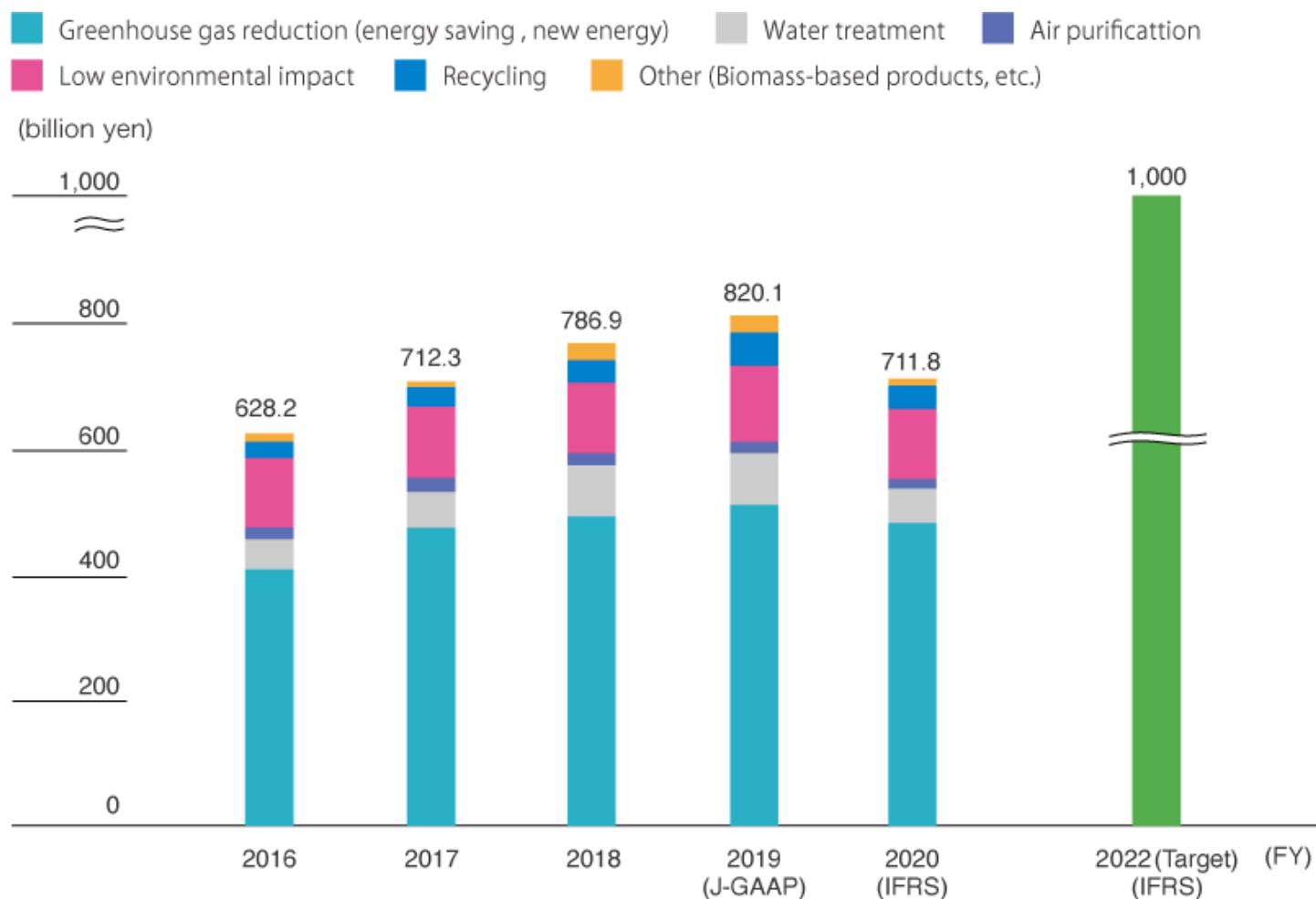
**Contribution of Toray water treatment products<sup>2</sup> in fiscal 2020**

**55.69 million tons**  
(2.0 times compared to fiscal 2013)

<sup>1</sup> Toray calculates the CO<sub>2</sub> 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).

<sup>2</sup> 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 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

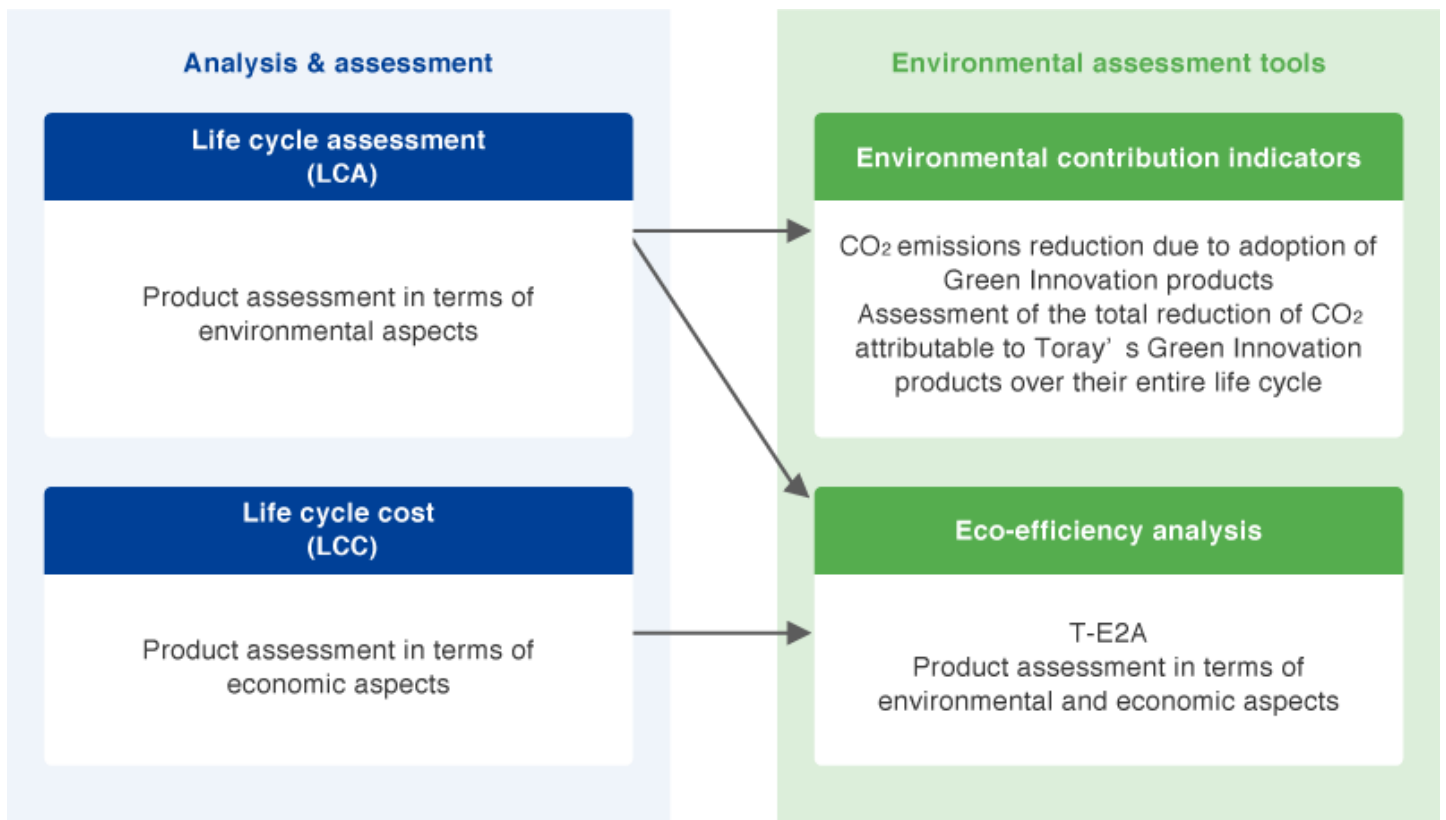
# Promoting Life Cycle Management

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 practices life cycle management. Life cycle management is the basis for Green Innovation products, and the Group has adopted life cycle assessment<sup>1</sup> and the Toray Eco-Efficiency Analysis (T-E2A)<sup>2</sup> tool and is working to ensure these are employed thoroughly in all of its businesses.

- <sup>1</sup> 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.
- <sup>2</sup> 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.

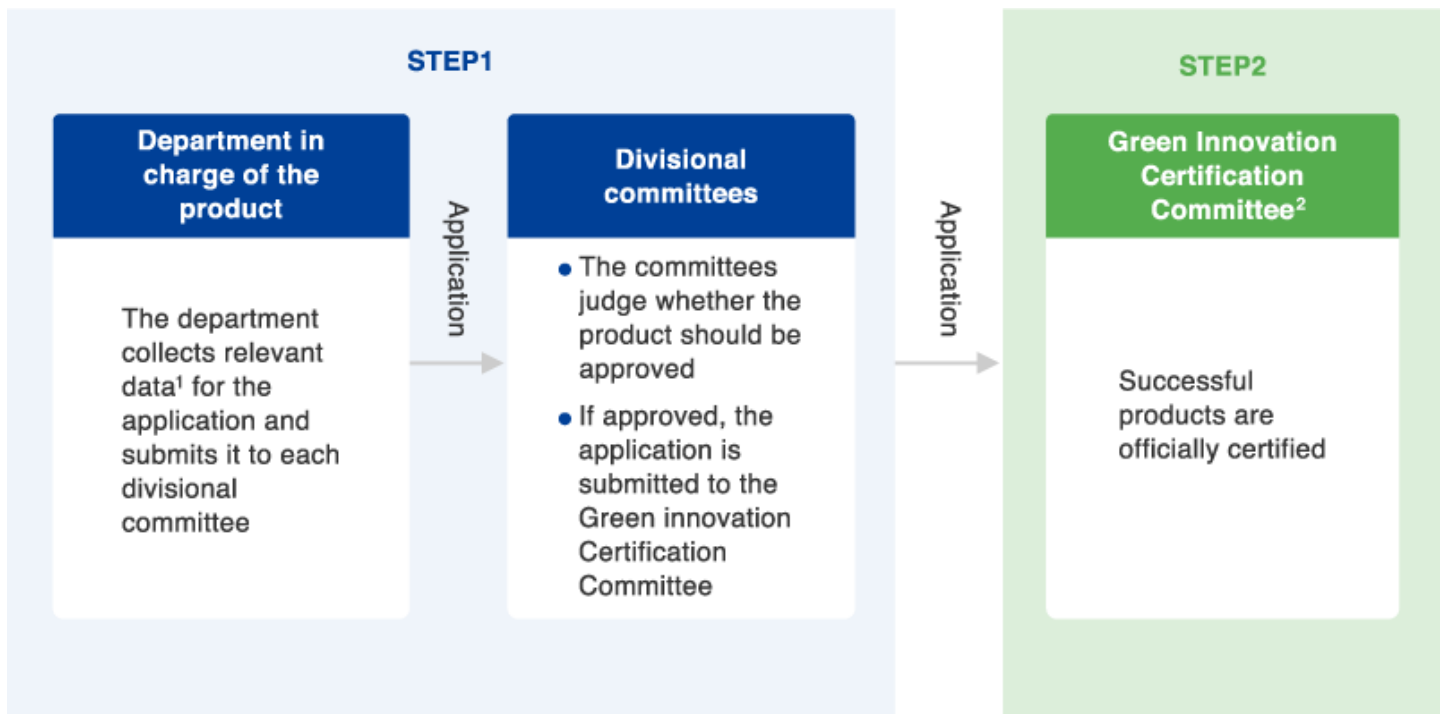
CSR Activity Report (CSR Guideline Activity Reports) - Contributing Solutions to Social Issues through Business Activities

## 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



<sup>1</sup> This includes LCA data, T-E2A data, and estimates of CO<sub>2</sub> emissions reduction attributable to the product.

<sup>2</sup> 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 2020

### Commercialization of Advanced Grade of Torayfan™ Oriented Polypropylene Capacitor Film That Enhances Electric Vehicle Design Flexibility and Fuel Economy

Toray Industries has developed and begun mass-production of an advanced grade of Torayfan™. This biaxially oriented polypropylene film delivers high thermal and voltage resistance for the capacitors of hybrid, plug-in hybrid, battery, fuel-cell, and other electric vehicles that help reduce the environmental impact of automobiles.

The new material makes it possible to downsize vehicle power control units (PCUs) while enhancing thermal resistance and efficiency. This feature enhances the design freedom and fuel economy of these automobiles.

The new material applies Toray's proprietary technologies for providing precise control of crystalline and amorphous structures on a nanometer scale. This greatly improves structural stability at high temperatures. The voltage resistance at 125 °C is around 15% greater than that of Toray's earlier products, and the thermal resistance is at least 5 °C higher. This enhances the thermal and voltage resistance of polypropylene film capacitors. These improvements and the down-gauging contribute greatly to film capacitor downsizing. This in turn makes it possible to downsize PCUs while still enhancing thermal resistance and efficiency, which will contribute to the popularization of electric vehicles and, as a result, help build a low-carbon economy. Going forward, Toray Industries will increase production capacity to meet growing demand for automotive capacitors.

Toray Industries received the 2020 Award of the Society of Polymer Science, Japan for the development and industrialization of biaxially oriented polypropylene film for automotive capacitors.



Advanced Grade of Torayfan™

## Launch of Eco-Friendly Ecouse™ PET Films Representing a Step toward a Sustainable Economy

Toray Industries has developed Ecouse™ polyethylene terephthalate (PET) films. The Company constructed a recycling system that recovers used films from electronic component applications, and reuses them in eco-friendly films, which helps to build a sustainable economy. The Company aims to launch full-fledged sales of the new product after setting up an annual production capacity of 2,500 metric tons.

Until now, there had been an absence of techniques to remove the diverse coatings, resins, and other materials used in each process in the supply chain. This had hampered reuse for films, so the focus had been on waste disposal and thermal recycling.

Toray Industries therefore set about collaborating with companies across the supply chain to establish a recycling system. It combined recycling process technology, which removes coatings and resins from film surfaces, with foreign matter removal techniques for each manufacturing process to enable reuse of films without impairing mechanical characteristics or reliability. The resulting Ecouse™ series could help lower the consumption of raw materials derived from fossil fuels and waste plastics while lowering carbon dioxide emissions, from used film recovery through film production, by up to 50% compared to those of conventional Toray offerings.

Going forward, the Company will look to expand its recycled films in various applications other than electronic components. It will also expand use beyond PET to other films and film processed products.



Eco-Friendly Ecouse™ PET Films

## Innovation of CO<sub>2</sub> Separation Membrane Incorporating Porous Carbon Fiber

Toray Industries has invented a CO<sub>2</sub> separation membrane with a dual all-carbon structure. This comprises a hollow fiber porous carbon fiber as a support and a thin carbon membrane separation layer on the surface.

The membrane offers superb CO<sub>2</sub> separation performance and high durability. It is more suitable than conventional inorganic separation membranes for making facilities more compact.

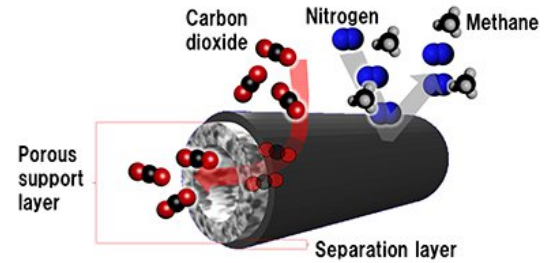
To build a carbon-neutral world, it is essential to separate, recover, and utilize CO<sub>2</sub> before it is discharged into the atmosphere. CO<sub>2</sub> separation and recovery technology based on energy-efficient membrane separation techniques is therefore attracting attention. Separation layers with pores smaller than one nanometer offer better gas permeability because they are thinner, but the lower pressure resistance necessitates combining with a support layer. Regular inorganic support layers are hard and brittle, and the diameters cannot be reduced, preventing dense module packing and miniaturization.

To tackle this issue, Toray Industries created an innovative new CO<sub>2</sub> separation membrane that employs a thin, hollow-fiber porous carbon fiber with a diameter of less than 300 micrometers as a support layer. On the surface is a uniform carbon film separation layer just a few micrometers thick.

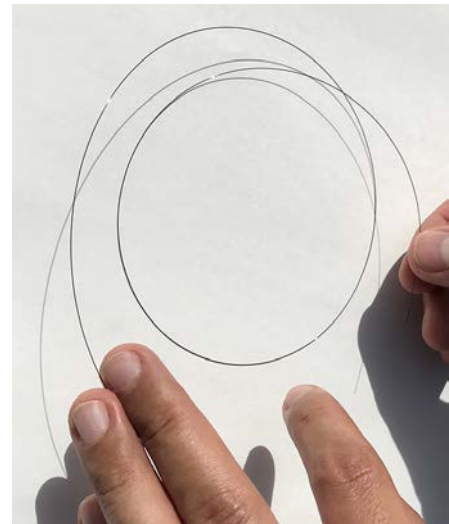
This separation membrane delivers excellent CO<sub>2</sub> separation and durability, and the membrane is flexible and incredibly thin, enabling continuous production just like with regular fibers. High-density packability enables module miniaturization. CO<sub>2</sub> permeability can be five times greater than that of conventional inorganic CO<sub>2</sub> separation membrane modules with the same volume.

Toray's new separation membrane can be used to purify natural gas and biogas by efficiently removing the CO<sub>2</sub> they contain as an impurity. It could also serve in hydrogen production and purification, exhaust gas CO<sub>2</sub> separation, and other gas separation applications by taking advantage of the selectivity of functional layers according to the gases to be separated.

Toray Industries will step up R&D to deploy this separation membrane in social infrastructure.



Structure of innovative CO<sub>2</sub> separation membrane



CO<sub>2</sub> separation membrane product under development



## Development of an Energy-Saving, Virus-Removing Ultrafiltration Membrane

Water shortages are becoming a serious problem faced by the entire world as a result of an increase in water demand attributable to population growth, as well as the impact of climate change. For over 50 years, Toray Group has been using its membrane separation technology, in desalination and wastewater reuse applications, to provide potable and recycled water.

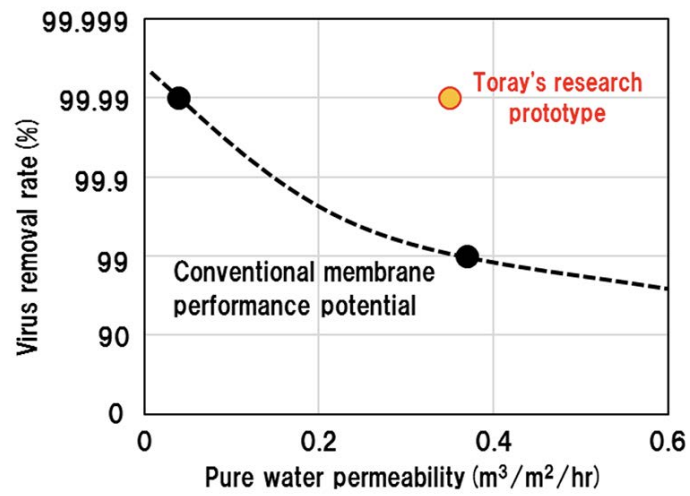
Toray Industries developed a new polyvinylidene fluoride (PVDF) ultrafiltration (UF) membrane with exceptional virus removal rate and high water permeability for water treatment.

These properties position the membrane to contribute to safe and economical supply of water treated with minimal energy for use in various applications, from food and beverages through wastewater reuse.

Until now, it has been difficult to achieve both high virus removal and high water permeability because reducing pore diameters to filter out viruses increases membrane resistance, resulting in lower water permeability. To overcome this challenge, Toray Industries designed a uniformly dense structure and used innovative hollow fiber membrane process technology. This enabled the Company to create the new UF membrane, a technology that increases virus removal while maintaining sufficient water permeability. With a view to helping pave the path toward a safe and secure recycling-based economy, the Company will scale up the technology, deploy it in social infrastructure, evaluate its long-term performance, and accelerate research into diverse applications.

	Conventional ultrafiltration membrane	New ultrafiltration membrane
Filtration mechanism image ● Virus (20~100nm)		
Virus removal performance	△	○
Water permeability	△	○

Filtration mechanism



Relationship between water permeability and virus removal (compared to conventional membranes)

Note: Filtration assessed for the Escherichia coli phage MS2, which has a diameter of around 27 nanometers and only infects *E. coli*

Click [here](#) for the main initiatives for CSR Guideline 7, “Contributing Solutions to Social Issues through Business Activities” in CSR Roadmap 2022.

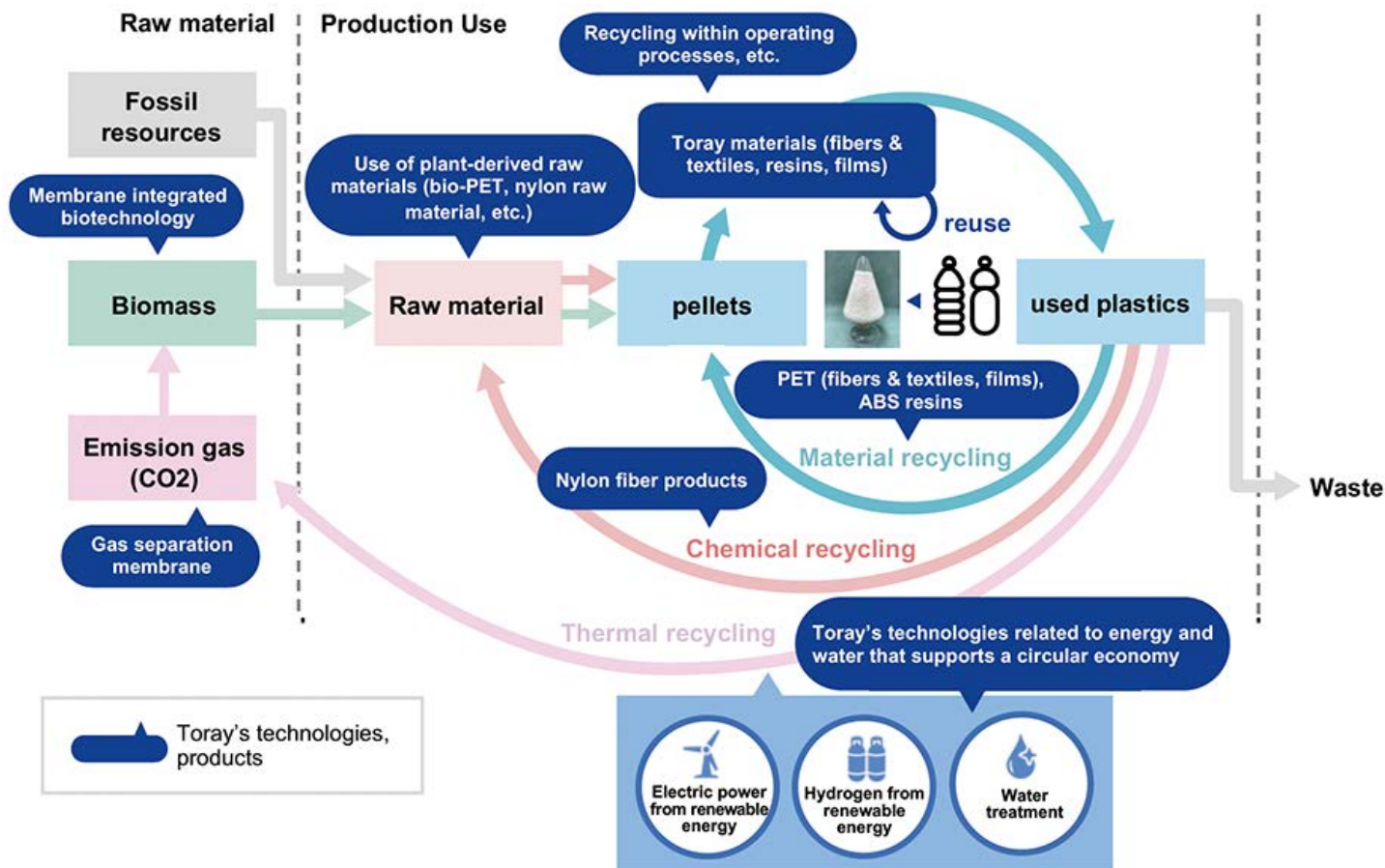
CSR Activity Report (CSR Guideline Activity Reports) - Contributing Solutions to Social Issues through Business Activities

## 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<sub>2</sub> 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, and examples of initiatives in this area include material recycling<sup>1</sup> and recycling within operating processes, both of which reuse plastic products such as fibers/textiles, resins, and films. In addition, chemical recycling,<sup>2</sup> which converts unrecyclable plastics 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 plant-based instead of petroleum-based raw materials, and membrane bioprocess technology, which efficiently produces these raw materials. 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

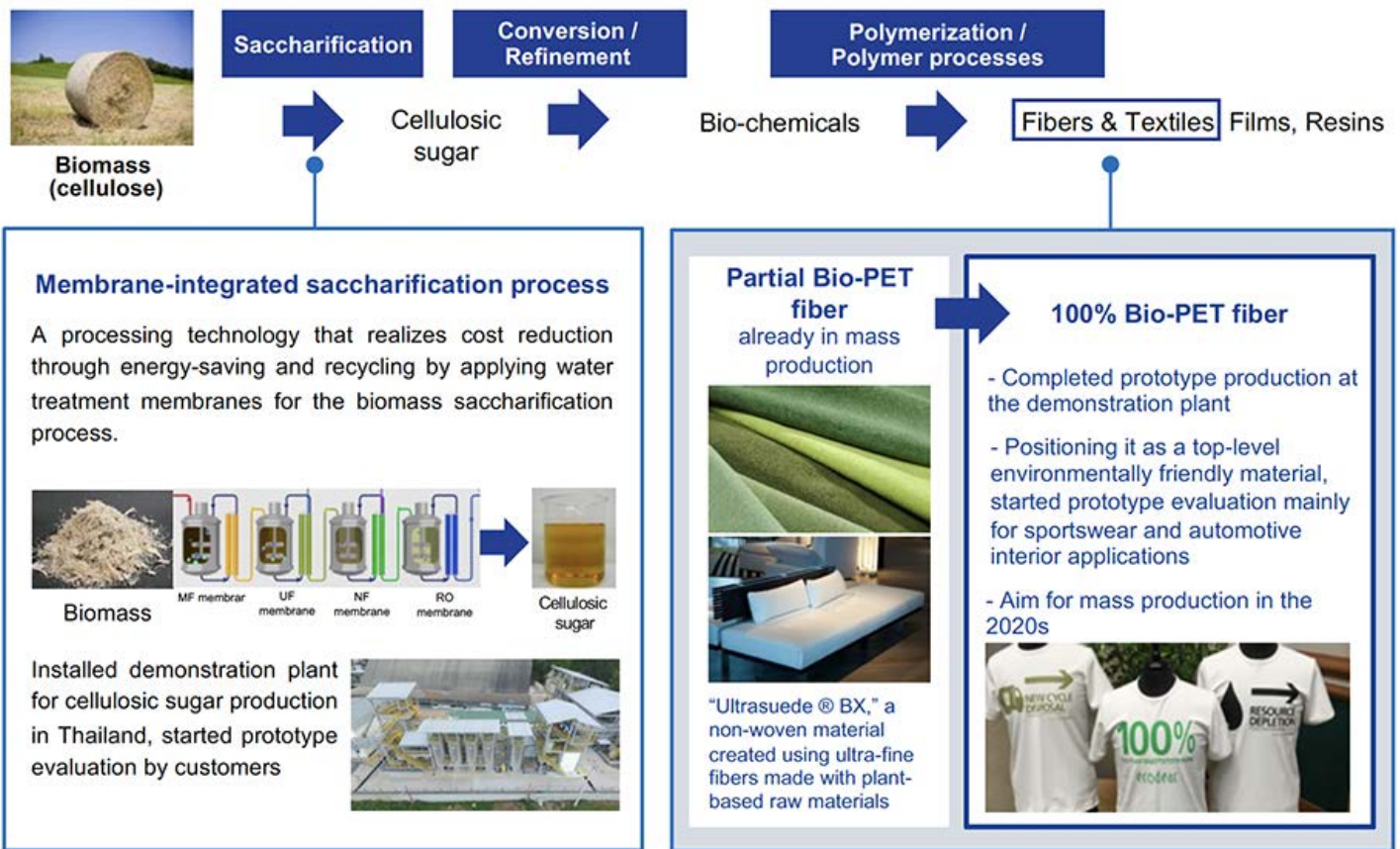
1. We shall design, produce, and sell products that reduce our impact on the environment.
2. We shall purchase and use materials and products which will help reduce our impact on the environment.
3. We shall disclose information related to recycling programs and recycled goods.
4. We shall voluntarily cooperate with customers to recycle or otherwise appropriately dispose of our products.

Toray Group is developing plant-based materials made from plant-based raw materials instead of petroleum-based raw materials. For example, in the segment of biomass-based fiber, 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 bioprocesses.

## 100% Bio-Based PET Fiber, Membrane Bioprocesses

Toray Group is promoting a fully bioPET material made from plant-based ethylene glycol and bio-para-xylene produced at its pilot plant, as its flagship eco-friendly 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 bioprocess to enable plant-based raw materials to be manufactured with greater efficiency. This membrane bioprocess combines separation membrane technology and biotechnology to create new applications for water treatment separation membranes in processes such as saccharification, conversion, and refinement. The technology significantly improves the manufacturing of raw sugar from non-edible biomass and increases fermentation efficiency, thereby fostering 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

Toray Group applies the unified Ecouse™ branding to 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, and films made by recovering and recycling films that have been used in customer processes.

In the fiber segment, Toray Group offers the CYCLEAD™ recycling 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. In addition, Toray promotes circular economy efforts that involve developing unique chemical recycling systems to, for example, recover and recycle used fibers and resin.

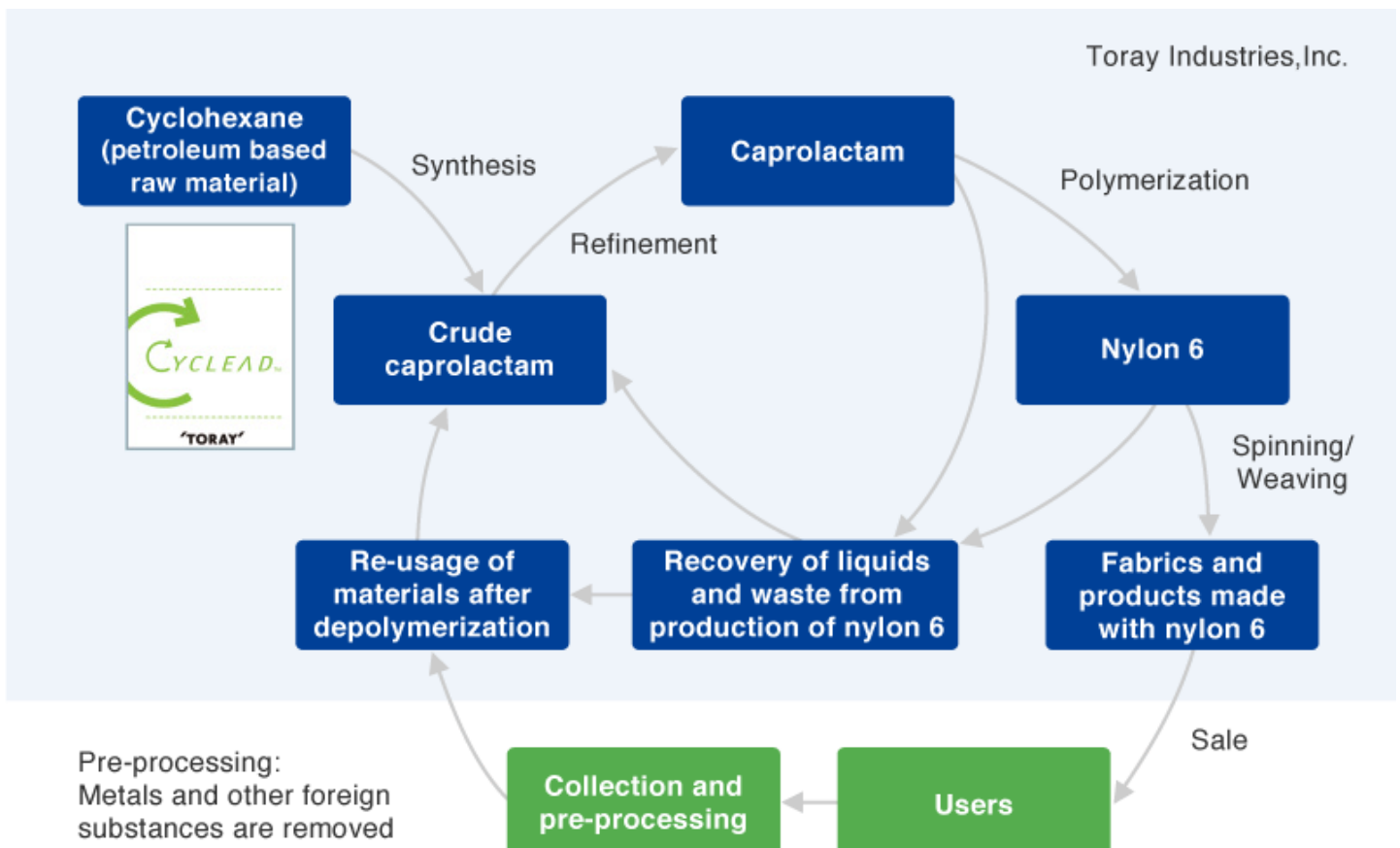
# Fiber and Textile Recycling

## 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.

## Collection and Circulation Type Recycling with CYCLEAD™

Fabric made from recycled fibers recovered from disposed nylon and other products

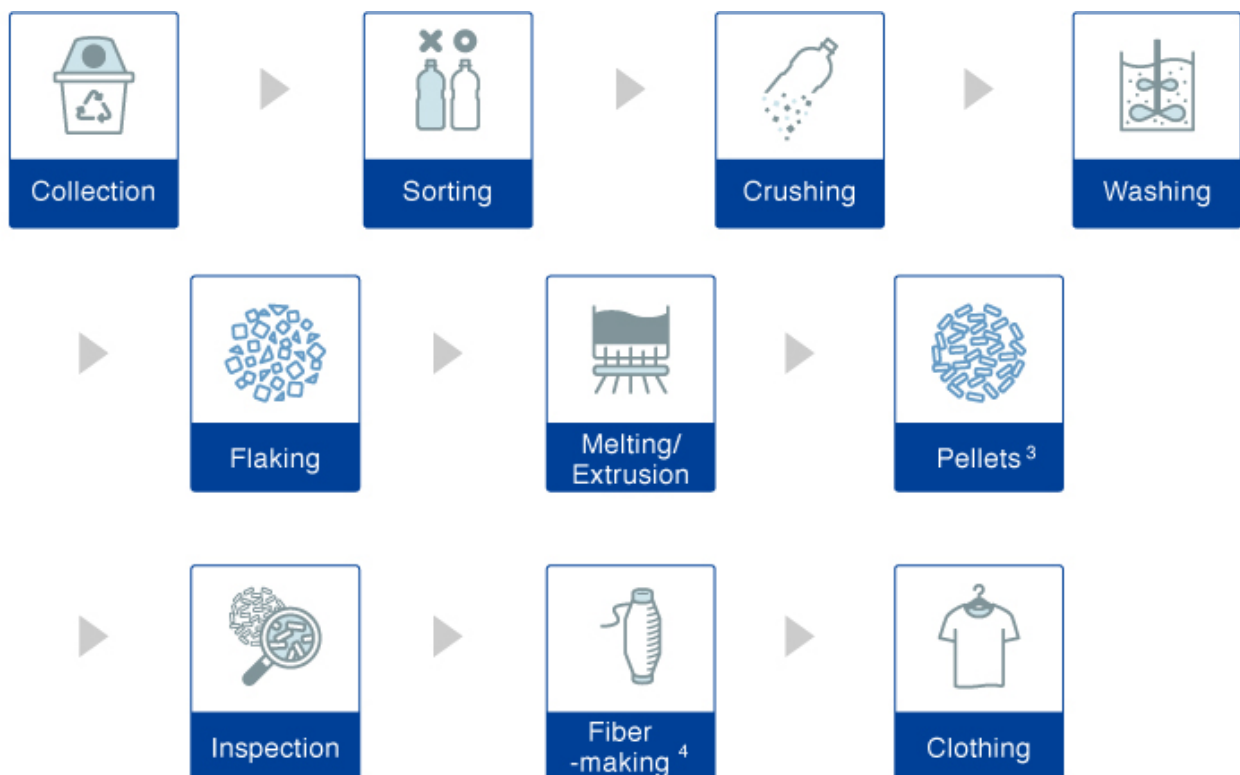


## &+™ Fiber Brand Made from Recycled Plastic Bottles

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 petroleum source. 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



<sup>3</sup> &+™ raw pellets have better whiteness than typical recycled plastic pellets due to Toray's cleaning and filtering technologies.

<sup>4</sup> &+™ 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 CO., LTD., 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.

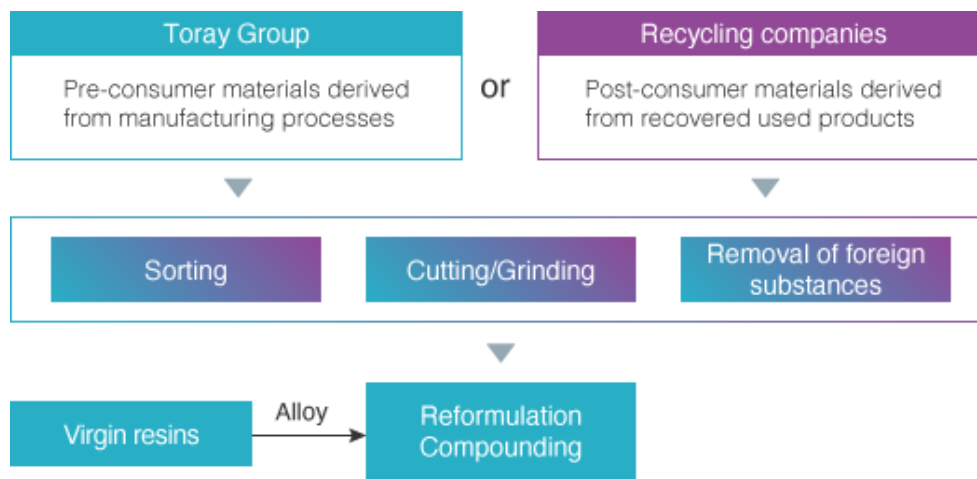
In addition, UNIQLO stores are collecting used down items from customers to recycle the feathers. Conventionally, the stuffing in duvets and other objects incorporating down is manually removed. Such processes are arduous with Ultra Light Down items because of their thin outer fabric and complex construction. 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)

### Recycling Pre-Consumer and Post-Consumer Materials

Toray Group is developing recycled plastic 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 scraps from recovered products such as PET bottles and PC resin products. The Group will continue to procure a diverse range of recycled resources.

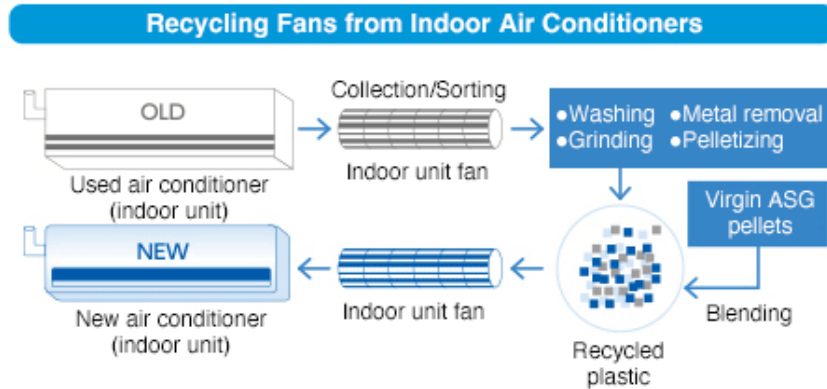




## Recycling Post-Consumer Materials and Practicing Closed Loop Recycling with Customers: Horizontal Recycling of Air-Conditioner Components

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.

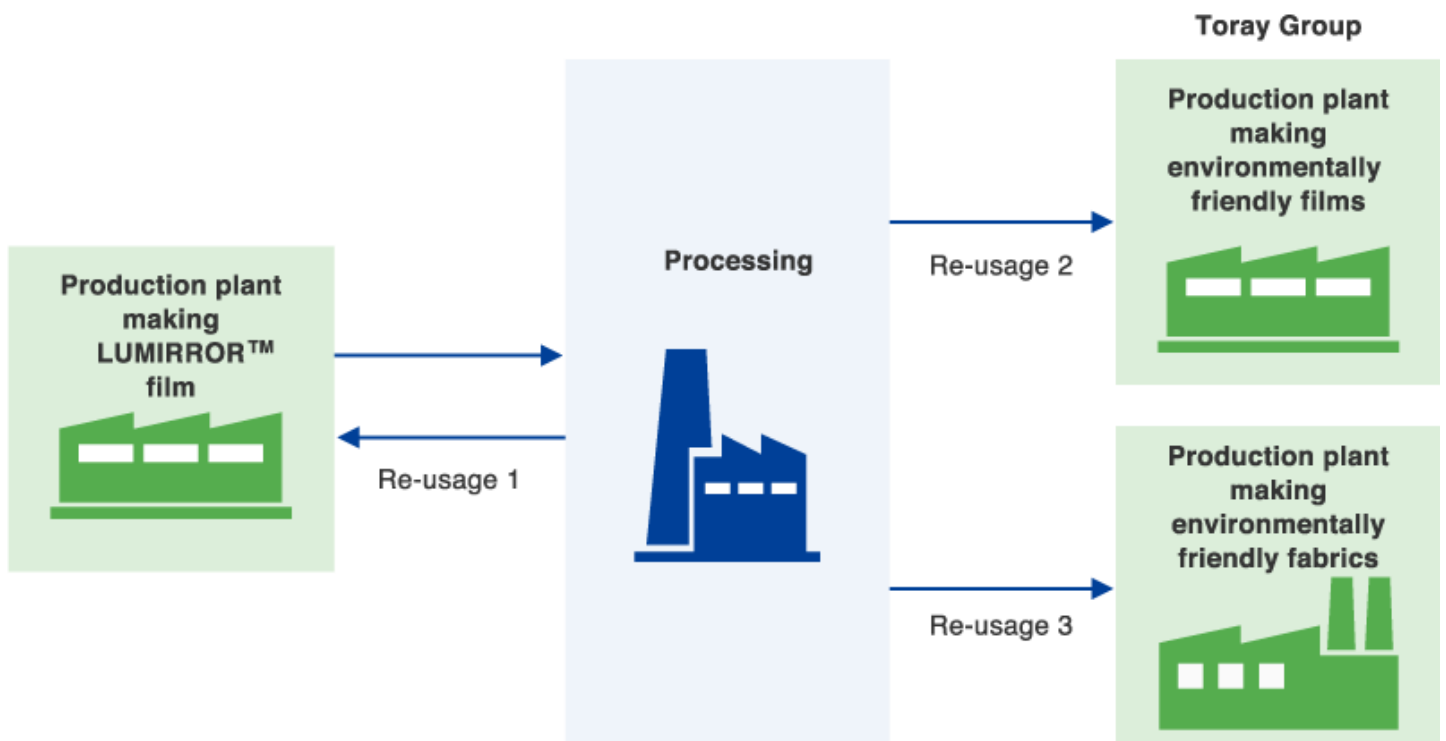


## Film Recycling

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.

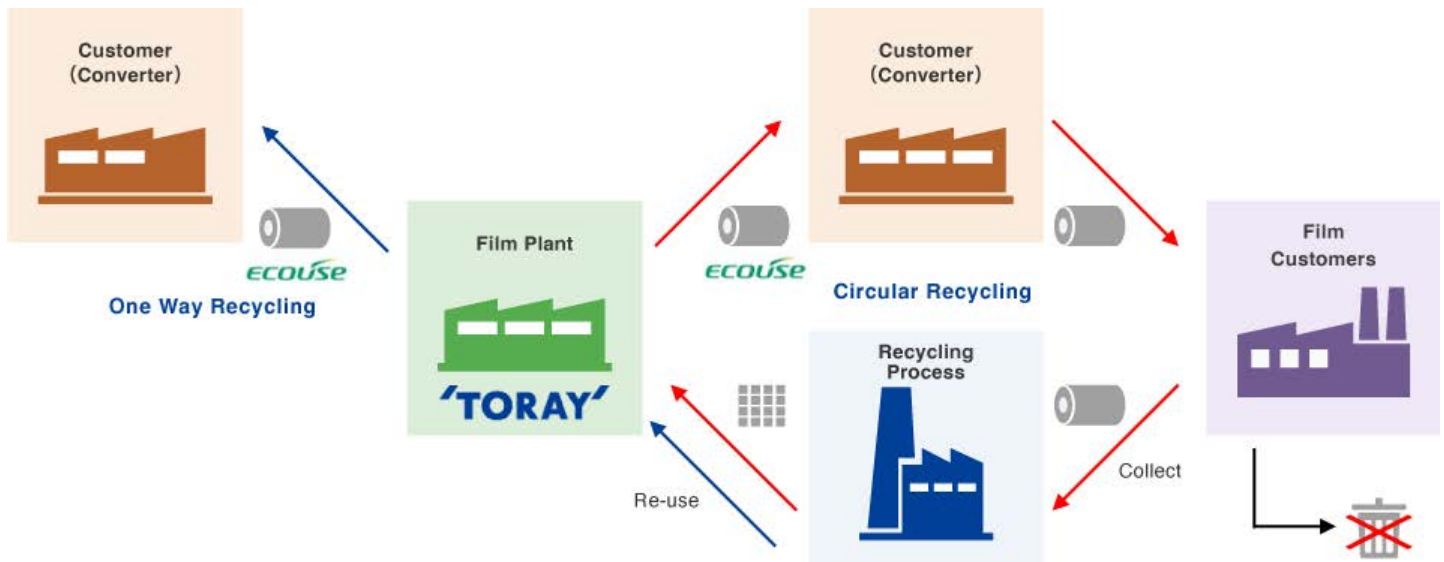
### Processing and Re-using Recovered Raw Materials Generated from Manufacturing Processes



## 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 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)

Carbon fiber is a lightweight material that significantly curbs CO<sub>2</sub> emissions over the entire lifecycle of the products in which it is used. It is viewed as an important tool for helping to solve global environmental issues. As a result, demand for carbon fiber is expanding across a wide range of applications, including aircraft and automobile parts. As demand grows, market expectations for the development of carbon fiber recycling technologies are also on the rise.

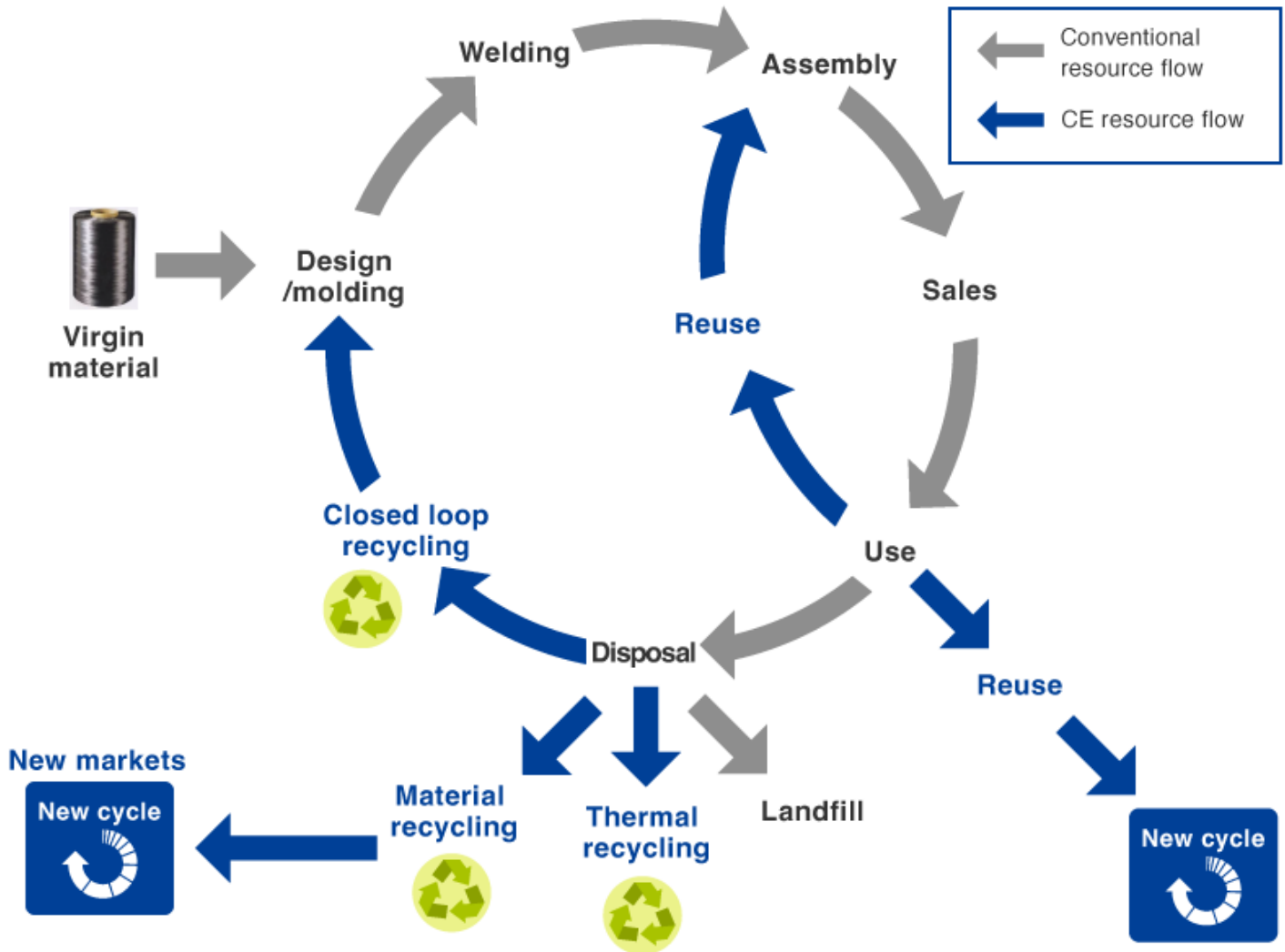
The successful development of recycled carbon fiber and associated applications requires collaboration with a wide range of customers to explore various possibilities for use in specific parts and materials.

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,<sup>5</sup> and completed the project in June 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 the amount of energy consumed in the recycling process to less than one-tenth of the energy consumed in the production of virgin carbon fiber.

With an eye towards future commercialization, Toray Industries had constructed a pilot plant to test energy-efficient recycled carbon fiber manufacturing technologies, and began to operate it in July 2017. In addition, Toray Group will 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 2020 Result

**275.6**

**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, Toray Group intends to add and strengthen product initiatives related to personal safety, including ones that enable response to unforeseen circumstances such as the COVID-19 pandemic.

## 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

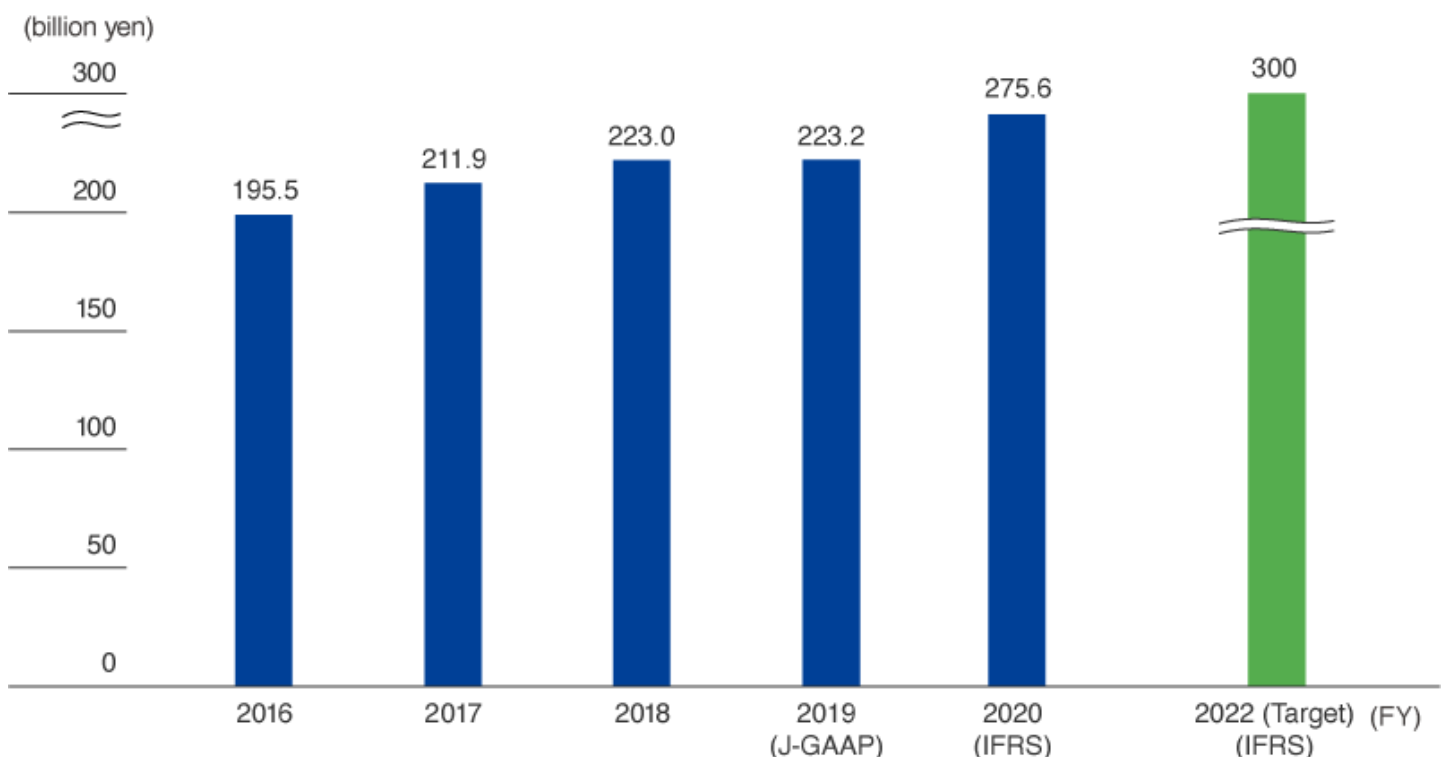
- Maintaining wellness, health, and independent living, improving activities of daily living (ADLs) for the elderly and home-care recipients, reducing the burden on care givers (nursing staff and families), and addressing public health issues

### Supporting personal safety

- Leveraging materials to protect people from disasters, extreme weather (heat waves, etc.), and accidents

Net sales (“revenue” as of fiscal 2020) in Life Innovation businesses have steadily increased from 142.2 billion yen in fiscal 2014 to 275.6 billion yen in fiscal 2020 due to the addition of personal safety products to this business area and increased shipments of non-woven fabrics for medical gowns and masks. Going forward, Toray Group aims to expand revenue in this area, including personal safety-related products, to 300 billion yen by fiscal 2022, based on International Financial Reporting Standards (IFRS).

### Net Sales (Revenue) of Life Innovation Businesses (Toray Group)



Note: FY2020 performance and FY2022 target are revenue based on International Financial Reporting Standards (IFRS).

### Strengthening and Expanding the System to Supply Non-woven Fabrics for Medical Gowns and Masks

Based on a request from the Japanese government that had been hard hit by tight domestic demand for medical gowns due to the COVID-19 pandemic, Toray Industries decided to deliver non-woven disposable medical isolation gowns to the Ministry of Health, Labour, and Welfare in May 2020. With the objective of providing frontline sites with a steady supply of required volumes within short lead times, the Company fully engaged its group-wide supply chain in Japan to produce and deliver a total of 10.1 million pieces by March 2021.

In December 2020, the Ministry of Economy, Trade and Industry awarded the Group a letter of appreciation for its efforts to increase production of medical supplies in response to the outbreak of the COVID-19 pandemic and for its significant contribution to the stability of people's lives by helping meet demand.

In addition, Toray Industries expanded its supply system of non-woven fabrics for masks to deliver 100 million pieces per month in Japan and around the world, five times the level of production maintained prior to the pandemic.



Isolation gown



Letter of appreciation from the Minister of Economy, Trade and Industry

### Toray MAKSPEC™ V Antiviral Textile Proves Effective in Combating COVID-19 (SARS-CoV-2)

Antiviral tests on samples of MAKSPEC™ V (100% polyester type), which was developed in 2020 as an antiviral textile with exceptional washability and comfort, have confirmed its effectiveness in reducing concentrations of the novel coronavirus SARS-CoV-2.

Toray used the JISL 1922 antiviral test for textile products. It exposed samples to COVID-19 and measured concentrations two hours later. As with earlier experimentation using the ATCC VR-1679 envelope strain, the company confirmed that the fabric reduced more than 99.9% of COVID-19 viruses on textiles. It obtained this same result even after 50 industrial washing cycles, underscoring the fabric's solid antiviral performance. Going forward, Toray Industries will step up promotion of this textile for use in uniforms worn by customer service employees, nursing caregivers and school students, where there is strong need for antiviral function. In addition, the Company will expand this business to a wider range of areas, including uniforms, sportswear, casual wear, fashion, and children's clothing.

## Product Lineup Expanded with New Series of LIVMOA™ Single-Use Protective Clothing

Toray Industries is expanding its range of LIVMOA™ single-use protective clothing, which integrates textile and film technologies to deliver both comfort and protective barrier properties. The expanded lineup includes suits with excellent breathability and dustproof features, sterilized clothing that is both highly breathable and low dust emitting, and high-breathability clothing that protects against the spread of infection. These products, particularly those with excellent breathability and dust protection features, have gained a strong reputation for breathability that reduces stiffness, and they are increasingly used in industrial applications. Shipment volume has grown significantly over the previous fiscal year due to rising demand brought about by efforts to contain the spread of COVID-19 and other factors. Toray Industries has also added the new LIVMOA™ 4000 for high-pressure water application and the upgraded version of LIVMOA™ CL sterilized clothing for cleanrooms to its lineup in order to meet rising demand.



LIVMOA™ 4000

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

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#### 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. 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 in November 2011, 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

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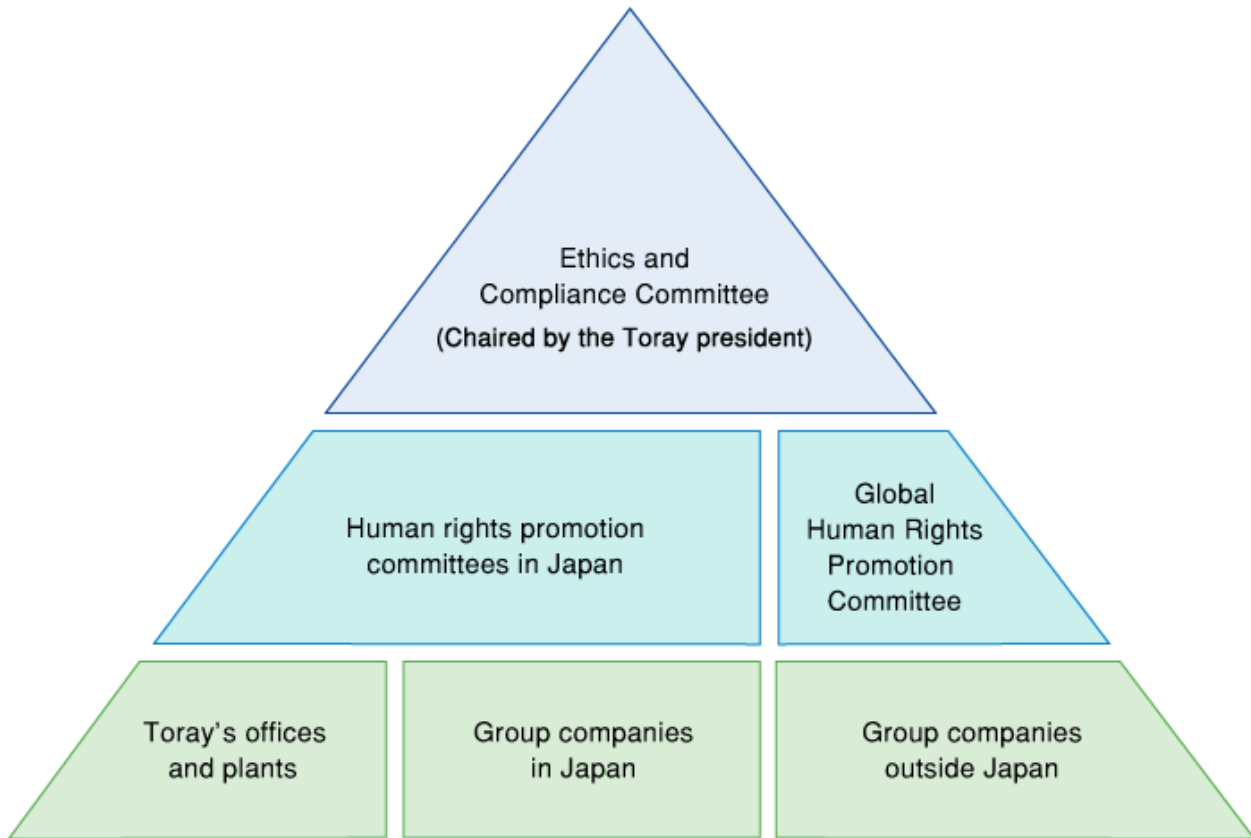
### **Human Rights Promotion System at Toray Group**

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 group employees 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
<b>Human Rights Promotion</b>	
(1) Implement human rights education and training	8-①
(2) Achieve the legally mandated employment rate of persons with disabilities	8-②
(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	-
<b>Human Resources Development</b>	
(4) As part of career develop initiatives for core staff, use the career path worksheets included in the new personnel information system	8-③
(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	8-④
(8) Reduce the number of employees who exceed non-statutory working hours	8-⑤
(9) Encourage the use of annual paid leave by labor union members	8-⑥

Key Performance Indicator (KPI)	Target			Fiscal 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
8-① Group companies implementing human rights education and training (%)	100%	100%	100%	100%
8-② Group companies that have achieved legally mandated employment rate of persons with disabilities (%)	100%	100%	100%	62.5%
8-③ Career development of core staff using the new personnel information system (% of staff using a career path worksheet)	20%	30%	100%	23%
8-④ Employees returning to work from childcare leave (%)	100%	100%	100%	97.6%
8-⑤ 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	67.7%
8-⑥ Available annual paid leave used by labor union members (%)	About 90%	About 90%	About 90%	83.4%

Reporting scope : Toray Group (8-①)

Toray Group (Japan) (8-②)

Toray Industries, Inc. (8-③, 8-⑤ and 8-⑥)

Employees of Toray Industries, Inc. (8-④)

### 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 2021.

### 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	■Target in fiscal 2020
Toray Group	100%

Result in fiscal 2020

**100%**

Toray Industries, Inc. holds human rights promotion campaigns annually to help increase awareness and understanding of human rights issues. In fiscal 2020, the campaign focused on the human rights sensitivity of every person, harmony in the workplace, and consideration, interaction, and understanding. 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 2020, the Human Rights Promotion Section Manager conducted remote training sessions for members of the Human Rights Promotion Committee as part of the human rights awareness campaign. In March 2021, the Company held its annual e-learning program on corporate ethics and legal compliance for human rights targeting all executives and employees (including contracted, part-time, and dispatched employees). A total of 6,849 employees completed the program.

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 2020 Human Rights Training and Seminar

Type of training		Number of sessions	Number of participants
Toray Industries, Inc.	Training at head office	25	1,334
	Training at offices and plants	1,478	13,700
	Training at outside company	19	22
Group companies in Japan	Training at companies	888	15,613
	Training at outside company	99	297

**Total amount of time dedicated to training**

**1,568 hours**

## Response to Reports and Consultations on Human Rights

CSR Roadmap 2022  
Main Initiatives (3)

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 worked together to promptly and appropriately respond to the reports and consultations on human rights received by the Corporate Ethics and Legal Compliance Helpline.

The number of reports and consultations received, an overview, and the results of the response to them were reported to the Ethics and Compliance Committee, the Human Rights Promotion Committee in Japan, and the Global Human Rights Promotion Committee. Through Toray Group's human rights education in Japan, we 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 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 112 non-Japanese as regular employees as of fiscal 2020. 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.

#### Number of Employees Hired in Fiscal 2018 - 2020 (Toray Industries, Inc.)

Result		2018	2019	2020
New graduates	Men	224	244	176
	Women	41	44	36
	Total	265	288	212
Mid-career	Men	55	37	9
	Women	17	8	2
	Total	72	45	11

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 2020, the Company did not conduct group training due to measures to prevent the spread of COVID-19. Instead, training was limited to sessions that could be effectively conducted online. For this reason, training expenditures per employee at Toray Industries stood at 36,092 yen in fiscal 2020, compared to 96,821 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 2020 Training Program at Toray Industries

	Management	Technical	Sales, marketing, and administration	Global	General
<b>Directors</b>	Director Training			Toray Group Executive Seminar	
<b>Division and department managers</b>	Management Training for General Managers Department manager training			Toray Group Senior Management Seminar	Study programs for employees (at university and other institutes in and outside Japan) and overseas training for young employees  Outside Training, Outside Seminars, Seminars to Exchange Information with Different Business Fields
<b>Section managers</b>	Toray Management School Management skills development seminar for section managers Management Training for New Managers	Training to Become Leaders in Technology Development	Training to Become Leaders in Sales/Marketing	Toray Trainee Program	
<b>Non-Managerial Senior Level</b>	Management Training for Supervisors	Training to Become Leaders in Technology Development Mid-Level Engineer Training	Marketing and Merchandising Strategy Training	TES Toray Management and Technology Training	
<b>Non-Managerial Junior Level</b>	Toray School of Technology and Business Administration	Second Technical Training First Technical Training	Second Sales/Marketing Training First Sales/Marketing Training	Senior/Junior Accounting Seminar Global Diversity Seminar	
		Management Technology Seminars Open Patent Seminar	Sales/Marketing Practical Seminars	Business English Intensive Training	
<b>Newly-Hired Employees</b>	Introductory Training for Newly-Hired Employees	Practical Plant Training	Plant assignment	Intensive English Conversation Training for Newly-Hired Employees	

- Training also open to employees of group companies in Japan
- Training for "national staff" of group companies outside Japan, held in Japan

## Company-Wide Training Course Enrollment in Fiscal 2020 (Toray Industries, Inc.)

Training category	Persons enrolled			Time dedicated to training per employee (hour) <sup>1</sup>
	Men	Women	Total	
Management	374	28	402	26.3
Technical	367	52	419	30.0
Sales, marketing, and administration	169	63	232	22.5
Global	0	0	0	0
General	0	0	0	0
Total	910	143	1,053	26.9

<sup>1</sup> Time dedicated to group training at the Toray Human Resources Development Center. It does not include time for correspondence learning or study abroad, etc.

## Personnel System (Toray Industries, Inc.)

Management-by-objectives system <sup>2</sup>	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 <sup>2</sup>	Designed to facilitate a fair appraisal of employee contributions in terms of duties, responsibilities, capabilities, and performance <sup>3</sup> .
Individual meeting system <sup>2</sup>	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.

<sup>2</sup> 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

<sup>3</sup> Including CSR initiatives

## Career development of core staff using the new personnel information system (% of staff using a career path worksheet)

Result in fiscal 2020

**23%**

■Reporting scope

Toray Industries, Inc.

■Target in fiscal 2020

20%

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 and will be expanded to all G-Course employees from fiscal 2021.

## 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, however, due to measures to prevent the spread of COVID-19.

### Strategies for Developing Future Management Candidates

Program	Participants	Purpose	Year started	Total participants through FY2020
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	147
Toray Management School	Section managers of Toray Industries	Develop future management candidates at Toray Industries and group companies	1991	560
Toray Group Management School	Department managers of group companies in Japan	Develop management candidates focusing on group companies in Japan	2006	285
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) 1,090**

**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 2020, a total of five core staff outside Japan help manage Toray Group, with two serving as vice presidents of Toray Industries and three 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.

## Training Courses Held for Core Staff Outside Japan

### Japan-based courses

Training program	Managerial category
Toray Group Executive Seminar	Officers
Toray Group Senior Management Seminar	Department managers
Toray Trainee Program	Section managers
National Engineer Key Person Training	Section managers
Toray Management & Technical Training	Unit managers

### Courses held outside Japan

Training program	Managerial category
Toray Group U.S. Senior Management Seminar	Department managers
Toray Group U.S. Management Training	Section managers
Toray Group EU Senior Management Seminar	Department managers
Toray Group EU Management Seminar	Section managers
Toray Group Indonesia Management Seminar	Department managers / section managers
Toray Group Thailand Senior Management Seminar	Department managers
Toray Group Malaysia Management Seminar	Department managers / section managers
Toray Group China Senior Management Seminar	Department managers
Toray Group East and North China Management Seminar	Section managers
Toray Group South China Management Seminar	Section managers
Toray Group Korea Senior Management Seminar	Department managers

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 2021, women held 9.8% of unit manager or higher positions and 5.6% 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.

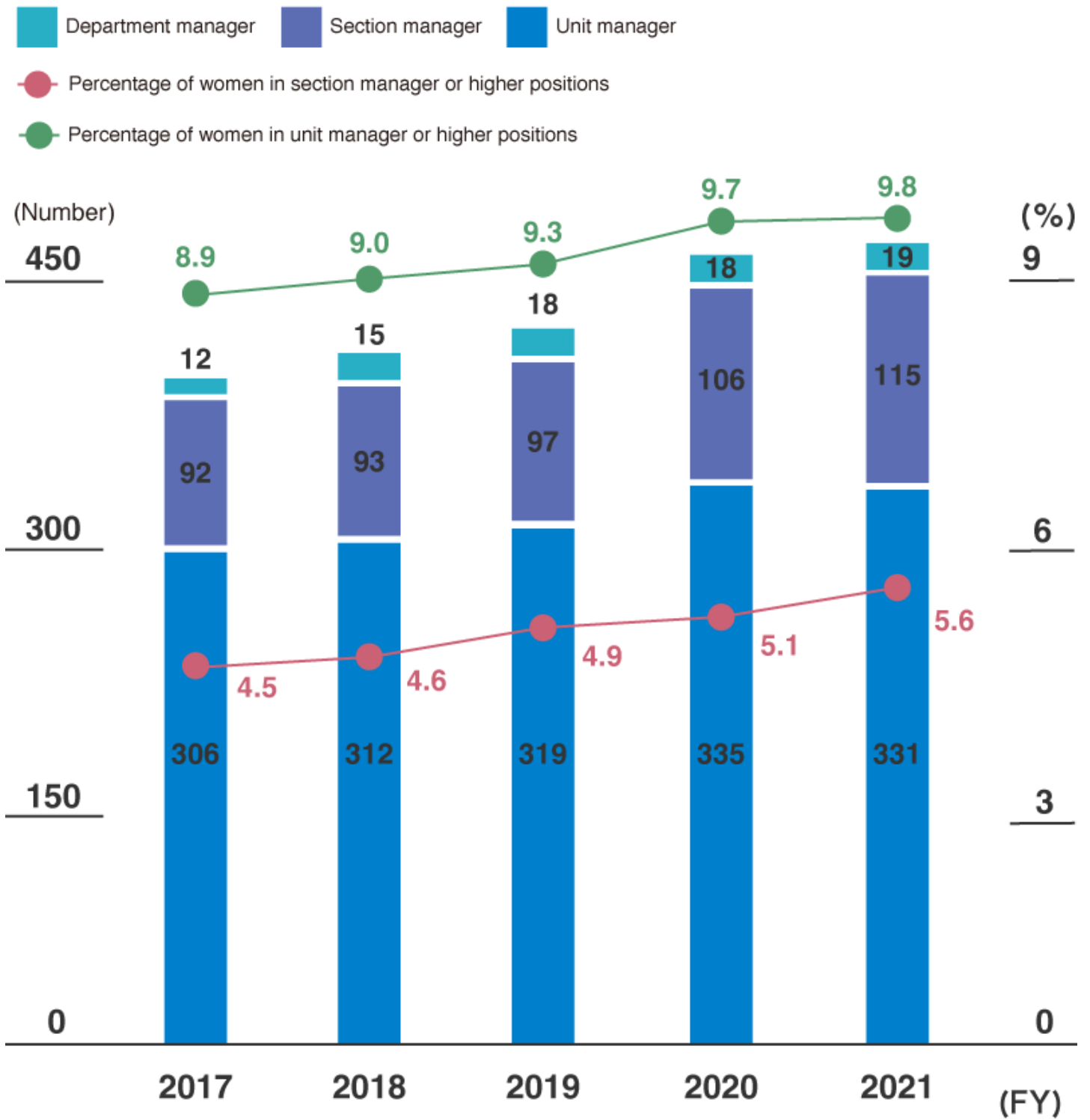
#### Goals:

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

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 addition, 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.

## **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<sup>1</sup>

**Purpose** The meetings were held at plants; women shared their opinions on work situations and the issues they face, and these were summarized.

<sup>1</sup> 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<sup>2</sup> track and for raising interest in participating. Measures to improve these issues were considered and proposed in line with conditions at each plant.

<sup>2</sup> 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.

### 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 2019, the stories of 27 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.

## Group companies that have achieved legally mandated employment rate of persons with disabilities (%)

■Reporting scope  
Toray Group (Japan)

■Target in fiscal 2020  
100%

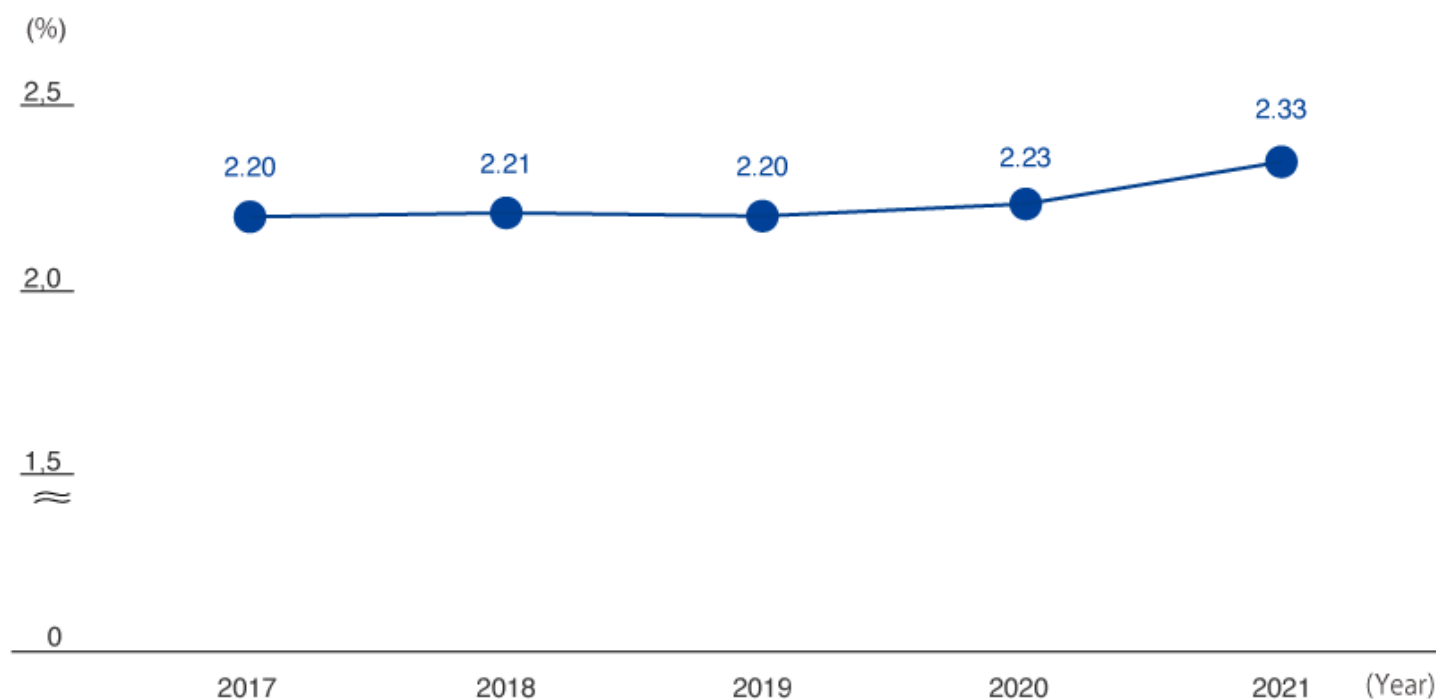
Result in fiscal 2020

**62.5%**

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 2020, Toray Industries met Japan's legally mandated employment rate of persons with disabilities, as did 62.5% 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

## Re-employment System

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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<sup>1</sup> 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, and began to allow use of leave to care for sick children and family-care leave on an hourly basis.



<sup>1</sup> Available to regular employees.

## Major Support Systems for Employee Work and Family Life Balance

Category	Description
Long-term childcare leave	<ul style="list-style-type: none"> <li>• Available for employees using child care center services up to the end of the month in which the child turns two years of age</li> </ul>
Lower-hour work schedules for childcare	<ul style="list-style-type: none"> <li>• 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</li> <li>• May be used concurrently with flextime system</li> </ul>
Long-term family care leave	<ul style="list-style-type: none"> <li>• Available for a total of 365 days per situation requiring leave to provide care</li> <li>• May be split up</li> </ul>
Spouse's childbirth leave	<ul style="list-style-type: none"> <li>• Available for three days in the event that an employee's spouse gives birth</li> </ul>
Lower-hour work schedules for caregivers	<ul style="list-style-type: none"> <li>• May be taken multiple times per situation in the three-year period following the first day of use</li> <li>• May be split up</li> <li>• May be used concurrently with flextime system</li> </ul>
Leave to care for sick children	<ul style="list-style-type: none"> <li>• 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</li> <li>• Can be used on hourly basis</li> </ul>
Family care leave	<ul style="list-style-type: none"> <li>• Five days per year of leave available per family member</li> <li>• Can be used on hourly basis</li> <li>• At maximum five additional days per year available when no other appropriate caregiver is available</li> </ul>
Toray Smile Support Program	<ul style="list-style-type: none"> <li>• Welfare point system offering a selection of programs with an emphasis on providing support for childcare and home acquisition</li> </ul>

Category	Description
Childcare services payment assistance	<ul style="list-style-type: none"> <li>• Childcare coupons offering a 70% discount on services provided by participating companies issued as an additional Toray Smile Support Program service</li> <li>• No restrictions on number of coupons or age of participating employee's child</li> </ul>
Telecommuting program	<ul style="list-style-type: none"> <li>• Available for employees who are proficient in their assigned duties, can perform these duties self-sufficiently, and meet certain requirements.</li> <li>• 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.</li> </ul> <p>Note: In addition to the conditions above, since 2020, the program has also been used to address the COVID-19 pandemic.</p>
Registration system for reemployment	<ul style="list-style-type: none"> <li>• 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</li> <li>• 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.</li> </ul>
Commuting allowance for bullet train or other limited express travel	<ul style="list-style-type: none"> <li>• 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</li> <li>• In certain cases, employees may be required to pay a part of the commuting expenses out of pocket.</li> </ul>

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 2020

### Caregiving Seminar: Understanding Dementia and Preparing the Family (Toray Industries Ishikawa Plant)

In cooperation with the Tatsunokuchi Consultation Center, the Ishikawa Plant held a seminar on the topic Understanding Dementia and Preparing the Family. Participants gained a proper understanding of dementia, including the difference between forgetfulness and dementia, and looked at case studies to learn how to deal with and prevent dementia. With this and other activities, the plant is working to create an environment where employees can continue to work even when dealing with caregiving issues and share their experiences with others.



Taking part in a seminar on dementia

### Nursing Care and Welfare Seminar Co-Hosted by Labor and Management (Toray Industries Aichi Plant)

The Aichi Plant invited medical specialists and Toray retirees for a seminar on nursing care and welfare to learn about preventing and treating strokes, preventing and dealing with dementia, local nursing care and welfare systems, and Toray Industries leave programs related to caregiving. The plant will continue to hold seminars as part of its efforts to create a workplace environment that helps employees balance work and caring for their families.



Speaking at the seminar

### Balancing Work and Parenting Program (Toray Industries Seta Plant)

The Seta Plant held a program on balancing work and parenting. A specialist on reading to children was invited to speak on the subject to help participants learn how to use picture books in childrearing and fostering communication between parents and children. After this talk, a conversation with employees who are mothers of older children took place. Employees who have not yet returned to work from maternity leave were invited to participate in this part of the program. This provided a good opportunity to learn from employees who have experience with anxieties over returning to work and balancing work and parenting.



Employee conversation between experienced and new mothers

## Utilization of Childcare and Family Care Leave Systems (Toray Industries, Inc.)

FY		2016	2017	2018	2019	2020
Employees taking childcare leave	Women	64	68	58	60	66
	Men	4	3	4	10	22
Employees taking family care leave	Women	2	0	5	3	1
	Men	1	1	1	1	0

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.)



## Number of Employees Who Returned to Work after Childcare Leave and Family Care Leave (Toray Industries, Inc.)

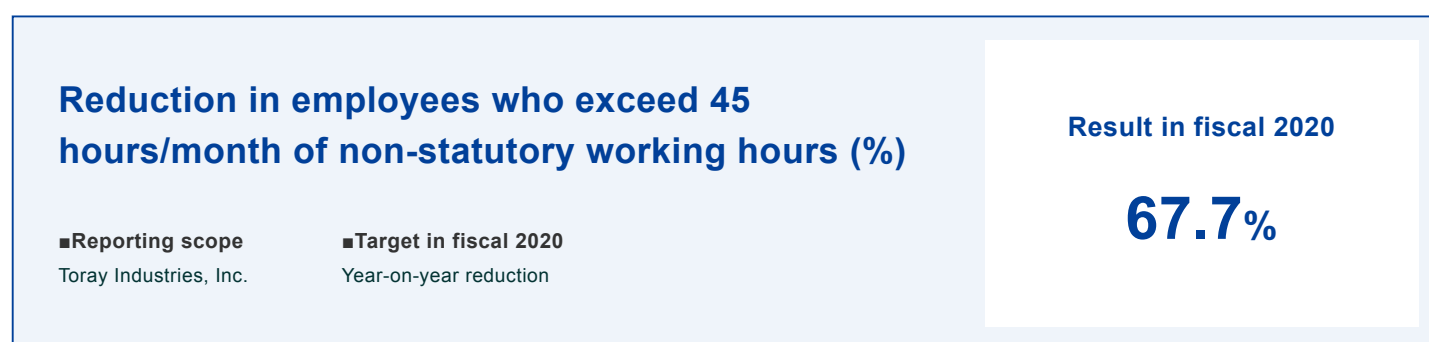
		FY2019		FY2020	
		Number of employees who returned to work	Percentage of employees who returned to work	Number of employees who returned to work	Percentage of employees who returned to work
Childcare Leave	Women	50	100%	64	97.0%
	Men	11	100%	18	100%
Family Care Leave	Women	3	100%	2	66.7%
	Men	2	100%	0	-

Note: Number/percentage of employees returning to work per fiscal year

## Employees taking leave for spouse's childbirth (Toray Industries, Inc.)

FY	2018	2019	2020
Number of employees	234	254	230

## Initiatives to Reduce Overtime and Encourage Use of Annual Paid Leave (Toray Industries)



## Employee Health

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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 2021, 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 2020

#### Active Exercise at Gifu Plant Safety Conference (Toray Industries Gifu Plant)

Aiming to be a healthy plant where all employees can work comfortably, the Gifu Plant held an active exercise<sup>2</sup> session on July 3 in conjunction with National Safety Week under the slogan “Healthy Gifu Plant 2020.” The plant has since expanded these sessions to all employees, and has replaced its 3pm sessions of regular exercise with active exercise sessions since October to help counter a lack of exercise during the COVID-19 pandemic.

<sup>2</sup> Original exercises that combine strength training and stretching. Developed by JFE Steel Corporation to prevent occupational accidents caused by stumbles or falls due to loss of balance and muscle strength caused by aging.



Taking part in active exercise session

#### Women's Health Seminar (Toray Industries Okazaki Plant)

In addition to its yearly discussion meetings for women that are part of the Company's efforts to foster greater participating by women at work, the Toray Industries Okazaki Plant also held a four-day Women's Health Seminar this year. Participants learned from a nurse about specific health issues faced by women at work and disease at different stages of life. They also discussed matters related to staying healthy by introducing their own self-care methods and learning breathing techniques to reduce stress.



Participants at the Women's Health Seminar

## Speaking on Balancing Cancer Treatment and Work at Online Seminar

Junji Miyahara, general manager of the Diversity & Work-Life Balance Department at Toray Corporate Business Research, Inc., spoke at Learn from the Professionals! Necessary Support for Balancing Cancer Treatment and Work, an online seminar held on March 3, 2021 by Advantage Risk Management Co., Ltd., which specializes in mental health management. The seminar was attended by approximately 200 people. As the workforce ages with the extension of the retirement age and the possibility of employees being diagnosed with cancer increases, this was an opportunity to share information with those outside the Company on creating an environment where talented employees are able to balance medical treatment and work without having to resign due to cancer.

## Dialogue with Labor Unions

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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 2020, 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. As of March 2021, Toray Workers' Union membership stood at 8,423 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

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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, the CSR Procurement Guidelines specify the Group's commitment to building a supply chain that not only ensures quality and stable supply of products, but also incorporates ethical, social, environmental, and human rights considerations. The Group seeks the understanding of suppliers in this effort.

## Related Policies

### **CSR Procurement Guidelines** Revised December 2004

1. Establish an internal CSR organization and be committed to CSR
2. Work to enhance corporate ethics and comply fully with all laws and regulations
3. Position safety, accident prevention, and environmental preservation as a management priority and practice green procurement and purchasing whenever and wherever possible
4. Put crisis management systems into place, including capabilities for responding swiftly in unexpected situations, and disclose accurate information
5. Encourage dialogue and cooperation among all stakeholders
6. Ensure product safety as a precondition for supplying products
7. Respect human rights, eliminate discrimination, and improve workplace environments; prohibit forced labor, slave labor, child labor, and unfair low-wage labor
8. Maintain the confidentiality of information and respect others' intellectual property rights

## Policies on Purchasing and Distribution

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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, legal compliance, environmental protection, respect for human rights, and quality improvement.

## Related Policies

### **Basic Purchasing Policies** Revised December 2004

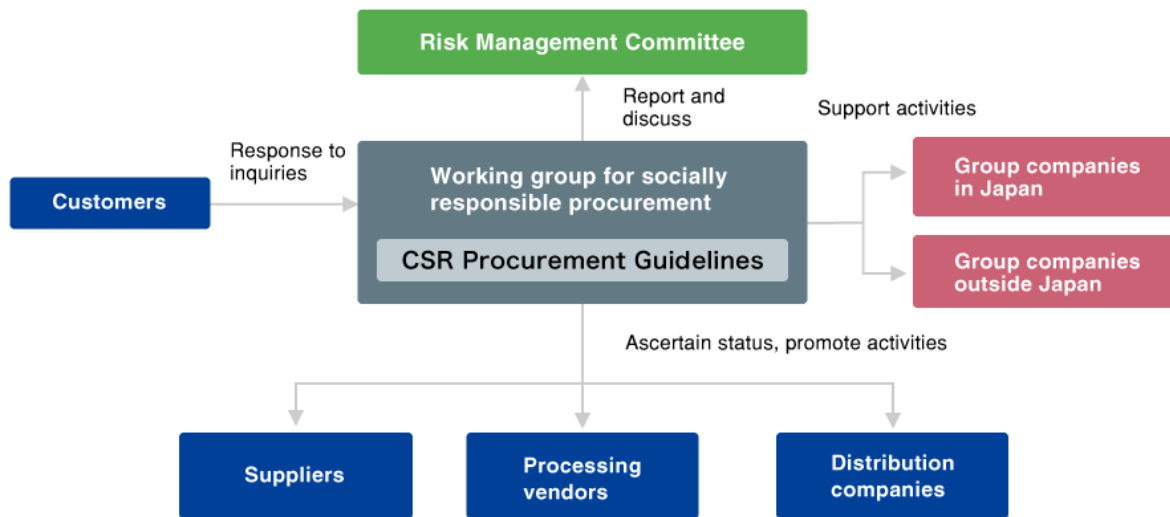
1. Toray does its utmost to select suppliers and determine actual purchases fairly and on the basis of economic rationality, with consideration for price, quality, capability to provide stable supplies, technological capabilities, reliability, and other factors.
2. In selecting suppliers, Toray opens 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. In making purchases, Toray complies with relevant laws and regulations while taking environmental preservation and fulfilling corporate social responsibility (CSR) issues into account. Toray actively pursues green procurement and purchasing as part of its environmental efforts.
4. Toray works to maintain and improve the quality of purchased products through cooperation with its suppliers.
5. Toray works to uphold its corporate social responsibilities on a company-wide basis.

**Basic Distribution Policies** Revised December 2004

1. We shall select our 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. We shall be open in selecting our transport and warehousing providers, rather than relying exclusively on companies with which we have done business in the past or companies affiliated with Toray Group.
3. We shall comply with relevant laws and regulations, consider environmental preservation, and fulfil our corporate social responsibilities in outsourcing our transport and warehousing operations.
4. We shall cooperate with our transport and warehousing providers in gauging and reducing the environmental impact of our transport and warehousing operations.

## 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.



### Suppliers' status to be ascertained and items to be requested to supplier

Establishment of CSR promotion system	Corporate ethics and compliance	Safety, accident prevention, and environmental preservation
Business continuity plan and risk management	Interaction with stakeholders	Product safety and quality assurance
Human rights and labor environment	Information security and intellectual property management	Supplier's CSR promotion in its own supply chain

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.

## CSR Roadmap 2022 Targets

### 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 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	9-①②
(2) Address issues in the supply chain such as human rights challenges and conflict mineral issues	-
(3) Reduce CO <sub>2</sub> emissions intensity from distribution activities	9-③
(4) Promote modal shift <sup>1</sup> across distances of 500 km or more	9-④
(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, <sup>2</sup> contribute to sustainable logistics, for instance by selecting logistics companies that are engaged in working style reform, etc.	-

Key Performance Indicator (KPI)	Target			Fiscal 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
9-① Group companies requesting their suppliers to practice CSR (%)	At least 80%	At least 90%	At least 95%	85%
9-② Suppliers confirming the status of CSR initiatives as requested by Toray Group (%)	At least 70%	At least 70%	At least 70%	86%
9-③ Reduction in CO <sub>2</sub> emissions intensity from distribution activities (year-on-year)	1%	1%	1%	-9.9%
9-④ Modal shift to sea or rail for transport across distances for 500 km or more (%)	40% (Fiscal 2022 target)			32%

Reporting scope : Toray Group (9-① and 9-②)

Toray Group (Only specified consigners) (9-③)

Toray Industries, Inc. (9-④)

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

2 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 2020  
At least 80%

Result in fiscal 2020

**85%**

#### Suppliers confirming the status of CSR initiatives as requested by Toray Group (%)

■Reporting scope  
Toray Group

■Target in fiscal 2020  
At least 70%

Result in fiscal 2020

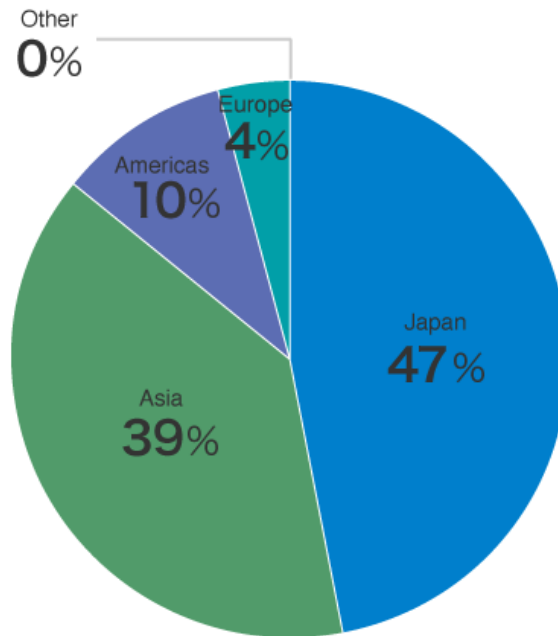
**86%**

### Toray Group Supply Chain

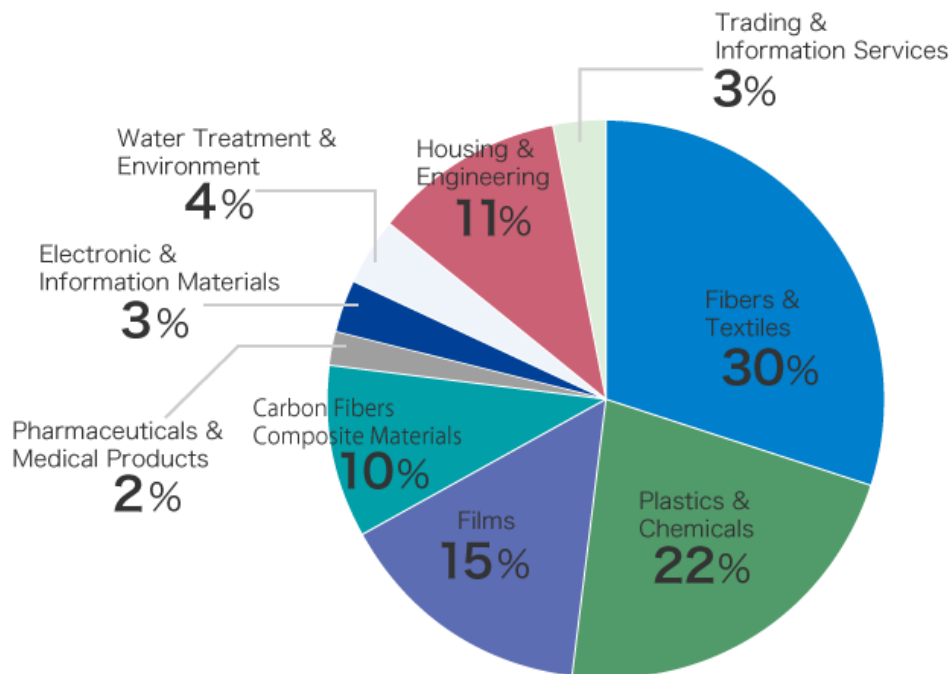
Toray Group's supply chain extends to diverse countries and regions around the world. In fiscal 2020, the Group's purchasing by region was 47% in Japan, 39% in the rest of Asia, 10% in the Americas, and 4% in Europe. Purchasing by business segment was 30% for Fibers & Textiles, 22% for Plastics & Chemicals, 15% for Films, 10% for Carbon Fibers Composite Materials, and 23% for others.

## Fiscal 2020 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

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 the CSR initiatives of suppliers and educating them, carrying out CSR surveys of suppliers, and obtaining signed commitments on CSR from suppliers.

In fiscal 2020, the number of group companies requesting their suppliers to practice CSR was 136 (85%) out of the 160 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 2020, of major suppliers that Toray Group identified as in need of confirmation of their CSR practices, 86% 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

In principle, 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 Toray Group's 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<sup>1</sup> for CSR practices, thus meeting the Company's standards for business partners. This is 3% higher than the previous survey (fiscal 2018). The companies surveyed rated C or D, requiring further investigation of their CSR practices, decreased from 4% last time to 1%. Looking at the specific item of "CSR initiatives in supplier's own supply chain," the average rating for the 483 companies was up 0.6 points out of 10 (+12%) from last time. Thus, the Company reconfirmed that each supplier is carrying out CSR initiatives. In addition, the Company visited and interviewed suppliers who were rated C or D in the previous survey to investigate conditions and request improvements. of those, 94% were confirmed to have made an improvement to a rating of B or higher in the 2020 survey.

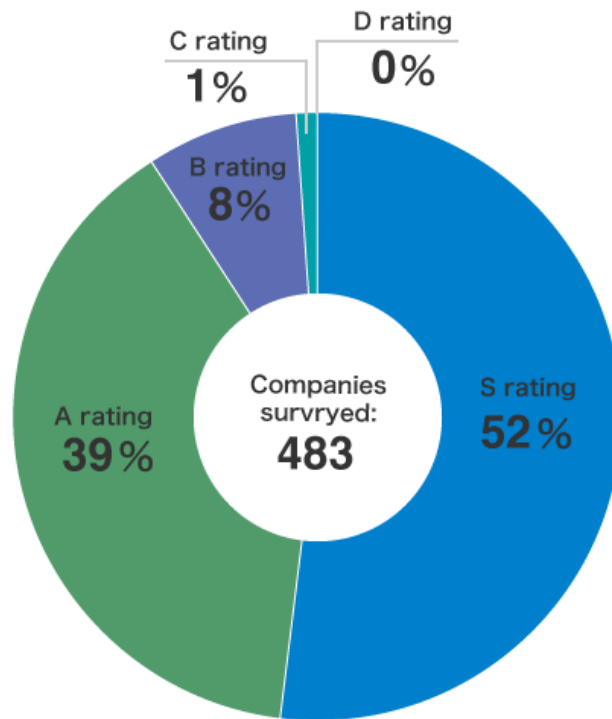
The assessment results have been fed back to each company along with the contents of the analysis. In fiscal 2021, the Company will confirm conditions at and discuss measures for improvement with suppliers who were rated C or D, aiming to facilitate awareness of CSR throughout the supply chain and to promote CSR initiatives.

In parallel with those efforts, Toray Industries has been adding a CSR clause into basic supplier agreements. The clause stipulates that both the Company and the supplier will pursue CSR initiatives in areas such as legal compliance, environmental conservation, respect for human rights, and product safety. When a new contract is signed or when a contract is renewed, this clause is added to the new agreement. In addition, rules for responses to CSR surveys from customers are set and a system is in place to facilitate prompt and accurate responses.

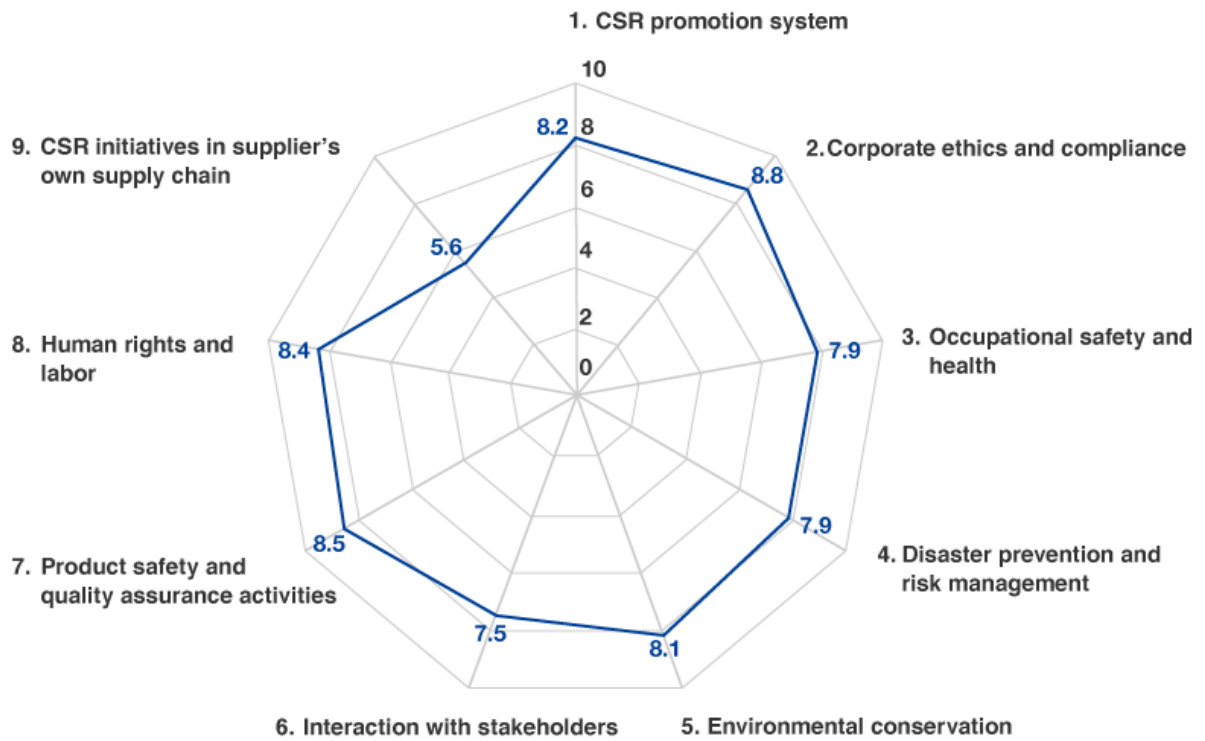
<sup>1</sup> Survey responses are assessed on a 10-point scale for each of the nine survey items. Taking the average score for the nine items as the overall score, 8 or more points is rated as S, 6 or more points but less than 8 is rated as A, 5 or more points but less than 6 is rated as B, 3 or more 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.)

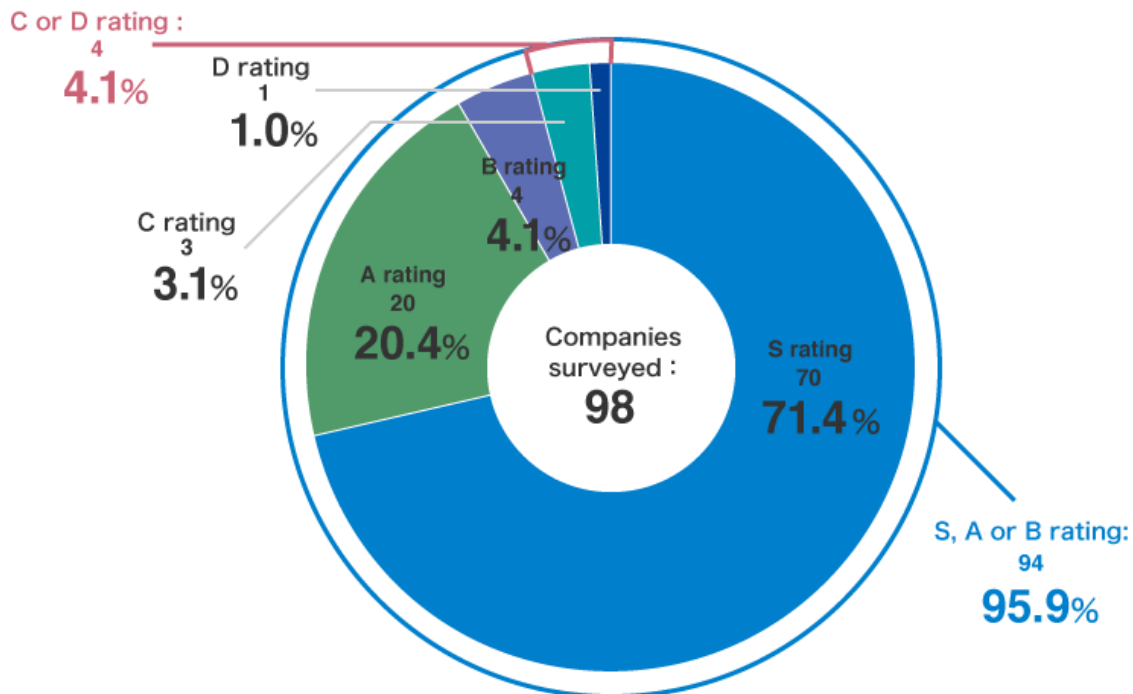


## Socially Responsible Procurement Initiatives at Toray Group Companies in and outside Japan

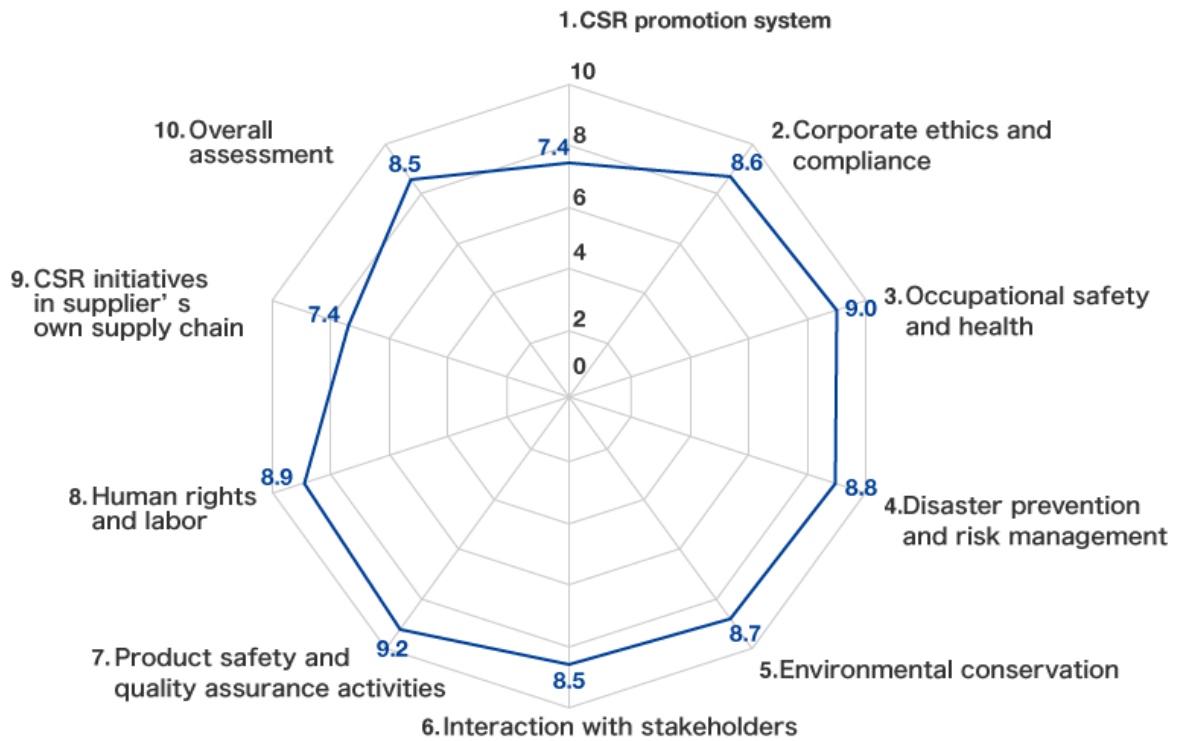
Assessing socially responsible procurement conditions across Toray Group is a key issue for the Group as it builds a global supply chain. Determining the extent to which suppliers outside Japan are addressing CSR issues is a priority issue for the Group. Accordingly, Toray Industries conducted a CSR survey of those major suppliers of group companies outside Japan that had not been requested to take CSR initiatives.

After analyzing responses obtained in fiscal 2020 from 98 suppliers, it was determined that 96% of them (94 companies) were rated S, A or B for the CSR initiatives required by Toray Group. Meanwhile the remaining 4% (four companies) were rated C or D, which means they will receive further inspection. In addition to providing feedback on the results to suppliers, the group companies will continue conducting inspections of suppliers who were rated C or D, and requesting improvements as necessary.

### CSR Survey Results of Suppliers of Toray Group Companies outside Japan



## Analysis of CSR Survey of Suppliers of Toray Group Companies outside Japan



To date, Toray Group companies in Japan have set up internal systems and rules and carried out CSR surveys on an ongoing basis. In fiscal 2020, they carried out CSR surveys of 498 suppliers to confirm their CSR initiatives and provided feedback on the resulting ratings to suppliers while following up with suppliers whose efforts are inadequate. In addition, Toray Industries has also deployed the survey system at Toray Group companies in Japan to standardize evaluation criteria, and the CSR status of suppliers is shared group-wide to mitigate CSR risk across the supply chain efficiently and effectively.

Toray Group believes that respect for human rights is a crucial element in ensuring that the supply chain is stable and sustainable. Toray Group's CSR Procurement Guidelines state that the Company is dedicated to respecting human rights, eliminating discrimination, and improving workplace environments, as well as prohibiting forced labor, slave labor, child labor, and unfair low-wage labor. The Group requests all suppliers to comply with these guidelines.

In the CSR survey of suppliers that Toray Industries carries out regularly, the Company identifies and assesses the extent to which suppliers are addressing issues related to human rights and labor practices. The survey conducted 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 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 will confirm the progress of suppliers who answered "Will address in one year" ([1] in the table below) and "Not addressed" ([0] in the table below) and request that they enhance their human right initiatives, working to improve the overall implementation rate. The Company will continue to encourage the promotion of respect for human rights and higher awareness across the supply chain.

## Results of Fiscal 2020 CSR Survey of Suppliers

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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[4]</td><td>51%</td></tr> <tr><td>[3]</td><td>31%</td></tr> <tr><td>[2]</td><td>18%</td></tr> <tr><td>[1]</td><td>0%</td></tr> <tr><td>[0]</td><td>0%</td></tr> </table>	Rank	Percentage	[4]	51%	[3]	31%	[2]	18%	[1]	0%	[0]	0%
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[4]</td><td>49%</td></tr> <tr><td>[3]</td><td>27%</td></tr> <tr><td>[2]</td><td>23%</td></tr> <tr><td>[1]</td><td>0%</td></tr> <tr><td>[0]</td><td>1%</td></tr> </table>	Rank	Percentage	[4]	49%	[3]	27%	[2]	23%	[1]	0%	[0]	1%
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[4]</td><td>40%</td></tr> <tr><td>[3]</td><td>24%</td></tr> <tr><td>[2]</td><td>34%</td></tr> <tr><td>[1]</td><td>1%</td></tr> <tr><td>[0]</td><td>1%</td></tr> </table>	Rank	Percentage	[4]	40%	[3]	24%	[2]	34%	[1]	1%	[0]	1%
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[3]</td><td>96%</td></tr> <tr><td>[1]</td><td>2%</td></tr> <tr><td>[0]</td><td>2%</td></tr> </table>	Rank	Percentage	[3]	96%	[1]	2%	[0]	2%				
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[3]</td><td>93%</td></tr> <tr><td>[1]</td><td>6%</td></tr> <tr><td>[0]</td><td>2%</td></tr> </table>	Rank	Percentage	[3]	93%	[1]	6%	[0]	2%				
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[3]</td><td>99%</td></tr> <tr><td>[1]</td><td>1%</td></tr> <tr><td>[0]</td><td>0%</td></tr> </table>	Rank	Percentage	[3]	99%	[1]	1%	[0]	0%				
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[3]</td><td>97%</td></tr> <tr><td>[1]</td><td>3%</td></tr> <tr><td>[0]</td><td>1%</td></tr> </table>	Rank	Percentage	[3]	97%	[1]	3%	[0]	1%				
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[3]</td><td>98%</td></tr> <tr><td>[1]</td><td>1%</td></tr> <tr><td>[0]</td><td>1%</td></tr> </table>	Rank	Percentage	[3]	98%	[1]	1%	[0]	1%				
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[3]</td><td>96%</td></tr> <tr><td>[1]</td><td>2%</td></tr> <tr><td>[0]</td><td>1%</td></tr> </table>	Rank	Percentage	[3]	96%	[1]	2%	[0]	1%				
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[3]</td><td>99%</td></tr> <tr><td>[1]</td><td>1%</td></tr> <tr><td>[0]</td><td>0%</td></tr> </table>	Rank	Percentage	[3]	99%	[1]	1%	[0]	0%				
Rank	Percentage													
[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%	<table border="1"> <tr><th>Rank</th><th>Percentage</th></tr> <tr><td>[4]</td><td>14%</td></tr> <tr><td>[3]</td><td>26%</td></tr> <tr><td>[2]</td><td>30%</td></tr> <tr><td>[1]</td><td>7%</td></tr> <tr><td>[0]</td><td>23%</td></tr> </table>	Rank	Percentage	[4]	14%	[3]	26%	[2]	30%	[1]	7%	[0]	23%
Rank	Percentage													
[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].

As part of efforts to promote human rights protections and environmental conservation in the supply chain, the Company enables individuals to report supplier human rights and environmental issues at any time via the Toray website.

Out of a total of 297 inquiries and consultations received in fiscal 2020 via the CSR inquiry form on the Toray website, two were related to human rights in the supply chain, and Company dealt with them appropriately.



## 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 2020, 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.

## International Cooperation in the Textiles and Apparel Industry

Toray Group is a member of the Sustainable Apparel Coalition, a group of apparel manufacturers and retailers from around the globe. The coalition has created the Higg Index as a tool to evaluate and measure the impacts of apparel and footwear products on the environment, societies and workers. The aim is to mitigate these impacts and resolve issues. Toray Group participates in the coalition as a material supplier that plays an important role in the supply chain and collaborates with other coalition members to reduce negative impact of products on the environment and society. In addition, the Group promotes visualization of sustainability performance by conducting self-assessments using the Higg Index at Toray Group's textile-related plants.

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 it is scheduled to be held online in fiscal 2021.



Basic Distribution Policy Briefing (when held in fiscal 2019)

### Participation in White Logistics Movement and Efforts to Improve the Logistics Environment

Toray Industries participates in the White Logistics Movement,<sup>1</sup> 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.

<sup>1</sup> 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.
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<sub>2</sub> 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.<sup>2</sup>

<sup>2</sup> 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.

## Various Effects of Toray Industries' Use of Smart Pallets

Initiative	Effect
· Reduce CO <sub>2</sub> emissions related to pallet recovery	83% reduction (by 197 t-CO <sub>2</sub> /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)
· Reduce distribution accidents (broken bags)	35% reduction (by 148 incidents/year)

## Reduction in CO<sub>2</sub> emissions intensity from distribution activities (year-on-year)

■Reporting scope

Toray Group (Only specified consigners)

■Target in fiscal 2020

1%

Result in fiscal 2020

**-9.9%**

Toray Group is working hard to reduce CO<sub>2</sub> 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 2020, at Toray Group (only specified consigners<sup>3</sup> in Japan), CO<sub>2</sub> emissions from distribution activities<sup>4</sup> were 27,900 tons, down 2,900 tons (9.5%) year on year, due primarily to a decrease in transport volume. Meanwhile, CO<sub>2</sub> emissions intensity<sup>5</sup> increased significantly for Toray Industries, which accounts for 85% of the Group's CO<sub>2</sub> emissions, due to the fact that a relevant transport-related index<sup>5</sup> fell by more than the CO<sub>2</sub> emissions concerned. The changes in Toray Group's CO<sub>2</sub> emissions intensity was 97.7 in fiscal 2020, taking the fiscal 2014 level (set at 100) as the base, an increase of 9.9% from the previous fiscal year (fiscal 2019).

In fiscal 2020, Toray Industries' CO<sub>2</sub> emissions from distribution activities totaled 23,700 tons, down 2,100 tons (8.2%) from the previous fiscal year. This decline from the previous year was primarily due to full-load transport, increased loading rates and reductions in inefficient transport, which resulted in a 53-ton reduction, and a decrease in the transport volume for fiber, textile and plastic products.

Toray Industries' CO<sub>2</sub> emissions intensity from distribution activities increased by 12.8% year on year (from fiscal 2019) because the decrease in net sales exceeded the decrease in CO<sub>2</sub> emissions. Over the past five years, however, CO<sub>2</sub> 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<sub>2</sub> emissions reductions by pursuing environmentally responsible distribution.

<sup>3</sup> Toray Industries, Inc., Toray Advanced Film Co., Ltd., and Toray Building Materials Co., Ltd., which have annual cargo transport totaling 30 million ton-kilometers or more, are "specified consigners" under Japanese law.

<sup>4</sup> CO<sub>2</sub> emissions from distribution activities refers to "CO<sub>2</sub> emissions related to the transportation of cargo entrusted to freight carriers" stipulated in the Act on Rationalizing Energy Use (Revised Energy Conservation Act)

<sup>5</sup> CO<sub>2</sub> emissions from distribution activities ÷ the following transport-related indexes

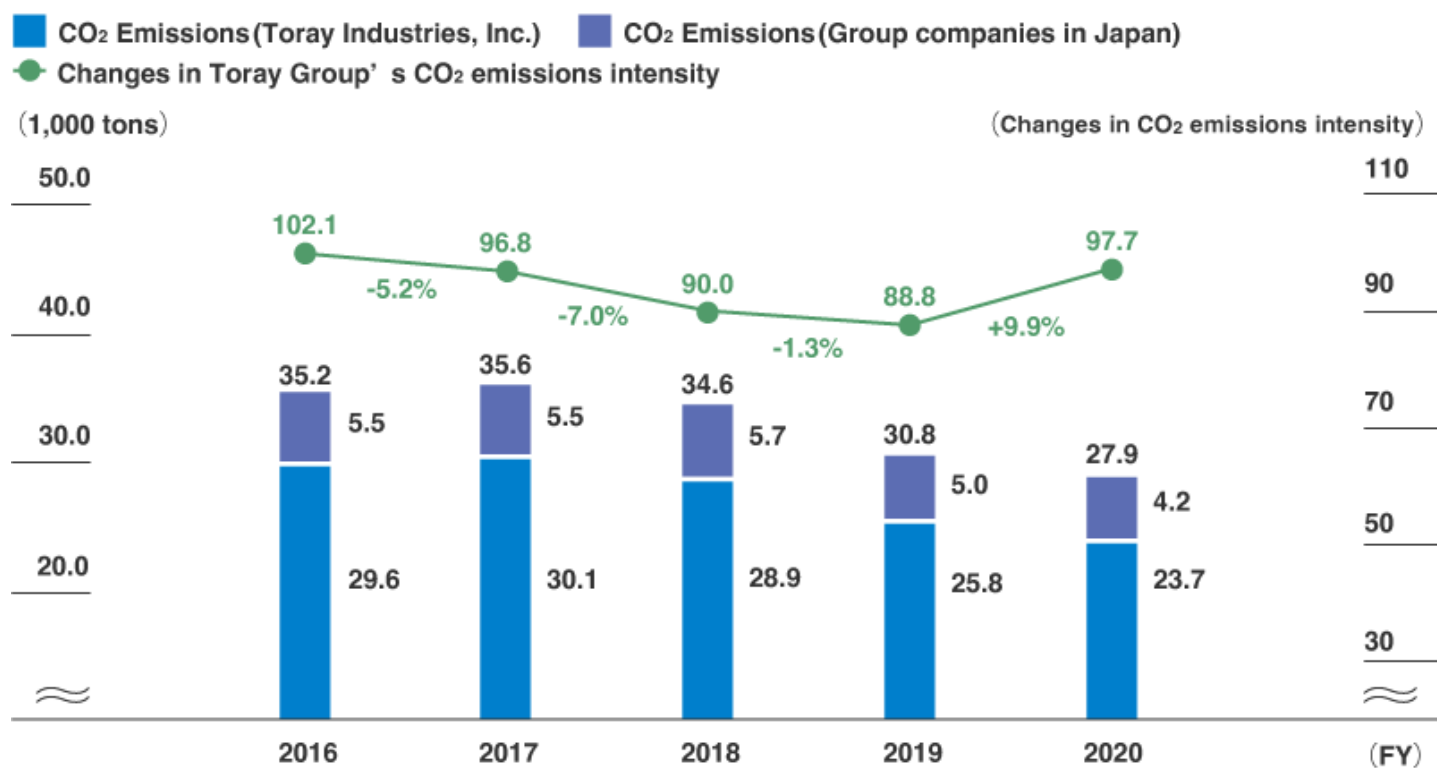
Toray Industries, Inc. = Net sales

Toray Advanced Film Co., Ltd. = Shipping volume

Toray Building Materials Co., Ltd. = Shipping volume x distance (per ton-kilometer)

Specified consigners are required to endeavor to meet the legal mandate to reduce CO<sub>2</sub> emissions intensity by an average of at least 1% every year over the medium- and long-term.

## CO<sub>2</sub> Emissions Resulting from Distribution Activities and CO<sub>2</sub> emissions intensity (Toray Group's Specified Consigners in Japan)



Notes:  
 1 Changes in Toray Group' s CO<sub>2</sub> emissions intensity = Total calculated by : Change in CO<sub>2</sub> emissions intensity at each specified consigner group company× Each group company' s CO<sub>2</sub> emissions / Total for all specified consigner group companies' CO<sub>2</sub> emissions  
 2 Change in CO<sub>2</sub> emissions intensity at each group company = CO<sub>2</sub> emissions / Change in transport-related indexes  
 (Fiscal 2014 = 100)

## CO<sub>2</sub> Emissions Reduction in Distribution Activities (Toray Industries, Inc.)

Details of initiatives	CO <sub>2</sub> Reduction (1,000 tons)
Recognized actual reductions more precisely due to improved calculation accuracy for maximum loading capacities, average loading rates, and other values	0.037
Full-load transport (strategic positioning of warehouses, etc.)	0.005
Shortened transport distances (loading at the nearest port, etc.)	0.011
Total	0.053

## 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. Group companies in Japan use an internal bulletin board to inform other companies if they have surplus packaging and shipping materials available for reuse.

### System for Reusing Shipping Materials (Toray Industries, Inc.)



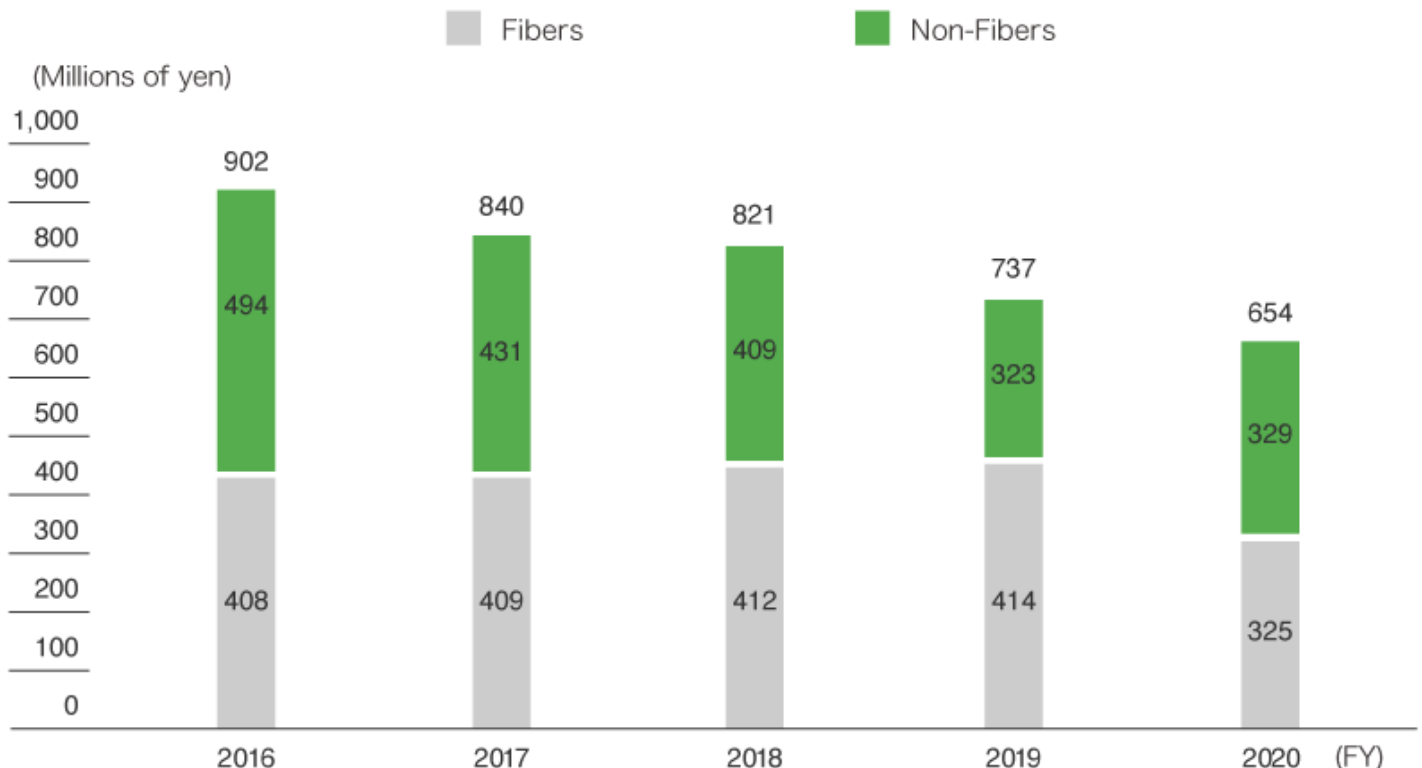
### Toray Group's Bulletin Board System for Sharing Surplus Shipping Materials



## Monetary Amounts Recovered for Packaging Materials (Toray Industries )

Toray Industries recovered 650 million yen for packaging materials in fiscal 2020, down 80 million yen (11.3%) from the previous fiscal year.

The Company endeavored to improve the return rate and the reuse rate by prioritizing the recovery of its main packaging materials, as the recovery volume decreased due to a decline in the shipment volume for fibers and film.



## 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 2020 (Calendar year)

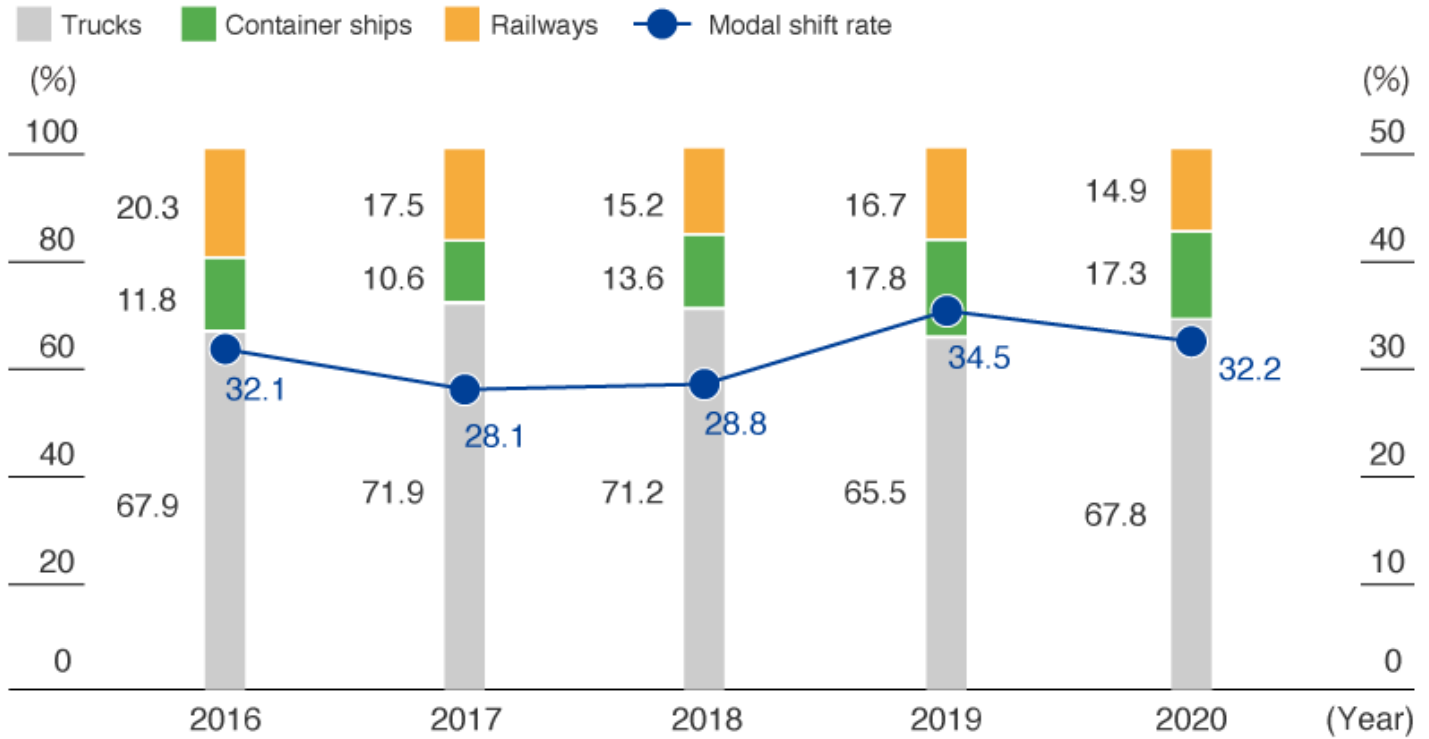
**32%**

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 2020 decreased by 2.4 points from the previous year to 32.2%. With the rapid recovery in product demand in the second half of fiscal 2020, 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.

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)



## 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)

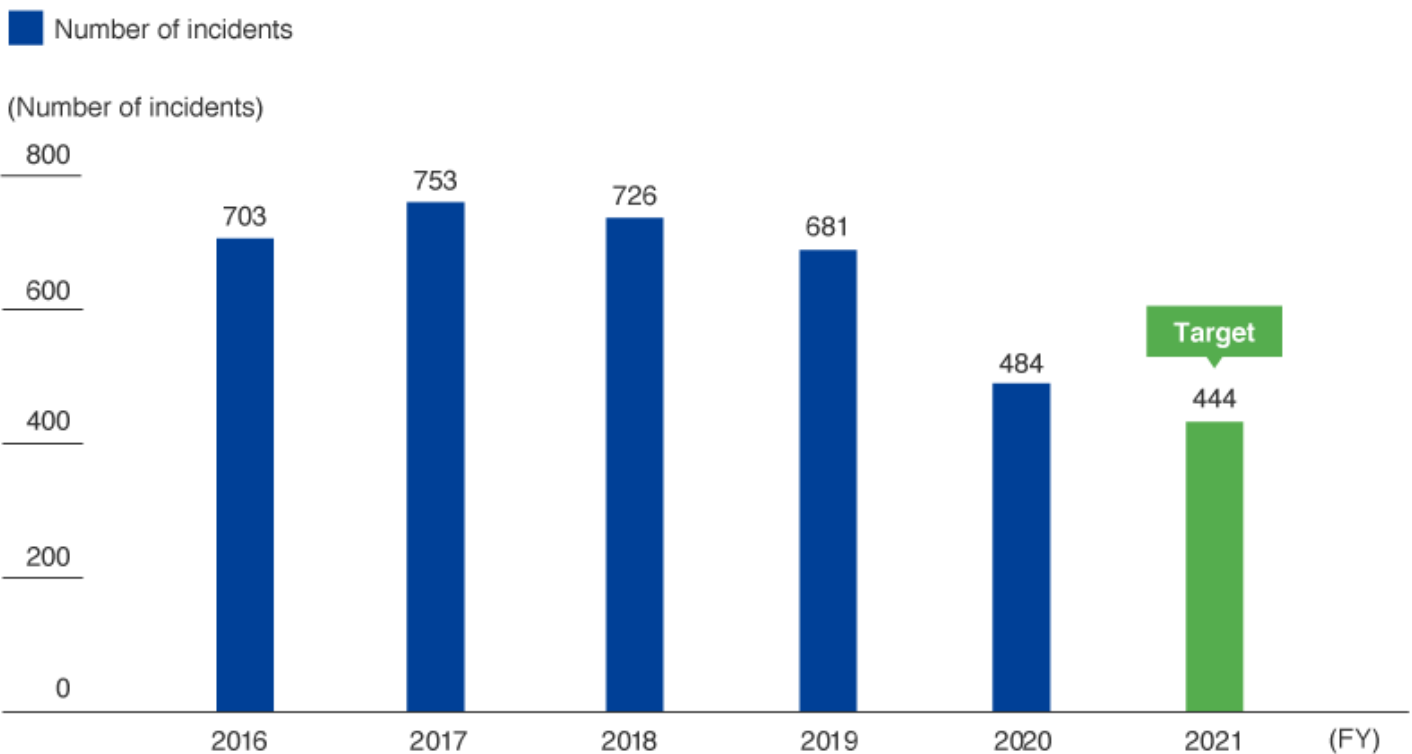
Toray Industries is working on a project to improve transport quality. The Company works with distribution partners to improve distribution quality and safety and to reduce the incidence of problems by sharing accident analysis data and distribution quality enhancement reports, conducting on-site inspections and holding quality control meetings with partners. Partners that make outstanding contributions to improving quality are recognized through annual awards<sup>6</sup>. 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.

<sup>6</sup> Distribution-partner companies receiving awards in fiscal 2020 (alphabetical order):

Fuji Logitech Hamamatsu, Inc., Mitsui-Soko Co., Ltd., NRS Corporation, Shikoku Meitetsu Transportation Co., Ltd., Toto-Soko, Toyo Logistic Service Co., Ltd., UPR Co., Ltd.

## Distribution Incidents

In fiscal 2020, not only did the number of shipments decline, the adoption of straight-through pallet transportation with smart pallets, introduced in January 2020, significantly reduced the number of accidents caused by truck drivers and cargo handlers loading and unloading cargo by hand and accidents due to pallet defects. As a result, the number of accidents involving damage to plastic products, which account for about 60% of incidents, fell by 31%, and the overall number of incidents fell by 29% (197 accidents) from the previous year. Toray Group will continue working with partner companies to improve distribution quality.



## 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<sup>7</sup> and G Mark.<sup>8</sup> 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.

<sup>7</sup> 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)

<sup>8</sup> 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<sup>9</sup> 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.

<sup>9</sup> 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)<sup>10</sup> 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)<sup>11</sup> status.

<sup>10</sup> 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.

<sup>11</sup> 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.

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),<sup>1</sup> 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.

<sup>1</sup> 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**



**Environment  
and Communities**



**Health and  
Welfare**

**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.

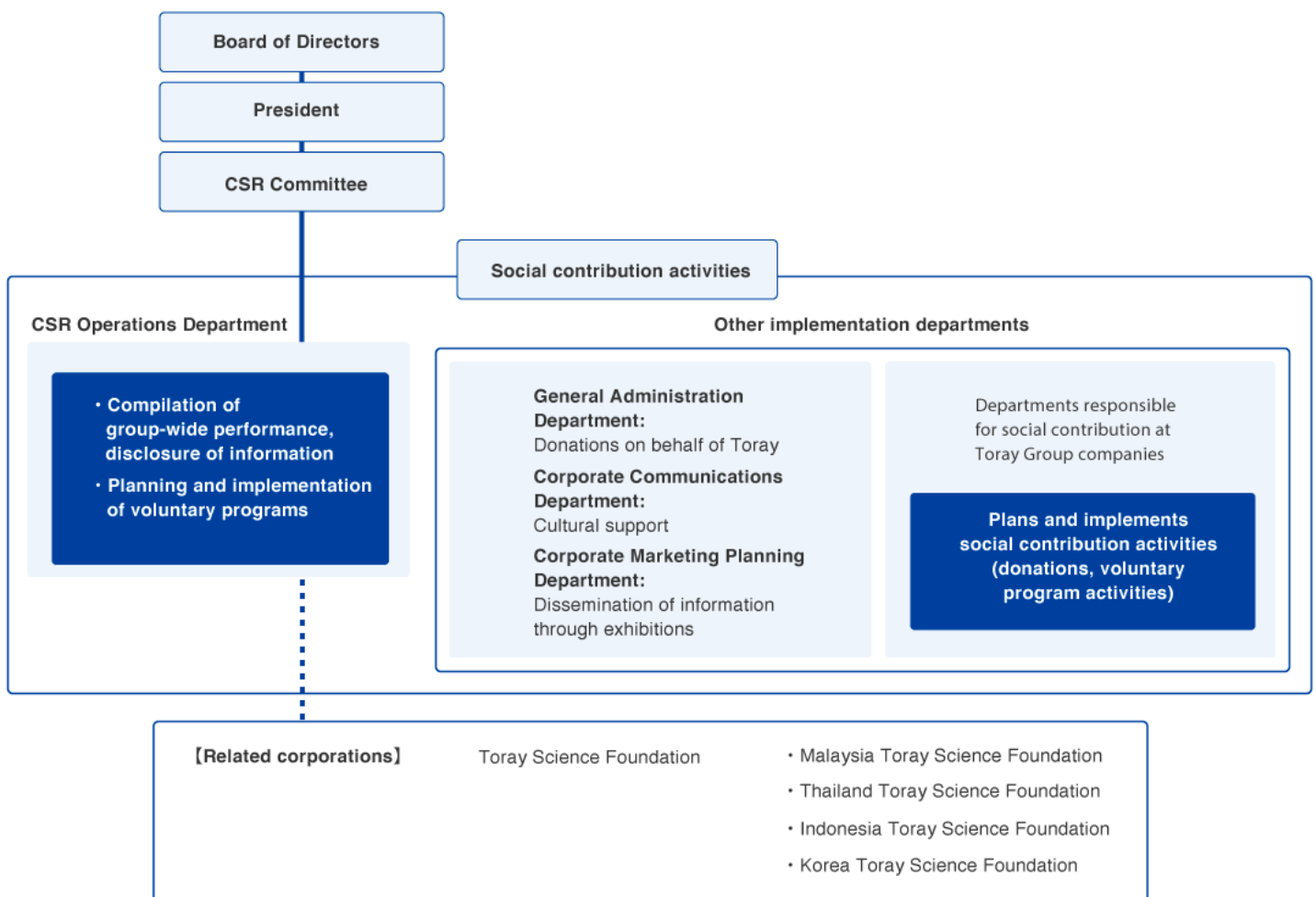
In 1986, Toray Industries established the corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products,” which carries on the core concept of the previous company principle. Toray Group pursues this corporate philosophy by emphasizing 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 line activities” designed to resolve CSR issues in specific workplaces, as well as meetings attended by representatives from each country where the Group operates outside Japan, in order to promote activities that are 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	10-①
(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	10-②
(5) Develop a wide range of educational support activities such as sending employees to teach science, environmental, and career education classes at schools	10-③
(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 2020 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
10-① Social contribution expenditure (% change from average expenditure over last six years)	100% or higher	100% or higher	100% or higher	94%
10-② Social contribution activities (number)	2,500 or more	2,500 or more	2,500 or more	1,625
10-③ 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	7,017

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 is 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. During fiscal 2020, this number reached 98,000 and is expected to rise to 100,000 in early fiscal 2021.

CSR Activity Report (CSR Guideline Activity Reports) - Social Contribution Activities as a Good Corporate Citizen

**Fiscal 2020 Results**

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 2020  
100% or higher

Result in fiscal 2020

**94%**

**Social contribution activities** (number)

■Reporting scope  
Toray Group

■Target in fiscal 2020  
2,500 or more

Result in fiscal 2020

**1,625**

**Beneficiaries of educational support activities such as science classes for schools and career education** (number)

■Reporting scope  
Toray Group

■Target in fiscal 2020  
15,000 or more

Result in fiscal 2020

**7,017**

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 2020 were 1.54 billion yen (approximately 1 billion yen at Toray Industries alone), which is 94% of average expenditures over the last six years (fiscal 2014-2019, 1.63 billion yen), in contrast to the target of 100% or higher set in the CSR Roadmap 2022. The main beneficiaries were Toray Science Foundation, Toray science foundations in Malaysia, Thailand, Indonesia, and the Republic of Korea, and sponsorship of the Shanghai Marathon.

In fiscal 2020, Toray Industries Inc., on behalf of Toray Group, donated approximately 230 million yen to Toray Science Foundation. Toray Group companies outside Japan donated approximately 210 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 2020 was 1,625, 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.

For the same reason, educational support activities such as science classes for schools and plant tours were limited, and beneficiaries of these activities in fiscal 2020 numbered only 7,107, falling short of the Group target of 15,000 or more.

#### **Related Information**

> [Toray Science Foundations around the World](#)

## Breakdown of Expenditure in Fiscal 2020

others

**10%**

Environment,  
communities

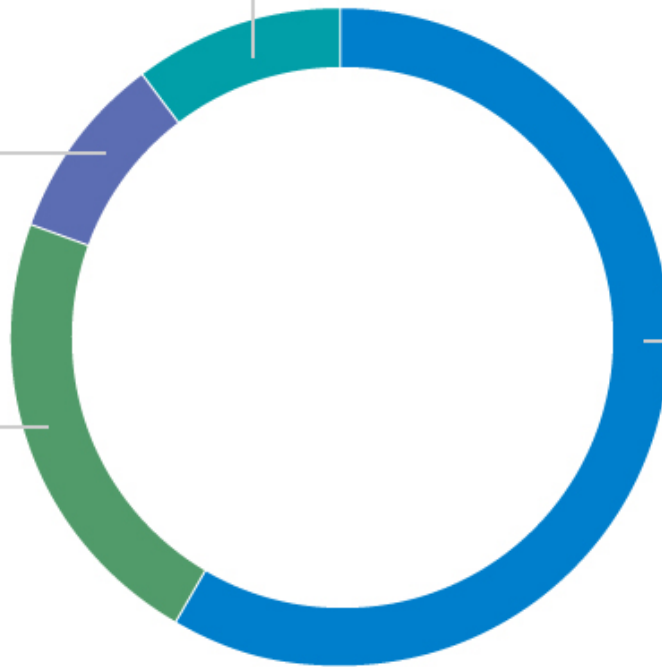
**9%**

Health,welfare,  
sports

**22%**

Academics,  
science research,  
education

**59%**



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 2020

### 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 2020, in order to prevent the spread of COVID-19 infections, the number of in-person classes conducted by employee instructors at schools was limited. By taking preventive measures, however, the Group was still able to hold some activities on a case-by-case basis. The Group also introduced new online classes via a web conferencing system. 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 lent laboratory equipment made with Toray advanced materials to 53 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.



Using a model airplane to explain which components are made with carbon fiber.



High school students listen to an online class.

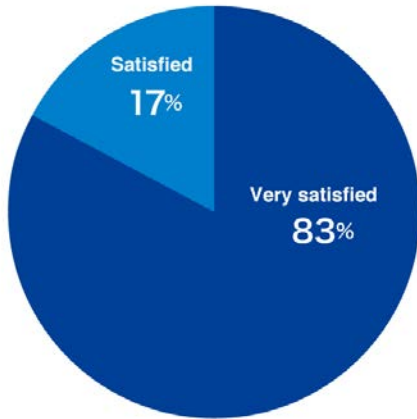


Students get online instruction to conduct an experiment with help from their teacher.

## Questionnaire Results on Teaching Materials Provided by Toray Group

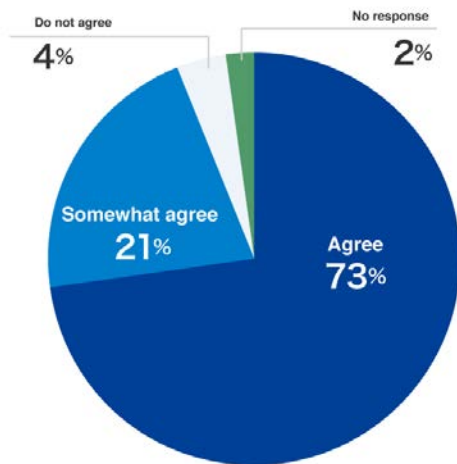
### ■ Satisfaction with classes using materials provided by Toray

How satisfied were you with the teaching materials provided?

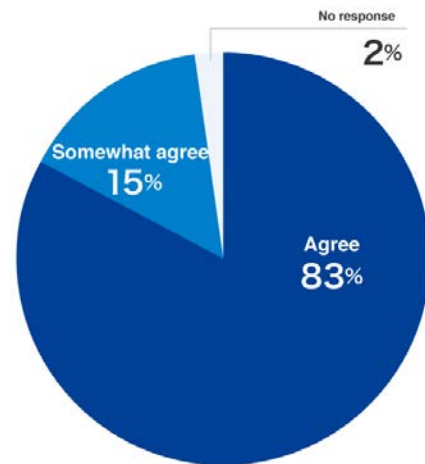


### ■ Feedback on Effectiveness of Program

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.



## Collaboration on 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.

The Nakatsugawa Plant of Toray Advanced Film Co., Ltd. hosted on-site classes and plant tours for the Sugo-Waza Nakatsugawa Project, an initiative to show local elementary and junior high school students the appeal of local companies and pique their interest in work.

Toray Research Center Inc. collaborated with an active learning program at a technical college, providing lectures and technical advice for group work.

Toray Group also hosts plant tours and gives career-related talks to local students at its sites outside of Japan. In fiscal 2020, in the Czech Republic, Toray Textiles Central Europe s.r.o. held a lecture on human resources development for university students majoring in psychology.

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. Although these activities were limited in fiscal 2020 due to the COVID-19 pandemic, preventive measures were put in place, and volleyball clinics at elementary schools, career education, and lectures were held.



Toray Industries employee talks about the Company in an online company interview with junior high school students.



Toray Advanced Film employee uses snack packaging and other familiar items to explain film technology.

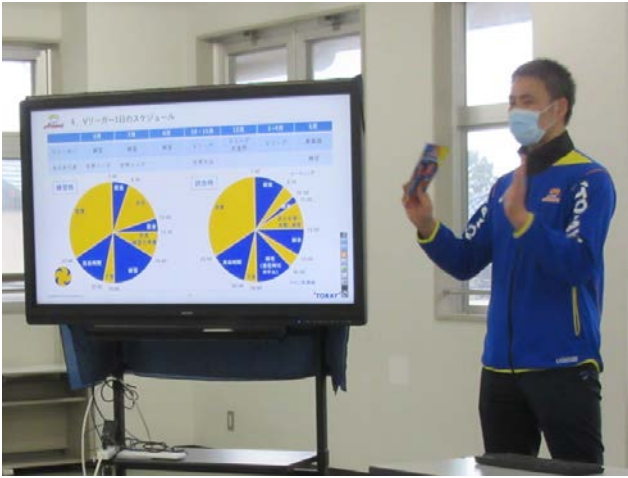


Junior high school students listen intently in class.



Taking preventive measures during the pandemic, Koichiro Kanno, general manager of the Toray Arrows women's volleyball team, teaches volleyball to elementary school students in response to a request from a local board of education.





Atsushi Kobayashi, general manager of the Toray Arrows men's volleyball team, talks to junior high school students about "the meaning of work."

### Collaborating with Kagayake Aichi Sustainability Research Institute

Toray Industries Tokai Plant has participated as a corporate partner in the Kagayake Aichi Sustainability Research Institute<sup>1</sup> organized by Aichi Prefecture since 2019, accepting university students as researchers at the plant. In fiscal 2020, four university students worked with Toray employees to take up the challenge of studying ways to build a sustainable world in harmony with nature. The team surveyed the green spaces on corporate premises, discussed their findings, and put together a proposal for the Tokai Plant. The proposal, entitled "Create a biotope at the plant so life is more comfortable," aims to protect biodiversity by creating a cycle between developing ecosystems through the use of biotopes and educational activities and environmental education to increase employee and resident interest in living creatures. The team received the Kagayaki Award for its outstanding presentation at the 2020 Research Presentation Meeting held in December.

<sup>1</sup> A project launched by Aichi Prefecture to help students who will become future Aichi leaders to take a global perspective in continuously implementing eco-action. Under the supervision of the governor of Aichi Prefecture, university students serve as researchers, conducting on-site surveys and discussions with company representatives on issues related to environmental initiatives presented by corporate partners operating in the prefecture. The students propose solutions to the companies, and the results are widely publicized.



University students take on research topics at Toray Industries Tokai Plant.



Commemorative photo with Aichi Prefecture Governor Hideaki Omura

## 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 2020, the traditional workshop format was suspended due to the COVID-19 pandemic and videos of the experiments were shown instead. In January, the workshops resumed with a limited number of participants. This year, a total of 1,992 people, from young children to adults, attended the workshops and the video series.

## Held Aozora Science School

CSR Roadmap 2022  
Main Initiatives (2)(5)(7)



Since 2015, Toray Industries has organized the Aozora Science School<sup>2</sup> to foster children's interest in and an affinity for science by offering fun activities that combine nature and science. In fiscal 2020, the hands-on educational camp was cancelled due to the COVID-19 pandemic. Instead, a series of videos entitled Aozora Science School at Home was distributed weekly over social media for ten weeks. Featuring stories about flora and the sky, and showing a variety of science experiments, the series was designed for students to have fun while learning about science at home. The videos have been viewed a total of over 10,000 times.

<sup>2</sup> 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.





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.

### 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. The Toray Science Foundation 60th anniversary celebration had been scheduled for March 2021, but was postponed due to the COVID-19 pandemic.

### 61st Toray Science and Technology Prizes, Toray Science and Technology Grants, and 52nd Toray Science Education Prizes

In February 2021, the Toray Science Foundation chose the latest recipients for the 61st Toray Science and Technology Prizes, Toray Science and Technology Grants, and 52nd Toray Science Education Prizes. Toray Science and Technology Prizes were awarded to Dr. Kouji Matsushima and Dr. Kyoko Nozaki 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 10 recipients of Science and Technology Grants.



#### **Dr. Kouji Matsushima**

#### **Contribution to the treatment of intractable immune diseases through the research on inflammation regulators**

Based on his discovery of interleukin-8 and other aspects of his research on inflammation regulators, Dr. Matsushima has contributed to the development of therapeutic agents for adult T-cell leukemia and other intractable immune diseases.



**Dr. Kyoko Nozaki**

**Development of polymerization catalysts based on synthetic organic chemistry**

Applying the technique of catalytic organic synthesis to the synthesis of polymers, Dr. Nozaki has made remarkable achievements in the synthesis of new polymers with expected application as materials with low environmental impact.

One of the unique features of Toray Science Foundation, its Science Education Prizes in junior high and high school science education, are given to honor teachers who have achieved outstanding educational results through their creativity and ingenuity in the classroom. This year's Toray Science Education Prize: Minister of Education, Culture, Sports, Science and Technology Award, went to Tatsuya Saga, an educator at Tajimi High School in Gifu Prefecture.



**Tatsuya Saga**

**Small nature restoration practices that junior and senior high school students can do in their local rivers**

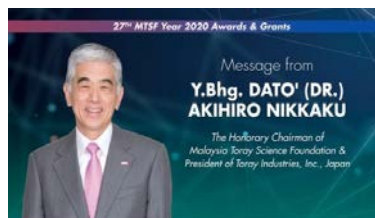
The award was given in recognition of the major sense of accomplishment that students attained from restoring nature in nearby rivers and the educational benefits of comprehensively studying the effects of human activities and environmental consideration.

**Malaysia Toray Science Foundation (MTSF)**

In fiscal 2020, MTSF awarded a total of 310,000 ringgit (equivalent to about 7.98 million yen) in prize money and grants. Toray Science and Technology Prizes were awarded to two scientists, Toray Science and Technology Grants awarded to 11 researchers, and Toray Science Education Prizes awarded to 14 educators. Although the 27th presentation ceremony was not held as scheduled in November 2020 due to the COVID-19 pandemic, messages of congratulations from Toray Industries President and MTSF Honorary Chairman Akihiro Nikkaku and MTSF Chairman Dr. Omar Abdul Rahman were posted for the award winners on the MTSF website.



Demonstrating an ingenious experiment for the Science Education Prize selection panel



I am delighted to learn that Malaysia Toray Science Foundation (MTSF) has successfully completed the 27th Program for 2020 despite the prevailing Covid19 pandemic, affecting the global community. Extending my heartfelt congratulations to all the outstanding recipients who will be receiving their respective awards and grants.

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

To promote basic scientific research and education, guided by this corporate philosophy, Toray established the Toray Science Foundation of Japan in 1960. Having successfully spearheaded the Toray Science Foundation in Japan, Toray subsequently set up the Science Foundation in Malaysia, Thailand, Indonesia and Korea with the aim of building good relationship with each country and region while contributing to society through business activities.

Over the 27 years, MTSF has given awards and grants to 799 researchers and scientists for their outstanding achievements related to technology and science education, and for their contributions in natural science and basic research.

Science & Technology is continually helping humankind to develop new technologies and resolve many issues of our life. For example, globally we are facing the problems of Covid-19 and humanity are facing with this pandemic. It is always science and technology that tackles the new challenges facing society. Your research works will go to a long way in helping humankind to resolve problems of the future. Keep up your good work and continue your efforts to promote and develop science and technology in your respective fields.

In concluding, I also express my sincere gratitude to the relevant Malaysian Ministries, Government agencies, MTSF's Board and Committee members, and all other individuals who had rendered their generous support and guidance to MTSF.

Wishing everyone keeps healthy, works safe and stays safe.

*(Signature)*  
Dato' (Dr.) Akihiro Nikkaku

Message from Toray Industries President and MTSF Honorary Chairman Akihiro Nikkaku posted on MTSF website

## Thailand Toray Science Foundation (TTSF)

In fiscal 2020, TTSF awarded two Science and Technology Prizes, 21 Science and Technology Research Grants, and 8 Science Education Prizes totaling 5.48 million baht (equivalent to about 18.7 million yen) in prize money and grants. The presentation ceremony in March 2021 began with a video message from Toray Industries President and TTSF Honorary Chairman Akihiro Nikkaku. Dr. Navadol Laosiripojana, professor at King Mongkut's University of Technology, delivered a speech on behalf of the honorees, expressing their strong determination, pride as researchers in Thailand in the prizes and grants from TTSF and appreciation for the motivation to produce excellent research results. Japanese Ambassador to Thailand Kazuya Nashida offered the honorees his congratulations, and 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

## Indonesia Toray Science Foundation (ITSF)

The 27th presentation ceremony of ITSF was held online via web conferencing in February 2021, awarding one Science and Technology Prize, 18 Science and Technology Research Grants, and seven Science Education Prizes totaling 975 million rupia (equivalent to about 7.22 million yen).

At the ceremony, Japanese Ambassador to Indonesia Kenji Kanasugi, Professor and Minister of Research and Technology Bambang Brodjonegoro, and Professor and Minister of Education and Culture Nadiem Makarim expressed their appreciation to Toray for contributing to the development of science and technology in Indonesia through ITSF.



Prize winners and grant recipients at 27th presentation ceremony of ITSF



P.T. Indonesia Toray Synthetics employees watch the presentation ceremony.

## Korea Toray Science Foundation(KTSF)

In 2020, 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 3rd 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.



KTSF Chairman Lee Young-kwan and staff members with science and technology prize winners



Toray Industries President and KTSF Honorary Chairman Akihiro Nikkaku addresses attendees via video message.



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.

## Efforts to Preserve Biodiversity by Creating Biotopes and Outside Collaboration

The Tokai Plant of Toray Industries is committed to helping build a sustainable world by working to preserve biodiversity. The plant marked its 50th anniversary in 2021 by creating a biotope<sup>3</sup> in the green spaces on its premises. In addition to its own funds, the biotope was also partially financed with a grant from Aichi Prefecture to fund projects designed to build a network of ecosystems to foster forests and greenery in Aichi.

The Tokai Plant Environmental Policy calls for biodiversity and ecosystem protections. As part of these efforts, in 2019, the plant joined Project Linking Life with One Another,<sup>4</sup> 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 experts and non-profits that support students from the local community and other young people who want to engage in environmental conservation activities to promote the coexistence of people and nature and the preservation of biodiversity.

Rather than simply commissioning a specialist contractor, the biotope was designed by the members of the Project Linking Life with One Another student executive committee with help from non-profit staff and experts, providing a research field to nurture the next generation of leaders, which is the objective of the project. In developing their design, the students held repeated study sessions, discussing issues involving Toray Group businesses and environmental initiatives and receiving advice from Sumitomo Forestry Landscaping Co, Ltd, which specializes in this field. The result was a design proposal that actively incorporated the students' ideas.

The biotope, which was created in January 2021, aims to create a well-balanced ecosystem by incorporating deciduous trees that lose their leaves in a satoyama (area between mountain foothills and arable land) environment in order to attract butterflies, wild birds, beetles, and aquatic insects to a terrain that had previously been dominated by evergreens that remain green year round.



Students and specialists tour the land designated for the biotope.



Toray Industries employees, students, non-profit staff, and experts discuss the biotope design.

After the biotope was completed, the Tokai Plant invited the specialists and members of the Project Linking Life with One Another student executive committee to a workshop studying the utilization of the biotope, and the students used their creativity and ingenuity to create eco-stacks, which are piles of fallen leaves and dead branches that serve as habitats for living creatures. In addition, a number of partnerships were launched through the project, including the transfer of Japanese rice fish, which are on the Ministry of the Environment Red List 2020<sup>5</sup> as an endangered class II vulnerable species (VU), from Aichi Steel Corporation, which is located in the same corporate greenbelt as the Tokai Plant. As a result of these industrious activities, the presence of many living creatures including such birds as bulbuls, goshawks and tits, raccoon dogs, and common bluebottle butterflies has already been confirmed in the biotope.

In addition to creating and preserving ecosystems, another important objective for this biotope project was its contribution to nurturing the young people who will be the next generation of leaders. For this reason, the success of the Tokai Plant in creating a biotope that incorporated so many of the students' ideas was extremely valuable. The ideas behind the biotope design were also shared with participants in the Kagayake Aichi Sustainability Research Institute, which was just accepting students at the time, and these ideas were incorporated into the Institute's work, as well.

Through its biotope, the Tokai Plant will continue to contribute to formation of an ecological network in the Chita Peninsula greenbelt, as well as to provide a place for the students who become the next generation of leaders to engage in activities. There are also plans for the biotope to be utilized as an important teaching tool for educating Toray employees on the environment in order to raise awareness of activities to preserve biodiversity.



Completed biotope



A bulbul lands on a perch.





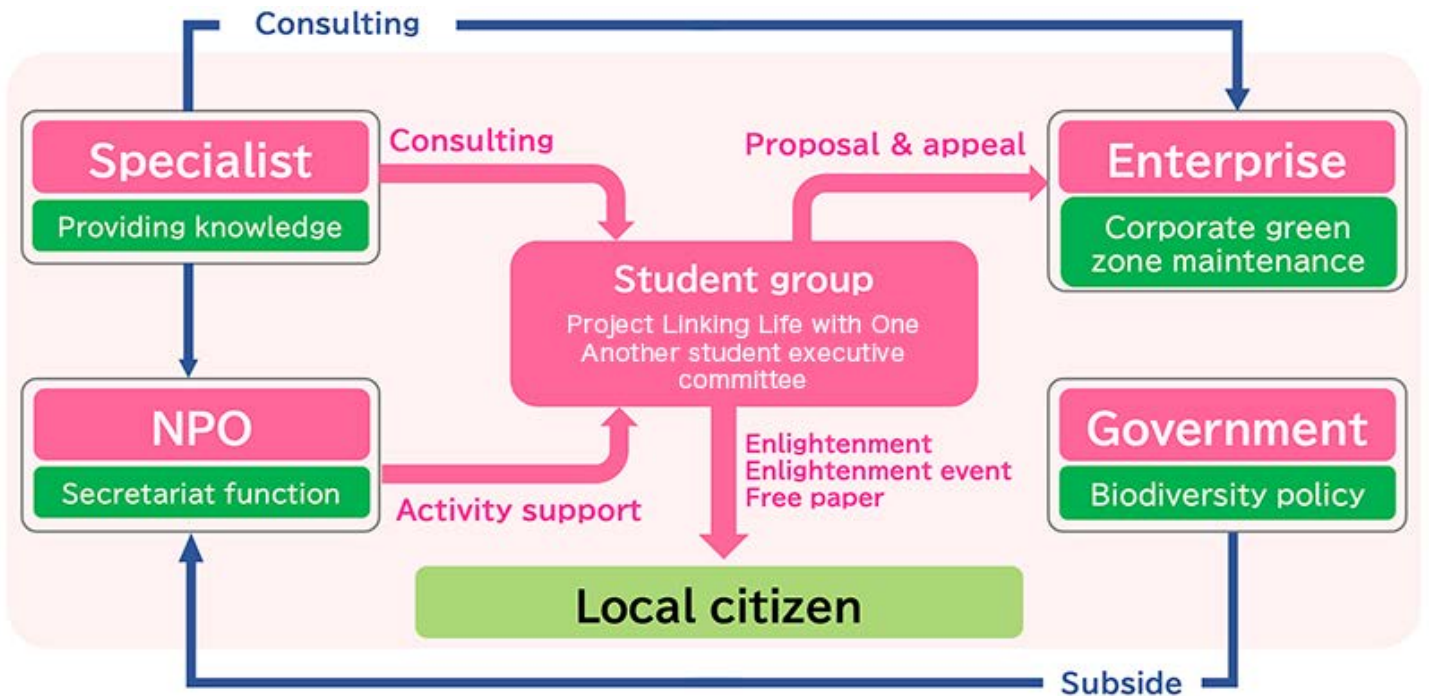
Releasing Japanese rice fish into the water



Commemorative photo of students, employees of nearby companies, non-profit staff, and specialists who took part in the Project Linking Life with One Another

- 3 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.
- 4 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



5 The Ministry of the Environment Red List is a list of endangered wildlife species that live or grow in Japan compiled by a panel of experts who scientifically and objectively evaluate the biological risk of extinction of each species. The Ministry of the Environment Red List 2020 is the fifth revision of the Fourth Red List, which was compiled in 2012. Endangered II (VU) refers to “species at increasing risk of extinction.”

## Major Environmental Activities at Offices and Plants



With the goal of contributing to the local community, which supports plant operations on a daily basis, and of raising employee awareness of 3S (sort, set in order, shine), the plant started the voluntary Machipika Okazaki project to clean the sidewalks around the plant once a week. (Toray Industries, Inc. Okazaki Plant)



Employees took part in the Coastal Cleanup Volunteer Campaign organized by the Fukui Consumers Cooperative Union. (Toray Industries, Inc. Hokuriku Branch)



Employees at the Osaka, Tokyo, and Kanazawa offices volunteer each year in cleanup activities, which are also an ISO14001 activity target, to help beautify their local communities. Steps such as dividing cleanup schedule into multiple sessions were taken this year to make it easier for people who are working from home to take part. (Ichimura Sangyo Co., Ltd.)



Employees continue to take part in monthly cleanups, where they remove roadside weeds and collect plastic bottles and garbage from drainage ditches to maintain the environment in the inland industrial park where the plant is located (in Aikawa, Kanagawa Prefecture). (Suido Kiko Kaisha, Ltd.)

Employees participate regularly in the Penang Green Office Project conducted by the non-profit Penang Green Council Strategies, taking part in activities to keep the environment clean. These efforts include promoting paperless operations, introducing smart lighting, promoting energy conservation, collecting recyclables four times a year, and planting trees. The company donated 15kg of used clothes, 70kg of mixed paper, 25kg of cardboard boxes, and 20kg of plastic collected from employees. (Toray Malaysia Systems Solution Sdn. Bhd.)



Employees participated in government-sponsored tree planting on Arbor Day. (Toray Plastics (Shenzhen) Ltd., China)



Employees regularly conduct local environmental conservation activities. (THK Apparel (Zhuhai) Co., Ltd., China)

## Disaster Relief and Reconstruction Assistance

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



Toray Group uses its resources to assist areas affected by large-scale disasters in and outside Japan.

### Vocational Research Support for Junior High School Students (Toray Industries)

Since 2012, Toray Industries has sent researchers each year to Career Challenge Day,<sup>6</sup> a career education event held in Ofunato City, Iwate Prefecture. Representatives 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 2020, the in-person event was cancelled due to the COVID-19 pandemic so the Company provided teaching videos. The Company is committed to regularly participating in this event, which helps the youth of Ofunato City find career paths.

<sup>6</sup> 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 (Toray Industries, Inc. Tohoku Branch)

Since 2013, the Tohoku Branch of Toray Industries has used volleyball as a means of providing support for local reconstruction efforts.

In fiscal 2020, former member of the Japanese national volleyball team and the Toray Arrows team, Kana Oyama, gave a virtual talk on “Turning Small Opportunities into a Big Dream” to 45 fifth graders at Higashi-Matsushima City Naruse-Oka Elementary School in Miyagi Prefecture. The students listened intently throughout the session as Oyama spoke about the importance of cooperating with friends and being considerate of others. Her talk was followed by a lively question and answer period, making for a very meaningful session.



Kana Oyama answers a student's question.

## Providing Support for Disaster Caused by Heavy Rain and Flooding

Toray Advanced Materials Korea Inc. and STEMCO, Ltd. donated funds through a national disaster relief association to support areas in the Republic of Korea affected by the torrential rains that occurred in August 2020.



In February 2021, employees donated food to communities near the plant to help victims of the flooding in Indonesia. (P.T. Toray Polytech Jakarta, Indonesia)

## Promoting Sports Participation by Sponsoring the Shanghai Marathon

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



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.

Although it was unclear in 2020 whether the 25th annual marathon would take place due to the COVID-19 pandemic, some 9,000 runners took part in the race, which enforced measures to prevent the spread of infections, including mandatory PCR tests for all runners and staff.



Marathon runners make their way through the streets of Shanghai.



Awards ceremony

## Supporting Fureai Concerts

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



To support culture, education, and welfare, Toray Industries co-sponsors Fureai Concerts, with Toray Group employee volunteers helping to organize and run the concerts. Fureai Concerts at venues across Japan, including elementary schools and social welfare facilities, bring music to the people through music instruction, mini-concerts, and audience participation.

In fiscal 2020, a total of 19 performances in seven cities were cancelled due to the COVID-19 pandemic. However, 11 performances in six cities were held in-person or streamed online during periods when new cases were under control, with some 940 people able to enjoy the concerts.

Measures to prevent the spread of COVID-19 were strictly implemented with concerts at schools held in gymnasiums and other large spaces, in addition to temperature taking, masks, hand sanitizers and empty seats left between audience members. Thanks to these measures, all of the performances were held without incident.



Musicians perform at a school Fureai Concert

## Contributing to Efforts to Prevent Spread of COVID-19 as a Good Corporate Citizen

CSR Roadmap 2022  
Main Initiatives (3)



In response to the COVID-19 pandemic, Toray Group upheld its corporate philosophy of “contributing to society through the creation of new value with innovative ideas, technologies and products” by not only doing so through its business activities, but also by supporting local communities through social contribution activities as a good corporate citizen.



The company donated disinfectant and hand gel to a local hospital to support activities to combat the spread of COVID-19. (Toray Textiles (Thailand) Public Company Limited)



The company donated disinfectant and face masks to the local community to support activities to combat the spread of COVID-19. (P.T. Indonesia Toray Synthetics)



The company donated equipment needed for medical exams and treatment to a hospital in Ariana, Tunisia. (Alva Tunisia S.A.)



The company donated face masks, KN95 masks, and protective clothing to prevent the spread of COVID-19 infections at a city hospital in Guadalajara. (Zoltek de Mexico S.A. de C.V.)

In addition to the activities outlined above, Toray Advanced Materials Korea Inc. and five Toray Group companies in Nantong, China also made donations to the local community and co-sponsored local aid activities.

In Bangladesh, TM Textiles & Garments Limited donated ventilators, and Toray Industries (India) Private Limited donated stretchers to a local hospital.

Toray Group companies in many different countries, including China, the Czech Republic, France, Hungary, Indonesia, Japan, the Republic of Korea, Thailand, and the U.S. made donations of face masks, disinfectant, and other hygiene products.

# Major Corporate Philanthropy by Group Companies Outside Japan



Toray Group companies outside Japan work with other organizations to practice corporate philanthropy and raise funds for good causes, to benefit the communities in which they operate.



Since 2010, employees volunteer each year at Promises2Kids, a local non-profit that collects and donates Christmas gifts to children in foster care. (Toray Membrane USA, Inc.)



Barrels of Love is a volunteer food drive that donates surplus food from the company office and employees' homes to aid groups and facilities. The program was founded by a TFA employee, and the company contributes to the local community by participating in the program each year. (Toray Fluorofibers (America), Inc.)



Since 2016, the company has donated rice, snacks, canned goods, and other food items collected from employees to facilities for people with disabilities. (Toray Textiles (Thailand) Public Company Limited)



Employees participated in a blood drive in Tangerang in cooperation with the Indonesian Red Cross Society. (P.T. Indonesia Synthetic Textile Mills)





Employees participated in a donation drive organized by a local union to support students in need. (THK Apparel (Zhuhai) Co., Ltd., China)

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

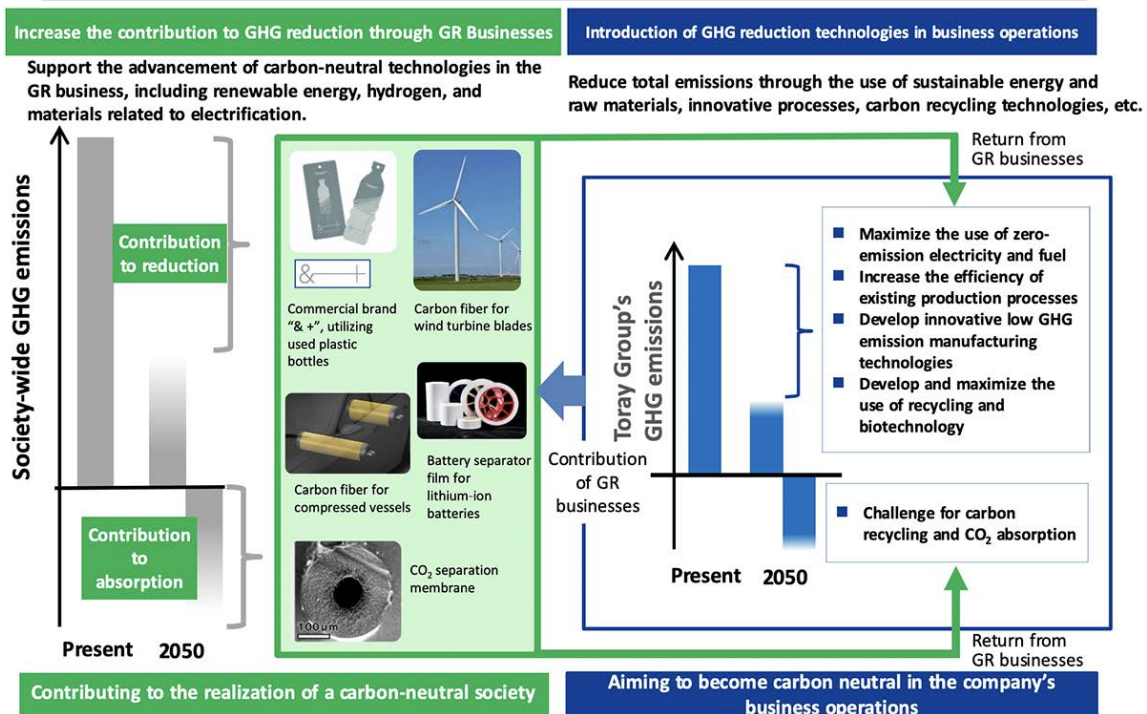
Toray Group is committed to its current corporate philosophy of “contributing to society through the creation of new value.” This is in keeping with a principle since Toray’s foundation in 1926 that corporations are public institutions that should contribute to society through business. Based on this 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, including renewable energy, hydrogen, and materials for electrification, and by developing products that help with greenhouse gas absorption, such as CO<sub>2</sub> separation membranes.

In addition, Toray Group aims to reduce its own greenhouse gas emissions 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<sub>2</sub> recycling technology that utilize CO<sub>2</sub> as a resource.

## Initiatives for Carbon Neutrality by 2050

- Challenge to develop, promote, and implement technologies for the transition to a net zero emissions society -



In May 2019, Toray Group declared its support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. In December 2019, Toray Group disclosed Group information related to the initiatives, which have been made prior to the declaration, to address climate change based on these TCFD recommendations.

Toray Group analyzed scenarios in line with the TCFD recommendations to identify its future business opportunities and risks, and how opportunities and risks associated with unpredictable climate change events could impact the Group. On April 1, 2021, the Group published the Toray Group TCFD Report 2021, which summarizes the climate change-related initiatives associated with the Group's business activity.

On the same day, the Group established the Sustainability Committee, chaired by the president, to accelerate Toray Group efforts to achieve sustainable growth and address issues related to climate change.

Toray Group will continue to actively disclose information related to climate change in accordance with the TCFD recommendations.



**TCFD** | TASK FORCE ON  
CLIMATE-RELATED  
FINANCIAL  
DISCLOSURES

[Toray Group TCFD Report 2021](#) **PDF**  
(2.88MB)

## <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 protection goals, which included targets for reducing greenhouse gas emissions. The Group has continued to focus on these efforts and is currently focused on its Fifth Medium-Term Environmental Plan (achieve targets by 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 perspective 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.

Project AP-G 2022 sets the following fiscal 2022 sustainability-related KPIs: 1 trillion yen in revenue from Green Innovation businesses, 300 billion yen in revenue from Life Innovation businesses, a 5.3-fold greater contribution to CO<sub>2</sub> reduction in the value chain compared to fiscal 2013, a 2.4-fold increase in water filtration throughput contribution by Toray's water treatment membranes, a 20% reduction in greenhouse gas emissions per unit of sales revenue in production activities, and a 25% reduction in water usage per unit of sales revenue in production activities.

## Comments from Thought Leaders

Comments are made on the basis of information publicly available as of September 2021.



**Sachiko Kishimoto**

Representative Director and Managing Director

Public Resources Foundation

These comments focus on the four sections of the Toray Group CSR Report 2021 entitled “Contributing Solutions to Social Issues through Business Activities” “Social Contribution Activities as a Good Corporate Citizen,” “Human Rights Promotion and Human Resources Development,” and “Facilitating CSR Initiatives Throughout the Supply Chain.”

In the area of “Contributing Solutions to Social Issues through Business Activities,” Toray Group pursues Green Innovation businesses, which provide solutions for global environmental, resource, and energy issues, and Life Innovation businesses, which improve the quality of healthcare, reduce the burden on medical staff, and contribute to health maintenance, longevity, and personal safety, as group-wide projects. Notably, Toray Group has set concrete KPIs for Green Innovation businesses such as the reduction of CO<sub>2</sub> emissions throughout the value chain. Toray Group deserves strong praise for steadily advancing R&D for innovative products including on-board capacitor films for EVs, environmentally-friendly polyester films, and innovative CO<sub>2</sub> separation membranes made from multiporous carbon fibers. Toray Group is also doing an excellent job of developing various recycling systems. I hope that Toray Group, together with its customer companies, will make an even greater effort to spur the transition to a circular economy. Toray Group also deserves strong praise in the Life Innovation business for reacting quickly to the COVID-19 pandemic by increasing production of medical supplies.

In the area of “Social Contribution Activities as a Good Corporate Citizen,” Toray Group is pursuing social initiatives, focusing on the priority areas of “science and technology promotion,” “environment and communities,” and “health and welfare.” Toray Group’s ongoing efforts, including endowments to its foundations, leave a favorable impression. I particularly hope that Toray Group will continue to conduct environmental and science workshops taught by its employees, and pursue initiatives to ensure that its business locations worldwide harmoniously coexist with local communities.

In the area of “Human Rights Promotion and Human Resources Development,” Toray Group can be commended for clearly stating in its Ethics and Compliance Code of Conduct that it does not tolerate harassment of any kind in the workplace, and furthermore establishing an LGBT support line.

In the area of “Facilitating CSR Initiatives Throughout the Supply Chain,” Toray Group is making steady progress in securing CSR compliance across the supply chain. Its CSR surveys of major suppliers (accounting for 90% of all procurement value) indicate that 99% of the companies are meeting Toray Group’s standards for CSR practice. I hope that Toray Group will continue to support its suppliers as well as secondary suppliers, to achieve greater human rights compliance and reduce CO<sub>2</sub> emissions.

### **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*.



**Shunsuke Managi**  
Distinguished Professor  
Kyushu University

Reading through the Toray Group CSR Report 2021 gives a clear picture of the Group's efforts to practice CSR. Toray Group sets a wide range of targets in areas from "Corporate Governance" to "Social Contribution Activities as a Good Corporate Citizen" and then assesses its performance, while also practicing CSR in its supply chain. Relative to its industry competitors, Toray Group is particularly strong in the environmental aspect of ESG, with distinctive efforts in the areas of climate change (reducing CO<sub>2</sub> emissions) and resource utilization (water).

In terms of environmental initiatives, the Group unveiled the Toray Group Sustainability Vision in 2018, which states that the Group will work to achieve "a net zero emissions world, where greenhouse gas emissions are completely offset by absorption" by the year 2050. In effect, Toray Group is helping to build a net zero emissions, carbon-neutral world. Toray Group should be commended for including specific targets in this vision, such as a 30% reduction of greenhouse gas emissions and water usage respectively per unit of revenue by fiscal 2030. In respect to the SDGs, after low-carbon issues, water-related issues are highly relevant to Toray Group's businesses.

Both reducing CO<sub>2</sub> and using water efficiently are helpful in protecting the planet and people's health, when considering environmentally driven corporate management in terms of life cycle management. Reducing CO<sub>2</sub> has a global impact, while using water efficiently impacts communities. The same SDGs involve different areas of application. If viewed from an ESG perspective, both of the related SDGs are concerned with the environment, but target different areas. As a result, the social impacts and contributions to society differ, such as shifting the energy mix and developing comfortable communities for people to live in.

Clean water leads to good health, yet many communities around the world still have poor access to drinking water or water for agriculture. There are also ways that water could be used more efficiently in Japan. The SDGs are about businesses addressing social issues directly in their communities. Toray Group is globally contributing to society through its water purification and other businesses. I hope that Toray Group will expand these efforts to resolve issues in ways that are specifically designed for each community.

As a result, Toray Group would be able to contribute even more to local communities through the provision of solutions to various local issues via its businesses by linking a wide range of businesses, including health through clean water, as well as Toray Group's medical-related businesses and various initiatives to contribute solutions for climate change issues. In this way, I expect it will help to create a system that solves the specific issues of each community through actual business, bringing great benefit to communities. Reading this report makes me hopeful that we may see such a future, and I look forward to the Toray Group contributing further to the development of a sustainable world.

## 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), vice chair of OECD Joint Working Party on Trade and Environment, co-chair of 2018 World Congress of Environmental and Resource Economists. Expert on global and national Inclusive Wealth Indexes and development for sustainability assessment. Written works include *Implementing ESG Management, Sustainable Community Development and Inclusive Wealth Theory*.



CSR-Related Policies and Guidelines / ESG Data

## CSR-Related Policies and Guidelines

Policies and guidelines related to Toray Group CSR are listed below.

### Management

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[Toray Group's Management Philosophy >](#)

### Governance

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[Basic Policy on Corporate Governance >](#)

[Basic Policy on Internal Control System >](#)

[CSR Activity Report \(CSR Guideline Activity Reports\) >](#)

[Information Disclosure Principles >](#)

### Ethics and Compliance

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[Ethics & Compliance Code of Conduct >](#)

[Toray Group Policy for Human Rights >](#)

## Safety and Environment

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[Ten Basic Environmental Rules](#) >

[Recycling Activity Principles](#) >

[Toray Group's Basic Policy for Increasing Green Areas](#) >

[Biodiversity Initiatives](#) >

## Quality Assurance and Product Safety

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[Product Safety Management Basic Policy](#) >

[Quality Policy](#) >

## Purchasing and Procurement

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[Basic Purchasing Policies](#) >

[Basic Distribution Policies](#) >

[CSR Procurement Guidelines](#) >

## Others

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[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	2017	2018	2019	2020	Unit
Environment conservation costs	Investment	Toray Industries, Inc.	FY	2.02	1.26	1.31	1.52	billion Yen
	Cost			6.81	6.98	7.13	7.56	
Economic impact of environmental initiatives		Toray Industries, Inc.	FY	0.53	0.82	0.88	0.60	billion Yen
Energy consumption	Toray Industries, Inc.	Total energy consumption	FY	30.0	28.8	27.8	25.3	million gigajoules
		Consumption from non-renewable energy sources	FY	29.0	27.6	26.5	24.1	
		Consumption from renewable energy sources	FY	1.0	1.2	1.3	1.2	
	Group companies in Japan	Total energy consumption	FY	6.5	6.2	5.8	5.3	
		Consumption from non-renewable energy sources	FY	6.5	6.2	5.8	5.3	
		Consumption from renewable energy sources	FY	0.0	0.0	0.0	0.0	
	Group companies outside Japan	Total energy consumption	FY	50.8	54.1	61.4	51.0	
		Consumption from non-renewable energy sources	FY	50.8	54.0	61.3	50.8	
		Consumption from renewable energy sources	FY	0.0	0.1	0.1	0.2	
Unit energy consumption index (% compared to fiscal 1990)		Toray Industries, Inc.	FY	81.6	83.3	85.9	89.8	—
Water	Toray Industries, Inc.	FY	174	176	171	165	million tons	
	Group companies in Japan	FY	13	13	14	10		
	Group companies outside Japan	FY	41	42	41	38		

		Scope	Period	2017	2018	2019	2020	Unit
Industrial wastewater		Toray Industries, Inc.	FY	164	167	160	150	million tons
		Group companies in Japan	FY	10	10	9	8	
		Group companies outside Japan	FY	24	23	26	24	
Greenhouse gas emissions <sup>1,2</sup>	Toray Industries, Inc.	Scope-1	FY	1,650	1,610	1,560	1,400	1,000 tons CO <sub>2</sub> eq
		Scope-2	FY	380	340	300	260	
		Toray Industries, Inc.	FY	2,030	1,950	1,860	1,660	
	Group companies in Japan	Scope-1	FY	60	50	50	40	
		Scope-2	FY	340	320	290	270	
		Group companies in Japan	FY	400	370	330	310	
	Group companies outside Japan	Scope-1	FY	1,500	1,730	1,670	1,370	
		Scope-2	FY	1,540	1,580	1,900	1,630	
		Group companies outside Japan	FY	3,040	3,310	3,560	3,000	
	Atmospheric emissions (NO <sub>x</sub> )		Toray Industries, Inc.	FY	1,335	1,306	1,274	
Group companies in Japan			FY	40	32	30	30	
Group companies outside Japan			FY	716	709	878	1,021	
Atmospheric emissions (SO <sub>x</sub> )		Toray Industries, Inc.	FY	268	245	255	160	tons
		Group companies in Japan	FY	16	16	10	18	
		Group companies outside Japan	FY	2,192	2,291	1,597	1,405	
Emissions of substances subject to the PRTR Act (Atmospheric Emissions)		Toray Industries, Inc.	FY	330	327	229	211	tons
		Group companies in Japan	FY	101	102	99	104	
		Group companies outside Japan	FY	442	457	392	481	
Emissions of substances subject to the PRTR Act (Water Emissions)		Toray Industries, Inc.	FY	27	28	24	22	tons
		Group companies in Japan	FY	0	0	0	3	
		Group companies outside Japan	FY	0	0	0	1	

	Scope	Period	2017	2018	2019	2020	Unit
Emissions of substances subject to the PRTR Act (transfers)	Toray Industries, Inc.	FY	1,023	746	1,054	577	tons
	Group companies in Japan	FY	1,554	1,334	1,674	2,469	
	Group companies outside Japan	FY	7,628	2,799	2,140	4,277	
VOC atmospheric emissions	Toray Industries, Inc.	FY	418	422	307	309	tons
	Group companies in Japan	FY	185	178	175	172	
	Group companies outside Japan	FY	505	529	486	558	
Atmospheric emissions (Dust)	Toray Industries, Inc.	FY	103	96	122	61	tons
	Group companies in Japan	FY	1	1	3	2	
	Group companies outside Japan	FY	122	174	234	133	
Coal ash (recycled)	Toray Industries, Inc.	FY	57.8	68.7	68.1	66.6	1,000 tons
	Group companies in Japan	FY	—	—	—	—	
	Group companies outside Japan	FY	19.1	22.6	16.8	12.3	
Waste (direct landfill disposal)	Toray Industries, Inc.	FY	0.0	0.1	0.1	0.0	1,000 tons
	Group companies in Japan	FY	0.6	0.4	4.3	1.0	
	Group companies outside Japan	FY	24.1	24.1	22.7	17.7	
Waste (hazardous)	Toray Industries, Inc.	FY	—	—	—	2.1	1,000 tons
	Group companies in Japan	FY	—	—	—	2.8	
	Group companies outside Japan	FY	—	—	—	—	
Waste (non-hazardous)	Toray Industries, Inc.	FY	—	—	—	25.0	1,000 tons
	Group companies in Japan	FY	—	—	—	12.5	
	Group companies outside Japan	FY	—	—	—	—	
Water emissions (BOD)	Toray Industries, Inc.	FY	576	624	607	523	tons
	Group companies in Japan	FY	24	32	31	22	
	Group companies outside Japan	FY	177	168	211	188	

	Scope	Period	2017	2018	2019	2020	Unit
Water emissions (COD)	Toray Industries, Inc.	FY	789	780	727	694	tons
	Group companies in Japan	FY	27	28	26	29	
	Group companies outside Japan	FY	1,298	1,149	1,550	1,223	
Wastewater: Total nitrogen emissions	Toray Industries, Inc.	FY	415	394	341	340	tons
	Group companies in Japan	FY	14	14	14	9	
	Group companies outside Japan	FY	—	—	—	—	
Wastewater: Total phosphorous emissions	Toray Industries, Inc.	FY	25	31	25	19	tons
	Group companies in Japan	FY	1	2	1	1	
	Group companies outside Japan	FY	—	—	—	—	

1 Greenhouse gas figures are affected by the fiscal 2017 integration of Toray Battery Separator Film Co., Ltd., a group company in Japan, into Toray Industries, Inc.

2 Emissions of CO<sub>2</sub> equivalents for six gases (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>) are calculated according to conversion factors for each gas. There are no NF<sub>3</sub> emissions. For Scope-1 group companies outside Japan, only CO<sub>2</sub> emissions are calculated.

## Society-Related

		Scope	Period	2017	2018	2019	2020	Unit
Number of employees	Total	Toray Industries, Inc.	As of the end of each fiscal year	7,625	7,585	7,568	7,420	persons
	Male			6,785	6,749	6,708	6,552	
	Female			840	836	860	868	
Percentage of women in unit manager or higher positions		Toray Industries, Inc.	As of April each year	9.0	9.3	9.7	9.8	%
Women in management positions (%)	Management staff (Section manager or higher positions)			4.6	4.9	5.1	5.6	
Employment rate of persons with disabilities		Toray Industries, Inc.	Year	2.20	2.21	2.20	2.23	%
Average time on the job	Total	Toray Industries, Inc.	FY	14.6	15.0	15.4	15.9	years
	Male			14.5	14.9	15.3	15.8	
	Female			15.8	16.0	16.1	16.7	
Percentage of available annual paid leave used by employees	Toray Industries' employees (non-managerial)	Toray Industries, Inc.	FY	88.4	89.7	96.0	83.4	%
Number of employees taking childcare leave	Total	Toray Industries, Inc.	FY	71	62	70	88	persons
	Male			3	4	10	22	
	Female			68	58	60	66	
Number of employees taking family care leave		Toray Industries, Inc.	FY	1	1	4	1	persons
Number of employees hired	Total	Toray Industries, Inc.	FY	337	338	332	223	persons
	Male			283	280	279	185	
	Female			54	58	53	38	
Education and Training	Training expenditures per employee	Toray Industries, Inc.	FY	99,069	90,261	96,821	36,092 <sup>3</sup>	Yen
	Time dedicated to training per employee			36.9	33.5	35.0	26.9	Hours
Occupational accident frequency rate		Toray Group (all accidents)	Year	0.61	0.59	0.59	0.71	—
		Toray Group (accidents causing lost work time)	Year	0.39	0.29	0.34	0.39	—
		Toray Industries' onsite contractors (accidents causing lost work time)	year	—	—	—	0.68	—
Process Safety Events -Tier 1-		Toray Group	year	—	—	—	0	Events

		Scope	Period	2017	2018	2019	2020	Unit
Total social contribution expenditures		Toray Group	FY	1.66	1.73	1.85	1.54	billion yen
Percentage by type	Academics, science research, education	Toray Group	FY	51	54	51	59	%
	Environment, communities			14	14	11	9	
	Health, welfare, sports			23	21	28	22	
	Culture, arts, other			12	11	10	10	

3 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	2017	2018	2019	2020	Unit
Number of members of the Board		Toray Industries, Inc.	FY	19	19	19	12	persons
Number of outside directors (independent officers)		Toray Industries, Inc.	FY	2	2	2	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	66.2	66.4	66.9	62.8	billion yen
Ratio of R&D expenses to net sales		Toray Group	FY	3.0	2.8	3.0	3.3	%
Number of major violations of laws or ordinances		Toray Group	FY	1	0	1	1	violation
Number of whistleblowing reports and consultations received		Toray Industries, Inc. Group companies in Japan	FY	—	—	—	45	Reports/consultations
Monetary contribution to Political fund-raising organization (The People's Political Association)		Toray Industries, Inc.	FY	50	30	30	30	million yen
Ratio between the total annual compensation of the CEO and the mean employee compensation		Toray Industries, Inc.	FY	22.23	21.26	21.25	22.18	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	> <a href="#">Corporate Outline</a>
102-2	Activities, brands, products, and services	> <a href="#">Corporate Outline</a> > <a href="#">Our Businesses</a>
102-3	Location of headquarters	> <a href="#">Head Office/Branches</a>
102-4	Location of operations	> <a href="#">Head Office/Branches</a>
102-5	Ownership and legal form	> <a href="#">Corporate Outline</a> > <a href="#">Securities Report (available only in Japanese)</a> > <a href="#">Financial Data</a>
102-6	Markets served	> <a href="#">Corporate Outline</a> > <a href="#">Securities Report (available only in Japanese)</a> > <a href="#">Financial Data</a>
102-7	Scale of the organization	> <a href="#">Corporate Outline</a> > <a href="#">Securities Report (available only in Japanese)</a> > <a href="#">Financial Data</a>
102-8	Information on employees and other workers	> <a href="#">ESG Data</a>
102-9	Supply chain	> <a href="#">Facilitating CSR Initiatives Throughout the Supply Chain</a>
102-10	Significant changes to the organization and its supply chain	N/A
102-11	Precautionary Principle or approach	> <a href="#">Risk Management</a> > <a href="#">Ethics and Compliance</a> > <a href="#">Initiatives for Quality Assurance and Product Safety</a> > <a href="#">Facilitating CSR Initiatives Throughout the Supply Chain</a>
102-12	External initiatives	> <a href="#">Human Rights Promotion and Human Resources Development</a> > <a href="#">Statement on the UK's Modern Slavery Act</a> > <a href="#">Toray Group's Approach to Climate Change</a>

102-13	Membership of associations	Toray Industries, Inc. belongs to the following associations: <ul style="list-style-type: none"> <li>• Nippon Keidanren (Japan Business Federation)</li> <li>• Japan Chemical Industry Association</li> <li>• Japan Chemical Fibers Association (chaired by the president of Toray Industries, Inc.)</li> <li>• SAC (Sustainable Apparel Coalition)</li> </ul>
Strategy		References
102-14	Statement from senior decision-maker	> <a href="#">Message from the President</a>
102-15	Key impacts, risks, and opportunities	> <a href="#">Securities Report (available only in Japanese)</a> > <a href="#">Financial Data</a> > <a href="#">Annual Reports</a> > <a href="#">Risk Management Initiatives</a>
Ethics and Integrity		References
102-16	Values, principles, standards, and norms of behavior	> <a href="#">Toray Philosophy</a>
102-17	Mechanisms for advice and concerns about ethics	> <a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a>
Governance		References
102-18	Governance structure	> <a href="#">Corporate Governance</a> <a href="#">Corporate Governance Report</a> 
102-19	Delegating authority	> <a href="#">Toray Group Corporate Social Responsibility Initiatives</a>
102-20	Executive-level responsibility for economic, environmental, and social topics	> <a href="#">CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)</a> > <a href="#">Toray Group Corporate Social Responsibility Initiatives</a>
102-21	Consulting stakeholders on economic, environmental, and social topics	> <a href="#">Communication</a>
102-22	Composition of the highest governance body and its committees	<a href="#">Corporate Governance Report</a>  > <a href="#">Basic Policy on Corporate Governance</a> > <a href="#">Corporate Governance</a>
102-23	Chair of the highest governance body	<a href="#">Corporate Governance Report</a> 
102-24	Nominating and selecting the highest governance body	<a href="#">Corporate Governance Report</a> 
102-25	Conflicts of interest	<a href="#">Corporate Governance Report</a> 
102-26	Role of highest governance body in setting purpose, values, and strategy	> <a href="#">Basic Policy on Corporate Governance</a>
102-27	Collective knowledge of highest governance body	
102-28	Evaluating the highest governance body's performance	<a href="#">Corporate Governance Report</a> 
102-29	Identifying and managing economic, environmental, and social impacts	> <a href="#">Toray Group's Approach to Climate Change</a>

102-30	Effectiveness of risk management processes	> <a href="#">Risk Management</a>
102-31	Review of economic, environmental, and social topics	
102-32	Highest governance body's role in sustainability reporting	
102-33	Communicating critical concerns	<a href="#">Corporate Governance Report</a> <a href="#">PDF</a> > <a href="#">Ethics and Compliance</a> > <a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a> > <a href="#">Risk Management</a>
102-34	Nature and total number of critical concerns	> <a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a>
102-35	Remuneration policies	<a href="#">Corporate Governance Report</a> <a href="#">PDF</a>
102-36	Process for determining remuneration	<a href="#">Corporate Governance Report</a> <a href="#">PDF</a>
102-37	Stakeholders' involvement in remuneration	<a href="#">Corporate Governance Report</a> <a href="#">PDF</a>
102-38	Annual total compensation ratio	> <a href="#">ESG Data</a>
102-39	Percentage increase in annual total compensation ratio	> <a href="#">ESG Data</a>
Stakeholder Engagement		References
102-40	List of stakeholder groups	> <a href="#">Communication</a> > <a href="#">Comments from Thought Leaders</a> > <a href="#">Creating a Positive Workplace for Employees</a> > <a href="#">Communication with Local Communities</a>
102-41	Collective bargaining agreements	> <a href="#">Creating a Positive Workplace for Employees</a>
102-42	Identifying and selecting stakeholders	> <a href="#">Communication</a>
102-43	Approach to stakeholder engagement	> <a href="#">Communication</a>
102-44	Key topics and concerns raised	> <a href="#">Comments from Thought Leaders</a> > <a href="#">Materiality</a>
Reporting practice		References
102-45	Entities included in the consolidated financial statements	> <a href="#">Corporate Outline</a> > <a href="#">Securities Report (available only in Japanese)</a> > <a href="#">Financial Data</a>
102-46	Defining report content and topic Boundaries	> <a href="#">Materiality</a> > <a href="#">Editorial Policy</a>
102-47	List of material topics	> <a href="#">Materiality</a> > <a href="#">CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)</a>
102-48	Restatements of information	N/A
102-49	Changes in reporting	N/A
102-50	Reporting period	> <a href="#">Editorial Policy</a>

102-51	Date of most recent report	October, 2020
102-52	Reporting cycle	End of September yearly
102-53	Contact point for questions regarding the report	> <a href="#">Contact Us</a>
102-54	Claims of reporting in accordance with the GRI Standards	> <a href="#">Comparative Table with GRI Standards</a>
102-55	GRI content index	> <a href="#">Comparative Table with GRI Standards</a>
102-56	External assurance	> <a href="#">Third-Party Assurance</a>

Management Approach		
General Requirements for Reporting the Management Approach		References
103-1	Explanation of the material topic and its Boundary	> <a href="#">Materiality</a>
103-2	The management approach and its components	<ul style="list-style-type: none"> <li>&gt; <a href="#">Toray Group Corporate Social Responsibility Initiatives</a></li> <li>&gt; <a href="#">CSR Activity Report (CSR Guideline Activity Reports)</a></li> <li>&gt; <a href="#">CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)</a></li> <li>&gt; <a href="#">Corporate Governance</a></li> <li>&gt; <a href="#">Ethics and Compliance</a></li> <li>&gt; <a href="#">Safety, Accident Prevention, and Environmental Preservation</a></li> <li>&gt; <a href="#">Product Quality and Safety</a></li> <li>&gt; <a href="#">Risk Management</a></li> <li>&gt; <a href="#">Communication</a></li> <li>&gt; <a href="#">Contributing Solutions to Social Issues through Business Activities</a></li> <li>&gt; <a href="#">Human Rights Promotion and Human Resources Development</a></li> <li>&gt; <a href="#">Facilitating CSR Initiatives Throughout the Supply Chain</a></li> <li>&gt; <a href="#">Social Contribution Activities as a Good Corporate Citizen</a></li> </ul>
103-3	Evaluation of the management approach	<ul style="list-style-type: none"> <li>&gt; <a href="#">Toray Group Corporate Social Responsibility Initiatives</a></li> <li>&gt; <a href="#">CSR Activity Report (CSR Guideline Activity Reports)</a></li> <li>&gt; <a href="#">CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)</a></li> <li>&gt; <a href="#">Corporate Governance</a></li> <li>&gt; <a href="#">Ethics and Compliance</a></li> <li>&gt; <a href="#">Safety, Accident Prevention, and Environmental Preservation</a></li> <li>&gt; <a href="#">Product Quality and Safety</a></li> <li>&gt; <a href="#">Risk Management</a></li> <li>&gt; <a href="#">Communication</a></li> <li>&gt; <a href="#">Contributing Solutions to Social Issues through Business Activities</a></li> <li>&gt; <a href="#">Human Rights Promotion and Human Resources Development</a></li> <li>&gt; <a href="#">Facilitating CSR Initiatives Throughout the Supply Chain</a></li> <li>&gt; <a href="#">Social Contribution Activities as a Good Corporate Citizen</a></li> </ul>

## Topic-Specific Standards

Economic		
Economic Performance		References
201-1	Direct economic value generated and distributed	<ul style="list-style-type: none"> <li>&gt; <a href="#">Securities Report (available only in Japanese)</a></li> <li>&gt; <a href="#">Financial Data</a></li> <li>&gt; <a href="#">Social Contribution Activities as a Good Corporate Citizen Fiscal 2020 Results</a></li> </ul>
201-2	Financial implications and other risks and opportunities due to climate change	<ul style="list-style-type: none"> <li>&gt; <a href="#">Toray Group's Approach to Climate Change</a></li> </ul>
201-3	Defined benefit plan obligations and other retirement plans	<ul style="list-style-type: none"> <li>&gt; <a href="#">Securities Report (available only in Japanese)</a></li> <li>&gt; <a href="#">Financial Data</a></li> </ul>
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	<ul style="list-style-type: none"> <li>&gt; <a href="#">Information on hiring new graduates (available only in Japanese)</a></li> </ul>
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	<ul style="list-style-type: none"> <li>&gt; <a href="#">Facilitating CSR Initiatives Throughout the Supply Chain</a></li> </ul>
Anti-corruption		References
205-1	Operations assessed for risks related to corruption	<ul style="list-style-type: none"> <li>&gt; <a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a></li> <li>&gt; <a href="#">Antitrust Compliance and Corruption/Bribery Prevention</a></li> </ul>
205-2	Operations assessed for risks related to corruption	<ul style="list-style-type: none"> <li>&gt; <a href="#">Establishing a Corporate Culture of Total Respect for Ethics and Compliance</a></li> <li>&gt; <a href="#">Antitrust Compliance and Corruption/Bribery Prevention</a></li> <li>&gt; <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a></li> </ul>
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	> <a href="#">Ensuring Tax Compliance</a>
207-2	Tax governance, control, and risk management	> <a href="#">Ensuring Tax Compliance</a>
207-3	Stakeholder engagement and management of concerns related to tax	> <a href="#">Ensuring Tax Compliance</a>
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	> <a href="#">Initiatives to Reduce Waste</a> > <a href="#">Toray Group Distribution Initiatives (Expanding Collection and Reuse of Packaging Materials)</a>
Energy		References
302-1	Energy consumption within the organization	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Environmental Impact Overview</a>
302-2	Energy consumption outside of the organization	> <a href="#">Third-Party Assurance</a>
302-3	Energy intensity	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Environmental Impact Overview</a>
302-4	Reduction of energy consumption	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Environmental Impact Overview</a>
302-5	Reductions in energy requirements of products and services	> <a href="#">Green Innovation Business Expansion Project</a>
Water and Effluents		References
303-1	Interactions with water as a shared Sustainably managed resources	> <a href="#">Initiatives for Managing Water Resources</a>
303-2	Management of water discharge-related impacts	> <a href="#">Initiatives to Prevent Air and Water Pollution</a>
303-3	Water withdrawal	> <a href="#">Environmental Impact Overview</a> > <a href="#">SASB Standards</a>
303-4	Water discharge	> <a href="#">Initiatives to Prevent Air and Water Pollution</a> > <a href="#">Environmental Impact Overview</a>
303-5	Water consumption	> <a href="#">Environmental Impact Overview</a> > <a href="#">SASB Standards</a>

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	> <a href="#">Biodiversity Initiatives</a>
304-2	Significant impacts of activities, products, and services on biodiversity	> <a href="#">Biodiversity Initiatives</a>
304-3	Habitats protected or restored	> <a href="#">Biodiversity Initiatives</a> > <a href="#">Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020 (Environmental Conservation in Communities)</a>
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	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Environmental Impact Overview</a> > <a href="#">Third-Party Assurance</a>
305-2	Energy indirect (Scope 2) GHG emissions	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Environmental Impact Overview</a> > <a href="#">Third-Party Assurance</a>
305-3	Other indirect (Scope 3) GHG emissions	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Environmental Impact Overview</a> > <a href="#">Third-Party Assurance</a>
305-4	GHG emissions intensity	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Environmental Impact Overview</a>
305-5	Reduction of GHG emissions	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Environmental Impact Overview</a>
305-6	Emissions of ozone-depleting substances (ODS)	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions (Initiatives to Protect the Ozone Layer)</a>
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	> <a href="#">Initiatives to Prevent Air and Water Pollution</a> > <a href="#">Environmental Impact Overview</a> > <a href="#">Chemical Substance Emissions and Transfer Data</a>
Waste		References
306-1	Waste generation and significant waste-related impacts	> <a href="#">Initiatives to Reduce Waste</a> > <a href="#">Realizing a Circular Economy</a>
306-2	Management of significant waste-related impacts	> <a href="#">Safety, Accident Prevention, and Environmental Preservation</a> > <a href="#">Initiatives to Reduce Waste</a> > <a href="#">Realizing a Circular Economy</a>
306-3	Waste generated	> <a href="#">Environmental Impact Overview</a>

306-4	Waste diverted from disposal	<ul style="list-style-type: none"> <li>&gt; <a href="#">Environmental Impact Overview</a></li> <li>&gt; <a href="#">Initiatives to Reduce Waste</a></li> </ul>
306-5	Waste directed to disposal	<ul style="list-style-type: none"> <li>&gt; <a href="#">Environmental Impact Overview</a></li> <li>&gt; <a href="#">Initiatives to Reduce Waste</a></li> </ul>
Environmental Compliance		References
307-1	Non-compliance with environmental laws and regulations	<ul style="list-style-type: none"> <li>&gt; <a href="#">Environmental Risk Management</a></li> </ul>
Supplier Environmental Assessment		References
308-1	New suppliers that were screened using environmental criteria	<ul style="list-style-type: none"> <li>&gt; <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a></li> </ul>
308-2	Negative environmental impacts in the supply chain and actions taken New suppliers that were screened using environmental criteria	<ul style="list-style-type: none"> <li>&gt; <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a></li> </ul>
Social Initiatives		
Employment		References
401-1	New employee hires and employee turnover	<ul style="list-style-type: none"> <li>&gt; <a href="#">Securing and Developing Human Resources to Create New Value</a></li> </ul>
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	<ul style="list-style-type: none"> <li>&gt; <a href="#">Creating a Positive Workplace for Employees</a></li> </ul>
401-3	Parental leave	<ul style="list-style-type: none"> <li>&gt; <a href="#">Creating a Positive Workplace for Employees</a></li> </ul>
Labor Management Relations		References
402-1	Minimum notice periods regarding operational changes	
Occupational Health and Safety		References
403-1	Occupational health and safety management system	<ul style="list-style-type: none"> <li>&gt; <a href="#">Safety, Accident Prevention, and Environmental Preservation</a></li> </ul>
403-2	Hazard identification, risk assessment, and incident investigation	<ul style="list-style-type: none"> <li>&gt; <a href="#">Safety, Accident Prevention, and Environmental Preservation</a></li> </ul>
403-3	Occupational health services	<ul style="list-style-type: none"> <li>&gt; <a href="#">Safety, Accident Prevention, and Environmental Preservation</a></li> </ul>
403-4	Worker participation, consultation, and communication on occupational health and safety	<ul style="list-style-type: none"> <li>&gt; <a href="#">Occupational Safety and Accident Prevention Activities</a></li> </ul>
403-5	Worker training on occupational health and safety	<ul style="list-style-type: none"> <li>&gt; <a href="#">Occupational Safety and Accident Prevention Activities</a></li> </ul>
403-6	Promotion of worker health	<ul style="list-style-type: none"> <li>&gt; <a href="#">Creating a Positive Workplace for Employees</a></li> </ul>
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<ul style="list-style-type: none"> <li>&gt; <a href="#">Occupational Safety and Accident Prevention Activities</a></li> </ul>
403-8	Workers covered by an occupational health and safety management system	<ul style="list-style-type: none"> <li>&gt; <a href="#">Occupational Safety and Accident Prevention Activities</a></li> </ul>



403-9	Work-related injuries	> <a href="#">Occupational Safety and Accident Prevention Activities</a>
403-10	Work-related ill health	> <a href="#">Occupational Safety and Accident Prevention Activities</a>
Training and Education		References
404-1	Average hours of training per year per employee	> <a href="#">Securing and Developing Human Resources to Create New Value</a>
404-2	Programs for upgrading employee skills and transition assistance programs	> <a href="#">Securing and Developing Human Resources to Create New Value</a> > <a href="#">Promoting Diversity</a>
404-3	Percentage of employees receiving regular performance and career	> <a href="#">Securing and Developing Human Resources to Create New Value</a>
Diversity and Equal Opportunity		References
405-1	Diversity of governance bodies and employees	> <a href="#">Promoting Diversity</a> > <a href="#">ESG Data</a>
405-2	Ratio of basic salary and remuneration of women to men	
Non-discrimination		References
406-1	Incidents of discrimination and corrective actions taken	> <a href="#">Human Rights Activity Report</a>
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	> <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>
Child Labor		References
408-1	Operations and suppliers at significant risk for incidents of child labor	> <a href="#">Human Rights Promotion and Human Resources Development</a> > <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>
Forced or Compulsory Labor		References
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	> <a href="#">Human Rights Promotion and Human Resources Development</a> > <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>
Security Practices		References
410-1	Security personnel trained in human rights policies or procedures	> <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>
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	> <a href="#">Human Rights Activity Report</a>
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	> <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>
Local Communities		References
413-1	Operations with local community engagement, impact assessments, and development programs	> <a href="#">Environmental Accounting</a> > <a href="#">Social Contribution Activities as a Good Corporate Citizen</a>
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	> <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>
414-2	Negative social impacts in the supply chain and actions taken	> <a href="#">Socially Responsible Procurement Initiatives at Toray Group</a>
Public Policy		References
415-1	Political contributions	> <a href="#">ESG Data</a>
Customer Health and Safety		References
416-1	Assessment of the health and safety impacts of product and service categories	> <a href="#">Initiatives for Quality Assurance and Product Safety</a>
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	> <a href="#">Initiatives for Quality Assurance and Product Safety</a>
Marketing and Labeling		References
417-1	Requirements for product and service information and labeling	> <a href="#">Product Quality and Safety</a> > <a href="#">Our Businesses</a> > <a href="#">Initiatives for Quality Assurance and Product Safety</a>
417-2	Incidents of non-compliance concerning product and service information and labeling	N/A
417-3	Incidents of non-compliance concerning marketing communications	N/A
Customer Privacy		References
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	> <a href="#">Protection of Personal Information</a>
Socioeconomic Compliance		References
419-1	Non-compliance with laws and regulations in the social and economic area	> <a href="#">Ethics and Compliance</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 <sub>2</sub> -e, Percentage (%)	Gross global Scope 1 emissions: 2.81 million tons-CO <sub>2</sub> <sup>1</sup> Percentage subject to emissions limits : 72% <sup>2</sup>  Notes: <sup>1</sup> CO <sub>2</sub> -equivalent emissions for six gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> ) are calculated according to conversion factors for each gas. There are no NF <sub>3</sub> emissions. Data is compiled for Toray Industries, Inc. and its group companies in and outside Japan. Only CO <sub>2</sub> emissions are calculated for group companies outside Japan. See the following page for a breakdown of figures for each category.  > <a href="#">Environmental Impact Overview</a>  <sup>2</sup> 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	> <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a> > <a href="#">Toray Group's Approach to Climate Change</a>
Air Quality	RT-CH-120a.1	Air emissions of the following pollutants:  (1) NO <sub>x</sub> (excluding N <sub>2</sub> O), (2) SO <sub>x</sub> , (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	Metric tons (t)	(1) NO <sub>x</sub> (2) SO <sub>x</sub> > <a href="#">Initiatives to Prevent Air and Water Pollution</a> (3) VOC (4) hazardous air pollutants (HAPs) > <a href="#">Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances</a>  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, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	Gigajoules (GJ), Percentage (%)	(1) Total energy consumed > <a href="#">Environmental Impact Overview</a> (2) Percentage grid electricity: 23.3% (3) Percentage renewable energy: 1.73%  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. (4) Total self-generated energy > <a href="#">Conserving Energy and Reducing Greenhouse Gas Emissions</a>
Water Management	RT-CH-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Thousand cubic meters (m <sup>3</sup> ), Percentage (%)	(1) Total water withdrawn: 214,174 thousand tons Of which, percentage of water withdrawn in regions with High Baseline Water Stress: 0.6% Of which, percentage of water withdrawn in regions with Extremely High Baseline Water Stress: 0.7% (2) Total water consumed: 32,224 thousand tons Of which, percentage of water consumed in regions with High or Extremely High Baseline Water Stress: 0.3% Of which, percentage of water consumed in regions with Extremely High Baseline Water Stress: 2.9%  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	4 > <a href="#">Environmental Risk Management</a>
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	n/a	> <a href="#">Initiatives for Managing Water Resources</a>
Hazardous Waste Management	RT-CH-150a.1	Amount of hazardous waste generated, percentage recycled	Metric tons (t), Percentage (%)	(1) Amount of hazardous waste generated: 4,862 tons (2) Percentage recycled: 97%  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	> <a href="#">Communication</a>
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	<p>(1) TRIR</p> <p>(a) Toray Group (Calculated by actual working hours of employees including temporary staff): 0.59</p> <p>(b) Onsite business partner companies (Only staff stationed at Toray Industries plants; working hours used in the calculations are estimates): 1.46</p> <p>(2) Fatality rate</p> <p>(a) Toray Group: 0</p> <p>(b) Onsite business partner companies: 0</p> <p>Note: Because Toray Group's safety record includes data on temporary staff, they are calculated using the definition above.</p>
	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	> <a href="#">Occupational Safety and Accident Prevention Activities</a>
Product Design for Use-phase Efficiency	RT-CH-410a.1	Revenue from products designed for use-phase resource efficiency	Yen	<p>&gt; <a href="#">Green Innovation Business Expansion Project</a></p> <p>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.</p>
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 (%)	<p>Not disclosed</p> <p>Note: At Toray Industries, Inc. and its group companies, safety reviews are conducted for all products. For more information, please visit the webpage</p> <p>&gt; <a href="#">Initiatives for Quality Assurance and Product Safety</a></p>
	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	<p>(1) Discussion of strategy to manage chemicals of concern</p> <p>&gt; <a href="#">Safety, Accident Prevention, and Environmental Preservation</a></p> <p>&gt; <a href="#">Product Quality and Safety</a></p> <p>&gt; <a href="#">Initiatives for Quality Assurance and Product Safety</a></p> <p>(2) Discussion of strategy to develop alternatives with reduced human and/or environmental impact</p> <p>&gt; <a href="#">Safety, Accident Prevention, and Environmental Preservation</a></p>

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	n/a
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	<p>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.</p> <ul style="list-style-type: none"> <li>• Nippon Keidanren (Japan Business Federation)</li> <li>• Japan Chemical Industry Association</li> <li>• Japan Chemical Fibers Association (chaired by the president of Toray Industries, Inc.)</li> <li>• SAC (Sustainable Apparel Coalition)</li> </ul>
Operational Safety, Emergency Preparedness & Response	RT-CH-540a.1	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	Number, Rate	<ul style="list-style-type: none"> <li>• PSIC<sup>1</sup>: 0</li> <li>• PSTIR<sup>2</sup>: 0</li> <li>• PSISR<sup>3</sup>: 0</li> </ul> <p>All figures are for the 2020 calendar year.</p> <p>Notes:</p> <p><sup>1</sup> 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.</p> <p><sup>2</sup> 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.</p> <p><sup>3</sup> 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.</p>
	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 <sup>3</sup> ) 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**

**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
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
	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
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
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

Issues	Toray's initiatives
4. Protection of the environment, biodiversity and restoration of natural habitats	Biodiversity Initiatives
	Environmental Risk Management
	Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020 (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	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 Activities Carried Out in Fiscal 2020
3. Employment creation and skills development	Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020
4. Technology development and access	Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020
5. Wealth and income creation	Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020
	Ensuring Tax Compliance
6. Health	Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020
7. Social investment	Social Contribution Activities as a Good Corporate Citizen Fiscal 2020 Results

## 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	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Toray Group's Approach to Climate Change</li> <li>&gt; Toray Group TCFD Report 2021 <a href="#">PDF</a></li> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Toray Group's Approach to Climate Change</li> <li>&gt; Toray Group TCFD Report 2021 <a href="#">PDF</a></li> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Toray Group's Approach to Climate Change</li> <li>&gt; Toray Group TCFD Report 2021 <a href="#">PDF</a></li> <li>&gt; Progress on the Fifth Medium-Term Environmental Plan</li> <li>&gt; Conserving Energy and Reducing Greenhouse Gas Emissions</li> <li>&gt; Risk Management Initiatives</li> <li>&gt; Environmental Impact Overview</li> <li>&gt; Third-Party Assurance</li> <li>&gt; Green Innovation Business Expansion Project</li> <li>&gt; Approach to Green Innovation Products</li> <li>&gt; Realizing a Circular Economy</li> <li>&gt; Toray Group Distribution Initiatives</li> <li>&gt; Environmental Accounting</li> <li>&gt; ESG Data</li> </ul>
	Water resource management	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Toray Group's Approach to Climate Change</li> <li>&gt; Toray Group TCFD Report 2021 <a href="#">PDF</a></li> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Toray Group's Approach to Climate Change</li> <li>&gt; Toray Group TCFD Report 2021 <a href="#">PDF</a></li> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Toray Group's Approach to Climate Change</li> <li>&gt; Toray Group TCFD Report 2021 <a href="#">PDF</a></li> <li>&gt; Initiatives to Prevent Air and Water Pollution</li> <li>&gt; Initiatives for Managing Water Resources</li> <li>&gt; Environmental Impact Overview</li> <li>&gt; Risk Management Initiatives</li> <li>&gt; Business Continuity Plan Initiatives</li> <li>&gt; Approach to Green Innovation Products</li> <li>&gt; Environmental Accounting</li> <li>&gt; ESG Data</li> </ul>

	Topic	Basic Approach/Policy	Structure	Initiatives/Results/Other
	Biodiversity	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> <li>&gt; Biodiversity Initiatives</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Biodiversity Initiatives</li> <li>&gt; Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020</li> <li>&gt; Environmental Accounting</li> </ul>
	Use of resources/waste	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Toray Group's Approach to Climate Change</li> <li>&gt; Toray Group TCFD Report 2021 <a href="#">PDF</a></li> <li>&gt; Progress on the Fifth Medium-Term Environmental Plan</li> <li>&gt; Initiatives to Reduce Waste</li> <li>&gt; Environmental Impact Overview</li> <li>&gt; Realizing a Circular Economy</li> <li>&gt; Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020</li> <li>&gt; Environmental Accounting</li> <li>&gt; ESG Data</li> </ul>
	Pollution prevention/chemical substance management	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Progress on the Fifth Medium-Term Environmental Plan</li> <li>&gt; Voluntary Initiatives to Reduce Atmospheric Emissions of Chemical Substances</li> <li>&gt; Initiatives to Prevent Air and Water Pollution</li> <li>&gt; Environmental Impact Overview</li> <li>&gt; Chemical Substance Emissions and Transfer Data</li> <li>&gt; Environmental Accounting</li> <li>&gt; ESG Data</li> </ul>
	Supply chain (environment)	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Promoting Life Cycle Management</li> <li>&gt; Realizing a Circular Economy</li> <li>&gt; Facilitating CSR Initiatives Throughout the Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Facilitating CSR Initiatives Throughout the Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Promoting Life Cycle Management</li> <li>&gt; Realizing a Circular Economy</li> <li>&gt; Socially Responsible Procurement Initiatives at Toray Group</li> <li>&gt; Toray Group Distribution Initiatives</li> </ul>

	Topic	Basic Approach/Policy	Structure	Initiatives/Results/Other
	Green Innovation	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Contributing Solutions to Social Issues through Business Activities</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Contributing Solutions to Social Issues through Business Activities</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Green Innovation Business Expansion Project</li> <li>&gt; Approach to Green Innovation Products</li> <li>&gt; Realizing a Circular Economy</li> </ul>
S:Social Initiatives	Human Rights	<ul style="list-style-type: none"> <li>&gt; Human Rights Promotion and Human Resources Development</li> <li>&gt; Facilitating CSR Initiatives Throughout the Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Human Rights Promotion and Human Resources Development</li> <li>&gt; Facilitating CSR Initiatives Throughout the Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Human Rights Activity Report</li> <li>&gt; Statement on the UK's Modern Slavery Act</li> <li>&gt; Socially Responsible Procurement Initiatives at Toray Group</li> </ul>
	Securing/developing human resources	<ul style="list-style-type: none"> <li>&gt; Human Rights Promotion and Human Resources Development</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Human Rights Promotion and Human Resources Development</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Securing and Developing Human Resources to Create New Value</li> <li>&gt; Communication with Employees</li> <li>&gt; ESG Data</li> </ul>
	Promoting diversity			<ul style="list-style-type: none"> <li>&gt; Securing and Developing Human Resources to Create New Value</li> <li>&gt; Promoting Diversity</li> <li>&gt; ESG Data</li> </ul>
	Creating comfortable workplace environments			<ul style="list-style-type: none"> <li>&gt; Creating a Positive Workplace for Employees</li> <li>&gt; Establishing a Corporate Culture of Total Respect for Ethics and Compliance</li> <li>&gt; ESG Data</li> </ul>
	Ensuring occupational health and safety and employee healthcare	<ul style="list-style-type: none"> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> <li>&gt; Creating a Positive Workplace for Employees (Employee Health)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> <li>&gt; Creating a Positive Workplace for Employees (Employee Health)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Occupational Safety and Accident Prevention Activities</li> <li>&gt; Third-Party Assurance</li> <li>&gt; Creating a Positive Workplace for Employees (Employee Health)</li> <li>&gt; ESG Data</li> </ul>
	Accident Prevention	<ul style="list-style-type: none"> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> <li>&gt; Risk Management</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Safety, Accident Prevention, and Environmental Preservation</li> <li>&gt; Risk Management</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Occupational Safety and Accident Prevention Activities</li> <li>&gt; Risk Management Initiatives</li> <li>&gt; Business Continuity Plan Initiatives</li> </ul>
	Quality Assurance	<ul style="list-style-type: none"> <li>&gt; Product Quality and Safety</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Product Quality and Safety</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Initiatives for Quality Assurance and Product Safety</li> <li>&gt; Sites with ISO 9001 Certification</li> </ul>



	Topic	Basic Approach/Policy	Structure	Initiatives/Results/Other
	Supply chain (social)	<ul style="list-style-type: none"> <li>&gt; Facilitating CSR Initiatives Throughout the Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Facilitating CSR Initiatives Throughout the Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Socially Responsible Procurement Initiatives at Toray Group</li> <li>&gt; Toray Group Distribution Initiatives</li> <li>&gt; Statement on the UK's Modern Slavery Act</li> </ul>
	Life Innovation	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Contributing Solutions to Social Issues through Business Activities</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Contributing Solutions to Social Issues through Business Activities</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Life Innovation Business Expansion Project</li> </ul>
	Social Contribution Activities	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Social Contribution Activities as a Good Corporate Citizen</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Social Contribution Activities as a Good Corporate Citizen</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Social Contribution Activities as a Good Corporate Citizen Fiscal 2020 Results</li> <li>&gt; Social Contribution Activities as a Good Corporate Citizen Activities Carried Out in Fiscal 2020</li> <li>&gt; Communication with Local Communities</li> </ul>
	Stakeholder engagement	<ul style="list-style-type: none"> <li>&gt; Communication</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Communication</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Materiality</li> <li>&gt; Comments from Thought Leaders</li> <li>&gt; Communication via Corporate Websites</li> <li>&gt; Communication with Customers</li> <li>&gt; Communication with Stockholders and Investors</li> <li>&gt; Communication with Business Partners</li> <li>&gt; Communication with Employees</li> <li>&gt; Communication with the Media</li> <li>&gt; Communication with Local Communities</li> <li>&gt; Creating a Positive Workplace for Employees</li> </ul>
G:Governance	Corporate Governance	<ul style="list-style-type: none"> <li>&gt; Corporate Governance (Overall Policy)</li> <li>&gt; Basic Policy on Corporate Governance</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Corporate Governance Structures</li> <li>&gt; Basic Policy on Corporate Governance</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Corporate Governance</li> <li>&gt; Corporate Governance Report <a href="#">PDF</a></li> <li>&gt; ESG Data</li> </ul>
	Risk Management	<ul style="list-style-type: none"> <li>&gt; Risk Management</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Risk Management</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Risk Management Initiatives</li> <li>&gt; Business Continuity Plan Initiatives</li> <li>&gt; Addressing Information Security Risks</li> </ul>

	Topic	Basic Approach/Policy	Structure	Initiatives/Results/Other
	Compliance/preventing corruption and bribery	<ul style="list-style-type: none"> <li>&gt; Ethics and Compliance</li> <li>&gt; Ethics &amp; Compliance Code of Conduct <a href="#">PDF</a></li> </ul>	<ul style="list-style-type: none"> <li>&gt; Ethics and Compliance</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Establishing a Corporate Culture of Total Respect for Ethics and Compliance</li> <li>&gt; Ensuring Tax Compliance</li> <li>&gt; Environmental Risk Management</li> <li>&gt; Improving Security Trade Controls</li> <li>&gt; Antitrust Compliance and Corruption/Bribery Prevention</li> <li>&gt; Protection of Personal Information</li> <li>&gt; Human Subject Research Ethics Review Committees</li> <li>&gt; Disclosure of Information Regarding the Ethical Treatment of Laboratory Animals</li> </ul>
	Promoting CSR	<ul style="list-style-type: none"> <li>&gt; Toray Group Sustainability Vision <a href="#">PDF</a></li> <li>&gt; Toray Group Corporate Social Responsibility</li> <li>&gt; Toray Philosophy and CSR</li> <li>&gt; Management Strategies and CSR</li> <li>&gt; Toray Group Corporate Social Responsibility Initiatives (CSR Guidelines, CSR Roadmap)</li> <li>&gt; CSR Roadmap 2022 (Fiscal 2020 – Fiscal 2022)</li> <li>&gt; Materiality</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Toray Group Corporate Social Responsibility Initiatives (Organizational Structure for Social Responsibility)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; CSR Activity Report (CSR Guideline Activity Reports)</li> <li>&gt; Progress on CSR Roadmap 2022 KPIs in Fiscal 2020 <a href="#">PDF</a></li> <li>&gt; Materiality View of CSR Roadmap <a href="#">PDF</a></li> </ul>

# 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 2020, the period from April 1, 2020 to March 31, 2021. 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 from fiscal 2020, results are published using performance data for fiscal 2020. Under Toray's Fifth Medium-Term Environmental Plan, if a target is managed based on an absolute value (such as air emissions of a chemical substance), the target is managed by adding newly added group companies' baseline year performance and target values.
2. Environmental data used in this report concerning greenhouse gas emissions, energy consumption, and waste by Toray Industries has been verified by a third party, Lloyds Register Quality Assurance 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 Advanced 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 52 group companies in Japan and 92 group 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. (145 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, Lloyds Register Quality Assurance Limited.

## **Social Data**

Covers Toray Industries, Inc. and its consolidated subsidiaries (63 companies in Japan, 124 companies outside of Japan), but scope of reporting may differ for some items.

## **Economic Data**

Covers Toray Industries, Inc. and its 283 consolidated companies (284 companies in all).

## **Disclaimer**

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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**

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- 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 2021 (Next issue scheduled for August 2022. Previous report issued in October 2020.)