

# TOYOBO GROUP SUSTAINABILITY REPORT 2024

## ● Sustainability

Sustainability of the Toyobo group is to contribute to solving issues for people and the Planet through our business, and to aim for our "Sustainable Growth".

### SUSTAINABLE VISION 2030 >

We launched our SUSTAINABLE VISION 2030 in May 2022



Message from the President →

Contribution through Our Business →

TOYOBO Group's Sustainability →

Communication with Stakeholders →

- [Corporate Philosophy Framework TOYOBO PVVs](#)
- [TOYOBO Group Charter of Corporate Behavior](#)
- [Sustainable Vision 2030](#)
- [Sustainability Management](#)
- [Our Value Creation Process](#)
- [Materiality](#)
- [TCFD](#)

- [Dialogue with Stakeholders](#)
- [Dialogue with ESG Investors](#)
- [External Evaluation \(ESG Factors\)](#)



## Activity Report



### Environment >

- [Management Approach](#)
- [Eco-Conscious Products](#)
- [Climate Change](#)
- [Plastic Resource Circulation](#)
- [Waste Reduction](#)
- [Water Resources](#)
- [Chemical Substance Management and Reducing Environmental Impact](#)
- [Biodiversity](#)



### Social >

- [Respect for Human Rights](#)
- [Safety, Disaster Prevention](#)
- [Quality](#)
- [Supply Chain Management](#)
- [Human Resource Management](#)
- [Diversity, Equity, & Inclusion \(DE&I\)](#)
- [Health and Productivity Management](#)
- [Social Contribution](#)



### Governance >

- [Corporate Governance](#)
- [Compliance](#)
- [Risk Management](#)
- [Tax Affairs Policy](#)

## ESG Related Data

[ESG Performance Data](#) →

[Report Library](#) →

[Policies and Guidelines](#) →

[GRI Content Index](#) →

[TCFD Index](#) →

[External Assurance](#) →

[Editorial Policy](#) →

# TOYOBO

# TOYOBO GROUP SUSTAINABILITY REPORT 2024

## Contents

<b>Message from the President</b>	02	<b>Social</b>	112
<b>TOYOBO Group's Sustainability</b>	04	Respect for Human Rights	114
Corporate Philosophy Framework	06	Safety, Disaster Prevention	122
TOYOBO Group Charter of Corporate Behavior	08	Quality	128
Sustainable Vision 2030	10	Supply Chain Management	134
Sustainability Management	15	Human Resource Management	141
Our Value Creation Process	22	Diversity, Equity, & Inclusion (DE&I)	147
Materiality	24	Promotion of Women's Participation and Advancement	152
<b>Contribution through Our Business</b>	29	Health and Productivity Management	156
Contributing to Solving Social Issues through Business Operations	31	Social Contribution	162
Major Business Growth Strategies	34	<b>Governance</b>	168
<b>Communication with Stakeholders</b>	41	Corporate Governance	169
Dialogue with Stakeholders	42	Compliance	184
Dialogue with ESG Investors	48	Risk Management	190
External Evaluation (ESG Factors)	49	Tax Affairs Policy	197
<b>Activity Report</b>		<b>ESG Related Data</b>	
<b>Environment</b>	52	<b>ESG Performance Data</b>	
Management Approach	54	Environment	199
Eco-Conscious Products	61	Social	202
Climate Change	66	Governance	206
Plastic Resource Circulation	82	<b>Policies and Guidelines</b>	207
Waste Reduction	94	<b>GRI Content Index</b>	208
Water Resources	96	<b>TCFD Index</b>	216
Chemical Substance Management	100	<b>External Assurance</b>	218
Biodiversity	104	<b>Editorial Policy</b>	221



# Message from the President

## ~ Achieving Sustainable Vision 2030 and Challenging New Innovation ~

For over 140 years since its founding, Toyobo group has contributed to enriching society by delivering the values demanded at the time through its unique technologies and products. Guided by our corporate philosophy, the cornerstone of our management "*Jun-Ri-Soku-Yu*" (Adhering to reason leads to prosperity) we will continue to create solutions needed by people and the planet through materials and science, today and into the future.

In recent years, the need to reduce greenhouse gas (GHG) emissions and promote the circulation of plastic resources has become increasingly urgent. At the same time, addressing human rights violations, such as forced labor and child labor, has become a critical issue. In response, we developed Sustainable Vision 2030 in 2022 to achieve the sustainable growth of both society and our company. By recognizing changes in the external environment as business opportunities, we aim to further contribute to resolving social issues through our group's technologies and products, striving for mutual growth alongside society.

To support the reduction of GHG emissions across the entire supply chain, we will provide products that advance the realization of a circular economy and the generation of renewable energy. In line with the transition to a resource-circulating society, we will accelerate the use of biomass and recycled materials, and develop highly recyclable products through cross-industry collaboration. Furthermore, we are building an environment where our group's employees can fully leverage their abilities and work with vitality, including by reviewing the TOYOBO Group Human Rights Policy in February 2024.

The group is committed to realizing Sustainable Vision 2030 and, with a forward-looking perspective toward 2050, seeks to drive innovation by integrating the group's strengths in technology and business operations. Our focus is on delivering solutions that begin with materials. In particular, we will focus on creating innovation in three key areas: New Circular Plastics, Environmental Active Clean, and Well-Being, all with the goal of enhancing people's health and contributing to comfortable living.

The impetus for generating new value through these challenges lies in the employees of Toyobo group. Each individual will face challenges with sincerity, demonstrating initiative, and building strong trust with internal and external stakeholders, thereby amplifying the value that Toyobo group delivers.

We sincerely ask for your continued support and look forward to your anticipation of Toyobo group's transformation and growth in the years to come.



November 1, 2024  
President & Representative Director, CEO & Co-COO

*Shiro Takeuchi*

A message from the president is also posted here.

• [Sustainable Vision 2030 \(2.1MB\)](#) 

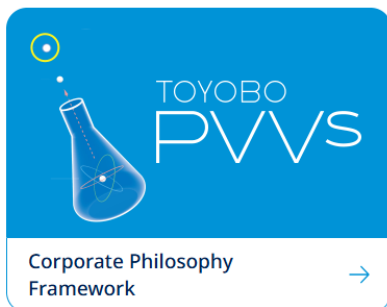
• [CEO Message in the Integrated Report 2024 \(848KB\)](#) 

#### < Related information >

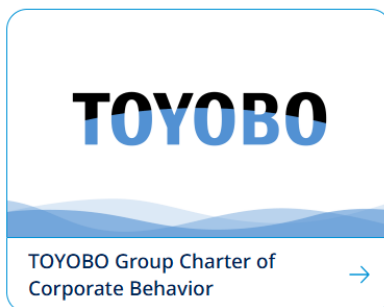
- Corporate Philosophy Framework TOYOBOK PVVs  
<https://www.toyobo-global.com/company/philosophy.html>
- 2025 Medium-Term Management Plan  
<https://ir.toyobo.co.jp/en/ir/library/plan.html>
- Sustainable Vision 2030  
[https://www.toyobo-global.com/pdf/sustainability/topmessage/en\\_sustainable\\_vision2030.pdf](https://www.toyobo-global.com/pdf/sustainability/topmessage/en_sustainable_vision2030.pdf) (2.1MB) 
- 140th anniversary project  
<https://www.toyobo-global.com/140th/logo-and-monument/>



# TOYOBO Group's Sustainability



In March 2019, we established the corporate philosophy framework TOYOBO PVVs. "PVVs" is the name of the TOYOBO group's and philosophy framework and is a combination of the English acronyms for "principle," "vision," and "values".



We will act with high ethical standards and social common sense based on the ten principles in order to continue being a corporation that people trust.



Sustainable Vision 2030 projects changes in the future business environment and shows the ideal state we seek based on our corporate philosophy, as well as our sustainability indices and action plans.



We are instilling the concept of sustainability along with our corporate philosophy into our business approach and integrating sustainability into our management and business strategies as we seek to fulfill our long-term vision.



Our value creation process takes the TOYOBO PVVs corporate philosophy framework as its starting point, and demonstrates how we use various types of capital to create value and increase value for all stakeholders.



Our materiality is organized along the two axes of "materiality for stakeholders" and "materiality for the group." We will also regularly review the material issues.



We announced our support for the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD), and have been working on initiatives and disclosures that follow them.

The photo shows the "TOYOBO WINDOW," a monument in the lobby of the head office.

The round shape represents the "TOYOBO WINDOW," open to society and a bridge between people.

It expresses the significance of TOYOBO's mission to help solve problems for people and the earth and make lasting changes for the future.





# Corporate Philosophy Framework

We systematized the TOYOBO Group philosophy of “Jun-Ri-Soku-Yu”.

The TOYOBO PVVs is the foundation on which we actively seek to build a flourishing society while also growing as a company.

P V V S

## Principle

TOYOBO's founding spirit and beliefs

## Vision

What kind of added value should we provide to society?

## Values

TOYOBO Spirit

The standards that we prize

## Principle

### “Jun-Ri-Soku-Yu”

Adhering to reason leads to prosperity

#### “Jun-Ri”

Do what should be done (positive standpoint)  
Don't do what should not be done (defensive standpoint)

#### “Soku-Yu”

Adhering to “Jun-Ri” leads to a prosperous society while also realizing self-growth

# Vision

**We will continue to create  
the solutions needed by people  
and the earth with our materials  
and science.**

We aim to go beyond mere manufacturing (providing materials) to create science, in other words: new value through ingenuity and ideas.

We aim to be a group that realizes unique benefits (provides solutions) by combining materials and science.

# Values

**We welcome change, enjoy change, and create change.**

## TOYOBO Spirit9 Commitments

**Challenge** Value the courage to try reaching beyond conventional limits



### Think Ahead

Constantly look for changes and needs, and swiftly do what must be done



### Create

Approach our daily routines with a flexible mind and devise better ways to carry out our jobs



### Accomplish

Think of feasible ways to fulfill our work without compromising quality. Complete to the very end

**Reliability** Value a safe and secure workplace and solutions that surpass customers' expectations



### Safety First

Priority on safety first for ourselves, our associates, and society



### Customer Satisfaction

Do our utmost to discern precisely what the customer wants and always stay one step ahead



### Factual Basis

Go to the actual worksite, verify the actual conditions, and identify the actual issue

**Collaboration** Value individuality and diverse viewpoints



### Mutual Communication

Discuss issues with everyone involved regardless of their position in their company, the organizational structure, or the client's company until a mutually acceptable solution is found



### Diversity

Recognize the value of people with different opinions and backgrounds and work together to achieve high targets



### Providing Opportunities

People grow by trying, no matter if they succeed or fail. Provide opportunities to the next generation and learn for ourselves



# TOYOBO Group Charter of Corporate Behavior

This Charter of Corporate Behavior applies to all directors, corporate auditors, executive officers, and employees of the Toyobo Group (TOYOBO CO., LTD. and all of its affiliated companies). The term "Toyobo Group" as used in this charter refers to all of these people.

We here at the Toyobo Group contribute to the realization of a sustainable society by aiming to become a Group that continues to create the solutions needed by people and the earth with materials and science. Also, in order to continue being a corporation that people trust, we will act with high ethical standards and social common sense based on the following ten principles.

## 1. Contribution to a sustainable society

We will contribute to sustainable economic growth and the resolution of social issues by developing and providing products and services that will create a safe and affluent future.

## 2. Fair business practices

We will maintain a sound relationship with society, including our customers and business partners, by engaging in fair competition and transactions, and responsible procurement.

- 2-1. We will appropriately use and manage trade secrets, personal data and other such forms of information.
- 2-2. We will engage in fair and unrestricted competition in adherence to laws and regulations relevant to fair competition such as antitrust law.
- 2-3. We will establish proper transaction policies and engage in responsible procurement and logistics in a manner that supports development of a sustainable society.
- 2-4. We will properly manage and declare cargo when importing and exporting, in adherence to relevant laws and regulations.
- 2-5. We will not engage in corrupt practices such as offering gifts, hospitality, monies, or other benefits to public officials, customers or business partners, whether locally or overseas, that would result in gaining unfair benefits, or accepting offers of such gifts, hospitality, monies or other benefits.
- 2-6. We will build highly transparent relationships with those in politics and government.
- 2-7. We will protect and make effective use of our intellectual property rights derived from results we have obtained through research and development, and will likewise respect the intellectual property rights of others. We will appropriately display our trademarks and otherwise take steps to heighten the brand value of the Toyobo Group.
- 2-8. We will not engage in accounting practices that would result in erroneous financial statements.
- 2-9. We will make decisions based on our *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity) corporate philosophy and adhere to our in-house rules.

## 3. Communication with stakeholders

We will carry out fair and appropriate information disclosure and enhance corporate value through communication with our stakeholders.

- 3-1. We will appropriately disclose information in a timely manner and otherwise strive to maintain constructive dialogue with society.
- 3-2. We will carefully handle information and will not engage in insider trading.

## 4. Respect for human rights

We support the International Bill of Human Rights and Guiding Principles on Business and Human Rights and will conduct business activities that respect the human rights of all persons.

- 4-1. We will conduct our business activities in a manner that shuns harassment and discrimination on grounds of race, religion, gender, age, family origin, nationality, disability, sexual orientation or otherwise. Moreover, we will reject child and forced labor. We will also respect collective bargaining rights and freedom of association based on the laws and regulations of the countries and regions in which we do business.

## **5. Earn customers' trust and satisfaction**

We will strive to ensure the quality and safety of our products and services and earn the trust and satisfaction of customers and consumers.

- 5-1. We will take steps to ensure the quality and safety of our products and services by building appropriate Quality Management System.
- 5-2. We will provide accurate and precise information regarding our products and services in order to earn our customers' satisfaction and trust.
- 5-3. We will engage the proper procedures in carrying out quality inspections and other such testing, and will appropriately handle data and other information.
- 5-4. We will strive to develop products that contribute to society. Moreover, we will appropriately manage and use external funds particularly those covering research expenses, and will strongly refrain from acts that involve fabrication or falsification of data results.
- 5-5. We will sincerely address customer inquiries, complaints and other interactions and will strive to manufacture products and provide services in a manner that leverages such feedback.

## **6. Active employee participation**

We will respect employee diversity and support work practices that allow employees to demonstrate their individual skills. Also, we will provide workplaces that are conducive to productive work while taking health and safety into consideration.

- 6-1. We will work toward developing workplace environments that facilitate active participation among a diverse range of human talent.
- 6-2. We will prevent various types of harassment and other forms of mistreatment in our workplaces, and accordingly we will not engage in discriminatory practices neither in regard to hiring nor terms of employment.
- 6-3. We will strive to create workplaces that are safe, hygienic and rewarding, and will work to prevent excessive workloads and reduce overtime work.

## **7. Engagement in environmental issues**

We will strive to improve energy conservation and reduce/recycle the resources used by our business, and move forward with the development of products and technologies that contribute to reducing the burden on the environment.

- 7-1. We will strive to improve energy conservation and reduce/reuse the resources used by our business, and will implement measures that address our environmental risks.

## **8. Social contribution**

We will actively participate in society as a good corporate citizen and contribute to its development.

## **9. Thorough crisis management**

We will conduct thorough crisis management in the face of actions by antisocial forces, terrorism, cyber attacks, natural disasters and other crises that pose a threat to corporate activity.

- 9-1. We will strive to prevent disasters and will also develop a crisis management framework for addressing emergency situations.
- 9-2. We will take a firm stand against antisocial forces and otherwise fully reject any and all ties therewith.
- 9-3. We will strive to ensure cyber-security.

## **10. Responsibilities of the management**

Directors and the Board of Directors, operating under the spirit of this Charter, shall strive to resolve issues while working together with the entire Group and should also encourage behavior based on the principles of this Charter within the Group's supply chain. In the event that the Group violates the spirit of this Charter and loses the trust of society, directors and the Board of Directors shall proactively take responsibility to respond to the situation, including resolving the problem, investigating the causes, and preventing the problem from recurring.

Seiji Narahara  
Representative Director, President and CEO, Co-COO  
TOYOBOKO CO., LTD.  
October 26, 2020

# Sustainable Vision 2030

## Sustainable Vision 2030

In May 2022, Toyobo observed the 140th anniversary of its founding. We launched our Sustainable Vision 2030 and 2025 Medium-Term Management Plan.

Sustainable Vision 2030 anticipates changes in the business environment of the future and shows the ideal state we seek based on our corporate philosophy, as well as our sustainability indicators and action plans. We want to be a sustainable company that helps promote sustainability, while changing our corporate culture to one oriented toward sustainable growth.

## Realizing Sustainable Growth

Toyobo has formulated Sustainable Vision 2030 in May 2022 to achieve sustainable growth while moving away from survival thinking that overemphasizes short-term results. Through innovation and the 3Ps (people, planet, and prosperity), we aim to usher in both a prosperous society and the enhancement of corporate value by making contributions to solving social issues.



## In formulating the vision

We have formulated this vision with a strong determination to make sustainability the cornerstone of our management. The subtitle of our long-term vision is "Achieving Sustainable Growth". Going forward, we will make a major shift to a "sustainable growth orientation," moving away from the culture of "survival thinking" that was fostered during the long-term structural reform period, in other words, away from an emphasis on short-term results.

Our company's "Sustainable Growth" has two meanings. The first is that our company itself is sustainable and sustainable. The second is to improve the sustainability of society. "Sustainable Growth" expresses our desire to realize the former by contributing to the latter.

— Realization of a "prosperous" society where people can live with peace of mind and a spiral increase in corporate value —

The "ideal state" of our group in 2030 is a state of spiral improvement, in which we realize a "prosperous" society where people can live with peace of mind by solving the following five social issues, and as a result, our corporate value will also increase.

<p><b>Ideals we seek to realize</b></p>	<p><b>Innovation</b></p> <p>To be a group that continually creates materials and science that become solutions for people and the planet</p>																		
<p><b>Social change and trends in 2030</b></p>	<p>Standardization in handling safety, human rights and social justice issues</p> <p>Increased and diversified needs concerning access to medical care/health promotion</p> <p>Demographic changes, humancentric innovation, accelerated urbanization</p> <p>Decarbonization, resource circulation, limited natural resources</p>																		
<p><b>Social issues to be solved through commitment</b></p> <p><b>Goals for the future</b></p>	<div> <div> <p><b>People</b></p> </div> <div> <p><b>Planet</b></p> <ol style="list-style-type: none"> <li><b>Employee well-being and human rights in the supply chain</b> <ul style="list-style-type: none"> <li>• People First: employee safety, company pride and rewarding work</li> <li>• Respect for human rights across the entire supply chain</li> </ul> </li> <li><b>A healthy lifestyle and health care</b> <ul style="list-style-type: none"> <li>• Contributing to the field of epidemiology</li> <li>• Contributing to improve quality of life</li> </ul> </li> <li><b>Smart communities and comfortable spaces</b> <ul style="list-style-type: none"> <li>• Contributing to the realization of a humancentric digital society</li> <li>• Creating comfortable spaces</li> </ul> </li> <li><b>A decarbonized and circular society</b> <ul style="list-style-type: none"> <li>• Contributing to carbon neutrality</li> <li>• Establishment of an ecosystem for circulating resources</li> </ul> </li> <li><b>Quality water areas, air and soil, and the preservation of biodiversity</b> <ul style="list-style-type: none"> <li>• Improving the environment through solutions</li> <li>• Contributing to food loss reduction</li> </ul> </li> </ol> </div> </div>																		
	<p><b>Prosperity</b></p> <p>Ushering in both a prosperous society where people can live with peace of mind, and the enhancement of corporate value</p> <ol style="list-style-type: none"> <li>1) Contributing to solving social issues through our business</li> <li>2) Sustainable growth: a solid foundation and trajectory for future growth</li> <li>3) People First: safe and secure workplaces, rewarding work employees can be proud of, and the opportunity for personal development</li> </ol>																		
<p><b>Where we'd like to be by 2030</b></p>	<table border="0"> <tr> <td> <p>■ Sustainability Indicators</p> </td><td> <p>■ Financial Indicators</p> </td></tr> <tr> <td> <p>Serious incidents</p> </td><td> <p>Consolidated sales</p> </td></tr> <tr> <td> <p>Employee engagement score</p> </td><td> <p>Operating profit margin</p> </td></tr> <tr> <td> <p>GHG emissions cut (over FY2014) Scope1 and 2</p> </td><td> <p>ROE</p> </td></tr> <tr> <td> <p>Ratio of green materials in main business operations*</p> </td><td> <p>ROIC</p> </td></tr> <tr> <td> <p>Zero</p> </td><td> <p>600 billion yen</p> </td></tr> <tr> <td> <p>over 70%</p> </td><td> <p>over 8.3%</p> </td></tr> <tr> <td> <p>over 46%</p> </td><td> <p>over 9%</p> </td></tr> <tr> <td> <p>Carbon neutrality in FY2051</p> </td><td> <p>over 7%</p> </td></tr> </table>	<p>■ Sustainability Indicators</p>	<p>■ Financial Indicators</p>	<p>Serious incidents</p>	<p>Consolidated sales</p>	<p>Employee engagement score</p>	<p>Operating profit margin</p>	<p>GHG emissions cut (over FY2014) Scope1 and 2</p>	<p>ROE</p>	<p>Ratio of green materials in main business operations*</p>	<p>ROIC</p>	<p>Zero</p>	<p>600 billion yen</p>	<p>over 70%</p>	<p>over 8.3%</p>	<p>over 46%</p>	<p>over 9%</p>	<p>Carbon neutrality in FY2051</p>	<p>over 7%</p>
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## Challenges toward the future — Solving five social issues —

With an eye on various environmental changes and issues, we forecast how the business environment will evolve in the next 10 years. Based on these forecasts, we have established "five social issues" that the group can contribute to solving, such as human rights throughout the supply chain, people's health, creating comfortable spaces, and realizing a decarbonized society. We will contribute to solving these issues through our own endeavors and by providing solutions.

### "People: contributing to solutions for social issues in a humancentric way"

1. Employee well-being and human rights in the supply chain
2. A healthy lifestyle and health care
3. Smart communities and comfortable spaces

### "Planet: contributing to solutions for social issues in consideration of the entire Earth"

1. A decarbonized and circular society
2. Quality water areas, air and soil, and the preservation of biodiversity

What society requires, what Toyobo can contribute, and targets for FY2030 (597KB)



## Sustainability goals by social issue

### Five Social Issues

### FY2031 target



#### Employee well-being and human rights in the supply chain

- **Zero** industrial accidents in workplaces
- **Certification as a "Top 500 Company"** for Outstanding Health and Productivity Management by FY2026
- Employee engagement score: **over 70%**
- Respect for human rights across the entire supply chain
- Expanding and improving educational and training systems for employees

- [Human Resource Management](#)
- [Health and Productivity Management](#)
- [Diversity, Equity, & Inclusion \(DE&I\)](#)
- [Supply Chain Management](#)



#### A healthy lifestyle and health care

- Number of tests conducted by the provision of infectious disease diagnostics: **10 million per year**
- Number of dialysis patients provided with dialysis membranes: **250,000**
- Share in the market of raw materials for biochemical and other tests: **30%**
- Number of patients provided with regenerative inducers: **100,000 per year**
- Proliferation and expanded sales of 3D network-structured fiber materials in the medical and nursing care fields



#### Smart communities and comfortable spaces

- Sales volume of product groups supporting DX: **1.5-fold** increase over FY2021
- Total sales of car cabin air filters: **1.2 million units**
- **Creation of a comfortable space** inside electric vehicles through sound and heat management



#### A decarbonized and circular society

##### A decarbonized society

- Cutting emissions in Scope 1 & 2 by **over 46%** in FY2031 vs FY2014  
**Net zero** in FY2051 (Avoided emissions > Amount of GHG emissions throughout the entire value chain)
- **Entry into new solution fields**  
Osmotic power generation, offshore cables and insulating resin for wind power generation, adhesive sheets for cells used in fuel cell vehicles, electrode materials for large storage batteries, hydrogen-related materials, etc

##### A circular society

- Achieve final disposal rate from business activities: **less than 1%**
- Ratio of green films: **60%**
- Join resource circulation ecosystem (R PLUS JAPAN)

- [Climate Change](#)
- [Plastic Resource Circulation](#)
- [Waste Reduction](#)
- [Chemical Substance Management and Reducing Environmental Impact](#)



#### Quality water areas, air and soil, and preservation of biodiversity

- Air volume treated by the volatile organic compound recovery unit: **7 billion Nm<sup>3</sup> per year**
- Desalination of sea water by membrane: equivalent to the volume of tap water for **10 million people**
- Sales volume of highly functional films that contribute to reducing food loss: **fourfold** increase over FY2021

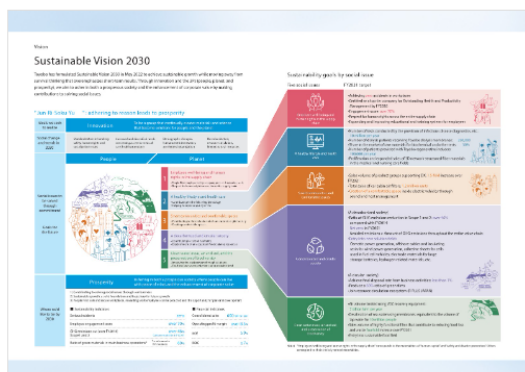
- [Water Resources](#)
- [Biodiversity](#)

Note) "Employees' well-being and human rights in the supply chain" corresponds to the materialities of "human capital" and "safety and disaster prevention."  
Others correspond to their similarly named materialities.



## For achieving sustainable vision 2030 — the people at our worksites —

Being a company where each and every person works with a sense of pride and purpose is fundamentally essential to achieving sustainable growth. The people at our worksites are naturally the central players in the long-term vision. The long-term vision shows clearly the company what we want to be and the areas we want to contribute. Linking the work in front of us to company's future gives meaning to the work each of us is doing so we can all make the vision our own.



[Sustainable Vision 2030 in the Integrated Report \(2.8MB\)](#)



[Sustainable Vision 2030 press release \(2.1MB\)](#)

- [Medium-Term Management Plan](#)

# Sustainability Management

↓ Policy and approach    ↓ Participation in initiatives

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## Policy and approach

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### Approach

Since being founded in 1882 as Japan's first large-scale spinning mill company in the private sector, Toyobo group has addressed a range of issues as a good member of society through the supply of clothing fibers. We have also expanded and grown with the times and contributed to solving social issues with a focus on the environment in our aim to realize better lives for people around the world.

In 2019, we redefined our corporate philosophy "*Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity)." After many discussions based on it, we enhanced our corporate philosophy framework TOYOBO PVVs. Through this discussion process, we were convinced that the essence of Toyobo group's activities to date lies in making a contribution to ensuring the sustainability of people and the earth.

We announced our Sustainable Vision 2030 (long-term vision) in May 2022.

• [Sustainable Vision 2030](#)

Contributing to the realization of a sustainable society is the embodiment of Toyobo group's vision "We will continue to create the solutions needed by people and the earth with materials and science." This expresses Toyobo group's approach to sustainability.

At the same time, it is important to continually enhancing corporate value. Toyobo group's contribution to realizing a sustainable society generates profits leading to enhancement of the group's corporate value. This enhancement of corporate value leads in turn to the next level of realization of a sustainable society through growth in the group's business. Maintaining this positive spiral is what Toyobo group regards as sustainability.

To meet the expectations of stakeholders, Toyobo group will further enhance its dissemination of information as well as taking active initiatives so that all employees feel personally involved in sustainability in order to promote companywide activities as a united force.

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### Policy

1. Management that takes the sustainability of society into consideration, and thus management that increases the sustainability of our company
2. Sustainability that builds a solid management foundation: the axis of our management foundation (ESG)
3. Sustainability that strengthens our competitiveness and drives growth: the axis of our business (CSV)

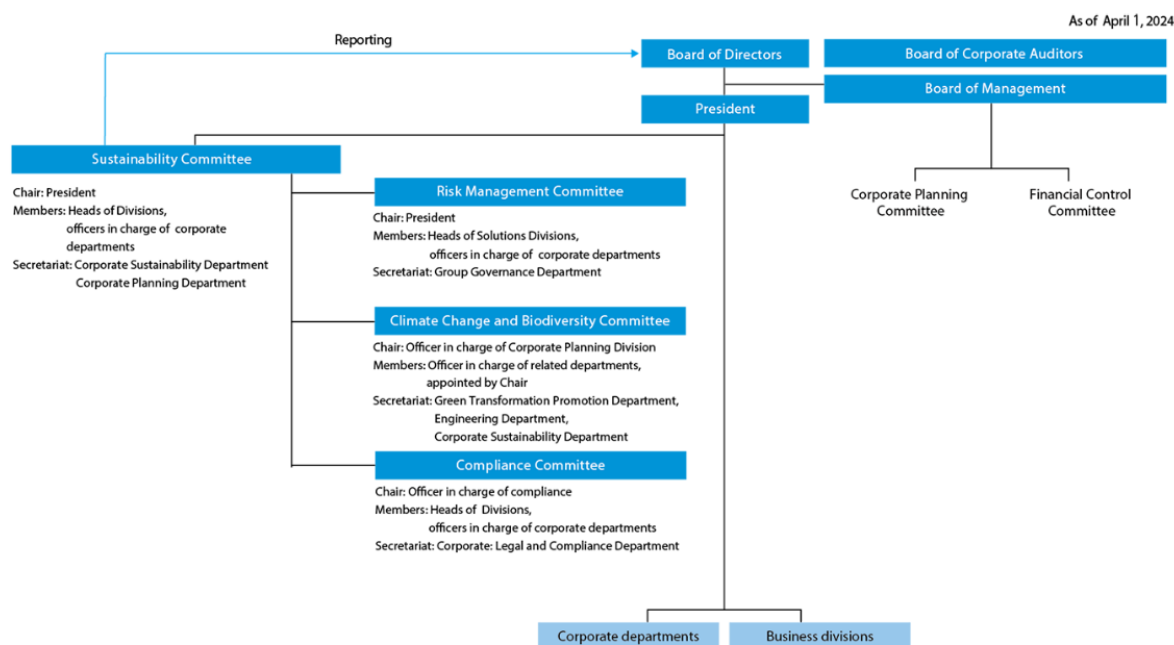
## Conceptual Framework-Sustainability, CSV and ESG



## Sustainability management structure

Toyobo group has established the Sustainability Committee, with the President serving as chairperson. Committee meetings were held six times in fiscal 2024 to review the progress of the group's sustainability activities, with deliberations covering themes including 1) participation in the GX League, 2) sharing the value creation story, 3) group-wide risk management, and 4) efforts to respect human rights within the group and across the supply chain. In addition, under this committee, we have established the Risk Management Committee, the Climate Change and Biodiversity Committee, and the Compliance Committee to facilitate cross-company discussions.

### Sustainability Promotion Structure



## Our sustainability activities

Since our group's founding by Eiichi Shibusawa, we have taken the philosophy of one of his mottoes, "*Jun-Ri-Soku-Yu* (Adhering to reason leads to prosperity)," as the basis for our concept that we grow our own business by enriching society. By putting this into practice, we have anticipated modern CSV.

Since fiscal 2021, we have been moving ahead with activities under a full-fledged sustainability management orientation. Our efforts have been particularly directed toward carbon neutrality, the circular economy, human rights, human capital, and biodiversity, and upon formulating these strategies, we have specified milestones.

Period	Initiatives and their purpose
Jan. 2020	<ul style="list-style-type: none"> <li>• Became a signatory to the United Nations Global Compact and joined the Global Compact Network Japan.</li> <li>• Endorsed the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD).</li> </ul>
Apr. 2020	<ul style="list-style-type: none"> <li>• Established the Corporate Sustainability Department. Incorporated ESG elements into management and strategy, and strengthened communication of information to stakeholders.</li> <li>• Established the Sustainability Committee (renamed the CSR Committee), chaired by the President.</li> </ul>
Apr. 2021	<ul style="list-style-type: none"> <li>• Placed Corporate Sustainability Department under direct control of the President.</li> <li>• Established the Risk Management Committee, chaired by the President.</li> <li>• Established a system to promote efforts toward carbon neutrality. Established the Carbon Neutral Strategies Council and the Carbon Neutral Strategies Cross-Functional Team.</li> </ul>
Apr. 2022	Established the Corporate Sustainability Division.
May. 2022	<ul style="list-style-type: none"> <li>• Announced Sustainable Vision 2030</li> <li>• Formulated the GHG Emission Reduction Plan by 2050</li> </ul>
Nov. 2022	Joined the 30 by 30 Alliance for Biodiversity
Dec. 2022	Obtained Science based target(SBT) certification
Apr. 2023	Restructured the Sustainability Committee
June. 2023	<ul style="list-style-type: none"> <li>• Participated in the Ministry of Economy, Trade and Industry's GX League</li> <li>• Signed a comprehensive cooperation agreement with Aya-cho, Higashimorokata District, Miyazaki Prefecture</li> <li>• Obtained Platinum Kurumin certification</li> </ul>
Jul. 2023	<ul style="list-style-type: none"> <li>• Selected as a constituent of five ESG investment indices adopted by the Government Pension Investment Fund (GPIF)</li> <li>• Selected for the first time as an Asia-Pacific Climate Leader 2023</li> </ul>
Sep. 2023	<ul style="list-style-type: none"> <li>• The Resource Recycling Project won the Excellence Award at the 6th EcoPro Awards</li> <li>• Selected as a planning participant in the Bio-Manufacturing Revolution Promotion Project of the New Energy and Industrial Technology Development Organization (NEDO).</li> <li>• Signed the group's first Positive Impact Finance agreement with Sumitomo Mitsui Trust Bank, Limited</li> </ul>
Oct. 2023	<ul style="list-style-type: none"> <li>• Converted fuel at the on-site power plant of the Iwakuni Production Center</li> <li>• The company-owned forest, Toyobo Aya-no-Mori, was certified as a "site coexisting with nature " by the Ministry of the Environment</li> </ul>
Dec. 2023	Issued the second round of sustainability-linked bonds
Jan. 2024	Joined the industry-government-academia consortium, Circular Partners

## Participation in initiatives

### UN Global Compact (UNGC)

In January 2020, we became a signatory to the United Nations Global Compact (UNGC) and joined the Global Compact Network Japan, which comprises Japanese companies and organizations that are UNGC signatories. We have done so because we agree with the principle of solving global issues and achieving sustainable growth as a responsible corporate citizen.

Moreover, we participate in subcommittees of the Global Compact Network Japan. Starting in fiscal 2025, we will participate in the Business & Human Rights Accelerator (Japan Edition) of the Human Rights Subcommittee to gather information on international human rights issues and other matters that companies should be aware of. We will deepen our understanding of human rights challenges and work toward identifying relevant human rights issues at our business locations.

Moving forward, we will strengthen our efforts in keeping with the Ten Principles of the UNGC as we contribute to the realization of a sustainable society.



#### The Ten Principles of UNGC

Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
	Principle 2: make sure that they are not complicit in human rights abuses.
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
	Principle 4: the elimination of all forms of forced and compulsory labour;
	Principle 5: the effective abolition of child labour; and
	Principle 6: the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges;
	Principle 8: undertake initiatives to promote greater environmental responsibility; and
	Principle 9: encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

## Task Force on Climate-related Financial Disclosures (TCFD)

Recognizing the scale of the impact of climate change on our group and stakeholders, we have identified a “decarbonized society and circular society” as one of our materialities. In January 2020, we announced our support for the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD), and have been working on initiatives and disclosures that follow them.



Based on the below 1.5°C scenario and the 4°C scenario, we identified climate change-specific risks and opportunities for the group. By identifying the financial impacts of these risks and opportunities, we aim to strengthen the resilience of our business strategy through the development of targeted countermeasures and the establishment of relevant indicators and goals. For details, please refer to the integrated report.

Environment	
Disclosure of financial information related to climate change (based on the TCFD recommendations)	
<p><b>Climate Change</b></p> <p>We have established the Sustainability Committee, in which the President and Chief Executive Officer and the other senior executives are participating, to oversee the group's strategy regarding environmental issues. The committee will continue to strengthen the group's response to climate change issues. The Board of Directors regularly reviews reports from the committee, and the company's strategy, such as high-level policies and targets, and monitors all categories of environmental risks.</p> <p><b>Scenario analysis</b></p> <p>In January 2020, the group has engaged the external experts to conduct a scenario analysis based on the TCFD recommendations. The analysis is ongoing, and the group is working to identify the financial impacts of climate change risks and opportunities. The results of the analysis will be disclosed in the future.</p> <p><b>Risk management</b></p> <p>The group has established a risk management system that identifies and assesses environmental risks, including those associated with climate change. The group is working to identify the financial impacts of these risks and opportunities.</p>	
Climate Change	Other risks and opportunities
<p><b>Climate Change</b></p> <p>The group has established a risk management system that identifies and assesses environmental risks, including those associated with climate change. The group is working to identify the financial impacts of these risks and opportunities.</p>	<p><b>Other risks and opportunities</b></p> <p>The group has established a risk management system that identifies and assesses environmental risks, including those associated with climate change. The group is working to identify the financial impacts of these risks and opportunities.</p>

Disclosure based on TCFD recommendations in the Integrated Report 2024 (157KB)



### • [Climate Change](#)

For more information on the initiatives in which we are participating, please see below.

- [Climate Change](#)
- [Plastic Resource Circulation](#)
- [Biodiversity](#)
- [Respect for Human Rights](#)
- [Supply Chain Management](#)



# Environment

## Disclosure of financial information related to climate change (based on the TCFD recommendations)

In January 2020, Toyobo group endorsed the Task Force on Climate-related Financial Disclosure (TCFD) recommendations and has been advancing the disclosure of our initiatives in line with these recommendations.

### Governance

We have established the Sustainability Committee, chaired by the President and Chief Executive Officer, who has the highest seniority regarding issues related to climate change. The committee deliberates on setting high-level policies and targets for addressing these issues. The Board of Directors regularly receives reports from the committee, approves important items such as high-level policies and targets, and monitors the progress of related activities.

### Strategy

In Sustainable Vision 2030, Toyobo group has designated the achievement of a decarbonized and circular society as a key sustainability goal. Consistent with the TCFD recommendations, we have analyzed and organized future risks and business opportunities based on climate change scenarios aligned with the Paris Agreement. By identifying the financial impacts of these risks and opportunities, we aim to strengthen the resilience of our business strategy through the development of targeted countermeasures and the establishment of relevant indicators and goals.

#### ► Scenario analysis

Given the increasing severity of climate change impacts and advancements in countermeasures, various scenarios are conceivable. We referred to the scenarios shown in the diagram at right as typical examples.

### Risk management

Based on the results of a company-wide risk assessment, we manage natural disaster risks, including those exacerbated by climate change such as severe flooding and storm surges, as key risks for Toyobo group.

#### Overview of the scenario analysis

Set scenarios	1.5°C scenario	4°C scenario
Social context	Ambitious policies and technological innovations are implemented to limit the average global temperature increase to 1.5°C by the end of the century and achieve sustainable development in society. The transition to a decarbonized society is expected to bring significant social changes that will likely affect business operations. Examples: • Introduction of carbon taxes and rising carbon prices • Shift to electric vehicles and expansion of renewable energy	Policies based on the Paris Agreement, including draft commitments from various countries, have been implemented. However, the average global temperature is expected to rise up to 4°C by the end of the century. This scenario would create a society where climate changes, such as temperature increases, are highly likely to impact business operations. Examples: • Increased flooding damage from heavy rainfall
Reference scenarios	• NZE (IEA WEO2023) • APS (IEA WEO2023) • SDS (IEA WEO2021/ETP2020) • SSP1-1.9 (IPCC AR6) • RCP2.6 (IPCC AR5) • Global Ambition scenario (OECD Global Plastics Outlook)	• SSP5-8.5 (IPCC AR6) • RCP8.5 (IPCC AR5) • STEPS (IEA WEO2023/ETP2020)
Trends in risks and opportunities	Transition risks and opportunities, including social changes such as strengthened regulations, are more likely to become apparent.	Physical risks and opportunities, such as changes in weather patterns, are more likely to become apparent.

#### Risks, opportunities, and mitigation measures by scenario

Social changes and their impact	Risks and opportunities			Measures taken by Toyobo group	
	Category	Period	Details		
Impacts of transitioning to a decarbonized society  Changes in policies, regulations, technology, and markets on a broad scale, etc.	Transition risks	Short term	Introduction of carbon pricing	<ul style="list-style-type: none"><li>● Promotion of GHG emission-reduction plans (including energy conservation, production efficiency enhancements, fuel conversion, and adoption of renewable energy)</li><li>● Use of internal carbon pricing systems</li></ul>	
		Medium to long term	Increases in raw materials and fuel prices (e.g., carbon price pass-through)	<ul style="list-style-type: none"><li>● Shift to non-petroleum-based resources</li><li>● Engagement and collaboration with suppliers (e.g., development of low-carbon raw materials)</li><li>● Diversification of raw material procurement methods (expanding multiple sourcing and local procurement)</li></ul>	
			Increased costs associated with energy efficiency initiatives and high-efficiency equipment, etc.	<ul style="list-style-type: none"><li>● Innovation and pursuit of ultra-high efficiency in production processes</li><li>● Utilization of green transition bonds and transition finance</li><li>● Enhancement of production efficiency across the value chain (e.g., integration and collaboration with affiliates, M&amp;A)</li></ul>	
			Increased costs due to low-carbon/decarbonization requirements in product manufacturing	<ul style="list-style-type: none"><li>● Expansion of renewable energy adoption and procurement</li><li>● Enhancement of production process efficiency, promotion of energy conservation, and cost pass-through to product prices</li></ul>	
	Transition opportunities	Medium term	Increasing calls for reduction or substitution of petroleum-based resources	<ul style="list-style-type: none"><li>● Acceleration of the shift to recycled and biomass-derived raw materials</li><li>● Review of general-purpose material businesses reliant on petroleum-based resources</li></ul>	
			Increasing calls for reduction or substitution of petroleum-based resources	<ul style="list-style-type: none"><li>● Acceleration of the shift to recycled and biomass-derived raw materials</li><li>● Innovation in production processes for bio-businesses using microorganisms such as yeast for bio-manufacturing</li><li>● Addressing procurement challenges related to raw materials (recycled and biomass-derived) due to material scarcity</li><li>● Promotion of product development and planning with low-carbon and decarbonized materials</li><li>● Acceleration of the development of innovative low-carbon and decarbonized materials</li><li>● Strengthening of production and quality management systems for low-carbon and decarbonized products</li></ul>	
			Expansion of demand for products contributing to greenhouse gas (GHG) emission reduction	<ul style="list-style-type: none"><li>● Collaboration within the supply chain, including customers, from the perspective of contributing to emission reduction</li><li>● Acceleration of product development and planning* that contributes to emission reduction through replacement of conventional technologies</li><li>* Examples include energy-efficient seawater desalination membranes, VOC recovery equipment that enables reuse by avoiding solvent combustion treatment, water-developed flexo plates that contribute to reducing GHG emissions from wastewater treatment, and coating replacement films that substitute for high-GHG-emission coating processes.</li></ul>	
			Growth in renewable energy and battery storage markets	<ul style="list-style-type: none"><li>● Strengthening of product development and planning for renewable energy and storage battery-related businesses*</li><li>● Enhancement of capabilities in anticipating mega-trends, expanding overseas, and providing solutions through the establishment of the joint venture TOYOBO MC Corporation by Toyobo and Mitsubishi Corporation.</li><li>* Examples include osmotic power generation membranes, super fibers and films for floating offshore wind power, VOC recovery equipment for lithium-ion secondary battery factories, and materials related to hydrogen generation systems.</li></ul>	
	Impacts of climate change progression  Direct damage to assets, indirect effects from supply chain disruptions, and changes in technology and markets, etc.	Physical risks	Short to medium term	Disruption of raw material supply due to natural disasters	<ul style="list-style-type: none"><li>● Review of inventory levels and expansion of bulk purchases</li><li>● Diversification of logistics routes</li></ul>
				Damage to equipment and operational shutdowns caused by flooding and storm surges	<ul style="list-style-type: none"><li>● Enhancement of durability for production and power facilities, relocation, and raising of equipment</li><li>● Diversification, relocation, and consolidation of production bases</li><li>● BCP training</li></ul>
Physical opportunities		Medium term	Increased demand for civil engineering projects	<ul style="list-style-type: none"><li>● Expansion of products used in disaster mitigation and restoration work*</li><li>* Examples include sand-proofing sheets, concrete delamination prevention sheets, and soft roadbed improvement materials.</li></ul>	
			Increased need for desalination due to water shortages and droughts Rising demand for zero liquid discharge (ZLD) solutions due to freshwater scarcity	<ul style="list-style-type: none"><li>● Expansion of sales for seawater desalination membranes such as RO/FO membranes*<sup>1</sup></li><li>● Development of energy-efficient and durable RO/FO membranes, etc.*<sup>1</sup></li><li>● System development for high-efficiency concentration membranes (BC membranes)*<sup>2</sup></li><li>● Strengthening of production and quality control systems for RO/FO/BC membranes, etc.</li><li>● Enhancement of sales capabilities through TOYOBO MC Corporation leveraging Mitsubishi Corporation's overseas network</li></ul> <p><sup>1</sup> RO/FO: Reverse Osmosis, Forward Osmosis    <sup>2</sup> BC: Brine Concentration</p>	
		Long term	Increased demand for infection control measures (prevention and treatment) due to rising temperatures	<ul style="list-style-type: none"><li>● Expansion of sales of food packaging-related products in response to increasing demand for food hygiene</li><li>● Promotion of research and development for infectious disease-related products and technologies</li></ul>	

# Environment

Disclosure of financial information related to climate change (based on the TCFD recommendations)

## Indicators and goals

Toyobo group has set goals for climate change and is advancing various initiatives to address them.

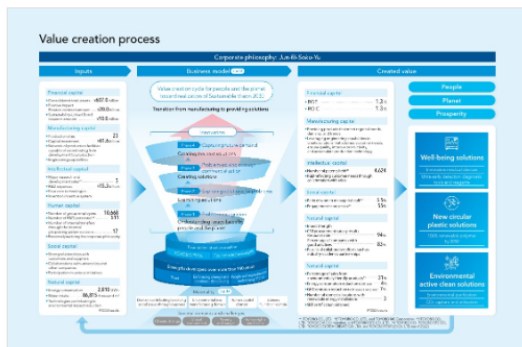
Key risks and opportunities	Financial impact		
	Summary	Impact amount	Mitigation costs
<b>Key risk 1</b> Risk of damage to buildings and equipment due to water-related disasters (e.g., floods, storm surges)	Our main facilities (Tsuruga, Iwakuni, and Inuyama) are exposed to water-related risks, which are expected to increase due to climate change. An estimate has been made of the potential loss of assets at these facilities due to water damage.	Time frame: 2030s Estimated asset loss: Up to approx. ¥60 billion* * Estimated based on the book value of the facility and the damage ratio from water-related disasters (as published by the Ministry of Land, Infrastructure, Transport and Tourism).	FY2023–26 cumulative total: ¥18 billion (total investment in safety, disaster prevention, and environmental measures)
<b>Key risk 2</b> Introduction of carbon pricing	Assuming a carbon price of ¥15,000 per tonne of CO <sub>2</sub> for fiscal 2031, we compare the carbon tax burden under two scenarios: one without additional GHG emission-reduction measures (BAU scenario) and one with implemented measures (transition scenario).	Time frame: FY2031 Cost reduction: Approx. ¥10 billion* * Difference in the carbon tax burden between the BAU scenario and the transition scenario • BAU scenario: ¥20 billion (carbon price for approximately 1.3 million tonnes of CO <sub>2</sub> emissions) • Transition scenario: ¥10 billion (carbon price for approximately 655,000 tonnes of CO <sub>2</sub> emissions)	
<b>Key risk 3</b> Increasing calls for reduction or substitution of petroleum-based resources  <b>Key opportunity 1</b> Growing demand for low-carbon and decarbonized materials and products	In anticipation of increasing societal demands, including from customers, for the reduction and substitution of petroleum-based resources as part of future decarbonization efforts, we estimate the revenue from low-carbon and decarbonized materials and products in the film business for fiscal 2031.	Time frame: FY2031 Revenue from opportunities: Approx. ¥130 billion* * Estimated as 60% of the target revenue for FY2031 (¥220 billion) from low-carbon and decarbonized materials and products	Part of the ¥4.1 billion R&D expenditure for the Film segment in FY2024
<b>Key opportunity 2</b> Rising demand for advanced water treatment due to the scarcity of water resources  <b>Key opportunity 3</b> Expansion of demand for products contributing to greenhouse gas (GHG) emission reduction	Given advancing climate change and societal shifts toward decarbonization, we anticipate increased demand for products and services* that contribute to GHG reduction for customers and water treatment membranes. We estimate the revenue for fiscal 2031 in the Environmental and Functional Materials segment, which encompasses many of these materials and products. * Examples include energy-efficient seawater desalination membranes, VOC recovery equipment that enables reuse by avoiding solvent combustion treatment, water-processed flexo plates that contribute to reducing GHG emissions from wastewater treatment, renewable energy and storage battery-related materials and products, and EV-related materials and products.	Time frame: FY2031 Revenue for the Environmental and Functional Materials segment: Approx. ¥250 billion* * Includes not only water treatment membranes and VOC recovery equipment but also mooring lines for floating offshore wind power, engineering plastics for EVs, and storage battery-related materials.	

Category	Indicator		Target	Main initiatives	FY2024 performance
GHG	GHG emissions	Scope 1, 2	FY2031: 27% reduction (SBT) (Base year: FY2021) Note: Equivalent to a 46% reduction compared with FY2014	<ul style="list-style-type: none"> <li>Improved energy conservation, enhanced production efficiency, fuel conversion, adoption of renewable energy, among others</li> </ul>	8% reduction compared with FY2021 (831 thousand t-CO <sub>2</sub> )
			FY2051: Net zero	<ul style="list-style-type: none"> <li>Adoption of carbon-free fuels, renewable energy procurement, production process innovation, among others</li> </ul>	The electricity generated from renewable energy in FY2024 was 896 MWh
		Scope 3 (Categories 1 and 11)	FY2031: 12.5% reduction (SBT) (Base year: FY2021)	<ul style="list-style-type: none"> <li><b>Category 1*</b>: Acceleration in the shift to recycled and biomass-derived raw materials                          * Emissions from activities related to purchased raw materials and services such as manufacturing</li> <li><b>Category 11*</b>: Energy conservation with VOC recovery equipment, among others                          * Emissions from the use of products sold</li> </ul>	109% increase (4.84 million tonnes)
Environmental investment	<ul style="list-style-type: none"> <li>Plan: ¥18 billion cumulative for FY2023–2026 (total investment in safety, disaster prevention, and environmental measures)</li> <li>Initiatives: Low carbonization of in-house power generation facilities, introduction of renewable energy equipment, and water damage countermeasures for production and power equipment (such as relocation and raising of facilities)</li> <li>FY2024 performance: Low-carbonization and water damage countermeasures for the in-house thermal power plant at the Iwakuni Production Center, installation of solar power systems at the Inuyama Plant, the Utsunomiya Plant, and the Research Center</li> </ul>				
Internal carbon pricing	<ul style="list-style-type: none"> <li>The internal carbon pricing system was introduced in FY2023 and is still in operation: ¥10,000 per tonne of CO<sub>2</sub></li> <li>Expansion of decision-making on capital investment and investment in development facilities, considering variations in CO<sub>2</sub> emissions</li> </ul>				
Compensation	To enhance the effectiveness of GHG emission reductions, executive compensation incentives linked to reduction performance will be applied starting from the July 2025 compensation period.				
Climate-related opportunities	Indicator: Green ratio of film products (Set as a measure to also address transition risks)		FY2031: 60%	<ul style="list-style-type: none"> <li>Key measures include promotion of material and chemical recycling, development and increased adoption of biomass raw materials, reduction of film thickness, among others</li> </ul>	13%
	Seawater desalination with membranes		FY2031: Equivalent to tap water volume for 10 million people	<ul style="list-style-type: none"> <li>Expansion of sales of membranes for seawater desalination such as RO/FO membranes</li> <li>Development of energy-efficient and high-durability RO/FO membranes, among others</li> <li>Strengthening of production and quality control systems for RO/FO membranes, etc.</li> <li>Enhancement of sales structure through the joint venture TOYOBO MC Corporation</li> </ul>	Tap water volume for 5.2 million people
	Air volume treated by VOC recovery equipment for lithium-ion battery separators*		FY2031: 7 billion Nm <sup>3</sup> per year * Air volume treated by devices that have been sold and are currently in operation	<ul style="list-style-type: none"> <li>Strengthening of sales activities focused on GHG reduction contributions from customers (collaborating with customers)</li> <li>Enhancement of sales structure through the joint venture TOYOBO MC Corporation</li> <li>Strengthening of sales in areas beyond the manufacturing process of separators for EV lithium batteries</li> </ul>	6 billion Nm <sup>3</sup> per year

# Our Value Creation Process

Our value creation process arises from TOYOBOPV's corporate philosophy framework and demonstrates how we use various types of capital to create value and increase value for all stakeholders. Through this process, Toyobo group aims to accumulate and convert capital to continue creating the solutions needed by people and the earth.

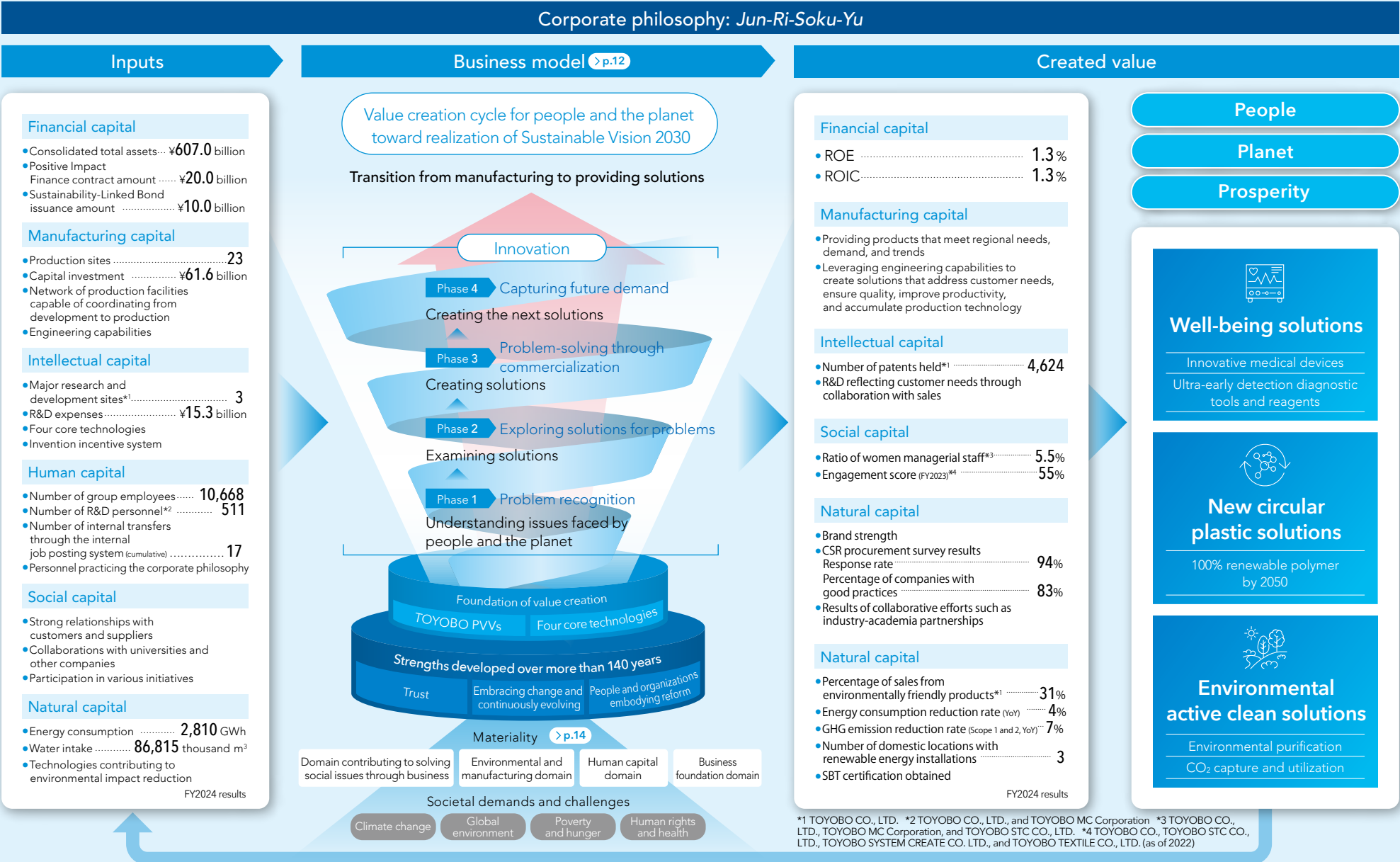
- [Materiality](#)



Value Creation Process in the Integrate Report 2024 (213KB)



# Value creation process



# Materiality

## Toyobo group's materiality

Our group's material issues are set on the basis of Sustainable Vision 2030, which we announced in May 2022.

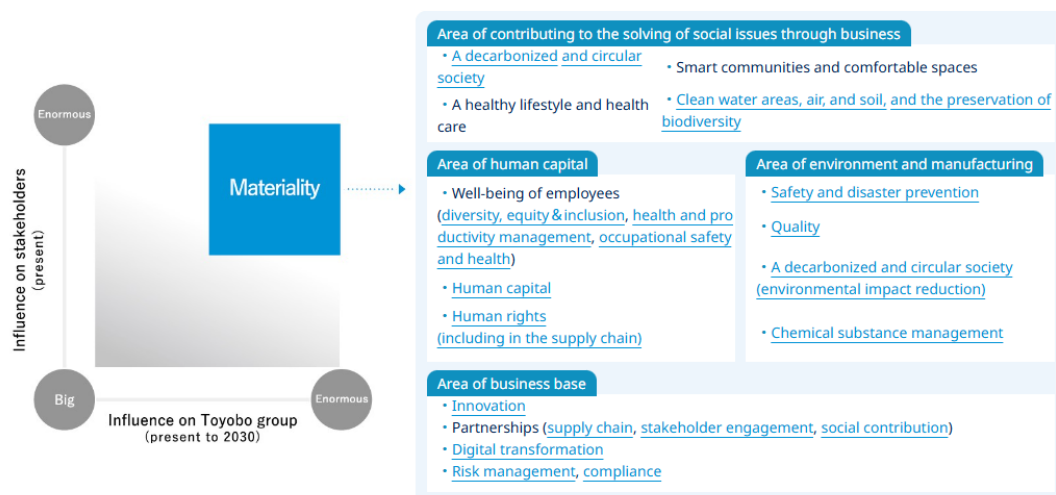
Working from the two axes of influence on stakeholders and influence on our group, we clarified high-priority targets and organized them into four areas: "contributing to the solving of social issues through business," "human capital," "environment and manufacturing," and "business bases."

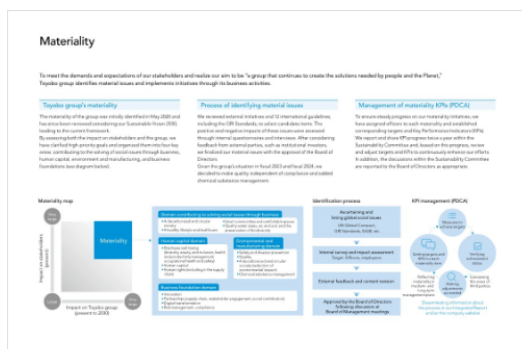
Given the Group's situation from fiscal 2023 to fiscal 2024, we decided to separate the quality from compliance and add chemical substance management.

## Process of identifying material issues

With reference to external initiatives and 12 international guidelines, including the GRI Standards, we selected candidate items. The positive and negative impact of these social issues were clarified through internal questionnaires and interviews, and, taking into account the views of external parties such as institutional investors, we finally determined our material issues with approval by the Board of Directors.

### Materiality map





Materiality in the Integrate Report 2024 (96KB)



## Targets and KPIs

To steadily ensure the progress of our materiality initiatives, we have assigned officers in charge of each materiality and have formulated KPIs and targets. We report and share information on progress toward the KPIs two times a year within the Sustainability Committee, and, in accordance with progress status, work toward continuous enhancement of our efforts by reviewing KPIs and targets.

Toyobo group materiality/KPIs and Targets(As of April 1, 2024)(84KB)





# Materiality

To meet the demands and expectations of our stakeholders and realize our aim to be “a group that continues to create the solutions needed by people and the Planet,” Toyobo group identifies material issues and implements initiatives through its business activities.

## Toyobo group’s materiality

The materiality of the group was initially identified in May 2020 and has since been reviewed considering our Sustainable Vision 2030, leading to the current framework.

By assessing both the impact on stakeholders and the group, we have clarified high-priority goals and organized them into four key areas: contributing to the solving of social issues through business, human capital, environment and manufacturing, and business foundations (see diagram below).

## Process of identifying material issues

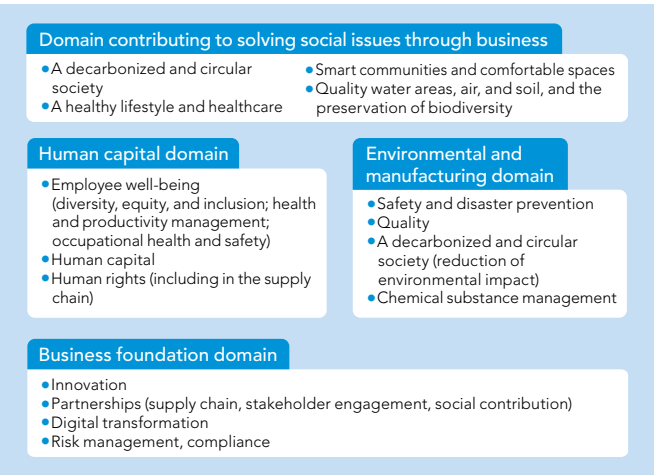
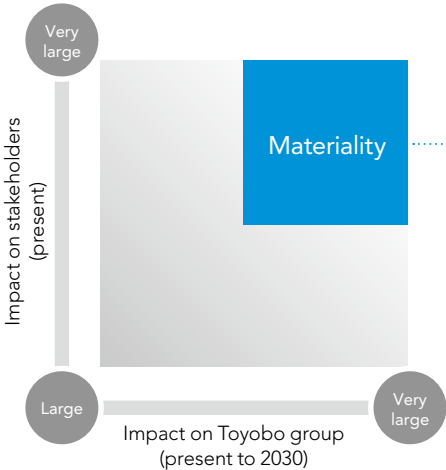
We reviewed external initiatives and 12 international guidelines, including the GRI Standards, to select candidate items. The positive and negative impacts of these issues were assessed through internal questionnaires and interviews. After considering feedback from external parties, such as institutional investors, we finalized our material issues with the approval of the Board of Directors.

Given the group’s situation in fiscal 2023 and fiscal 2024, we decided to make quality independent of compliance and added chemical substance management.

## Management of materiality KPIs (PDCA)

To ensure steady progress on our materiality initiatives, we have assigned officers to each materiality and established corresponding targets and Key Performance Indicators (KPIs). We report and share KPI progress twice a year within the Sustainability Committee and, based on this progress, review and adjust targets and KPIs to continuously enhance our efforts. In addition, the discussions within the Sustainability Committee are reported to the Board of Directors as appropriate.

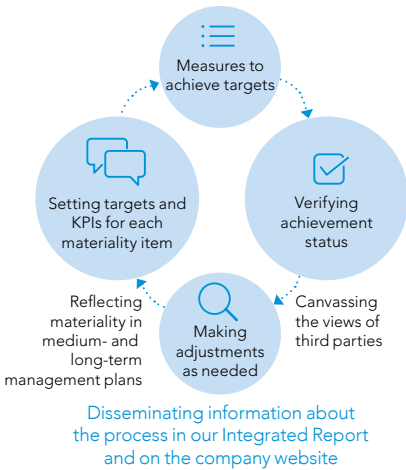
Materiality map



Identification process



KPI management (PDCA)



# Risks, opportunities, and materiality in achieving the vision

## Materiality KPIs

April 1, 2024

Category	Major items	Risks	Opportunities	KPIs				
				Themes	Targets from FY2025 onward	Officer in charge	FY2024 targets	FY2024 results
Domain contributing to solving social issues through business	A decarbonized and circular society	Short, medium, and long term • Greenhouse gas (GHG) reduction efforts • Increase in environmental impact costs • Losses due to environmental pollution	Short, medium, and long term Growth and expansion of products and businesses contributing to the following: • A decarbonized society • A resource-circulating society • People's well-being • Comfortable living	1. Expansion of ECO-PARTNER SYSTEM® products and services that contribute to the environment 2. Greening of the film business	1. Sales ratio of 40%* <sup>3</sup> 2. Green ratio of 60%* <sup>3</sup>	Taichi Sakai Senior Managing Executive Officer Head, Safety and Disaster Management Division, and Controlling Supervisor of Production Technology Division and Procurement and Logistics Department Muneo Hirooka Managing Executive Officer Head, Films Division	1. Sales ratio of 40%* <sup>3</sup> 2. Green ratio of 60%* <sup>3</sup>	1. 31% 2. 13%
	A healthy lifestyle and healthcare			1. Number of tests through the provision of infectious disease diagnostic reagents 2. Number of dialysis patients served with dialysis membranes	1. 10 million times per year* <sup>3</sup> 2. 250,000 patients per year* <sup>3</sup>	Takahito Sagara Managing Executive Officer Head, Life Science Division	1. 10 million times per year* <sup>3</sup> 2. 250,000 patients per year* <sup>3</sup>	1. 4 million times per year* <sup>3</sup> 2. 250,000 patients per year* <sup>3</sup>
	Smart communities and comfortable spaces			1. Expansion of sales volume for products supporting DX: 1.5 times FY2021	1. 1.5 times FY2021* <sup>3</sup>	Muneo Hirooka	1. 1.5 times FY2021* <sup>3</sup>	1. 1.51 times
	Employee well-being (diversity, equity, and inclusion, health and productivity management, occupational health and safety)	Short and medium term • Human rights violations in the supply chain • Productivity decline due to mental health issues and dissatisfaction • Losses and business impact from occupational accidents	Medium and long term • Work-style reforms emphasizing diversity • Talent development and creating a supportive workplace • Retaining top talent through health and productivity management	1. Ratio of overworked employees 2. Number of core overseas personnel undergoing training in Japan 3. Training investment per employee and training time 4. Ratio of women managerial staff 5. Employment ratio of people with disabilities 6. Ratio of annual paid leave taken per year 7. Reduction in annual time worked outside statutory working hours (number of employees working more than 360 hours of overtime per year / total number of eligible employees) 8. Ratio of men employees taking childcare leave 9. Certification as a "White 500" enterprise with Outstanding Health and Productivity Management 10. Improvement in how positive employees feel about their work, based on employee engagement surveys a. Percentage of respondents agreeing with the statement that they do not feel that their day-to-day work is difficult to perform b. Percentage of respondents agreeing with the statement that the company respects the diverse views and ideas of each individual employee	1. Improvement compared with the previous fiscal year (ratio) 2. 15 people per year* <sup>1</sup> 3. ¥50,000 per year, 21 hours* <sup>1</sup> 4. 5.0% or more* <sup>1</sup> 5. 2.7%* <sup>2</sup> 6. 75%* <sup>1</sup> 7. — 8. At least 80% of eligible employees* <sup>1</sup> 9. Maintained 10. Improvement in positive response rate	Takehiko Inada Managing Executive Officer Controlling Supervisor of HR, Administration and Legal Division	1. — 2. 15 people per year* <sup>1</sup> 3. ¥50,000 per year, 21 hours* <sup>1</sup> 4. 5.0% or more* <sup>1</sup> 5. 2.7%* <sup>2</sup> 6. 75%* <sup>1</sup> 7. 2.0% or less (20% reduction from FY2020)* <sup>1</sup> 8. At least 80% of eligible employees* <sup>1</sup> 9. Maintained 10. Establish a system for annual implementation	1. — 2. 7 people per year 3. ¥50,000 per year, 18.22 hours 4. 5.5% 5. 2.29% 6. 83.2% 7. 4.3% 8. 97.7% 9. Maintained 10. Not implemented
Human capital domain	Human capital							
	Human rights (Toyobo group)			1. Implementation of human rights education and training	1. Holding human rights study sessions and training for group employees 10 times or more per year		1. 4 times or more	5 sessions for managerial staff, 18 sessions for others Number of participants: 2,767
	Safety and disaster prevention	Short and medium term • Recurrence of similar disasters or troubles • Loss of social credibility due to accidents or scandals	Short, medium, and long term • Cultivating a safety culture • Accumulating know-how in preventive maintenance	1. Number of major accidents* 2. Frequency rate of workplace accidents resulting in lost workdays 3. Number of fires or explosions 4. Number of spills * Set internal standards based on definitions stipulated by the Ministry of Health, Labour and Welfare Note: Items 1–4 are aggregated from January to December	1. 0 incidents per year 2. 0.25 or less 3. 0 incidents per year 4. 0 incidents per year	Taichi Sakai	1. 0 incidents per year 2. 0.25 or less 3. 0 incidents per year 4. 0 incidents per year Note: Items 1–4 are aggregated from January to December	1. 0 incidents 2. 1.15 3. 0 incidents 4. 1 incident
	Quality	Short, medium, and long term • Loss of social credibility due to inaccurate data handling or inappropriate product shipments	Short, medium, and long term • Improving customer satisfaction and social credibility	1. Number of incidents related to products* 2. Implementation of product safety and quality assurance training * Set internal standards based on definitions stipulated by the Ministry of Economy, Trade and Industry	1. 0 incidents per year 2. 100%	Masakazu Iwasaki Executive Officer Head, Quality Assurance Division General Manager, Quality Assurance Management Department	1. 0 incidents per year 2. 100%	1. 0 2. 100%
Environmental and manufacturing domain	Chemical substances management	Short, medium, and long term • Loss of business opportunities due to non-compliance with chemical substance regulations	Short, medium, and long term • Strengthening business profitability through compliance with laws and regulations • Improving customer satisfaction and social credibility	1. Major disasters (Level IV) 2. Number of environmental accidents (Level III) 3. Environmental law violations (Level III): Pollution control laws, Poisonous and Deleterious Substances Control Act, Waste Management and Public Cleansing Law	1. 0 incidents 2. 0 incidents 3. 0 incidents	Taichi Sakai	—	—
	A decarbonized and circular society (reducing environmental impact)	Short, medium, and long term • Increased risk of extreme weather and natural disasters due to climate change • Environmental impact from waste and emissions • Water resource shortages or depletion	Short, medium, and long term • Expanding demand for products contributing to climate change mitigation (resource conservation, energy saving, low carbon) • Reducing energy costs through improved production efficiency • Lowering environmental conservation costs	1. GHG emissions Scope 1 and 2 (consolidated) 2. VOC emissions (domestic total) 3. Discharge of hazardous substances into water bodies (domestic total) 4. Amount of waste emissions (consolidated) 5. Final disposal (landfill disposal) rate (domestic total)	1. At least 46% reduction compared with FY2014* <sup>3</sup> 2. 60% reduction compared with FY2015* <sup>3</sup> 3. 80% reduction compared with FY2015* <sup>3</sup> 4. 15% reduction compared with FY2016* <sup>3</sup> 5. Less than 1% per year	Taichi Sakai	1. At least 46% reduction compared with FY2014* <sup>3</sup> 2. 60% reduction compared with FY2015* <sup>3</sup> 3. 80% reduction compared with FY2015* <sup>3</sup> 4. 15% reduction compared with FY2016* <sup>3</sup> 5. Less than 1% per year	1. 31.6% reduction (831 thousand t-CO <sub>2</sub> ) 2. 77% reduction 3. 73% reduction 4. 3% increase 5. 0.52%

The names marked with ® or "TM" are trademarks registered or pending registration in Japan for the group.  
Items in blue are newly established for FY2025. \*1 FY2026 target \*2 FY2027 target \*3 FY2031 target

# Risks, opportunities, and materiality in achieving the vision

## Materiality KPIs

April 1, 2024

Category	Major items	Risks	Opportunities	KPIs				
				Themes	Targets from FY2025 onward	Officer in charge	FY2024 targets	FY2024 results
Business foundation domain	Governance	<b>Medium and long term</b> <ul style="list-style-type: none"> <li>Compliance with laws and regulations, and responding to system changes</li> <li>Social demands for strengthening corporate governance</li> </ul>	<b>Medium and long term</b> <ul style="list-style-type: none"> <li>Practicing sustainability management aimed at enhancing corporate value</li> </ul>	1. Number of meetings of the Board of Directors/Nomination and Compensation Advisory Committee 2. Attendance rate of officers at meetings in 1. above 3. Effectiveness evaluation of the Board of Directors, content disclosure	1. Disclosure of results 2. Disclosure of results 3. Disclosure of details of effectiveness evaluation	Takehiko Inada	1. Disclosure of results 2. Disclosure of results 3. Disclosure of details of effectiveness evaluation	1. 22 times 2. Attendance by directors and corporate auditors at meetings <sup>(1)</sup> 3. Evaluation of the effectiveness of the Board of Directors <sup>(2)</sup>
	Innovation	<b>Medium and long term</b> <ul style="list-style-type: none"> <li>Delays in creating new products and new businesses due to decreased competitiveness in R&amp;D</li> <li>Decline in product demand due to changes in customer needs</li> </ul>	<b>Medium and long term</b> <ul style="list-style-type: none"> <li>Creating new markets by developing new products and businesses that address social issues</li> <li>Early response to changes in customer needs and strengthened regulations</li> </ul>	1. <b>Promotion of development in the three key themes</b> 2. <b>Number of new inventors</b> 3. Number of intellectual property education sessions for Toyobo and group companies 4. Percentage of research themes contributing to the achievement of Sustainable Vision 2030 5. Direct investments in open innovation (e.g., proof of concept for commercialization with invested companies, joint development) 6. Number of intellectual property information analyses 7. Number of business suspensions due to patent infringement 8. Number of intellectual property training sessions for employees (Toyobo and group companies) 9. Number of comprehensive industry-academia-government collaborations	1. At least 75% 2. At least 30 people 3. 20 times per year	Katsuya Ito Executive Officer Controlling Supervisor of Innovation Division	1. – 2. – 3. 19 times 4. 90% or more* <sup>1</sup> 5. 4 cases or more per year 6. 20 cases per year 7. 0 cases per year 8. 2 cases	1. – 2. – 3. 20 times 4. 90% 5. 4 cases 6. 32 cases 7. 0 cases 8. 2 cases
	Partnerships (supply chain)	<b>Short, medium, and long term</b> <ul style="list-style-type: none"> <li>Negative impact on business activities due to illegal actions or compliance violations by suppliers</li> </ul>	<b>Short, medium, and long term</b> <ul style="list-style-type: none"> <li>Securing social sustainability and long-term competitive advantage</li> </ul>	1. Ratio of CSR procurement surveys returned 2. Ratio of reduction in CO <sub>2</sub> emissions (intensity) related to logistics (sales)	1. Ratio of surveys returned, or engagement with business partners with room for improvement 2. Reduction of 0.5% year on year	Taichi Sakai	1. 90% or more 2. Reduction of 0.5% year on year	1. 94% 2. Reduction of 0.53%
	Partnerships (stakeholder engagement)	<b>Short, medium, and long term</b> <ul style="list-style-type: none"> <li>Failure to fulfill accountability leading to unestablished trust with stakeholders</li> <li>Reputational risk</li> </ul>	<b>Short, medium, and long term</b> <ul style="list-style-type: none"> <li>Building strong trust relationships with diverse stakeholders</li> </ul>	1. Number of press releases 2. Number of interviews with investors 3. Number of meetings with employees and labor unions 4. Frequency of engagement with stakeholders	1. At least 75 per year 2. At least 150 per year 3. At least 60 times per year 4. 3 times	Takehiko Inada	1. At least 75 per year 2. At least 150 per year 3. At least 60 times per year 4. 3 times	1. 84 cases 2. 113 cases 3. 60 times 4. 3 times
	Data security, privacy	<b>Short, medium, and long term</b> <ul style="list-style-type: none"> <li>Information leaks, system failures, or stoppages due to cyberattacks</li> <li>Loss of customer trust, deterioration of relationships with business partners, and decreased competitiveness</li> </ul>	<b>Short, medium, and long term</b> <ul style="list-style-type: none"> <li>Gaining customer trust, maintaining good relationships with business partners, and improving competitiveness</li> </ul>	1. <b>Promotion of information security measures</b> • <b>Renewal of network security infrastructure</b> • <b>Renewal of computer security infrastructure</b> 2. Number of information security training sessions 3. Number of incidents (e.g., information leaks, service outages) 4. Completion of activities centered on the Information Security Sub-committee	1. 50% completion of renewal (FY2025–FY2026) 2. 15 sessions per year* 3. 0 incidents per year * The standard for the number of sessions has been changed due to a modification in the format of the events.	Ichiro Takai Senior Managing Executive Officer Controlling Supervisor of Corporate Planning Division	1. – 2. 60 times per year 3. 0 cases per year 4. Completion of activities	1. – 2. 97 times per year 3. 0 cases per year 4. Completion of activities
	Compliance	<b>Short, medium, and long term</b> <ul style="list-style-type: none"> <li>Business activity stagnation, loss of social credibility, and damage to corporate value</li> </ul>	<b>Short, medium, and long term</b> <ul style="list-style-type: none"> <li>Establishing a stable management foundation</li> <li>Strengthening risk management systems</li> <li>Fostering a culture of compliance awareness</li> </ul>	1. Enhancement of compliance awareness 2. Awareness and utilization of the Compliance Consultation Desks 3. Number of serious legal violations	1. Improvement in compliance questionnaire responses a. Does the company emphasize compliance? b. Awareness of case study reports, expansion of compliance study sessions and other training c. Frequency of compliance study sessions (managerial staff) and other training 2. Improvement in compliance questionnaire responses a. Awareness of Compliance Consultation Desks b. Ease of use of Compliance Consultation Desks Disclosure of number of cases handled 3. 0 cases	Takehiko Inada	1. Improvement in compliance questionnaire responses a. Does the company emphasize compliance? b. Awareness of case study reports, expansion of compliance study sessions and other training c. Frequency of compliance study sessions (managerial staff) and other training 2. Improvement in compliance questionnaire responses a. Awareness of Compliance Consultation Desks b. Ease of use of Compliance Consultation Desks Disclosure of number of cases handled 3. 0 cases	1. a. I feel that it does, or by and large I feel that it does: 78% b. I read every issue, or I sometimes read it, or I read those articles that are of interest to me: 77% c. Compliance study sessions: 22 times + video streaming to all employees Other training: 40 times 2. a. 89% b. 83% 102 cases 3. 0 cases
	Compliance (R&D, intellectual property)			1. Achievement rate of education and anti-fraud activities related to R&D 2. Implementation of audits related to compliance with intellectual property regulations 3. Number of product safety or quality assurance violations in the R&D quality assurance system 4. Number of serious rule violations related to guidelines from ministries and funding allocation agency rules 5. Number of serious rule violations related to the handling of research data 6. Number of orders for corrective actions regarding labeling	1. 100% 2. 100%	Katsuya Ito	1. – 2. – 3. 0 cases per year 4. 0 cases per year 5. 0 cases per year 6. 0 cases per year	1. – 2. – 3. 0 violations 4. 0 violations 5. 0 violations 6. 0 violations

Items in blue are newly established for FY2025.  
 \*1 FY2026 target \*2 FY2027 target \*3 FY2031 target

# Contribution through Our Business

↓ Features in the past



## Contributing to Solving Social Issues through Business Operations



Through our business, we will contribute to solving the following four social areas.

- A healthy lifestyle and health care
- Smart communities and comfortable spaces
- A decarbonized and circular society
- Clean water areas, air and soil, and the preservation of biodiversity



## Major Business Growth Strategies



We launched the 2025 Medium-Term Management Plan in April 2022.

We designate three businesses of film, life science, and environment and functional materials as businesses focusing on expansion.

## Features in the past

FY2023



Polymerization of 100% bio-based PET resin in the Integrated Report 2022 (193KB)



FY2021



The Future our R&D is Creating ( 542KB)



The development of ImmunoArrow® SARS-CoV-2 ( 354KB)



Integrating materials informatics ( 269KB)



FY2020



TOYOBO's Way of Manufacturing ( 1.1MB)







# Contributing to Solving Social Issues through Business Operations

↓ Contributing through business operations

↓ CSV examples

## Contributing through business operations

Through our business activities, we contribute to solving the following four social issues.  
The main goals for FY2031 are as follows.

	Four social issues	The main goals for FY2031
<b>People</b> Contributing to solutions for social issues in a humancentric way	 <b>A healthy lifestyle and health care</b> <ul style="list-style-type: none"> <li>Contributing to the field of epidemiology</li> <li>Contributing to improve quality of life (QOL)</li> </ul>	<ul style="list-style-type: none"> <li>Number of tests conducted by the provision of infectious disease diagnostics: <b>10 million per year</b></li> <li>Number of dialysis patients provided with dialysis membranes: <b>250,000</b></li> <li>Share in the market of raw materials for biochemical and other tests: <b>30%</b></li> <li>Number of patients provided with regenerative inducers: <b>100,000 per year</b></li> <li>Proliferation and expanded sales of 3D network-structured fiber materials in the medical and nursing care fields</li> </ul>
	 <b>Smart communities and comfortable spaces</b> <ul style="list-style-type: none"> <li>Contributing to the realization of a humancentric digital society</li> <li>Creating comfortable spaces</li> </ul>	<ul style="list-style-type: none"> <li>Sales volume of product groups supporting DX: <b>1.5-fold</b> increase over FY2021</li> <li>Total sales of car cabin air filters: <b>1.2 million units</b></li> <li>Creation of a comfortable space inside electric vehicles through sound and heat management</li> </ul>
<b>Planet</b> Contributing to solutions for social issues in consideration of the entire Earth	 <b>A decarbonized society</b> <ul style="list-style-type: none"> <li>Contributing to carbon neutrality</li> <li>Establishing an ecosystem for circulating resources</li> </ul>	<b>A decarbonized society</b> <ul style="list-style-type: none"> <li>Cutting emissions in Scope 1 &amp; 2 by <b>over 46%</b> in FY2031 vs FY2014</li> <li><b>Net zero</b> in FY2051 (Avoided emissions &gt; Amount of GHG emissions throughout the entire value chain)</li> <li>Entry into new solution fields</li> <li>Osmotic power generation, offshore cables and insulating resin for wind power generation, adhesive sheets for cells used in fuel cell vehicles, electrode materials for large storage batteries, hydrogen-related materials, etc</li> </ul>
	 <b>Quality water areas, air and soil, and preservation of biodiversity</b> <ul style="list-style-type: none"> <li>Improving the environment through solutions</li> <li>Food loss reduction</li> </ul>	<b>A circular society</b> <ul style="list-style-type: none"> <li>Achieve final disposal rate from business activities: <b>less than 1%</b></li> <li>Ratio of green films: <b>60%</b></li> <li>Join resource circulation ecosystem (R PLUS JAPAN)</li> </ul> <ul style="list-style-type: none"> <li>Air volume treated by the volatile organic compound recovery unit: <b>7 billion Nm<sup>3</sup> per year</b></li> <li>Desalination of sea water by membrane: equivalent to the volume of tap water for <b>10 million people</b></li> <li>Sales volume of highly functional films that contribute to reducing food loss: <b>fourfold</b> increase over FY2021</li> </ul>



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## CSV examples



### A healthy lifestyle and health care

#### Life Science

- [Contributing to measures against unknown infectious and other diseases that threaten humanity](#)  
[GENECUBE® fully automated gene analysis system for PCR testing, and specialized reagents \(248KB\)](#)

Product site (Biotechnology operating) →

- [Contributing to both patients and the earth through high permeability](#)  
[Cellulose-derived artificial kidney hollow fiber membrane unique to Toyobo \(248KB\)](#)



### Smart communities and comfortable spaces

#### Environmental and Functional Materials

- [Contributing to enhanced performance and safety in lithium-ion batteries](#)  
[HARDLEN® sustainable adhesive \(244KB\)](#)

Product site (HARDLEN®)

- [Helping to bring on the 6G communication era](#)  
[HARDLEN® leverages the strength of low dielectric properties \(242KB\)](#)

#### Functional Textiles and Trading

- [Contributing to the protection of lives and the environment](#)  
[Successful development of airbag fabric technologies \(215KB\)](#)



## A decarbonized society

### Films

- [Contributing to reducing plastic volume](#)  
[New development of the world's thinnest 20μm shrink film \(269KB\)](#)

Product site (Packaging films) →

- [Contributing to the proliferation of next-generation energy and a carbon-neutral society](#)  
[TEONEX® PEN film adopted for use in Toyota's fuel cell vehicles \(270KB\)](#)

Product site (Industrial films) →

### Environmental and Functional Materials

- [Provision and development of materials for next-generation mobility \(227KB\)](#)

### Functional Textiles and Trading

- [Contributing to the advancement of the domestic recycling market through our technology](#)  
[Taking on the upcycling of apparel \(216KB\)](#)

TOYOBO TEXTILE CO., LTD.

- [Contributing to the reduction of environmental impacts through high energy efficiency](#)  
[Joint development of energy-saving air conditioner components and materials together with Panasonic \(240KB\)](#)

Japan Exlan Co., Ltd.



## Quality water areas, air and soil, and preservation of biodiversity

### Life Science

- [Expansion of biosurfactant MEL \(503KB\)](#)

### Functional Textiles and Trading

- [Contributing to the prevention of damage to health and reduction of environmental impacts](#)  
[Development of adhesive-free waterproof sheets \(239KB\)](#)

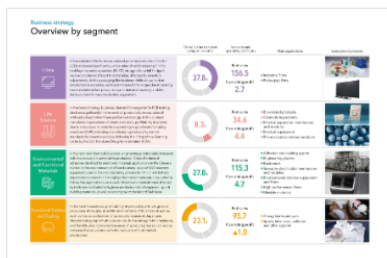
TOYOBO STC CO., LTD.

# Major Business Growth Strategies

↓ Overview by business    ↓ Roundtable discussion with division heads and the controlling supervisor of the innovation division

## Overview by business

Please see the PDF for the overview by business(Films, Life Science, Environmental and Functional Materials, Functional Textiles and Trading).



Overview by business (430KB)



Overview by business: Films (242KB)



Overview by business: Life Science (294KB)



Overview by business: Environmental and Functional Materials (327KB)



Overview by business: Functional Textiles and Trading (301KB)



# Roundtable discussion with division heads and the controlling supervisor of the innovation division

## Value Co-Creation through Innovation Practice

The leaders of three business divisions and the Controlling Supervisor of the Innovation Division discussed how to co-create value through various collaborations aimed at commercializing Toyobo group's unique technologies.


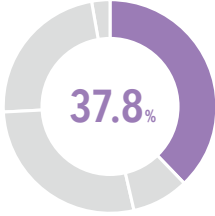


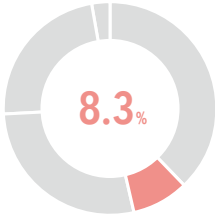


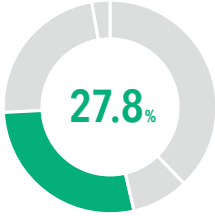


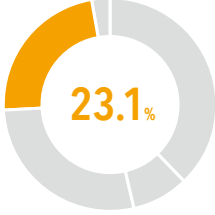



Roundtable Discussion with Division Heads and the Controlling Supervisor of the Innovation Division in the Integrate Report 2024 (774KB)



- [CSV examples](#)
- [Sustainable Vision 2030](#)
- [Medium-Term Management Plan](#)

# Overview by segment

		Consolidated net sales composition ratio	Net sales and operating profit (¥bn)	Main applications	Examples of products
<b>Films</b> 	<p>In the industrial film business, sales of polarizer protective films for LCDs increased significantly, while sales of mold releasing film for multilayer ceramic capacitors (MLCC) struggled as a full-fledged recovery in demand failed to materialize, affected by inventory adjustments. In the packaging film business, while we worked on product price revisions, we faced increased challenges due to soaring raw material and fuel prices, delays in demand recovery, and the start-up costs for new production equipment.</p>		<p>Net sales <b>156.5</b></p> <p>Operating profit <b>2.7</b></p>	<ul style="list-style-type: none"> <li>• Industrial films</li> <li>• Packaging films</li> </ul>	
<b>Life Science</b> 	<p>In the biotechnology business, demand for reagents for PCR testing declined significantly. In the medical products business, sales of artificial kidney hollow fibers performed strongly. In the contract manufacturing business of pharmaceuticals, profitability improved due to a decrease in costs for responding to good manufacturing practices (GMP), including manufacturing and quality control standards for pharmaceuticals, following the lifting of the Warning Letter by the U.S. Food and Drug Administration (FDA).</p>		<p>Net sales <b>34.6</b></p> <p>Operating profit <b>4.4</b></p>	<ul style="list-style-type: none"> <li>• Bio-related products</li> <li>• Cosmetic ingredients</li> <li>• Medical separation membranes and modules</li> <li>• Medical equipment</li> <li>• Pharmaceutical-related products</li> </ul>	
<b>Environmental and Functional Materials</b> 	<p>In the resin and chemicals business, engineering plastics sales increased with the recovery in automobile production. Sales of industrial adhesives declined for electronic materials applications in the Chinese market. In the environment and fiber business, sales of VOC recovery equipment used in the manufacturing process for lithium-ion battery separators increased. In the high-performance fibers business, sales for fishing line applications were weak. Nonwoven materials were affected by both reduced sales for hygiene products and civil engineering and building materials, as well as soaring raw material and fuel prices.</p>		<p>Net sales <b>115.3</b></p> <p>Operating profit <b>4.7</b></p>	<ul style="list-style-type: none"> <li>• Adhesion and coating agents</li> <li>• Engineering plastics</li> <li>• Elastomers</li> <li>• Seawater desalination membranes and modules</li> <li>• Environmental solution equipment and filters</li> <li>• High-performance fibers</li> <li>• Lifestyle materials</li> </ul>	
<b>Functional Textiles and Trading</b> 	<p>In the textile business, profitability improved due to progress in price pass-throughs, in addition to reforms of business structure such as the consolidation of production bases in Japan and discontinuing unprofitable products. In the airbag fabric business, profitability also improved because of product price revisions and increased sales volume with the recovery of automobile production.</p>		<p>Net sales <b>95.7</b></p> <p>Operating profit <b>▲1.0</b></p>	<ul style="list-style-type: none"> <li>• Airbag fabrics and yarn</li> <li>• Sports, inner wear, uniforms, and other apparel</li> </ul>	

Muneo Hirooka  
Managing Executive Officer  
Head of Films Division



Realizing a decarbonized and circular society through comprehensive strength and organizational capability



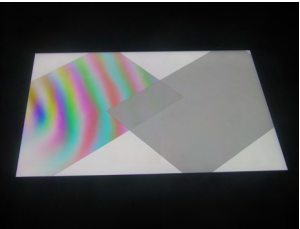
Business overview and market environment

The films business is composed of two areas: industrial films and packaging films, both of which hold top-class market shares domestically.

The industrial film sector covers a wide range of applications, including display, electronic components, automotive, and labels. Notably, COSMOSHINE SRF® stands out for its superior water resistance compared to other materials and holds a significant market share as a polarizer protective films for LCDs. In addition, mold releasing film for multilayer ceramic capacitors (MLCC) leverage the strength of integrated film production and processing, and ongoing equipment investments have bolstered supply capabilities, supporting market growth.

The packaging film sector primarily focuses on food packaging and contributes to solving customer challenges through its diverse range of resins, film production and processing technologies, and development capabilities. Being a pioneer in introducing biomass and recycled films to the industry has been highly regarded in the market.

Despite ongoing changes in the business environment, such as increasing societal demands for reducing plastic waste, rising



Polarizer protective film, COSMOSHINE SRF®



Coating equipment for mold releasing film for MLCC  
Tsuruga Films Plant Coater Building

raw material costs, and the yen's depreciation, we view the growth of the market for environmentally friendly films (green films) aimed at a circular economy and carbon neutrality, as well as the expansion of the functional film market driven by advancements in the digital society, as significant opportunities.

Business features and strengths

This business is equipped with the technology to handle a wide range of materials and to carry out integrated development and production processes, from raw materials to film production and subsequent processing, such as coating and vapor deposition. By maintaining close connections with both domestic and international customers, we tackle the challenges and issues they present. This involves the collaborative efforts of our sales, development, and manufacturing teams to create new added value.

Business strategies and initiatives in the 2025 Medium-Term Management Plan (MTP)

For the final year of the 2025 MTP, fiscal 2026, we are targeting ¥170 billion in net sales and ¥10 billion in operating profit. For fiscal 2031, the targets are ¥220 billion in net sales and ¥18 billion in operating profit. To achieve the 2025 MTP goals, specific measures include 1) Increasing production and expanding sales of highly functional films; 2) Expanding environmentally friendly films; 3) Developing and launching new films; and 4) Implementing appropriate pricing strategies. Although capital investment and the market introduction of new products are progressing generally as planned, due to the surge in raw material prices and exchange rate impacts

fiscal 2024 results were limited to net sales of ¥156.5 billion and operating profit of ¥2.7 billion. By steadily implementing the aforementioned measures, we will regain our earning power.

In the long term, we aim to significantly increase sales of environmentally friendly films and challenge ourselves to provide solutions beyond material sales, thereby contributing to sustainable living environments.

Initiatives to achieve prosperity

People	Efforts toward employee well-being and human rights in the supply chain <ul style="list-style-type: none"><li>● Fostering employee safety and job satisfaction</li><li>● Achieving zero accidents and disaster prevention (recognized as the most critical issue for our business foundation)</li></ul>
Planet	Efforts toward quality water, air, and soil, and the preservation of biodiversity <ul style="list-style-type: none"><li>● Contributing to the reduction of food loss through highly functional packaging films that maintain food freshness</li></ul> Efforts toward resource circulation <ul style="list-style-type: none"><li>● Developing a recycling system for mold releasing films for MLCC, involving collaboration with electrical and electronic manufacturers</li><li>● Actively participating in cross-industry resource circulation efforts, including a resource circulation project for horizontal recycling of label liners using KAMISHINE NEO® mold releasing film, in collaboration with pharmaceutical companies and the printing industry.</li></ul>
Prosperity	Contributing to business growth by widely supplying highly functional and environmentally friendly films, while supporting the advancement of the digital society and the realization of a decarbonized and circular society



Takahito Sagara  
Managing Executive Officer  
Head of Life Science Division



Aiming to bring smiles to everyday life  
and deliver unexpected value across  
the globe through our business

Business overview and market environment

The life science business is divided into three areas: biotechnology, medical materials, and contract manufacturing of pharmaceuticals. The biotechnology segment focuses on raw enzymes and diagnostic reagents and systems related to clinical testing. The medical materials segment deals with materials for treatments, such as dialysis membranes. The contract manufacturing of pharmaceuticals segment involves the production of pharmaceuticals under contract from pharmaceutical companies. Specifically, the business includes high-value-added products with unique technologies, such as a diagnostic system that reduces PCR test processing time by half and hollow fiber membranes for artificial kidneys. In the raw enzyme business for biochemical diagnostic reagents, such as those used for measuring triglycerides and cholesterol, we hold a significant market share. The market is steadily growing due to economic growth in emerging countries, prompting us to make planned investments to meet the rising demand for raw materials. Moreover, with the number of dialysis patients worldwide exceeding four million and increasing annually at a rate of 6%, we established a new facility in Odate, in collaboration with NIPRO CORPORATION, in April 2024. This facility can conduct the production of dialysis membranes for artificial kidneys, from processing to commercialization. We aim to enhance productivity to support our membranes in regions expected to see an increase in dialysis patients, particularly in developing countries.



Artificial kidney hollow fiber membranes

Business features and strengths

This business operates under the highest levels of production systems (QMS and GMP\*) in the medical and pharmaceutical fields, aiming to bring smiles to everyday life and deliver unexpected value across the globe. We focus on two core technologies to meet customer needs at various stages of health:

advanced protein production technology in the biotechnology sector and membrane production technology in the medical materials sector, continuously honing our strengths in these areas.

\* Quality Management System (QMS) and Good Manufacturing Practices (GMP)

Biotechnology business: Technology for producing high-performance proteins such as enzymes and antibodies

By leveraging our advanced microbial culture and protein purification technologies, along with genetic recombination technology, we achieve large-scale production of high-purity enzymes and the development and manufacturing of high-performance diagnostic reagents using these enzymes. This business aims to capture end-user needs and strive for the development of even better enzymes and antibodies, as well as diagnostic and research reagents utilizing these technologies.

Medical products business: Membrane production technology

This business develops and manufactures high-performance dialysis membranes using membrane structure control technology gained from developing hollow fiber membranes for artificial kidneys. In addition to creating superior dialysis membranes that meet the treatment needs of patients and facilities both in Japan and abroad, it aims to develop separation materials for other applications, such as pharmaceutical processes requiring specific separation and purification.

Business strategies and initiatives in the 2025 Medium-Term Management Plan (MTP)

For the final year of the 2025 MTP, fiscal 2026, we are targeting ¥40 billion in net sales and ¥4 billion in operating profit. For fiscal 2031, the targets are ¥80 billion in net sales and ¥12 billion in operating profit. To achieve these goals, we will implement the following initiatives.

Manufacturing	As part of our policy to enhance production capacity, improve production efficiency, reduce risks through dual-site operations, and outsource production (for medical devices), we are implementing the following initiatives: <ul style="list-style-type: none"><li>● October 2023: Launched a diagnostic reagent for simultaneous measurement of SARS-CoV-2 and co-infecting viruses (Influenza A/B, RSV)</li><li>● April 2024: Commenced operations in the new cultivation and purification building</li><li>● February 2025 (planned): Start-up of manufacturing equipment for PCR test reagents and genetic diagnostic reagents</li></ul>
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Sales	Implement fair pricing, strengthen sales locations, and share knowledge across the three business sectors
Development	As part of our policy to establish a new research facility, collaborate with the Corporate R&D Department, and develop new products in the biotechnology and medical material fields, we are implementing the following initiatives: <ul style="list-style-type: none"><li>● June 2023: Obtained regulatory approval for continuous renal replacement therapy (CRRT) products</li><li>● September 2023: Mannosyl erythritol lipid (MEL) selected for NEDO's* Bio Manufacturing Revolution Promotion Project</li><li>● April 2024: Completed the Medical Research Laboratory</li></ul>  <p>Opening ceremony for the Medical Research Laboratory</p>
Strengthening business foundations	Diversifying and developing talent, and promoting DX initiatives, etc.

\* NEDO: New Energy and Industrial Technology Development Organization

Initiatives to achieve prosperity

People	<ul style="list-style-type: none"><li>● Providing diagnostic services through biotechnology that offer faster, more accurate, and accessible health checks</li><li>● Offering technologies for the regeneration and replacement of human functions to extend healthy life spans</li><li>● Providing rapid and accurate infection testing services to prevent and control the spread of infectious diseases</li><li>● Aiming to eradicate infectious diseases, including hepatitis, waterborne infections, and other diseases, by 2030</li></ul>
Planet	<ul style="list-style-type: none"><li>● Providing sustainable and petroleum-free materials through bio-manufacturing</li></ul>
Prosperity	<ul style="list-style-type: none"><li>● Collaborating with partner companies to focus on specific areas and new functions for the development of new pharmaceuticals</li><li>● Developing cell recruitment materials for applications beyond nerves and bones</li></ul>

# Business strategy Environmental and Functional Materials

## Chikao Morishige

Co-COO  
Head, Environmental and Functional Materials Division  
President & Representative Director,  
CEO of TOYOBO MC Corporation



## Leveraging core technologies to reduce environmental impact



### Business overview and market environment

The environmental and functional materials business is primarily handled by TOYOBO MC Corporation (TMC), a joint venture with Mitsubishi Corporation. This business is divided into two main areas: the resin and chemicals business and the environment and fiber business. Key products driving our core businesses include VYLON®, HARDLEN®, photo functional materials, and environmental solutions.

#### VYLON® and HARDLEN®

VYLON® is a copolyester resin that enables high-speed transmission for electronic devices. It excels in adhesion and durability, contributing to the proliferation of 5G and 6G technologies. Anticipated to grow in the mobility sector, it plays a central role in the new Mobility Business Strategy Unit established this year.

#### Photo functional materials

The following optical functional materials have been performing well in China and Asia: Printight®, a photosensitive water-wash nylon resin relief printing plate; Cosmolight®, a photosensitive water-wash flexo printing plate that balances water development with resistance to water-based inks.

#### Environmental solutions system

**VOC recovery equipment:** adsorbs and removes volatile organic compounds (VOCs) contained in factory exhaust gases. It reduces the concentration of VOCs released into the atmosphere and allows for the desorption and cooling of the adsorbed VOCs, which can then be recovered and reused as a liquid.



VOC recovery equipment

In terms of the business environment, on the procurement front, rising exchange rates and raw material prices are directly impacting production costs, so price adjustments will be made as necessary. On the sales front, due to the sluggish recovery of Chinese economies, prompt countermeasures are essential. We will also closely monitor and address potential geopolitical risks related to the Russia-Ukraine conflict, the Israel-Palestine situation, and election outcomes in various countries.

### Business features and strengths

TMC leverages its core technologies in organic synthesis, polymer modification, copolymerization, adsorption and separation, fiber production, and simulation. Although positioned in the midstream of the industry, we utilize Mitsubishi Corporation's information network to develop products tailored to the needs of end-users. By capitalizing on these strengths, we aim to advance the market adoption of next-generation forward osmosis (FO) membranes for seawater desalination processes.

In addition, we will promote the use of our proprietary brine concentration (BC) membranes (OARO\*1 membranes) in salt production and industrial wastewater treatment processes, which achieve high efficiency and energy savings. This will support capturing demand in regions with stricter industrial wastewater regulations and advancing new applications such as lithium recovery.

In November 2023, in collaboration with Toyobo, we developed an environmentally friendly polyester-based high-heat-resistant adhesive sheet called Vitrimer\*2 for electronic materials.

This innovation significantly reduces greenhouse gas (GHG) emissions by cutting the conventional thermal processing time to one-50th.



BC membrane

\*1 OARO: Osmotically Assisted Reverse Osmosis

\*2 A high-performance polymer with properties such as re-shapability, self-adhesion, and self-repair. "Vitrimer" is a registered trademark of FONDOS ESPCI PARIS.

### Business strategies and initiatives in the 2025 Medium-Term Management Plan (MTP)

The targets for fiscal 2026, the final year of MTP 2025, are set at ¥145 billion in net sales and ¥12.5 billion in operating profit. For fiscal 2031, the targets are ¥250 billion in net sales and ¥20 billion

in operating profit. To achieve these goals, we will implement the following initiatives. Strategic labels such as "Growth," "Profit Enhancement," and "Business Reform" have been assigned to all businesses, and a portfolio strategy is being implemented to shift resources toward growth businesses.

In addition, we have transitioned from a divisional structure to a functional headquarters system. In our sales divisions, we are strengthening cross-departmental connections to enhance the efficiency of sales activities through better information sharing. In our development departments, we are fostering cross-sectional collaboration, where members from different teams pool their expertise to generate themes for new product development.

### Initiatives to achieve prosperity

People	<ul style="list-style-type: none"><li>Developed talent development guidelines (career path initiatives) for mid-career and younger employees, mandating at least two cross-category transfers (e.g., across divisions, products) within their first 15 years of employment</li><li>Began shifting personnel toward growth areas and implementing more targeted performance evaluations</li></ul>
Planet	<ul style="list-style-type: none"><li>Advancing the development of engineering plastics that contribute to vehicle weight reduction and environmental solution devices that lower VOC emissions into the atmosphere, focusing on enhancing products that contribute to reducing environmental impact, in response to the progress of EV adoption</li><li>Promoting environmental impact reduction by further enhancing the functionality and efficiency of key products, such as water treatment membrane, which helps address global water shortages, and BREATHAIR®, a comfortable and hygienic cushioning material</li></ul>
Prosperity	<ul style="list-style-type: none"><li>Aiming to contribute to the renewable energy sector in the future, particularly in applications such as floating offshore wind power using super fibers</li><li>Focusing on creating comfortable mobility spaces as the first step toward realizing smart communities and improving living environments</li></ul>

Business strategy

# Functional Textiles and Trading

Eiichi Shimizu  
Managing Executive Officer  
Head, Functional Textiles and Trading Division



Bringing a touch of comfort to everyday life through textile technology



Business overview and market environment

The functional textiles and trading business comprises airbags, functional textiles, apparel fabrics, and trading company functions (TOYOBO STC CO., LTD.). The airbag segment employs more than 500 people in Thailand, China, and the United States, while the textile segment has more than 3,000 employees across Southeast Asia and Central America. The trading company functions are globally represented with bases in Thailand, China, and India. In fiscal 2024, the textile segment (TOYOBO TEXTILE CO., LTD.) benefited from the post-COVID market revitalization, resulting in strong domestic and international sales growth, leading to increased revenue and profit. The business also achieved profitability for the first time in four years, driven by the withdrawal from unprofitable operations and the streamlining of domestic factories.

The airbag business, however, faced significant challenges. Despite an increase in airbag fabric sales due to the recovery in automobile production, it remained unprofitable, hindered by the delayed improvement in the profit structure following a fire at a yarn factory. In addition, the rapid surge in demand led to increased production costs, resulting in the tough financial performance.

Business features and strengths

The textile business features a product lineup that is both human- and eco-friendly, supported by polymerization and modification technologies developed as a synthetic fiber manufacturer. The growing demand for environmentally friendly materials presents an opportunity to expand sales.

However, there are significant concerns, such as rising costs due to the surge in raw material and fuel prices, the accelerated closure

of domestic sewing partner factories, and labor shortages in factories.

In the airbag business, the nylon filament technology developed over many years has been transferred to Toyobo Indorama Advanced Fibers Co., Ltd. (TIAF), a joint venture with Indorama Polyester Industries PCL, which began commercial production of airbag yarn in October 2022.

Business strategies and initiatives in the 2025 Medium-Term Management Plan (MTP)

Under its vision of bringing a touch of comfort to everyday life through textile technology, we are committed to developing and commercializing specialized technologies that enhance everyday living. To achieve an optimal business portfolio and secure appropriate profitability across each business sector, we prioritize initiatives such as withdrawing from unprofitable businesses and products, optimizing production scale and the workforce, and passing on cost increases through price adjustments. The following initiatives are being undertaken by the respective business segments.

Airbags

- Maintaining a strong market share in non-coated fabrics, contributing to environmental protection
- Developing bio-based polyester fabrics to help reduce greenhouse gas (GHG) emissions
- Preparing for increased demand by improving profitability through base price adjustments and reducing manufacturing costs by consolidating product lines, aiming for an early return to profitability
- Accelerating the ramp-up of operations at the new yarn factory in Thailand (TIAF)



TIAF factory

Functional textiles	<ul style="list-style-type: none"><li>● Consolidating domestic factory operations into the Shogawa Plant starting in April 2024</li><li>● Expanding production at TOYOBO TEXTILE (MALAYSIA) SDN.BHD. (TTM)</li></ul>
Apparel textiles	<ul style="list-style-type: none"><li>● Consolidating domestic factories and integrating operations with overseas bases led to TOYOBO TEXTILE CO., LTD., achieving profitability and revenue recovery in fiscal 2024</li><li>● Enhancing technical capabilities while strategically selecting and focusing on key business areas to ensure stable management of the textile business</li></ul>
Acrylic fibers	<ul style="list-style-type: none"><li>● Japan Exlan Co., Ltd., differentiates its high-value-added products focused on functional materials using proprietary technologies</li><li>● Streamlining production processes through OEM production of acrylic staple fibers</li><li>● Implementing sales strategies and sales expansion plans, including collaborations with external partners, with the goal of achieving profitability</li></ul>
Trading	TOYOBO STC CO., LTD., focuses on expanding new commercial channels within Toyobo group and increasing the range of products featuring proprietary technologies

Initiatives to achieve prosperity

People

Enhancing employee well-being and ensuring favorable treatment of foreign technical interns, etc.

Planet

Developing waterproof sheets that do not use adhesives, contributing to the prevention of health hazards and the reduction of environmental impact

Prosperity

TOYOBO TEXTILE CO., LTD., focuses on upcycling apparel to create a market for high-quality and attractive recycled products domestically



Upcycled apparel products

# Communication with Stakeholders



Dialogue with Stakeholders



As a member of society, we meet the expectations of our stakeholders and contribute to the sustainable development of the community through collaboration with our partners to solve social issues and cooperation in the areas where we operate.



Dialogue with ESG Investors



We engage in active communication with our stakeholders to enhance our corporate value.




External Evaluation (ESG Factors)



The indexes in which we are included as well as evaluations from ESG rating agencies are as follows.



# Dialogue with Stakeholders

Materiality	
Related ESG : <b>S</b> <b>G</b>	
Partnership: Stakeholder engagement	

↓ Policy and approach    ↓ Dialogue with stakeholders and investors

## Policy and approach

Based on its corporate philosophy *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity), the TOYOBOKU Group Charter of Corporate Behavior states “Communication with stakeholders: We will carry out fair and appropriate information disclosure and enhance corporate value through communication with our stakeholders.” In accordance with this basic approach, Toyoko group actively disseminates information and engages in communication activities. The content of activities are also regularly reported to the management team. The group strives to disseminate information in a timely, appropriate, and accurate manner to society as a whole, including our stakeholders such as customers, suppliers, shareholders and investors, employees, and local communities.

In our communication activities, we aim to promote an accurate understanding of Toyoko group and continuously enhance the Toyoko brand and corporate value while building relationships of trust by striving for two-way communication with stakeholders and the wider society as a whole.

## Basic approach to information disclosure

Toyoko group endeavors to provide timely and appropriate information disclosure with consideration given to fairness and impartiality in order to continue to be a trusted company. The group also communicates actively with stakeholders, including shareholders and investors, to enhance its corporate value. These activities are based on the following approaches.

- Information disclosure as a social responsibility (accountability)
- Communication to enhance corporate value
- Communication to prevent damage to corporate value

### < Targets >

As a member of society, Toyoko group will meet the expectations of stakeholders and contribute to the sustainable development of communities through collaboration with partners and cooperation in the regions where the group operates with the aim of solving social issues.

## < KPIs and results >

Initiatives	KPIs	Targets (FY2024)	Results (FY2024)
<ul style="list-style-type: none"> <li>Active dissemination of information, strengthening of disclosure</li> <li>Dialogue with shareholders and investors</li> <li>Dialogue with employees</li> <li>Collaboration and dialogue with industry, government, and academia</li> <li>Coexistence with local communities</li> </ul>	1. No. of press releases	75 per year	84
	2. No. of interviews with investors	150 per year*	113
	3. Frequency of meetings with employees and labor unions	At least 60 times per year	60
	4. Frequency of engagement with stakeholders	Three times a year	3

\* Target covers the period from August 2023 to July 2024

## Dialogue with stakeholders and investors

### Financial results

Every fiscal year, our company holds financial results briefings for financial institutions, including for institutional investors and analysts. The President personally provides briefings for full-year and second quarter financial results, explaining the details of the results and future management policy.

For first quarter and third quarter results, the Executive Officer controlling IR operations conducts online briefings of results.

### IR information

Toyobo is enhancing and expediting information disclosure in Japanese and English on the company's investor relations website. Toyobo also provides financial results, business results presentations, its Medium-Term Management Plan, annual securities reports, fact books, integrated reports, and so forth, on its investor relations website together with archives. Timely disclosure materials (financial results, etc.) are posted on the investor relations website at the same time as public announcements are made.

In addition, Toyobo provides on-demand streaming of presentation videos for a certain period after the date of the financial results presentations.

Q&A summaries and briefing scripts are posted for one year to promote fair disclosure.

Going forward, Toyobo will endeavor to enhance the materials and functions it provides to facilitate ease-of-use for all shareholders and investors.

### Annual general meetings of shareholders

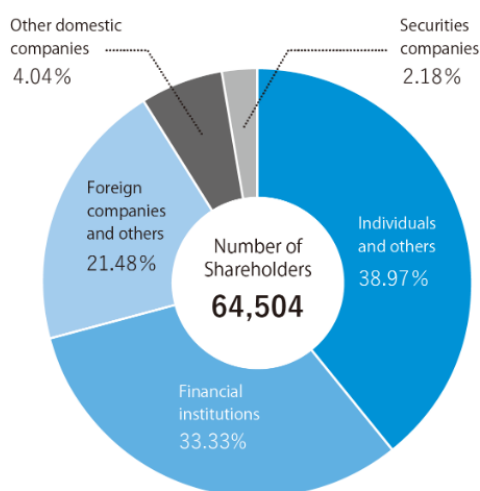
The Annual General Meeting of Shareholders is held each year in late June at Toyobo's Head Office in Osaka.

#### Number of shares and shareholders (As of March 31, 2024)

Number of shares authorized for issue	200,000,000
Shares issued to date	89,048,792 (Including 949,992 treasury shares)
Number of shareholders	64,504



## Composition of shareholders (Based on number of shares held) (As of March 31, 2024)



## Employees

Toyobo group communicates with employees by introducing the company's management policies and activities through various media such as the group newsletter in booklet form, the intranet, and the company-wide bulletin board.

The group started an "organizational culture and job satisfaction survey" for all employees in 2021. Most recently, the second survey was conducted in September 2022.

- [Human Resource Management>Employee engagement](#)

### ● Dialogue between management and labor

We are promoting open discussions between labor and management towards achieving the "TOYOBO PVVs" and fostering the foundation for each employee to find fulfillment and satisfaction in their work.

Meetings of the Central Management Council, attended by representatives of the labor union headquarters and of company management, are held once a year, and meetings of the Branch Management Councils are held once a year at each of the nine branches in Japan.

The labor union is represented at meetings of the Central Management Council by staff from the union headquarters, and is represented at Branch Management Council meetings by staff from the relevant union branch, while the company is represented by the President at meetings of the Central Management Council, and by the business site manager or plant manager at Branch Management Council meetings.

In labor-management discussions, we discuss themes such as business conditions, wage increase adjustments, and the status of the work environment.

### ● KAERU activities

In April 2018, Toyobo group started the KAERU activities (kaeru means "to change") throughout the company with the participation of all officers and employees. Within this activity, we hold dialogue and exchange workshops to deepen communication between officers and employees. Organizational development workshops are also actively being held.

- Dialogue and exchange workshops: FY2024: Conducted 132 times with 1,138 participants (total number of times conducted since FY2019: 407, with 4,561 participants)
  - \* Out of the above, there were four dialogues and exchange workshops between executives and employees, with 154 participants (cumulatively held 62 sessions since FY2019, involving a total of 340 participants).
- Organizational development workshops: FY2024: Conducted 90 times, with 311 participants (total number of times conducted since FY2019: 221, with 1,635 participants)

## ● Toyobo Group Learning

Since June 2022, we have been hosting an event called “Toyobo Group Learning” approximately once a month, aimed at learning about our group's businesses, products, and employees' job roles.

Through presentations by young employees, participants learn about the businesses and products our group focuses on, fostering exchanges among employees and serving as a catalyst for internal communication. Starting from fiscal 2025, these events will not only be held at our headquarters but also at various business locations and factories.



## ● Personalizing sustainability

To personalize sustainability for employees, we are conducting sustainability lecture sessions by internal and external speakers, as well as disseminating information through our intranet.

Every year in January and February, we hold a “Sustainability Week” featuring employee-participatory events and distribution of educational content to promote sustainability awareness among employees. In the FY2024 Sustainability Week, approximately 500 participants took part.

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## Overseas business sites

In Toyobo group, we promote smooth implementation of global business activities by actively sharing information with our overseas business locations.

Each year, local staff of overseas business sites visit Japan for training. The curriculum has the three following objectives.

1. Deepening understanding of Toyobo's management policies and business;
2. Deepening interaction with Japanese employees;
3. Applying what was learned in the training to the trainees' work in their home countries.

Toyobo also has an overseas business training system for selected young employees to spend six months out of a one-year program at an overseas business site learning the basics of language, culture, and overseas business while interacting with local staff.

Since the COVID-19 pandemic, we have been using local visits, online meetings, and cloud sharing services to facilitate smoother and more frequent communication with our overseas locations.

Previously, we emphasized sharing financial information such as revenue and investments. In addition to that, we now actively share sustainability information including governance, risk management, and compliance.

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## Stakeholders

Toyobo carried out four cases of communication in FY2022 - FY2024 ( Position at that time ) :

- In December 2021, "Mitsui Chemicals Group's approach to ESG promotion"  
Mr. Ken Migita, General Manager, Corporate Sustainability Division, Mitsui Chemicals, Inc.
- In June 2022, "Business and human rights" - Human rights initiatives in the Corporate Sector -  
Ms. Akiko Sato, Business and Human Rights Liaison Officer, United Nations Development Programme
- In September 2022, "BASF initiatives to accelerate sustainability management"  
Mr. Hiroki Ishida, Representative Director and President, BASF Japan Ltd.
- In February 2023, "Practice of sustainability and information disclosure - Initiatives based on the ISSB disclosure draft-"  
Mr. Katsuya Kikuchi, Head of Responsible Investment Department, Tokio Marine Asset Management Co.,Ltd.
- In April 2024, "The outline of sustainability disclosure standards"  
Mr. Katsuya Kikuchi, ESG specialist, Tokio Marine Asset Management Co.,Ltd.



Mr. Ken Migita  
General Manager, Corporate  
Sustainability Division, Mitsui  
Chemicals, Inc.



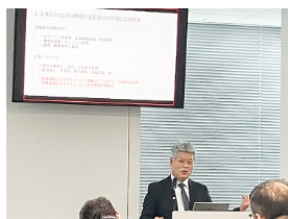
Ms. Akiko Sato  
Liaison Officer, UNDP



Mr. Hiroki Ishida  
Representative Director and President,  
BASF Japan Ltd.



Mr. Katsuya Kikuchi  
Head of Responsible Investment  
Department, Tokio Marine Asset  
Management Co.,Ltd.



Mr. Katsuya Kikuchi  
ESG specialist, Tokio Marine Asset  
Management Co.,Ltd.

Please see below for our past communication.

- [Communication in the past \(400KB\)](#) 

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## Local communities

Please see the Social Contribution page for more details.

- [Social Contribution](#)

## ● Communication in the past

### FY2021

-Mr. Megumi Sakuramoto

Chief ESG Analyst, Investment Div. Responsible Investment Group,  
Asset Management One Co., Ltd.



-Mr. Takehiro Fujimura

General Manager, Corporate Sustainability & CSR Department,  
Mitsubishi Corporation



# Dialogue with ESG Investors

We are engaging in active communication with our stakeholders to enhance our corporate value.  
Please see below for the contents of the dialogues.



Toyobo President Ikuro Takeuchi sat down with Mr. Megumi Sakuramoto, Executive ESG Analyst at Asset Management One Co., Ltd. to discuss the sustainable growth of the Toyobo group on May, 2022.

Dialogue with ESG Investors in the Integrate Report 2022  
(223KB)



Toyobo President (At the time) Seiji Narahara sat down with Mr. Ken Shibusawa, founder of Commons Asset Management and the great-great-grandson of Toyobo founder, Eiichi Shibusawa, to talk about sustainability within the Toyobo group on May, 2020.

Dialogue with ESG Investors in the Integrate Report 2020  
(699KB)





# External Evaluation (ESG Factors)

↓ Inclusion in ESG Indexes    ↓ Other evaluations

## Inclusion in ESG indexes

Toyobo is listed on the following ESG Indexes, as of June 2024.

It has been selected as a constituent stock in all ESG indices of Japanese stocks adopted by the Government Pension Investment Fund (GPIF).

- FTSE Blossom Japan Index
- FTSE Blossom Japan Sector Relative Index
- MSCI Japan ESG Select Leaders Index
- MSCI NIHONKABU ESG Select Leaders Index
- MSCI Japan Empowering Women Index (WIN)
- Morningstar Japan ex-REIT Gender Diversity Tilt Index
- S&P/JPX Carbon Efficient Index



**FTSE Blossom  
Japan**

The FTSE Blossom Japan Index is designed to measure the performance of Japanese companies that enjoy high reputations in the area of ESG.

### 2024 CONSTITUENT MSCI NIHONKABU ESG SELECT LEADERS INDEX

THE INCLUSION OF TOYOBOKO, LTD. IN ANY MSCI INDEX AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF TOYOBOKO, LTD. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI, MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

The MSCI Japan ESG Select Leaders Index is composed by selecting companies with outstanding ESG (Environmental, Social, and Governance) ratings from within the constituents of its parent index, the MSCI Japan IMI Index. Approximately 50% of companies from each GICS® industry classification are targeted for inclusion.



**FTSE Blossom  
Japan Sector  
Relative Index**

The FTSE Blossom Japan Sector Relative Index is designed to be sector-neutral, reflecting the performance of Japanese companies that exhibit relatively outstanding ESG actions in their sectors.

### 2024 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

THE INCLUSION OF TOYOBOKO, LTD. IN ANY MSCI INDEX AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF TOYOBOKO, LTD. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI, MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

The MSCI Japan Empowering Women Index (WIN) is constructed on the basis of disclosed information concerning gender diversity. Companies that promote high-level gender diversity in the workplace are considered more capable of adapting to the risk of talent shortages in a future shrinking workforce, and thereby better able to yield sustainable earnings over the long term.



## Other evaluations

Toyobo has received the following evaluations.



We have received a silver medal in a sustainability assessment by EcoVadis (headquartered in France), which evaluates the corporate ESG-related initiatives. The silver medal is given to the top 15% of all evaluated companies.

EcoVadis has assessed over 130,000 companies (from 180 countries and over 220 industries) on corporate policies, measures, and performance in four areas: Environment, Labor and Human Rights, Ethics, and Sustainable Procurement. The evaluation results are widely used as supplier selection criteria by many companies in Europe and the United States.



The Platinum Kurumin certification is awarded to companies that have achieved a higher level of initiative, such as the introduction and use of systems to support a balance between childcare and work, selected from among those that have received Kurumin certification as companies that support the childcare of their employees in accordance with the Act on Advancement of Measures to Support Raising Next-Generation Children.

In June 2023, we were certified as a Platinum Kurumin in evaluation of our various initiatives.



The Certified Health & Productivity Management Outstanding Organizations Recognition Program is operated jointly by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi. This program recognizes companies of varied size that practice particularly outstanding health and productivity management, based on initiatives rooted in community health issues and health promotion initiatives advanced by Nippon Kenko Kaigi.

For the second consecutive year, our company was awarded "Top 500" certification in the Certified Health & Productivity Management Outstanding Organizations Recognition Program, a designation given to top corporations.



The Eruboshi Certification is awarded to companies that demonstrate outstanding implementation of initiatives related to participation and advancement by women in the company under the Act on Promotion of Women's Participation and Advancement in the Workplace.

Our company was recognized for achieving prescribed standards for items including "Employment", "Continued Length of Employment", "Working Hours and Work Styles", and "Diverse Career Paths", receiving two out of a maximum of three stars.



Science Based Targets (SBT) are greenhouse gas (GHG) reduction targets advocated by an international initiative, the Science Based Targets initiative (SBTi), jointly operated by the environmental NGO CDP (formerly the Carbon Disclosure Project), the United Nations Global Compact, and others. When the SBTi recognizes that a company's GHG emission reduction targets align with the levels deemed necessary by the latest climate science to achieve the goals set forth in the Paris Agreement, it certifies these targets as Science Based Targets (SBT).

Toyobo group has obtained certification for our goals of reducing Scope 1 and 2 emissions by 27%, and Scope 3 emissions\* by 12.5%, from fiscal 2021 levels, by fiscal 2031, as these targets are recognized as SBT.

\* The certification for Scope 3 emissions covers emissions related to activities associated with purchased goods and services (such as manufacturing) and emissions from the use of sold products.



"Natural Symbiosis Sites" are sites certified by the Ministry of the Environment, recognizing areas where biodiversity conservation is achieved through private sector initiatives and other efforts.

Toyobo group has obtained certification for our privately owned forest, "Toyobo Aya-no-Mori" forest, in Higashimorokata-gun district, Miyazaki Prefecture. We have entered into a comprehensive partnership agreement with the local municipality of Aya-cho to jointly promote proactive initiatives for biodiversity conservation in the Aya-no-Mori Forest.

In addition, Aya-no-Mori Forest is registered in the World Database on Other Effective area-based Conservation Measures (OECD).

- [Health and Productivity Management](#)
- [Promotion of Women's Participation and Advancement](#)
- [Climate Change](#)



Our company was selected as the highest-rated Supplier Engagement Leader in the CDP Supplier Engagement Ratings.

The Supplier Engagement Ratings are based on responses to questions in the four areas of "Governance", "Targets", "Scope 3 emissions", and "Supply chain engagement" in a corporate survey on climate change conducted by CDP. This evaluates climate change initiatives throughout companies' entire supply chains.

# 【Activity Report】

## Environment

These sections introduce our group's environmental policy, environmental management structure, and related initiatives.



Management Approach



Eco-Conscious Products

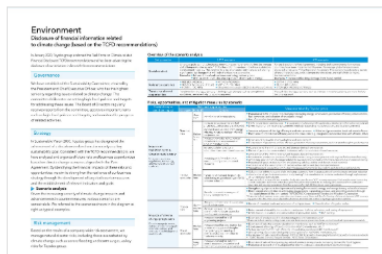


### A decarbonized and circular society

Toyobo group recognizes climate change as a very significant social issue that will have a significant impact on our business. We support the "Glasgow Climate Pact" and aim to achieve carbon neutrality by the fiscal year 2051, which is consistent with the global 1.5°C target.



Climate Change



Disclosure based on TCFD  
Recommendations in the  
Integrated Report 2024 (157KB)



### Targets for FY2031

Sustainable Vision 2030 →



Cutting emissions in Scope 1 & 2 by **over 46%** in FY2031 vs FY2014, **Net zero** in FY2051

Increasing consumption of natural resources and energy, and increasing generation of waste, are becoming serious problems throughout the world. As a result, there is a global trend to realize a transition away from conventional uni-directional resource usage toward the circular economy, in which resources are used in a sustainable manner.

Toyobo group is aiming to help realize the circular economy through its business activities by implementing initiatives to achieve the greenification (i.e., utilization of biomass and recycled raw materials, and volume reduction) of plastic in the value chain, reduce waste, and conserve water resources.



Plastic Resource Circulation



Waste Reduction



Water Resources



## Clean water areas, air and soil, and preservation of biodiversity

Our daily lives and our economy are supported by the benefits that we receive from a wide range of living creatures and ecosystems, or in other words, from biodiversity.

Toyobo group handles a wide range of chemical products, and produces items such as textile products, containers and packaging, and raw materials for pharmaceutical products. To minimize the negative impact that our operations have on the global environment and on ecosystems, we are working to conserve biodiversity, by implementing thorough management of chemical substances, as well as striving to reduce our impact on the environment, including the atmosphere and on water area.



Chemical Substance  
Management



Biodiversity



ESG Performance Data →

# Management Approach

↓ Policy and approach   ↓ Structure   ↓ Environmental management system   ↓ Other Initiatives

## Policy and approach

In 1992, we established our Global Environmental Charter and Action Guidelines, and in 1997, compiled our Environmental Philosophy, Environmental Activity Policy, and Code of Conduct into the "TOYOBO Group Fundamental Policy on the Global Environment" and launched a company-wide global environmental conservation initiative.

In addition to reducing the environmental impact of our business activities, we will contribute to society through people- and planet-friendly technologies.

### TOYOBO Group Fundamental Policy on the Global Environment

#### 1. Environmental philosophy

We are striving to contribute to society through technologies friendly to both people and the environment, protect the global environment, and to leave a better planet and a more prosperous society to future generations.

#### 2. Environmental activity policy

##### (1) Development of technologies

By devoting all of our efforts, the Toyobo group is developing technologies (products and manufacturing processes) that are friendly to both people and the environment, and we are promoting environmental measures.

##### (2) Environmental protection

At every stage, from product development through to design, manufacture, sale, disposal, and collection, we are forecasting, evaluating, and reducing their impact on the environment, working towards its protection.

##### (3) Contribute to society

With the aim of bringing about a better global environment, as well as using our business activities, as a good corporate citizen we will actively support and participate in environmental protection and biodiversity conservation activities throughout society and in local regions.

#### 3. Code of conduct

##### (1) Think : Technical development and evaluation

In development and design, strive to develop environmental technology and evaluate environmental protections.

##### (2) Value: Environmental protection and reuse

Strive to develop, improve, and reuse environmental technologies in the production, sales, distribution, and disposal phases.

##### (3) Participate: Disclose technologies and share information

Strive to disclose developed environmental technologies and provide environmental information.

##### (4) Protect: Environmental compliance and auditing

Strive to set and maintain environmental regulations and self-management standards set by national and local governments, etc., and carry out audits.

##### (5) Train: Internal and external systems

Strive to enhance our internal environment-related systems, and carry out education and awareness-raising activities.



## Structure

Our environmental conservation activities (climate change, waste, water resources, biodiversity, etc.) are promoted by the Climate Change and Biodiversity Committee under the Sustainability Committee. We also establish the Global environment Conference and Global Environmental Conservation Conference to promote specific initiatives at our business sites and plants.

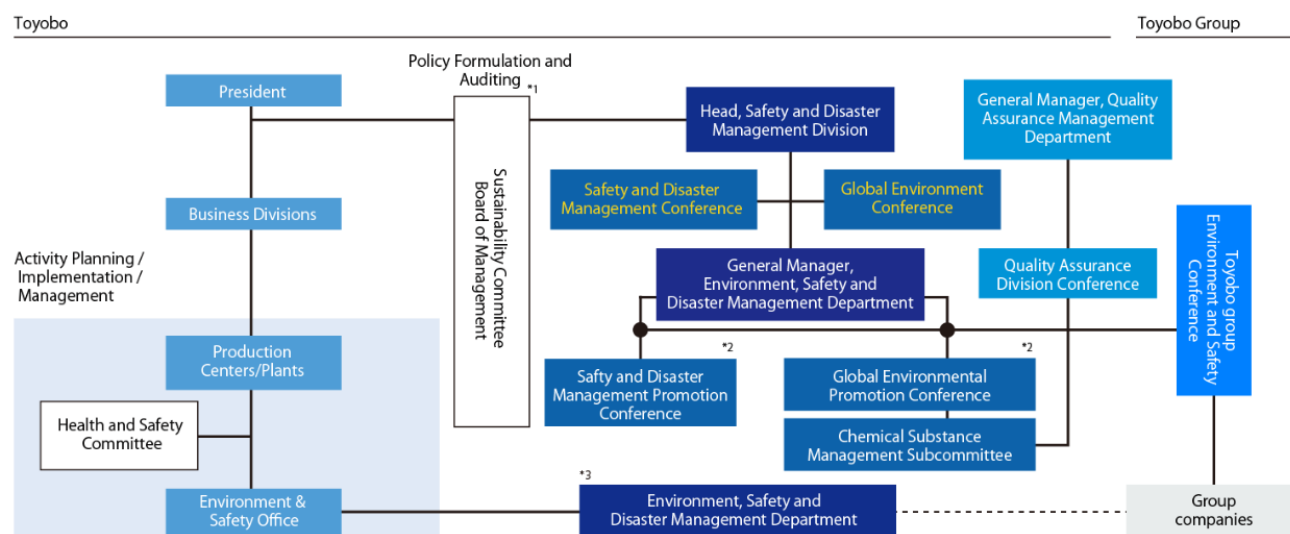
The Sustainability Committee deliberates on top-level policies and targets for overall sustainability activities, including climate change response. Receiving the report on a regular basis, the Board of Directors approves top-level policies, targets, and other key matters, and supervises the progress of its activities. In fiscal 2024, the Sustainability Committee met six times.

The committee also manages activities aimed at achieving "a decarbonized and circular society", which are one of the "five social issues" set forth in our "Sustainable Vision 2030".

The Global Environmental Conference is responsible for formulating and proposing policies and measures for global environment conservation activities to Safety and Disaster Management Division manager and for managing the progress of these measures. The conference is chaired by the General Manager, Environment, Safety and Disaster Management Department and is composed of General Managers of departments in charge of production technology in each business division and the Production Technology Division. In principle, the conference meets once a year.

The Global Environmental Promotion Conference meets four times a year to discuss decisions and implements specific promotion items based on the policy, and exchange information on global environment issues, and decide and implement measures to deal with issues when problems occur. The conference is chaired by the General Manager, Environment, Safety and Disaster Management Department and is consists of members selected by Executive Officer of business units and divisions. They also visit each of our offices, production sites, and group companies to conduct "safety and environment assessment" activities, including supervision of compliance with local environmental laws and regulations. The results are reported during the conference.

## Organizational Chart



\*1 Evaluates the effectiveness of and decides policy on safety, disaster prevention, and environmental activities

\*2 Deliberates on and decides specific matters, and manages progress

\*3 Supports activities, provides information, and conducts departmental coordination



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## Environmental management system

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### Basic approach

Toyobo Group extracts and identifies the environmental impact of the activities of each manufacturing site and laboratory on the global and local environment in terms of risks and opportunities. We then establish and operate environmental management systems such as ISO 14001, to maintain and improve each of them.

In addition, in order to improve the environmental management level of our group, the Safety and Disaster Prevention Division has established and is operating company-wide regulations for conducting "Safety and Environmental Assessments" and other activities for monitoring and surveillance.

We continue to provide environmental education for management and employees with the aim of raising awareness of environmental issues within our group.

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### Certification status of Environmental Management System

As of August 31, 2024, 16 business sites (46% of all group production sites: 16 out of 35 production sites) have acquired external certification for environmental management system standards.

Percentage of ISO 14001 certification

- 43% of all Toyobo group production sites: 15 out of 35 production sites
- 100% of all Toyobo production sites: 6 out of 6 production sites

### Business Sites Acquiring ISO 14001 Certification

TOYOBO CO., LTD. Business Sites	Date of Certification
Research Center (Otsu, Shiga)	Dec. 1996
Tsuruga Research and Production Center (Tsuruga, Fukui)	Dec. 1996
Inuyama Plant (Inuyama, Aichi)	Mar. 1998
Utsunomiya Plant (Utsunomiya, Tochigi)	Feb. 1999
Shogawa Plant (Imizu, Toyama)	Jul. 2001
Iwakuni Production Center (Iwakuni, Yamaguchi)	Nov. 2002

Group Companies (consolidated subsidiaries)	Date of Certification
TOYOBO MC Corporation, Takasago Plant (Takasago, Hyogo)	Mar. 1999
Toyo Cloth Co., Ltd., Tarui Plant (Sennan, Osaka)	Dec. 1999
Japan Exlan Co., Ltd., Saidaiji Plant (Okayama, Okayama)	Jun. 2001
PT. INDONESIA TOYOBO FILM SOLUTIONS (Indonesia)	Jun. 2001
Miyukikeori Co., Ltd., Yokkaichi Plant (Yokkaichi, Mie)	Apr. 2002
Cosmo Electronics Co., Ltd., (Yokkaichi, Mie)	Jan. 2004
Toyo Cloth Co., Ltd., Iwakuni Plant (Iwakuni, Yamaguchi)	Oct. 2005
Toyobo Photo Chemicals Co., Ltd., Saidaiji Factory (Okayama, Okayama)	Oct. 2017
Toyobo Saha Safety Weave Co., Ltd. (Thailand)	May. 2019

Group Companies (Equity Method Affiliate)	Date of Certification
Cast Film Japan Co., Ltd., Tsuruga Plant (Tsuruga, Fukui)	Dec. 2000

## Business Sites Acquiring “Eco Action 21”

Group Companies (consolidated subsidiaries)	Date of Certification
Japan Exlan Co., Ltd., Environment Engineering-analysis Center (Okayama, Okayama)	May 2007
Mitsumoto Chemicals Co., Ltd. (Nabari, Mie)	Nov. 2011

“Eco Action 21” is one of environmental management systems and was developed by Japanese government.

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## Safety and environment assessment

To improve the safety and environmental level of the group, the Safety and Disaster Management Promotion Committee and the Global Environmental Promotion Committee conduct "safety and environment assessments" as an internal audit of all production sites, including group companies, in accordance with our company's rules. The assessment includes confirmation of the status of various environmental laws and regulations, environmental pollution risk management, and promotion of environmental conservation activities such as energy-saving initiatives.

In addition to annual self-assessments using a checklist, each site undergoes an on-site audit once every three years and takes corrective action if any issues are pointed out. In this way, we are working to maintain and improve the level of management.

### Items to be checked in the safety and environment assessment (partial)

- Implementing identification and compliance of legal requirements, meeting regulation values and notification, for factory operation
- Managing the risk of environmental pollution (risk identification, risk assessment, and implementation of preventive measures)
- Promoting environmental conservation activities (energy conservation, waste reduction, green purchasing, etc.)
- Acquiring third-party certification for its environmental management system
- Implementing appropriate management of chemical substances
- Providing education and training

### Locations at which Audits Have Been Performed in the Last Three Years

FY	TOYOBO CO., LTD.	Group Companies	Audit results
2022	2 business sites	3 companies	All performed well
2023	3 business sites	7 companies	All performed well
2024	5 business sites*	8 companies	All performed well

\* Including Takasago Plant.

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## Corrective Mechanisms for Environmental Problems

Our group has a group-wide system for managing and correcting environmental problems. We strive to prevent recurrence of problems at the site where the trouble occurred by taking emergency measures, investigating the cause, formulating and implementing measures to prevent recurrence, and confirming the effectiveness of the measures. Furthermore, if it is determined that the environmental trouble has a significant impact on other divisions (other offices and plants), the preventive measures are horizontally deployed throughout the group.

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## Environmental compliance

In addition to complying with applicable laws and regulations, such as the Air Pollution Control Act and the Water Pollution Prevention Act in Japan, the Toyobo group is committed to reducing emissions by not only complying with legal and regulatory standards, but by also making continuous improvements in the prevention of air and water pollution. We will continue to further reduce our environmental impact.

For fiscal 2022 to 2024, there were no environmental-related fines or penalties.

- [ESG Performance Data \(365KB\)](#) 

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## Environmental education

Toyobo group promotes a variety of educational and awareness activities in order to improve the environmental awareness of the employees and corporate officers, including the management level.

During Environment Month, we hold an annual environmental seminar with outside lecturers invited, in which many employees and corporate officers, including the management level participate. In addition, at each business site, we hold environmental exhibitions featuring panels that introduce our group's environmental activities as well as exhibitions of eco-conscious products, and these introduce the Toyobo group's environmental activities to our employees and the local community.

In addition, we are promoting environmental education through a unique curriculum tailored for new employees.

### Environmental seminars

In fiscal 2024, the Toyobo group held a seminar on the topic of biodiversity conservation and introduction of environment DNA methods. Both face-to-face and online seminars were held, with a total of approximately 200 participants. In March, we held the "Biological Survey Results Debriefing 2023," with approximately 100 attendees.



FY2024 Environmental seminar



FY2023 Environmental seminar



FY2022 Environmental seminar



FY2021 Environmental seminar

### Past Seminar Themes

FY 2023: Domestic and overseas initiatives for biodiversity and natural capital-conscious management  
Biodiversity and human world (What is required of us?)

FY 2022: Policy trends toward carbon neutrality by 2050

FY 2021: From CSR as ethics to ESG as strategy new normal in the age of SDGs

FY 2020: Achieving the SDGs and corporate initiatives

FY 2019: A changing world with the sustainable development goals (SDGs)

FY 2018: CSR and corporate environmental activities

## Environmental exhibition

Since 1996, the Toyobo group has held an annual environmental exhibition on employee to deepen employees' understanding of the group's efforts to conserve the global environment (since fiscal 2022, the exhibition has also been held via the Internet). At the exhibition, we share our targets and environmental performance data such as greenhouse gas emissions. In fiscal 2025, the exhibition took up a special feature entitled "Efforts by Business Sites and Plants for Preservation of the Global environment and Coexistence with Local Communities" and introduced the activities being carried out at business sites and plants throughout Japan to preserve and improve the environment and coexist with local communities.

### Past Seminar Themes

FY 2024: Efforts by business sites and plants for preservation of the global environment and coexistence with local communities

FY 2023: Action for "biodiversity conservation"

## Environmental education on joining the company

Education upon joining the company is provided not only to fresh hires, but also to mid-career employees at all locations, including at group companies. In addition to explaining plans and achievements regarding the global environmental conservation system and initiatives, the training helps participants understand why environmental protection is important by linking it with the TOYOBO Group Fundamental Policy on the Global Environment, and explains what is expected of employees of the Toyobo group.

### Session for management

In May 2024, we invited an outside lecturer to have sessions on the topic of the "Study Session on Legal Liability for Chemical Accidents" for Executive Officer. In particular, we deepened our knowledge of regarding chemical substance leaks.

### Past Seminar Themes

FY 2024: Sustainability and corporate value creation

FY 2023: Practice of sustainability and disclosure of information

FY 2022: Carbon neutrality

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## Other Initiatives

### Environmental Accounting

As an initiative to quantitatively evaluate our environmental protection activities, we conduct environmental accounting based on the Environmental Accounting Guidelines 2005 issued by the Ministry of the Environment of Japan. In fiscal 2024, capital investment for environmental protection was ¥3.9 billion, and the amount spent for protection and maintenance was ¥5.8 billion. This primarily includes the cost of statutory environmental impact measurements, industrial waste disposal, various inspection, and associated personnel costs.

- [ESG Performance Data \(365KB\)](#) 

### Green purchasing

For general purchases such as office supplies, the Toyobo group promotes green purchasing by specifying target items and utilizing "environmental labels."

In fiscal 2024, 11 out of 12 targeted items\* were purchased, and the green purchasing rate for all those 11 items was 100%. We will continue to expand the range of items covered by the scheme, keeping an eye on the green purchasing rate and trends in the world.

\* Copy paper, toilet paper, files, tape for label printers, computers, copy machines, printers, fax machines, lighting fixtures (fluorescent lamps except for those for insect control), fire extinguishers, air conditioners (for home use), work clothes and uniforms

# Eco-Conscious Products

- ↓ Basic approach
- ↓ Structure
- ↓ Targets and results
- ↓ Initiatives related to eco-conscious products
- ↓ Initiatives related to LCA calculations

## Basic approach

Under the "TOYOB0 Group Fundamental Policy on the Global Environment," the Toyobo group promotes to reduce and improve the impact on environment by developing new technologies. At every stage, from product development through to design, manufacture, sale, disposal, and collection, we are forecasting, evaluating, and reducing their impact on the environment, and working towards its protection.

- [TOYOB0 Group Fundamental Policy on the Global Environment](#)

## Structure

### Mechanism for certification of eco-conscious products

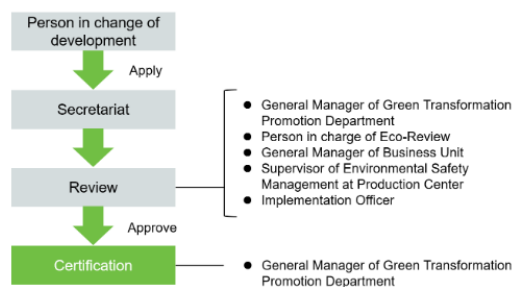
Since 1998, the Toyobo group has operated the "Eco-Review System" as a system for evaluating the environmental impact of our products.

This system evaluates and analyzes the following aspects at every stage in the product life cycle: preventing climate change, reduction of chemical substance use, resource conservation, waste reduction, and Biodiversity Other. Products that meet these standards are certified as ECO-PARTNER SYSTEM® products. Since the Eco-Review is carried out at every product life cycle — from R&D to commercialization — issues that require improvement from an environmental protection perspective are identified and improved at an early R&D stage prior to the subsequent review. As products and technologies are developed, they are improved to reduce their environmental impact and contribute to the environment.

#### Eco-Review Evaluation Items

Design and development	<ul style="list-style-type: none"> <li>Designing eco-conscious products</li> </ul>
Raw materials	<ul style="list-style-type: none"> <li>Using recycled materials and alternative raw materials to petroleum-based raw materials</li> <li>Considering biodiversity</li> </ul>
Production	<ul style="list-style-type: none"> <li>Using energy-saving and clean energy</li> <li>Reducing water use and effectively using raw materials</li> <li>Reducing waste</li> </ul>
Distribution and packaging	<ul style="list-style-type: none"> <li>Reducing transportation energy</li> <li>Reducing packaging waste</li> </ul>
Use and consumption	<ul style="list-style-type: none"> <li>Reducing resource consumption</li> <li>Increasing lifespan</li> </ul>
Recycling, disposal, and incineration	<ul style="list-style-type: none"> <li>Reducing hazardous chemical emissions</li> <li>Biodegradability and recyclability</li> </ul>

#### Review and Certification Process





## ECO-PARTNER SYSTEM®

Products that meet or exceed certain standards in the Eco-Review System are designated as "ECO-PARTNER SYSTEM®" products that contribute to reducing the burden on environment.

Evaluation standards for the ECO-PARTNER SYSTEM® comprise five categories, including items such as "resource conservation."

The life cycle of products are divided into six stages from raw materials through to disposal, and the environmental impact at each stage is evaluated and certified.



## Targets and results

We aim to increase the ratio of sales of ECO-PARTNER SYSTEM® products to 40% of total sales by fiscal 2031 and 60% by fiscal 2051.

Initiatives	Targets (FY2031)	Results (FY2024)
Sales ratio held by ECO-PARTNER SYSTEM® products (TOYOBO,TMC)	40%	31.2%

### Sales by Evaluation Standard of ECO-PARTNER SYSTEM® Products (FY2024)

Five evaluation standards				
Preventing climate change	Resource conservation	Waste reduction	Reduction of chemical substance use	Other environmental contributions
¥45.7 billion	¥34.5 billion	¥50.5 billion	¥51.7 billion	¥31.5 billion

Note: Net sales in the figure include duplicates because they are determined based on multiple criteria.

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## Initiative

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### ECO-PARTNER SYSTEM® Products

Here are some of the products certified as “ECO-PARTNER SYSTEM®” that contribute to mitigating climate change, reduction of chemical substance use, resource conservation, waste reduction, and other environmental contributions.

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### LCA Calculation Initiatives

We calculate LCA as appropriate by introducing MilCA, a software for computing LCA.

In addition, LCA calculations are based on the following standards.

LCA Principles and Framework: ISO 14040

LCA Requirements and Guidelines: ISO 14044,

CFP Requirements and Guidelines: ISO 14067

GHG Protocol: Product Life Cycle Accounting and Reporting Standard

### Avoided emissions calculation

By comparing the cLCA (carbon-life cycle analysis) of a baseline product and a product with high environmental performance, it is possible to visualize the amount of contribution to CO<sub>2</sub> reduction (reduction contribution) by replacing the baseline product with a product with high environmental performance. We began calculating the amount of contribution to reduction in fiscal 2023 for reverse osmosis (RO) membranes and VOC (volatile organic compound) recovery equipment. In calculating the amount of reduction contribution, we have established our own guidelines based on the “Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions” issued by the institute of Life Cycle Assessment, Japan. We also refer to the Ministry of Economy, Trade and Industry's “Guidelines for Quantifying GHG emission reductions of goods or services through Global Value Chain ” and other guidelines. We will continue to expand the number of products subject to calculation, reduce CO<sub>2</sub> emissions generated when our customers use our products, and contribute to the mitigation of climate change throughout our supply chain.

## Case ① VOC recovery equipment

Toyobo's VOC recovery equipment is used around the world to control emissions of volatile organic compounds (VOC), which are feared to affect the atmosphere and human health. Our VOC recovery equipment incorporates "K-FILTER®", an unique activated carbon fiber, and it is used in various industries to recover dichloromethane used in the lithium battery separator manufacturing process and to control emissions and recover ethyl acetate (which is used in dry lamination and adhesive processes), toluene, and IPA etc.

Assuming that the steam desorption VOC recovery equipment sold by our group in fiscal 2023 operates for 15 years, the amount of VOC (methylene chloride, etc.) recovered will be approximately 6 million tonnes\*. In addition, "K Filter®" makes it possible to recover high-quality solvents and save energy because it is a high-performance adsorbent that has a faster adsorption rate than granular activated carbon and contains fewer impurities. Our VOC recovery equipment can reduce carbon dioxide emissions by approximately 50 to 70% compared to conventional VOC combustion equipment when treating combustible VOC such as ethyl acetate and toluene (according to research by Toyobo).

Furthermore, our group also sells the nitrogen desorption type "K Filter®" VOC recovery equipment, which is even more energy-saving. Since nitrogen is purified and reused using a unique circulation method, it can be processed at low running costs, and it is also possible to recover and reuse water-soluble solvents and significantly reduce wastewater. Compared to conventional steam desorption methods, CO<sub>2</sub> emissions during treatment are expected to be reduced by approximately 50 to 80%\*.

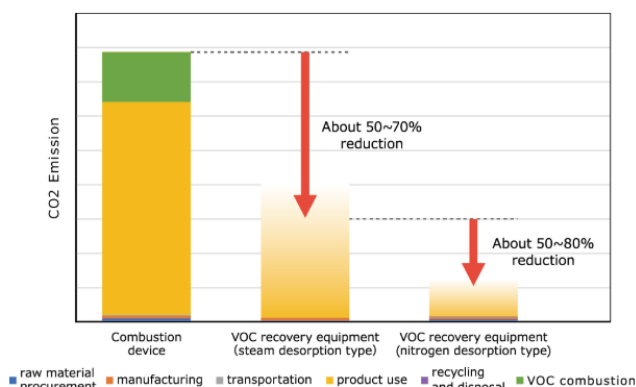
Going forward, to contribute toward the realization of the decarbonized society, we will expand applications of our VOC recovery equipment and sales promotion of our nitrogen desorption type VOC recovery equipment, which is more energy efficient.

\* Our group calculations

• [VOC recovery apparatus \(steam desorption type\) K-FILTER®](#)

• [VOC recovery apparatus \(nitrogen desorption type\) K-FILTER®](#)

### VOC treatment equipment's CO<sub>2</sub> emissions compare (e.g.)



\* Calculation Conditions: VOC Processing Capacity is calculated by setting the same conditions for the combustion device and the recovery device our group-wide calculation.



VOC recovery equipment

## Case ② RO Membrane for seawater desalination

Globally, water shortages are becoming an increasingly serious problem. We provide hollow fiber reverse osmosis (RO) membrane, which enables desalination with low energy consumption, to countries throughout the world, especially in regions where there is inadequate access to fresh water. By comparison with the conventional multi-stage flush (MSF) method, Toyobo's method using RO membrane makes it possible to achieve a substantial reduction in CO<sub>2</sub> emissions.

Toyobo's RO membrane is made mainly from biomass material, and it has a number of unique features, including long product lifespan of eight years or more, and being able to produce high-purity fresh water. Additionally, the superior chlorine resistance of the membrane material keeps maintenance costs down.

Assuming that the RO membrane elements sold by our group is used for eight years, freshwater production would be approximately 900million m<sup>3</sup>\*, and avoided emissions (reducing CO<sub>2</sub> emissions) will be approximately 9 million tonnes\*.

Going forward, we will be expanding production of RO membrane so that it can be used to meet the daily water needs of around 10 million people through seawater desalination (this is the target for Sustainable Vision 2030).

\* Our group estimate.



Seawater desalination plants



Biomass Mark\* for our hollow fiber membrane in HOLLOSEP®

\* The Biomass Mark is allowed to be labeled on products and materials containing a certain percentage of biomass after the composition, proportion, quality, and safety of the raw biomass is verified by a third-party organization composed of academic experts.

# Climate Change

Materiality			
Related ESG : <b>E</b>		7 AFFORDABLE AND CLEAN ENERGY	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
A decarbonized and circular society		13 CLIMATE ACTION	

- ↓ Basic approach
- ↓ Structure (Governance)
- ↓ Strategy for realizing a decarbonized society
- ↓ Indicators, Targets, and Results
- ↓ Initiatives related to our manufacturing business
- ↓ Initiatives related to the entire value chain
- ↓ Strengthening climate change measures
- ↓ Collaboration with Stakeholders

## Basic approach

The Glasgow Climate Pact was adopted at the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26) in 2021, with the aim of addressing the global issue of climate change. The Pact incorporates a commitment to strive to keep the rise in average global temperatures within 1.5°C, which would have a less severe impact than the earlier target of 2°C, by utilizing the latest scientific know-how, and it thus set a de facto goal for the world to work toward. The Pact confirmed that the next 10 years will be vitally important for realizing this, and that it is important to reduce overall global greenhouse gas emissions by 45% by 2030 compared to 2010, and to cut emissions to net zero by 2050.

Toyobo group recognizes climate change as a very significant social issue that will have a critical impact on our business. We support the "Paris Agreement\*" and "Glasgow Climate Pact" and aim to achieve carbon neutrality by the fiscal year 2051, consistent with the global 1.5°C target.

We also believe that it is important to collaborate with our customers, business partners, industries, local communities, the national government, and society as a whole in order to resolve climate change issues. Our group engages in discussions and dialogue with various stakeholders and works collaboratively to realize the net zero emissions and the goals of the Paris Agreements.

In addition, in January 2020, we expressed our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and have been promoting initiatives and information disclosure in line with these recommendations.

\* The Paris Agreement is a global framework adopted in COP21 in 2015 to reduce greenhouse gas emissions after 2020. For the first time in history, it is a fair agreement involving all countries and including the goal of keeping temperature rise below 2 degrees Celsius, and preferably 1.5 degrees Celsius.

- [TCFD Index](#)

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## Structure (Governance)

President & Representative Director, CEO & Co-COO has the highest responsibility for climate change-related issues. The Board of Directors receives regular reports on climate change policies and significant matters discussed by the Sustainability Committee and provides supervision and guidance. The Sustainability Committee, chaired by the President & Representative Director, CEO & Co-COO, handles company-wide issues and risks, including climate change issues.

In fiscal 2024, the Sustainability Committee met six times, and the results of the meetings were reported to the Board of Directors. As a result, the Board of Directors adopted the following resolutions to accelerate efforts to reduce greenhouse gas (GHG) emissions.

- Revised the committee structure under the Sustainability Committee, establishing a new “Climate Change and Biodiversity Committee”
- Officially joined the “GX League” established by the Ministry of Economy, Trade and Industry and approved and announced voluntary targets aimed at the voluntary emissions transaction scheme under GX League (GX-ETS)

In addition, we have commenced consideration of officer compensation (incentives) linked with the reduction status of GHG emissions to boost the effectiveness of those reduction efforts, with the aim of introducing such compensation starting in FY2026.

- [Structure on corporate environmental issue](#)

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## Risk Management

In fiscal 2022, our group established a Risk Management Committee, which conducts uniform group-wide management of risks including climate change issues. In addition to its overall administration of risk management activities (identification, analysis, assessment, and response), the committee formulates policy related to risk management for the whole group, builds and operates effective, sustainable organizations and systems by running the PDCA cycle, and works to strengthen the risk management system. As our point of departure for risk management activities, we identify serious company-wide risks requiring intensive attention from the results of evaluations in terms of the two axes of severity of impact<sup>\*1</sup> and likelihood of occurrence<sup>\*2</sup> based on each risk scenario. Toyobo group manages its important risks based on a companywide assessment of risks that include natural disasters such as flooding (floods, storm surges, etc.), which are increasing in severity due to climate change.

\* 1 Scope of impact, duration of business operation stoppage, personal damage, reputation, and financials are evaluated on a three-point scale that includes “major damage equivalent,” “moderate damage equivalent,” and “minor damage equivalent.”

\* 2 Evaluations use a three-point scale including “occurs frequently,” “occurs occasionally,” and “occurs infrequently.”

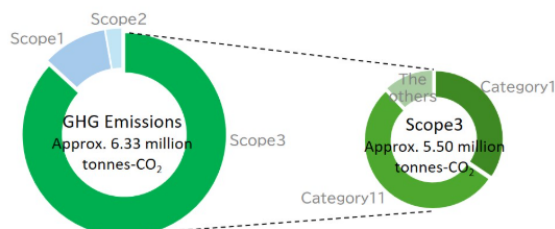
- [Risk Management](#)



## Strategy for realizing a decarbonized society

Our group aims to achieve a “decarbonized society & circular economy” within the framework of the Sustainable Vision 2030. The total GHG emissions across our group's supply chain are approximately 6.33 million tonnes-CO<sub>2</sub>, which can be categorized into two sources: “business activity areas (Scope 1 and 2)” and “the entire value chain (Scope 3).”

### Proportion of Scope 1, 2, and 3



\* Scope 1: Direct emissions from sources owned or controlled by the company

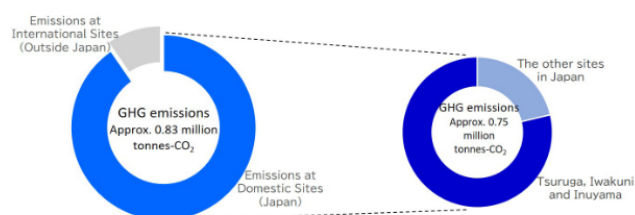
\* Scope 2: Indirect emissions from the consumption of purchased electricity, heat, or steam

\* Scope 3: Indirect emissions not included in Scope 1 and Scope 2. These are divided into 15 categories, including the emissions from activities related to purchased products and services such as manufacturing (Category-1) and from the use of products sold (Category 11).

## Business activity areas

Approximately 20% of our group's total GHG emissions come from business activities (Scope 1 and 2). These emissions are primarily from fuel combustion at our on-site power generation facilities located at three sites in Japan (Tsuruga Research and Production Center, Iwakuni Production Center, and Inuyama Plant). It is therefore a crucial GHG reduction measure for our group to transition to low-carbon and decarbonization of its on-site power generation facilities. In fiscal 2023, we formulated and announced the “Scope 1 and 2 Reduction Plan (Roadmap to Carbon Neutrality)” as part of our transition plan to carbon neutrality, and we are promoting various measures. For more details on other initiatives, please refer to “Initiatives related to our manufacturing business.”

### GHG emission rate by site



## Estimating the financial impact of carbon pricing on our company

In the BAU\* scenario, with fiscal 2021 as the base year, Scope 1 and 2 emissions would increase to about 1.3 million tonnes-CO<sub>2</sub> in fiscal 2031 as our sales are expected to expand. If it is assumed that the carbon price in fiscal 2031 will be ¥15,000/tonne-CO<sub>2</sub>, the annual cost will be about ¥20.0 billion.

On the other hand, in the transition plan, we aim to reduce our Scope 1 and 2 emissions in fiscal 2031 to 0.655 million tonnes-CO<sub>2</sub> or less by implementing measures such as “energy reductions and greater energy saving (including improvement of production efficiency),” “fuel conversion,” and “optimization of energy sources including the introduction of renewable energy.” In this case, the annual cost of the carbon price will be approximately ¥10.0 billion, resulting in a cost reduction of about ¥10.0 billion compared to the BAU scenario.

The cumulative capital expenditure (CAPEX) from 2022 to 2025 in accordance with this transition plan is included in the amount of investment in safety, disaster prevention, and environmental investment (approximately ¥18.0 billion)\*.

\* 1:BAU stands for Business As Usual. In this case, it refers to a scenario in which no particular measures are taken to reduce GHG emissions.

\* 2: For details, please refer to the “2025 Medium-Term Management Plan (fiscal 2022–2025) - Review of the First Half and Actions for the Second Half”.

	Scope1 and 2	Cost Corresponding to Scope 1 and 2 Emissions (Carbon Price: ¥15,000/tonne-CO <sub>2</sub> )
BAU scenario	Approx. 1.3 million tonnes-CO <sub>2</sub>	Approx. 20.0 billion Yen
Transition plan	Approx. 0.655 million tonnes-CO <sub>2</sub>	Approx. 10.0 billion Yen

• [2025 Medium-Term Management Plan \(FY2023-FY2026\) ~ Review of the first half and action in the second half ~](#)

## Entire value chain

Approximately 80% of our group's total GHG emissions come from indirect emissions associated with business activities (Scope 3). Within Scope 3, “procurement of materials and raw materials (Category 1)” and “use of sold products (Category 11)” account for about 90% of these emissions. Accordingly, we are focusing on procuring low-carbon and decarbonized materials and raw materials, as well as improving the energy efficiency of sold products as key measures. For more details, please refer to “Initiatives related to the entire value chain.”

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## Indicators, Targets, and Results

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### Medium- to Long-Term Targets

With regard to Scope 1 and 2 greenhouse gas (GHG) emissions associated with our business activities, we have set ourselves the target of realizing net zero emissions by fiscal 2051. The midterm target for fiscal year 2030 is to reduce GHG emissions by more than 46% compared to fiscal year 2014.

To contribute toward realizing the decarbonized society, we are proceeding with efforts to reduce GHG emissions and energy use from the entire value chain deriving from activities that are related to our own business, while also working to expand the contribution that we make toward reducing GHG emissions through our products and services.

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### Short-Term Targets

As short-term targets, our group has set reduction rates for GHG emissions intensity relative to sales in Scope 1 and Scope 2. The targets are utilized as evaluation indicators in sustainable finance.

• [Investor Relations > Stock and Bond Information > Sustainable Finance](#)

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### Results of Scope 1 and 2

The actual results for Scope 1 and Scope 2 in fiscal year 2024 were 831 thousand tonnes of CO<sub>2</sub>, representing a 31.6% reduction compared to fiscal year 2013. In October 2023, we renovated the private power plant at the Iwakuni site, significantly reducing Scope 1 emissions by switching from coal to LNG and other fuels.

	Indicators	Targets			Progress (FY2024 Results)		Our Evaluation
		Base year	Target year	Targeted percentage change from base year (%)	Results	Reduction Rate	
Mid-Term target	GHG Emissions Scope 1 and 2 (Consolidated)	FY2014 (FY2021)	FY2031	46% or more reduction (27.0% or more reduction)	831 thousand tonnes of CO <sub>2</sub>	31.6%	On Track
Short-Term Targets	Reduction Rate of GHG Emissions Intensity Relative to Sales	FY2021	FY2027	Reduction of 28.5%	2.01 tonnes of CO <sub>2</sub> per million yen	25.0%	On Track
		FY2021	FY2028	Reduction of 35.0%			

\* Calculation Scope: Total of Toyobo Co., Ltd. and Consolidated Subsidiaries

## Results of Scope 3

The actual results for fiscal year 2024 showed a total of 5,499 million tons of CO<sub>2</sub> for Scope 3, representing an approximate 4% increase compared to the previous year. The main reason for the increase in Category 11 was the expansion of operations at lithium-ion battery separator factories in response to growing global demand for EVs.

This led to strong sales of VOC recovery equipment used in those factories, which in turn increased emissions during the use of this apparatus.

### Emissions by Category for Scope 3

Category	GHG emission Thousand tonnes-CO <sub>2</sub>
1. Purchased goods and services	1,894
2. Capital goods	126
3. Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	108
4. Upstream transportation and distribution	50
5. Waste generated in operations	45
6. Business travel	9
7. Employee commuting	5
8. Upstream leased assets	Not applicable to the company
9. Downstream transportation and distribution	GHG emissions of transportation to the shipping destination includes in the category 4.
10. Processing of sold products	—
11. Use of sold products	2,944
12. End-of-life treatment of sold products	318
13. Downstream leased assets	Not applicable to the company
14. Franchises	Not applicable to the company
15. Investments	Very low emissions
<b>Total</b>	<b>5,499</b>

• [ESG Performance Data \(648KB\)](#) 

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## Acquisition of SBT Certification

In December 2022, our group's GHG emissions reduction targets were recognized as science-based targets, or SBT\*, by the global initiative SBTi.



The targets approved by SBTi are as follows.

Category	Target	Progress (FY2024 Results)	Our Evaluation
Scope1、 2	27.0% reduction in GHG emissions by FY2031 over FY2021	9% reduction from FY2021 level	On Track
Scope3 (Category 1+11)	12.5% reduction in GHG emissions by FY2031 over FY2021	109% increase from FY2021 level	In Progress

The target for Scope 1 and 2 corresponds to a reduction of GHG emissions by at least 46% by fiscal 2031 compared with fiscal 2014.

\* A target to reduce greenhouse gas emissions in line with what is considered to be a state-of-the-art climate-science requirement to meet the Paris Agreement targets

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## Independent Verification by third party

To increase reliability of our information, we have obtained independent verification from KPMG AZSA Sustainability Co., Ltd., that covers our Scope1,2, a portion of Scope3, and data on energy-consumption for fiscal 2023.

Scope of Assurance: Scope 1, 2, and Scope 3 (Categories 3 and 11), Energy Amount

- [External Assurance](#)

## Initiatives related to our manufacturing business

### Reduction of Scope 1 and 2 emissions

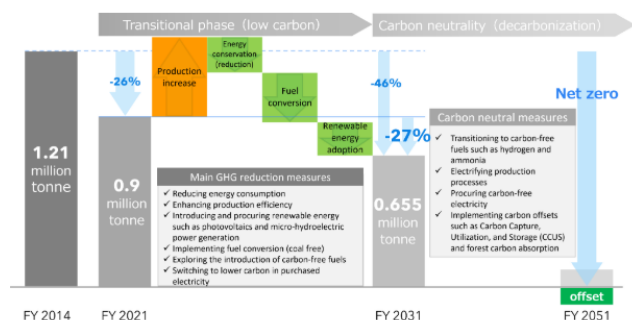
#### Formulating transition plan towards achieving a decarbonized society and economy

As a transition plan towards achieving a decarbonized society and economy, we have formulated a reduction plan for Scope 1 and Scope 2 (a roadmap to carbon neutrality). With business expansion expected to increase production activities by fiscal year 2031, it is anticipated that GHG emissions would also increase if no action is taken. To counter this, we will promote energy reduction (including energy conservation and improvement of production efficiency), fuel conversion (de-coal), and optimization of electricity use, including renewable energy, to curb energy consumption and reduce GHG emissions (Scope 1 and Scope 2). The contributions of major GHG reduction measures are as follows:

Key elements	Contribution
Fuel conversion	Approximately 40%
The others <ul style="list-style-type: none"> <li>• Energy reduction (including energy conservation increased production efficiency)</li> <li>• Introduction of renewable energy</li> </ul>	Approximately 60%

\* An acronym for “Business as Usual,” indicating a case in which no particular GHG emission reduction measures are taken.

#### Roadmap for Carbon Neutrality





## Energy reduction and conservation

TOYOBO CO., LTD. has set a shared goal of improving energy-efficiency\* by 1.0% or more annually. In fiscal 2024, we achieved this target through various energy-saving efforts. Specifically, we improved the power generation efficiency of our in-house power generation facilities, added waste heat recovery systems to production lines, and introduced energy-saving equipment. The three sites with particularly high GHG emissions (Tsuruga, Iwakuni, and Inuyama) have set even higher targets than the shared goal and are actively working to reduce their energy use.

In addition, we hold monthly meetings of the Energy Use Efficiency Committee, which consists of members from our main business sites and plants. The committee monitors the energy conservation activities of each site and shares know-how on energy conservation. Each committee member also conducts simple audits ("energy-saving patrols") at each factory site as appropriate to maintain and improve the level of activity.

\* Energy consumption per sales and production volume in accordance with Japan's act on rationalizing energy use

### The highest rank in "Business Operator Classification Evaluation System"

The "Business Operator Classification Evaluation System," led by the Ministry of Economy in Japan classifies all business operators that submit regular reports under the Act on the Rational Use of Energy (Energy Conservation Act) into four categories: S (excellent business operators), A (business operators expected to make further efforts), B (stagnant business operators), and C (business operators requiring attention).

Our group has achieved energy-saving targets through the introduction of energy-saving equipment and received S-class evaluations as follows:

TOYOBO CO., LTD	: For five years in a row since fiscal 2020
TOYOSHINA FILM CO., LTD.	: For five years in a row since fiscal 2020
TOYO CLOTH CO., LTD.	: For six years in a row since fiscal 2019
YUHO Co., Ltd.	: fiscal 2024
Miyuki Keori Co.,Ltd.	: fiscal 2024

## Fuel conversion (away from coal)

We are also implementing a transition toward low-carbon energy use, by switching to fuels with lower carbon contents for our in-house electricity generating equipment and installing additional gas co-generation system\*<sup>1</sup> equipment.

Fiscal 2024 achievements

Iwakuni Production Center: Renewed the in-house thermal power generation plant, converting the fuel from coal to liquefied natural gas and RPF\*<sup>2</sup>.

Inuyama Plant: Installed an additional gas cogeneration system to improve energy efficiency of the entire plant.

We are carrying out GHG reduction measures including fuel conversion at other business sites as well.

Future investments in power and utility facilities, including in-house power generation and renewable energy, will be carried out using the Internal Carbon Pricing (ICP) system, in line with the "Roadmap to Carbon Neutrality."

\* 1: Gas co-generation systems are systems that use natural gas to generate electricity, with the waste heat being harnessed to produce steam and hot water that are used in manufacturing processes, for supplying hot water, for air conditioning, etc.

\* 2: An acronym for "Refuse-derived Paper & Plastics Densified Fuel," solid fuel made mainly from used paper and waste plastic

## Introduction of renewable energy

We are proceeding with the installation of photovoltaic power generation at each of our business sites, making use of roof spaces and unused land.

### TSSW (Thailand) Initiatives

Toyobo Saha Safety Weave Co., Ltd. (TSSW) is located in Thailand and manufactures base fabrics for airbags. TSSW plans to operate solar power generation equipment utilizing a Power Purchase Agreement (PPA\*) within fiscal 2025, which will replace approximately 15% of the energy used at the plant with renewable energy. This will enable the reduction of GHG emissions, stabilization of energy sources, and supply of low-carbon products to customers.

\* PPA (Power Purchase Agreement): A system where a business operator rents the roof or idle land of a facility owned by a company, installs power generation equipment free of charge, and the company uses the generated electricity at the facility. This has the advantage of reducing electricity costs and CO2 emissions.

#### Voice of the Person in Charge

In recent years, "environmental responsiveness" has become a value in the automotive industry, and we recognize that this may influence our customers' selection of suppliers. At our plant, we decided to install solar power generation equipment because it contributes to increasing the use of renewable energy and leads to cost reduction. In Thailand, introduction of solar power generation equipment is increasing. Although it took a long time to obtain a construction permit under this influence, the installation was successfully completed. We will continue to promote environmental initiatives suitable for our plant.



Solar panels installed on the roof of TSSW with a power generation capacity of approximately 2,300 kW.

### Inuyama Plant Initiatives

Inuyama Plant has proclaimed the slogan "Aiming for a Sustainable Plant" and is striving to improve energy efficiency, adopt energy-conserving facilities, and put renewable energy to use. In FY2023, the plant used a power purchase agreement (PPA\*) arrangement to install a new solar power generation facility of approximately 500 kW. The factory also working to raise awareness of our employee by installing monitors in our offices that allow us to check power use and generation in real time. In the future, the plant is planning to implement other GHG reduction measures such as fuel conversion, and will continue to consider and introduce various initiatives to realizing to be a sustainable plant.

#### Voice of the person in charge

This was the first time our company had tried a PPA, so we got the cooperation of a range of people, and the manufacturer of the solar power generation facilities, our company headquarters and the manufacturing division within the plant all worked together. It was a particular struggle connecting these facilities while giving consideration to the effect it would have on our existing electrical system. When it started generating electricity without a hitch, our hard work was paying off even more as it leads to reduced electric charges which continue to soar.



1,608 solar panels (power output approximately 500kW) installed on the rooftop of Inuyama Plant

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## Initiatives related to the entire value chain

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### Reduction of Scope 3 emissions

Our group aims to reduce Scope 3 emissions, focusing particularly on reducing emissions in Category 1<sup>\*1</sup> (approximately 30% of the total) and Category 11<sup>\*2</sup> (approximately 50% of the total), which have the largest emissions.

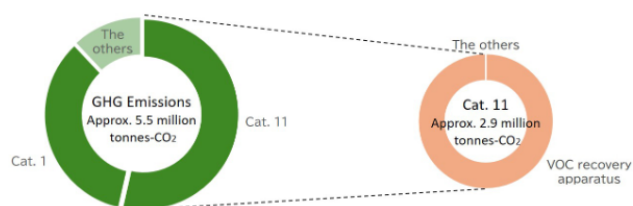
#### Initiatives for Category 11

The majority (over 90%) of Category 11 emissions are due to the VOC recovery apparatus<sup>\*3</sup> sold by our group, which generates GHG emissions from the utilities such as steam, electricity, cooling water, etc. required for its operation. Recently, the adoption of our VOC recovery apparatus in the manufacturing process of separators for EV lithium batteries has been expanding, and the sales volume of this apparatus is also increasing, leading to a rising trend in Category 11 emissions.

On the other hand, we are promoting the introduction of new technologies and energy-saving technologies into this apparatus, aiming to reduce GHG emissions by curbing and reusing utility consumption and improving energy efficiency.

Our group's VOC recovery apparatus contributes to reducing environmental impact, including GHG emissions, by efficiently removing volatile organic compounds (VOCs) generated at our customers' factories related to EVs, semiconductors, pharmaceuticals, printing, and others. The apparatus enables the recovery and reuse of organic solvents. For more details, please refer to the Eco-Conscious Products page.

#### Scope 3 Breakdown



\* 1: Emissions from activities (such as manufacturing) relating to purchased goods and services

\* 2: Emissions from use of sold products

\* 3: apparatus that removes VOC, Volatile Organic Compounds, by an adsorptive method, an absorptive method, or a chilling method, and recovers VOC as a liquid organic solvent. CO<sub>2</sub> emission from VOC decomposition is zero. Moreover, the recovered organic solvent can be reused. VOC is a generic term for volatile organic compounds such as toluene, ethyl acetate, and dichloromethane. It causes atmospheric pollution / air pollution and is responsible for asthmatic and other health-related problems.

#### • [Eco-Conscious Products](#)

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### Energy-saving initiatives in logistics

Our annual goal is a 0.5% year-on-year reduction in CO<sub>2</sub> emissions per unit of transportation in relation to logistics.

In the Logistics Department, we launched the Green Logistics Promotion Project in 2006, and as well as working to improve quality and cost rationality, we are also continuously working on environmental conservation such as energy saving, resource saving, and prevention of global warming. Up until now, we have implemented a variety of measures in order to reduce the environmental impact of logistics. These measures include shortening transportation distances by using the nearest port to our production sites, and using efficient stacking and bulk transport of cargo in order to reduce the number of vehicles used. We are also actively promoting the usage of ship and rail transportation which have lower specific energy consumption than truck transportation, together with lower CO<sub>2</sub> emissions.

We have been introducing a logistics system since 2019. Based on dispatch simulations, we worked to further improve loading efficiency by optimizing the allocation of vehicles.

As a result of these efforts, we were able to reduce CO<sub>2</sub> emissions per unit of transportation by approximately 0.4% in fiscal 2024 compared to the previous year.

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## Strengthening climate change measures

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### Structure to achieve carbon neutrality

Starting from fiscal 2024, we have established a new "Climate Change and Biodiversity Committee." Recognizing that "responding to climate change" and "conserving biodiversity" are among the most critical business issues, we will promote activities to minimize our group's risks and seize business growth opportunities through the business operations of the Toyobo Group and its supply chain.

Additionally, we will promote companywide climate change responses with a view to internationally applicable sustainability standards.

### Achievements of the Climate Change and Biodiversity Committee

- Implementation of GHG reduction measures in line with the Carbon Neutral Roadmap
- Obtaining third-party assurance for GHG emissions
- Participation in and goal setting for the emissions trading system (GX-ETS) in Japan

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### Introduction of internal carbon pricing system

In April 2022, we introduced an "Internal Carbon Pricing System," setting an internal carbon price to guide investment decisions. To achieve our group's "Roadmap to Carbon Neutrality" in line with the Paris Agreement and Japan's NDC, we use this system as one of the criteria for investment decisions. This promotes investments that contribute to GHG emissions reductions, including investment in low-carbon and decarbonization apparatus and development facilities.

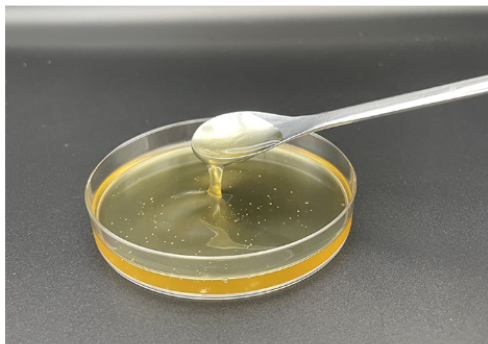
### Outline of Toyobo's ICP system

Internal carbon pricing fee (tax)	10,000 yen per tonne-CO <sub>2</sub>
Targets of investment	Capital investment in facilities with fluctuating CO <sub>2</sub> emissions
How to use it	Based on the internal carbon pricing fee, calculating CO <sub>2</sub> fluctuation by the proposed facilities (including facilities for research and development) as costs. The calculations will be made in accordance with capital investment plans.

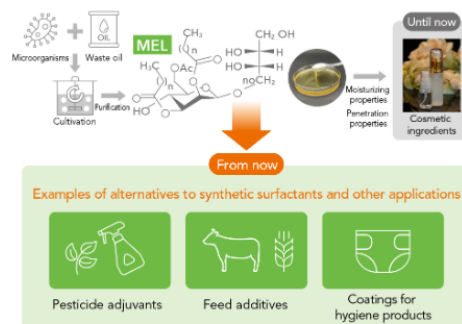


## Development of technologies that contribute to the realization of a decarbonized society

### Bio-Manufacturing: Initiatives to develop revolutionary production systems begin



Mannosylerythritol Lipid, a surfactant produced by microorganisms



"Bio-Manufacturing" is a new technology that utilizes genetic engineering to produce useful target substances from cells of microorganisms, plants, and animals. Unlike traditional chemical manufacturing processes that use fossil resources as raw materials, this technology does not require multi-step chemical reactions and can be produced under natural conditions such as normal temperature and pressure. These features contribute to reducing GHG emissions and the use of fossil resource raw materials, and been increasingly anticipated in recent years.

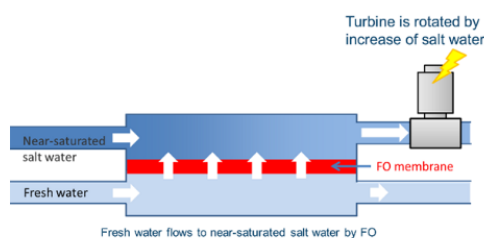
Our company, in collaboration with the National Institute of Advanced Industrial Science and Technology (AIST), has been selected for the "Bio-Manufacturing Revolution Promotion Project" by the New Energy and Industrial Technology Development Organization (NEDO). Together, we are advancing the research and development of a revolutionary production system aimed at expanding the application fields of "Mannosylerythritol Lipid (MEL)," a natural surfactant produced by microorganisms (yeast). For more details, please refer to the news release below.

- [Selected for NEDO's "Bio-Manufacturing Revolution Promotion Project"](#)

## Development of technologies that contribute to the realization of a decarbonized society



Osmotic power generation plant



Mechanism of osmotic power generation

Osmotic power generation using high-salinity geothermal water, a source of renewable energy, has been receiving public attention. Toyobo has developed a forward osmosis (FO) membrane for the power plant core used in this method, and it has been used in osmotic power generation plants of Danish venture firm SaltPower.

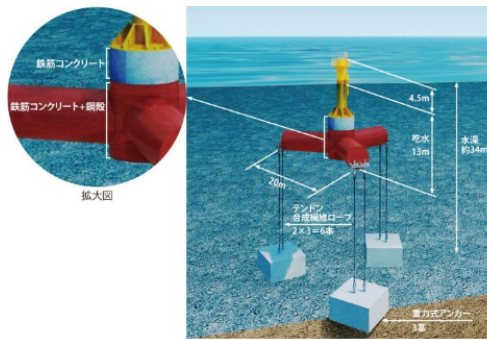
In April 2023, it was installed at Nobians saltworks in Denmark and is now in operation.

Geothermal water osmosis power generation uses the high osmotic pressure of geothermal water with high salt concentrations pumped from underground. Compared with solar and wind power, the weather and time of day does not affect geothermal power generation. Furthermore, compared to coal-fired power generation, no harmful substances such as nitrogen oxides or sulfur oxides are emitted during combustion.

Find more information about the other technologies here.

- [Toyobo's hollow-fiber FO membrane used at osmotic power plant](#)

## Contribution to Offshore Wind Power Generation



TLP-Type Floating Structure and Configuration Image (Image Courtesy: Obayashi Corporation)

Our group is participating in Japan's first TLP (Tension Leg Platform) type floating offshore wind power facility installation experiment conducted in real sea conditions by Obayashi Corporation. Together with Obayashi Corporation and Tokyo Seiko Rope Mfg. Co., Ltd., we are conducting joint research and development on mooring lines that connect the floating structure to the seabed. The mooring lines used in the experiment feature ropes made from our newly developed ultra-high-strength polyethylene fiber "IZANAS® ULC."

By advancing the development and production of high-performance materials for the social implementation of offshore wind power generation, we contribute to the spread of renewable energy and the realization of a carbon-neutral society.

- [Participation in Japan's First Real-Sea Demonstration Experiment of TLP-Type Floating Offshore Wind Power Facility - Newly Developed Ultra-High-Strength Polyethylene Fiber "IZANAS® ULC" Receives First Approval from ClassNK \(Nippon Kaiji Kyokai\)](#) [🔗](#)

## Contribution to energy-efficient next-generation seawater desalination Systems



Trevi Systems' demonstration seawater desalination plant



Hollow fiber forward osmosis (FO) membrane

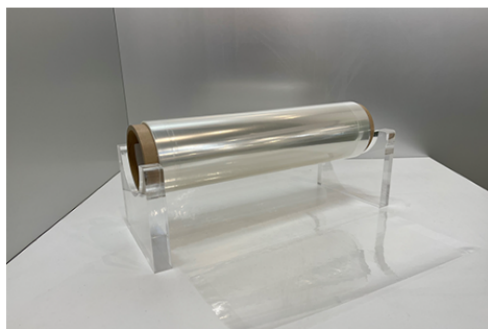
Through the development and performance improvement of high-efficiency FO membranes with low pressure loss, we are collaborating with Trevi Systems, Inc. in the United States to commercialize energy-efficient seawater desalination systems. The FO membrane method, which utilizes osmotic pressure difference as a driving force, can extract fresh water from seawater with less electricity compared to traditional evaporation or RO membrane methods.

Our group's FO membranes were also adopted in the seawater desalination demonstration experiment conducted by Trevi Systems in Hawaii, USA, from June 2022 to September 2023. The plant where the demonstration was conducted is an "energy-efficient seawater desalination system" that converts the energy of sunlight into heat using concentrated solar power technology, generating most of the energy required for the plant's operation.

- [Toyobo MC's FO membrane achieved a freshwater recovery ratio of over 65% at Trevi System's renewable seawater desalination plant.](#) [🔗](#)



## Practical application of high-heat-resistant adhesive material 'Vitrimer' for ambient temperature distribution



A roll of highly heat-resistant adhesive sheet

Toyobo Co., Ltd. and Toyobo MC Corporation have developed a high-heat-resistant polyester adhesive sheet for electronic materials by applying a new material called "Vitrimer". This adhesive sheet can be transported and stored at ambient temperatures, eliminating the need for long-term heat curing (typically around 150°C for about 4 hours). These features contribute to energy savings during the distribution of adhesive sheets, as well as the simplification and energy efficiency of thermal processing steps, thereby reducing GHG emissions across the entire value chain of the electronics industry. Additionally, since the sheet is solvent-free, it also helps reduce VOC (volatile organic compounds) emissions.

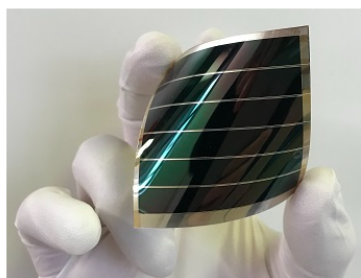
- [Putting vitrimers \(resin possessing dynamic covalent bonds with associative bond exchange mechanism\) into practical use for electronic materials](#)

\* "Vitrimer" is a registered trademark of FONDS ESPCI PARIS.

## Power-generating material for organic photovoltaics



Power-generating material for OPV



OPV module on PET film substrate

In pursuit of a decarbonized society, the market for next-generation solar cells utilizing renewable solar energy is expected to expand. Our group has been developing power-generating materials for organic photovoltaic (OPV) cells, which can achieve high output even under low-light indoor conditions, by applying organic synthesis technologies cultivated over many years in the fine chemicals business. In 2020, we completed the material design and successfully prototyped modules on lightweight and thin PET film substrates. OPV is expected to play a significant role in reducing the size and weight of sensors and as a communication power source and a weather-independent power source due to its power generation performance across a wide range of illuminance, flexibility, transparency, and environmental adaptability. In addition, compared to perovskite solar cells (PSC), another type of organic solar cell, OPV does not use lead, which is harmful to humans and the environment, making it a more environmentally friendly option.

- [Toyobo to practicalize power-generating material for organic photovoltaics with world's top-level conversion efficiency under room light](#)

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## Collaboration with Stakeholders

Toyobo group believes that it is important to collaborate with our customers, business partners, industries, local communities, the national government, and society as a whole in order to resolve climate change issues. Our group engages in discussions and dialogue with various stakeholders and works collaboratively to realize the net zero emissions and the goals of the Paris Agreements.

In addition, our group supports the climate change initiatives of industry associations and actively participates in their activities. In cases where there is a conflict or inconsistency between our group's policies and those of the industry associations we will take appropriate action to resolve these discrepancies.

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## Communication and Collaboration with business partners

Our group has established the "CSR Procurement Guidelines," which incorporate the TOYOBO Group Fundamental Policy on the Global Environment. We request our business partners to cooperate in efforts to support the development of a sustainable society throughout the entire supply chain. The "CSR Procurement Guidelines" ask our business partners to continue and strengthen their environmental activities, including initiatives to address climate change issues.

- To strive to reduce greenhouse gas (CO<sub>2</sub> and other gases) emissions, and mitigate climate change
- To strive for effective use of resources and energy savings such as improving the efficiency of water and energy use

Since fiscal 2024, we have been distributing a video of the Toyobo Group CSR Procurement Briefing to approximately 500 major business partners worldwide as part of their training. In the briefing, we explained the Toyobo group's sustainability initiatives (such as carbon neutrality, respect for human rights, CSR procurement policies, and environmental policies) and requested compliance with the "Toyobo Group CSR Procurement Guidelines." We also expressed our desire to collaborate with our business partners to contribute to the development of a sustainable society throughout the entire supply chain. Based on the guidelines, our group's procurement department conducts a "CSR Procurement Survey" for business partners to monitor and evaluate their efforts to reduce GHG emissions and other risk factors. If the survey finds issues with business partners, we ask them to make improvements. Please see the following sections for the latest survey results and corrective actions.

- [Supply Chain Management > CSR procurement survey](#)
- [CSR Procurement Guidelines](#)

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## Involvement in organizations dedicated specifically to climate-related issues

### GX League

Our group participates in the "GX (Green Transformation) League," led by the Japanese government (Ministry of Economy, Trade and Industry). By engaging in activities such as voluntary emissions trading (GX-ETS), rule making for market creation, and the generation of business opportunities, we are accelerating our efforts towards achieving carbon neutrality. We aim to drive economic growth and transform social structures by collaborating with participating companies, government agencies, universities, financial institutions, and other stakeholders.

### Green x Digital Consortium

We participate in the "Green x Digital Consortium", which aims to create a new society and market using digital technology to achieve carbon neutrality in society as a whole.




### Keidanren Carbon Neutrality Action Plan

As a member of the Japan Chemical Industry Association (JCIA), our group participates in the "Carbon Neutrality Action Plan" of the Japan Business Federation (Keidanren). Through the initiative, we confirm the Japanese government's climate change policy and reflect it in our group-wide policy. We are working with the association on a variety of engagement activities related to climate change measures, including the submission of comments on government policies, and are working to realize a decarbonized society.

### Keidanren "Challenge Zero" initiative

In support of the "Challenge Zero" managed by the Japan Business Federation (Keidanren) in cooperation with the Japanese government, we have announced specific initiatives for challenge innovation to create a decarbonized society.

# Plastic Resource Circulation

Materiality	
Related ESG : <b>E</b>	
<b>Decarbonized society and a recycling-oriented society</b>	  

- ↓ Basic approach
- ↓ Targets and results
- ↓ Initiatives
- ↓ Strengthening resource recycling measures
- ↓ Acquire ISCC PLUS certification (internationally sustainable carbon certification)
- ↓ Participating in initiatives

## Basic approach

Plastic is an indispensable material for modern society, but it is also associated with issues such as the problem of waste, depletion of natural resources, and its impact on climate change. Against this backdrop, in 2019 Resource Circulation Strategy for Plastics was formulated in Japan. The basic principles of 3R+Renewable <sup>\*1</sup> and ambitious milestones up to 2030 <sup>\*2</sup> were set out as directions to be taken. In order to accelerate these efforts, the Act on Promotion of Resource Circulation for Plastics was enacted in April 2022.

TOYOBO group handles a large number of plastic products, including films, which are our mainstay products. We recognize that the transition to a resource circulation society can be a major opportunity at the same time as business risks. In 2022, we clarified that our group can contribute to a recycling-oriented society under the Sustainable Vision 2030 and set targets for 2030. We will begin by promoting the use of green materials (biomass, recycled raw materials, volume reduction, and material conversion) from film-based <sup>\*3</sup>.

Having adopted the slogan "Catalyzing Circular Economy," Toyobo group is contributing toward the realization of the circular economy through a wide range of initiatives, and by fulfilling our responsibility to future generations, we are aiming to realize sustainable growth.

\* 1 Streamlining (Reduce · Reuse) the use of avoidable plastics. The essential use is switched to recycled materials and renewable resources (Renewable) and thorough recycling (Recycle).

\* 2 Numerical targets from the perspectives of "Reduce," "Reuse · Recycle," and "Recyclable Use · Bioplastics." "Effective use of used plastics by 100% reuse by 2035, through recycling, etc." etc.

\* 3 This excludes some products where safety or lifespan is an issue.

## Targets and results

In May 2022, Toyobo group announced its Sustainable Vision 2030, which outlines its aspirations for the year 2030.

In this vision, we set a target of ratio of green materials in main business operation for 60% in 2030.

Through this greening, we will contribute to reducing the use of petroleum-derived resources and making them alternative.

Item	FY2031 Targets	FY2024 Results
Percentage of green films*	60%	13%

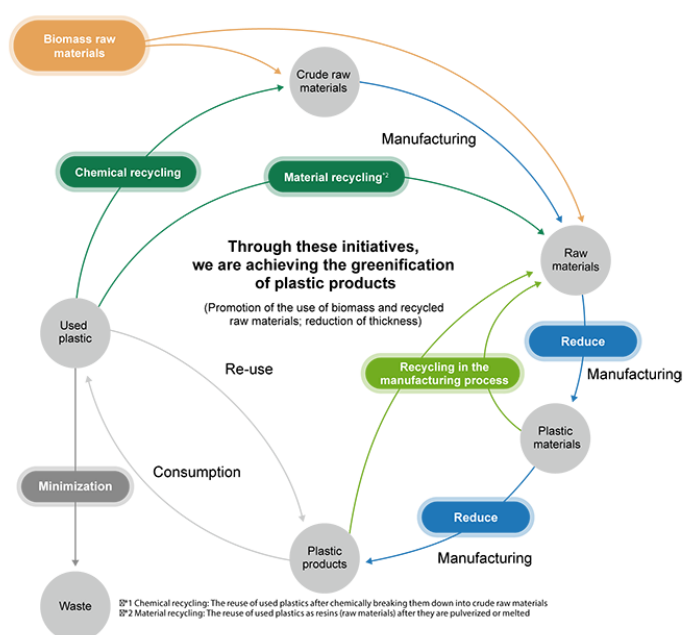
\* Quantity ratio

## Initiatives

Since the 1990s, our group has been engaged in recycling and the use of biomass raw materials, and has accumulated a variety of technologies and know-how. Going forward, we will aim to realize circular economy from 3R+Renewable perspective. The following is an overview of initiatives from each viewpoint.

The goal of "green" is to replace products that incorporate the following perspectives.

## Our Group-wide Efforts for the Life Cycle of Plastics and resource circulation / resource recycling



## Reduce

### Development of thin, lightweight materials

We reduce the amount of raw material used by reducing thickness while retaining strength and functionality. When these kinds of materials are used by customers, packaging can be simplified and the amount of packaging materials used in the final product can be reduced.

#### Related technologies and products

- HARDEN®DN036
- SPACECLEAN®

### Development of mono-materialization technologies and products

We are reducing the amount of raw materials used while increasing recyclability by replacing previous products consisting of several different materials with those using a single material while maintaining strength and functionality.

#### Related technologies and products

- ECOSYAR® VP Series
- PYLEN EXTOP®

## Reuse - Recycle

### Recycling in the manufacturing process

We collect scrap materials generated in the manufacturing process (originating from airbags and film products) and reuse them as materials for products in the same and other categories. In doing so, we reduce waste generated in the production process. In addition to the manufacturing processes of our group, we also implement initiatives to advance recycling in the manufacturing processes of our customers.

#### Related technologies and products

- ECOKURELEAF®
- ECOVYLOPET®
- COSMOSHINE SRF®

#### Collaborations and initiatives

- Resource Recycling Project (KAMISHINE NEO® release film)

### Chemical recycling\* technology development

In developing and practically applying chemical recycling technologies, we seek out technologies from around the world and collaborate proactively with external organizations and companies. For example, we participate in the R Plus Japan project, actively pursuing development of chemical recycling technologies for converting recycled plastic into raw material for the production of high-quality recycled plastic.

\* Chemical recycling: The reuse of used plastics after chemically breaking them down into crude raw materials

#### Collaborations and initiatives

- R PLUS JAPAN
- Anellotech, Inc.
- Japan Chemical Industry Association

### Development of technology and products for material recycling\*

We proactively develop and market products made of used plastics as raw materials. We have also developed and are marketing TOYOBO GS Catalyst®, a polymerization catalyst for PET resin designed to make resin recyclable after polymerization reactions. Through efforts centering on the PET material to which this technology is applied, we are advancing the expansion of material recycling technologies and materials in the global market.

\* Material recycling: The reuse of used plastics as resins (raw materials) after they are pulverized or melted

#### Related technologies and products

- ECHORCLUB®
- Crisper®
- TOYOBO GS Catalyst®
- ReCrysta™

#### Collaborations and initiatives

- Licensing of technology to Indorama Ventures Public Company Limited



## Renewable

Product development using biomass raw materials	
<p>By reducing CO2 emissions and reliance on petroleum-derived resources, biomass raw material is expected to serve as a climate change mitigation measure.</p> <p>Our group is working for the conversion and expanded use of biomass raw materials, and for the practical application of biomass plastics that remain highly functional.</p>	
Related technologies and products	Collaborations and initiatives
<ul style="list-style-type: none"> <li>- BIOPRANA®</li> <li>- VYLOAMIDE®</li> <li>- HOLLOSEP®</li> <li>- Polyethylene furanoate (PEF) resin (under development)</li> </ul>	<ul style="list-style-type: none"> <li>- PEF Resin Partnership (Avantium)</li> <li>- Partnership for PET resin made using 100% plant-derived raw materials (Suntory group and Anellotech)</li> <li>- Japan BioPlastics Association</li> <li>- THE JAPAN PLASTICS INDUSTRY FEDERATION</li> </ul>

## Other Initiatives

### Waste reduction

Marine plastic and microplastic response
To help reduce marine plastic waste, we participate in the Clean Ocean Material Alliance (CLOMA) established in Japan, as well as other initiatives in our efforts to develop and advance alternative materials.
Collaborations and initiatives
- CLOMA
Waste reduction
- <a href="#">Waste reduction</a>

## Examples of initiatives

### Reduce

#### Contributing to the reduction of plastic use in packaging by making thinner and using a single material



In line with Japanese policies such as the "Plastics resource circulation / resource recycling Strategy," demand is increasing for film-based products that contribute to reducing the use of plastics in packaging materials and making them suitable for recycling. However, packaging materials such as foods that require a variety of performance, such as heat resistance and processing suitability, are generally designed by laminating several materials that have distinct characteristics. As a result, the number of raw materials used increased, and it was difficult to separate them separately. As a result, recycling was difficult.

Our film-forming and other techniques have been cultivated over many years to enhance the rigidity and functionality of biaxially oriented <sup>※1</sup> polypropylene (hereinafter referred to as "OPP") film, which is a single material, making the film 20% <sup>※2</sup> thinner than conventional composites.

In addition, the unique vapor deposition processing has enabled us to achieve both high-heat resistance and high-barrier properties, which have been considered difficult with OPP films.

We are working to reduce the volume of packaging materials by replacing them with new OPP films, and to contribute to the realization of a recycling-oriented society by promoting the use of materials.

- [To develop a new ECOSYAR® VP001 of transparent deposition OPP films, here.](#)

\* 1 Extending the film in two axial directions (vertical and horizontal) during film formation

\* 2 For the PYLEN EXTOP® series of ultra-high-rigidity OPP films



# Reuse -Recycle

## Shrink labels that use the same components (monomers) as PET bottles

## Material recycling

ReCrysta™ is an eco-friendly film and can be manufactured using over 50% materials sourced from recycled PET resins. It avoids the use of monomers\*<sup>1</sup> found in traditional PET films for shrink labels, opting instead for the same constituent monomers found in PET bottles. Until now PET films for shrink labels using conventional monomers have to be sorted separately from PET bottles, because such monomers compromise the properties of recycled PET bottles. On the other hand, PET films for shrink labels using ReCrysta™ that contains the same monomers as PET bottles, eliminate the need for separate sorting when producing PET resin flakes for recycling\*<sup>2</sup>, thus enhance recyclability.

In 2024, based on third-party testing results of the PET film manufactured using ReCrysta™, APR determined that the product meets or exceeds the strict guidance criteria of the Critical Guidance Recognition pathway, enabling it to receive the APR recognition.

\* 1 Neopentyl glycol, cyclohexanedimethanol, etc.

\* 2 Use of film with ink removed

\* 3 The Association of Plastic Recyclers

- [Newly developed "ReCrysta™," a PET film for shrink labels, receives recognition for APR Design® for Recyclability](#)

## Material recycling of label boards

In KAMISHINE® series of polyester-based synthetic papers made from recycled plastic bottles, we have developed a new recycling technique for KAMISHINE NEO® release film, which is used in label mount (release film/separator) applications.

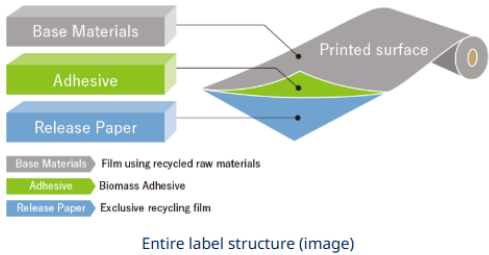
Until now, the label base paper is often made of paper coated with resin or the like on the surface, and it has been difficult to recycle the material because it is a composite material of resin and paper. In the process of attaching labels to products, the label backing after the surface substrate (seal) was peeled off was generally discarded incinerated.

In 2022, we developed a new technology to produce the "KAMISHINE®" series. This technique uses the label backing paper (KAMISHINE NEO® release film) after use as part of the raw material to produce the same performance as conventional products.

Resource Recycling Project was launched under the initiative of NEION Film Coatings Corp. a comprehensive manufacturer of adhesive film - coating technology, in order to implement resource circulation initiatives using this product and technology.

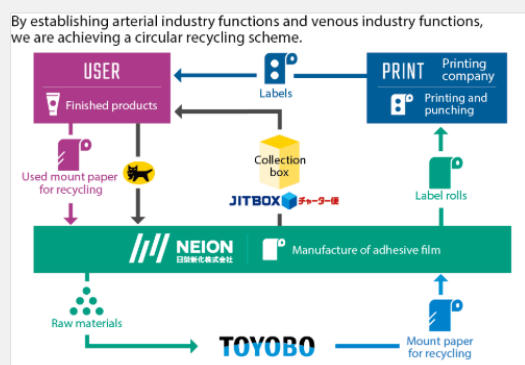


KAMISHINE NEO® Release Film for Label Backing Paper



## Resource Recycling Project

Replace the label backing with film (KAMISHINE NEO® release film) and collect used label backing from customers. Efforts began in 2022 to recycle the collected used label backing as a raw material for film and recycle it as a resource. Since resource recycling initiatives are limited in the case of companies on a non-consolidated basis, they are being promoted through collaboration among companies in different industries with the expertise of their respective field.



For more information about the Resource Recycling Project, please click [here](#).

## Development of the catalyst that can increase the recyclability of PET

### Material recycling

TOYOBO GS Catalyst®, a polymerization catalyst developed by Toyobo, is the world's first aluminum catalyst that does not contain any heavy metals. PET degrades (e.g., molecular weight loss, yellowing.) during repeated melting processes in recycling, but the PET obtained using this catalyst does not deteriorate when melted, making it well suited to recycling.

In December 2022, we received the 71st Chemical Technology Award in fiscal 2023 from the Japan Chemical Association, the largest chemical society in Japan, for developing and industrializing this polymerization catalytic converter. This award is awarded to those who have achieved particularly remarkable achievements in Japan's chemical industry.

In 2024, the catalyst received certification for recycling performance ("APR Design® for Recyclability") from The Association of Plastic Recyclers (APR), the international trade association for plastics recycling.

Toyobo has already licensed the technology to Thailand's Indorama Ventures Public Company Ltd., the world's largest PET resin manufacturer. Toyobo also participated in The Packaging Conference 2022, an international conference which held in America, and held exhibition and presentation. With the excellent recyclability of the produced PET resin, we will contribute to realize the circular economy in cooperation with Indorama.

- [Toyobo promotes global use of its aluminum catalyst technology through polymerization technology licensing contract with world's large st PET producer, Indorama Ventures Pcl](#)
- [Toyobo wins Chemical Society of Japan Award for Technical Development for 2022; helping realize a circular economy with an eco-friendly aluminum catalyst for polyester polymerization](#)
- [TOYOBO GS Catalyst®, an eco-friendly aluminum catalyst for polyester polymerization, receives recognition for APR Design® for Recyclability](#)



TOYOBO GS Catalyst® (front) enables synthesis of resins with higher transparency than other catalysts



PET bottles synthesized using TOYOBO GS Catalyst®

Recycling of used plastics beyond the industry

Chemical recycling

in June 2020 the joint venture company R Plus Japan, Ltd. was established by a group of 12 companies operating in Japan's plastics value chain, which includes Toyobo. As of September 2024, this number has grown to 45 companies, and together with Anellotech it is continuing with the development of new technologies.

Anellotech's recycling techniques

Anellotech's new technology is a chemical recycling technology that uses used plastics as raw materials to produce crude raw materials for common plastics. It is characterized by the ability to produce a variety of crude raw materials from the mixed state of multiple types of plastics, and by the low loss in the process. Because it can be processed by fewer processes than the conventional method, it is expected to reduce CO<sub>2</sub> emissions and energy-consumption. If this technology is established, it is possible to return used plastics, which have been used in heat, to raw materials, and it is possible to add more value to used plastics.

So that we can contribute to solving the common worldwide problem of plastics, we aim to have this technology in practical use by 2030. To do this, we are collaborating with companies in a range of industries, including those in sorting and processing of collected plastics, distribution, and production of monomers, polymers, packaging and containers, and beverages.

• [R Plus Japan Ltd.](#)

Renewable

100% biomass plastic in film

Biomass feedstock

Our focus is on furandicarboxylic acid (FDCA) as a biomass raw material. FDCA is polymerized using our proprietary technology to produce polyethylene furanoate (PEF), a high-performance polyester. PEF is a 100% biomass plastic with excellent gas barrier properties, and when formed into a film can help extend the shelf life of food contents, and thus reduce food losses. The world's first FDCA production plant is scheduled to be opened by Avantium. We plan to use this FDCA to produce PEF film.

Polymerization of 100% bio-based PET resin

Biomass feedstock

In December 2021, Suntory Group and Anellotech, Inc. jointly developed a prototype PET bottle made from 100% plant-derived raw materials. Toyobo contributed to the development through its polymerization technology.



Polymerization of 100% bio-based PET resin in the Integrated Report 2022 (193KB)



Our manufacturing sites are working under TOYOBO Group Fundamental Policy on the Global Environment to reduce, reuse, and recycle waste. We strive to minimize the amount of landfill waste by reducing the amount of waste generated by reusing non-standard products and scrap materials, and by making the most effective use of waste generated.

- [Waste reduction](#)

## Strengthening resource recycling measures

### Renewable-resource business development

In April 2020, we established Renewable Resources Business Development Department in order to further accelerate our efforts related to plastic resource circulation and contribute to a sustainable society.

Renewable Resources Business Development Department is searching for technologies and collaborating with other companies to promote the conversion to biomass raw materials and the use of recycled raw materials.

We have drawn up a roadmap to 2030 — while also looking towards 2050 — based on government policies in Japan and overseas, as well as industry targets for the environment. In collaboration with our partners worldwide, we aim to shift to biobased products focused on polyester resin, and to establish technologies related to mechanical and chemical recycling. Working closely with each Solutions Division, we will also adapt flexibly to changes in the business environment.

#### Mission

Ensuring the supply of  
renewable resources

Developing recycling-related  
technologies

Expanding business

#### Long-term outlook

**2040–50**

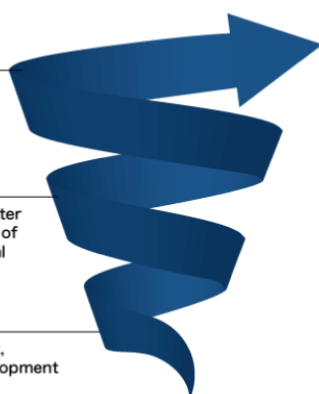
Realization of a  
circular economy

**2030**

Shift to biobased polyester  
resin and establishment of  
mechanical and chemical  
recycling technologies

**2020**

Launch new department,  
establish concrete development  
themes



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## Acquire ISCC PLUS certification (internationally sustainable carbon certification)

Toyobo Co., Ltd. and Toyoshina Film K.K., a Toyobo Group company, have received ISCC (International Sustainability and Carbon Certification) Plus certification, an international certification designed to confirm the sustainable content of products. The properties of bio-based raw materials in the OPP film to be manufactured by Toyoshina Film will be assigned to a portion of the product based on the mass balance approach\*.

ISCC Plus certification, which is part of the ISCC certification system, is aimed at confirming that mainly bio-based feedstocks and recyclables are properly managed in the process of turning raw materials into final products in the entire supply chain using the mass balance approach.

- [Toyobo obtains ISCC Plus certification; ready to sell bio-based, biaxially oriented polypropylene films based on mass balance approach](#)

\* A method in which during the process of turning raw materials into final products and the distribution process, raw materials with certain properties (e.g., bio-based raw materials) are mixed with raw materials that do not have the properties (e.g., petroleum-based raw materials); the properties are thus assigned to a portion of the product according to the input of the raw materials having those properties. (Source: Ministry of Environment, "Roadmap for Bioplastics Introduction.")

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## Participating in initiatives

The Toyobo group is working closely with a variety of companies and organizations, and is active in a number of initiatives aimed at contributing to the construction of a plastics value chain that is appropriate to the era of the circular economy.

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### Japan BioPlastics Association

This group was established in 1989 with the aim of promoting the use of bioplastics,\* and establishing a testing and evaluation system. An executive from Toyobo serves as the Vice Chairman, and we are active in the association's activities including participation in executive meetings and various committees.



\* Collective term for biodegradable and biomass plastics

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### CLOMA (Clean Ocean Material Alliance)

CLOMA is an organization established in Japan with the aim of increasing the effective use of marine plastic waste through reductions and recycling. Its members include more than 350 companies throughout the supply chain involved in the manufacturing, processing, and use of packaging and other materials. Toyobo has been a member of the alliance since it was established in 2019.

Through collaboration with other CLOMA members, which includes manufacturers, processors and users of packaging and other materials, we will work to develop and promote the use of alternative materials.





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## J4CE (Recycling Economic Partnership)

This partnership was founded for the purpose of strengthening public and private partnerships, with the aim of further fostering understanding of the circular economy among a wide range of stakeholders, including domestic companies, and promoting initiatives in response to the accelerating global trend toward a circular economy. We participated in J4CE in September 2022.



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## Circular Partners

Circular Partners (CPs) is an industry-government-academia consultative body launched by the Ministry of Economy, Trade and Industry to help realize a circular economy. Circular Partners aims to create a vision, medium- to long-term roadmap, and information distribution platform for the realization of a circular economy in Japan through collaboration among industry, government, municipalities, universities, and business and industry organizations.

TOYOBO and TOYOBO MC participated in the project in 2023.



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## APR(The Association of Plastic Recyclers)

This is an international industry organization that represents the recycling industry for plastics. We are supporting circular economy through unique certification programs to ensure high-quality recycled plastics, testing methods to evaluate recyclability, and educational activities. We joined in March 2023.



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## CEFLEX (Circular Economy for Flexible Packaging)

In August 2019, Toyobo group joined the European consortium Circular Economy for Flexible Packaging (CEFLEX). Established in 2017, CEFLEX is a consortium that promotes the realization of a circular economy through the use of flexible packaging. This includes more than 130 companies and organizations involved in the flexible packaging value chain, including leading materials manufacturers and recycling companies. Its goals include establishing by 2025 a Europe-wide collection, sorting, and reprocessing infrastructure for used flexible packaging. While understanding the latest information and trends regarding recovery systems and regulations, we will focus on developing and supplying eco-friendly technologies and products to contribute to the realization of a circular economy.





## Feature

# Contributing to the Development of Prototype PET Bottles Made from 100% Plant-Derived Raw Materials

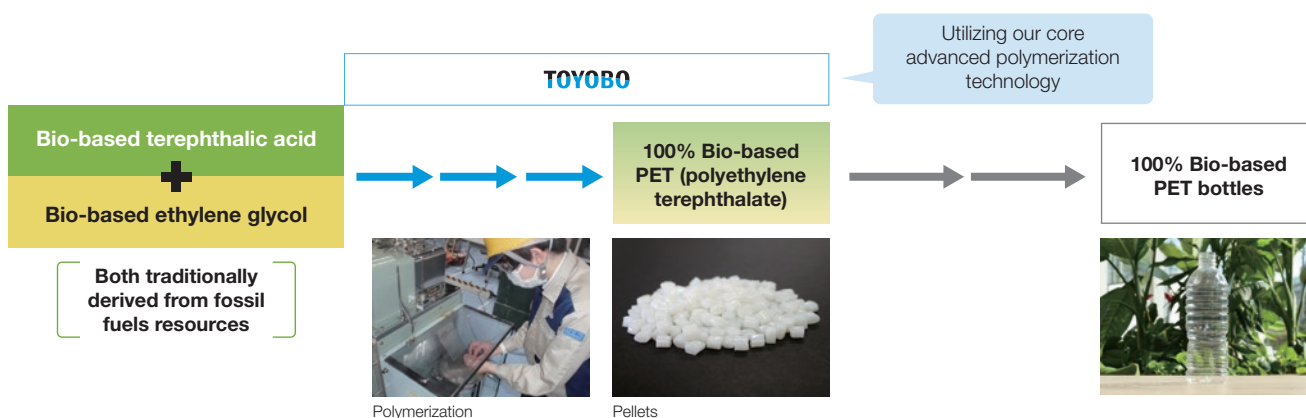
Toyobo group is actively promoting the switch to biomass raw materials and the utilization of recycled raw materials, with its goal to increase the ratio of green film products<sup>1</sup> to 60% by 2030. We have used our core technologies to develop a variety of eco-conscious products.

In December 2021, Suntory Group and Anellotech, Inc. jointly developed a prototype PET bottle made from 100% plant-derived raw materials (100% bio-based PET bottles) using one of our core technologies, polymerization.<sup>2</sup> Generally, PET resin is produced by the

polymerization of terephthalic acid and ethylene glycol, which are both derived from fossil fuel resources. Anellotech's technology enabled to produce terephthalic acid efficiently from plant-derived raw materials. The group's success in polymerizing 100% bio-based PET resin from bio-based terephthalic acid and bio-based ethylene glycol contributed significantly to the development of 100% bio-based PET bottles.

<sup>1</sup> Promotion of the use of biomass and recycled raw materials, and volume reduction  
<sup>2</sup> Chemical reactions to produce desired polymers

## Manufacturing Flow of 100% Bio-Based PET Bottles



## Polymerization of 100% bio-based PET resin

### Key to success is a thorough preliminary examination leveraging cultivated knowledge and technical capabilities



**Yuichiro Matsuura**

Polymers Development Center,  
Tsuruga Research and  
Production Center

Creating bio-based terephthalic acid has been considered difficult. While it was successfully generated using Anellotech's technology, it resulted in only a few dozen kilograms as a polymerization sample, which was much smaller quantity than anticipated. When implementing polymerization, we normally expect some failures, but with such a small amount, not even a single failure is acceptable. For this reason, after thoroughly analyzing and preparing the raw materials and equipment, respectively, the team determined the polymerization conditions after numerous discussions. The actual polymerization was repeated more than a dozen times in small quantities in order to disperse the risk and produce as much 100% bio-based PET resin as possible. However, the increased frequency requires an awareness of variations in quality. Each operation to adjust the temperature or pressure was performed carefully step by step to avoid such variations, and then fine-tuned according to differences among lots of raw materials and in the daily temperature and humidity. I remember

always watching for any abnormalities in each and every process. As a result, we were able to obtain the same quality. It was a true relief when all of the polymerization was completed.

I believe that the skills I cultivated since joining the company and the abundant PET-related data and expertise that was accumulated over many experiences were key to this success. In working on polymerization, I learned many things from my managers and those in my department. I believe that it was this warm support that enabled us to succeed even while being pressured not to fail.

I would like to continue engaging in various projects to further increase confidence in Toyobo's technological capabilities, and contribute to the development of products that positively contribute to society.



Team members of 100% bio-based PET resin project

## Creating an organization that can pass on skills

### Fostering a culture of nurturing young engineers throughout Functional Materials Production and Technology Operating Department



#### **Gaku Maruyama**

General Manager of Tsuruga Polymers Plant and Manager of Polymers Development Center, Tsuruga Research and Production Center

I am very happy to have contributed to the development of a 100% bio-based PET bottles prototype with Toyobo's technology, and I am proud of the members who accomplished this.

Toyobo's facilities enable consistent technological development, from basic studies like those in university laboratories to condition studies for commercial production in plants. Our strength lies in our extensive facilities and wealth of data and know-how based on many years of experience. We have earned the confidence of customers in our polymerization technology, and they often entrust us with various polymerizations.

In such a privileged environment, our department actively assigns large projects to young engineers in the second and third year of their careers in order to encourage them to grow as professionals. We know that there is a lot of pressure and anxiety associated with "can't-fail" projects such as these, and we do our best to support them.

Throughout the projects, engineers deal with advanced technology in addition to the polymerization work itself. As a result, I feel that the young engineers have learned and adapted the technologies that were inherited from predecessors at Toyobo.

I feel rewarded when I hear feedback such as, "I am glad I had this experience even though I made some mistakes," or when I see young participants in this project using their knowledge to help engineers who are less experienced.

The Functional Materials Production and Technology Operating Department as a whole has this kind of "culture of nurturing young engineers." I would like to continue to develop human resources and contribute to the company's growth by giving younger engineers work they are responsible for, and providing them with the support to do so.

# Waste Reduction

## Materiality

Related ESG : **E**

A decarbonized and circular society



↓ Basic approach   ↓ Targets and results   ↓ Environmental compliance   ↓ Initiatives

## Basic approach

In line with the TOYOBO Group Fundamental Policy on the Global Environment, each of Toyobo group's production sites is implementing initiatives to reduce, reuse, and recycle waste. By reducing the amount of waste through measures such as recycling non-conforming products and offcuts, and by finding ways to effectively utilize, as far as possible, the waste that we do generate, we are striving to minimize the amount of waste sent to landfill.

## Targets and results

We have set a target of 15% reduction in waste emissions by fiscal 2031 (compared to fiscal 2016), and we will keep the final disposal (landfill disposal) rate down to less than 1% while proceeding with waste reduction.

Initiatives	Targets (FY2031)	Results (FY2024)
Waste volume (consolidated)	15% reduction (compared to FY2016)	3% increase

Consolidated: TOYOBO CO., LTD. and consolidated subsidiaries

In fiscal 2024, the amount of waste increased by 3% compared to fiscal 2016. This was due to an increase in production volume. On the other hand, we achieved the final disposal rate for Toyobo and its domestic consolidated subsidiaries combined was 0.5%, and we continued to meet our target.

- [waste date](#)

## Environmental compliance

Three years from fiscal 2022 to fiscal 2024, there were no regulatory violations related waste permits, standards and regulations.

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## Initiatives

To reduce the amount of waste, we are collecting offcuts produced during manufacturing processes and reusing them as material for producing either the same type of product or different products. We are also making effective use of items such as used plastic packaging materials by recycling them in the form of pallets. Furthermore, when outsourcing the disposal of industrial waste, we select outsourcing providers that are capable of implementing recycling.

With regard to polychlorinated biphenyl (PCB) waste, we are proceeding with appropriate disposal in a systematic manner. We are proceeding with systematic renewal of electric facilities containing low-concentration PCBs that are currently still in use.

### **Achievement of Zero Landfill of Plastic Waste (Efforts of Mitsumoto Chemicals Co., Ltd.)**

In response to the enforcement of the Plastic Resource Circulation Act in 2022, Mitsumoto Chemicals Co., Ltd. made efforts to improve the recycling rate of waste (mainly products mixed with plastics and different materials) and achieved zero landfill.




Specifically, the following measures were taken.

- (1) Separating materials until they can be recycled
- (2) Developing new recycling contractors
- (3) Continuing waste separation by raising awareness of employee through in-house training

In the future, we will expand this initiative within the group to promote recycling.

Plastic Resource Circulation →

# Water Resources

Materiality	
Related ESG : <b>E</b>	  
<b>A decarbonized and circular society</b>	

- ↓ Basic approach   ↓ Structure   ↓ Identifying risks   ↓ Results   ↓ Environmental compliance   ↓ Initiatives related to risk reduction
- ↓ Initiatives related to identifying opportunities   ↓ Initiatives related to expansion of opportunities

## Basic approach

Water is a precious resource that keeps us alive and supports our lifestyles, and conserving water resources is an important global issue.

Toyobo group has committed in the TOYOBO Group Charter of Corporate Behavior to reduce and reuse resources used, including water resources, and to take measures to address environmental risks. In the area of business activities, we are working to minimize the use of water resources and conserve them by promoting water recycling.

Meanwhile, aiming to be a group that "continue to create the solutions needed by people and the earth with materials and science", our group will contribute to the conservation of water resources in Japan and abroad through our seawater desalination business and other activities.

- [TOYOBO Group Charter of Corporate Behavior](#)

## Structure

Global Environment Conference is responsible for formulating and monitoring policies and measures to conserve water resources.

The content of deliberations at Global Environment Conference will be reported and shared as appropriate by Sustainability Committee through Safety and Disaster Management Division Director.

Board of Directors receives regular reports on the content of discussions at Sustainability Committee, approves key issues such as senior policies and targets, and oversees the progress of activities.

- [Structure on corporate environmental issue](#)

## Identifying risks

To identify water risks (water stress, drought, flooding, water quality, etc.) in the operations of our business sites around the world, we use the AQUEDUCT Water Risk Atlas published by the World Resources Institute (WRI) to conduct our annual periodic assessment. In addition, if there is a change in the planned construction of a plant, an extraordinary assessment is conducted at that time to confirm the risks prior to the construction of a new site.

As a result, our two business sites in Thailand and Saudi Arabia were assessed as having high risk in terms of the amount of water available (existence of risk of drought occurrence and variation in the amount of water available from year to year).

Based on these results, we discussed with the relevant departments and confirmed the following for the two sites concerned.

- Located in an industrial park that is properly managed under the regulations of the country where the site is located, and measures are in place to minimize risk to an extent feasible (e.g., water supply backup system, etc.).
- Water consumption is less than 0.1% of the Toyobo's total water intake.

The group therefore does not currently consider itself to be exposed to any water risks that could have a significant financial or strategic impact.

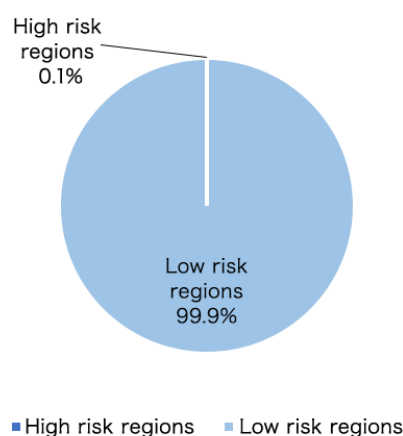
## Results

The following table shows the water intake by region for fiscal 2024.

Draw water volume by Region

	FY2022	FY2023	FY2024
(thousand m <sup>3</sup> )			
High risk regions <sup>*1</sup>	94	86	97
Low risk regions <sup>*2</sup>	85,830	86,111	86,717
Total	85,924	86,197	86,815

Draw Water Volume by Region for FY2024



\*1: High-risk regions: Regions rated as high risk in terms of the amount of water available in the AQUEDUCT Water Risk Atlas.

\*2: Low-risk regions: Regions other than high-risk areas.

Despite a more than 3% increase in sales in fiscal 2024 compared to the previous year, the group's water intake was kept at a slight increase of about 0.7% over last year, as a result of ongoing water conservation efforts at each site to reduce the amount of water intake.

• [ESG Performance Data \(365KB\)](#) 

## Environmental compliance

Three years from fiscal 2022 to fiscal 2024, there were no regulatory violations related water quantity permits, standards and regulations.



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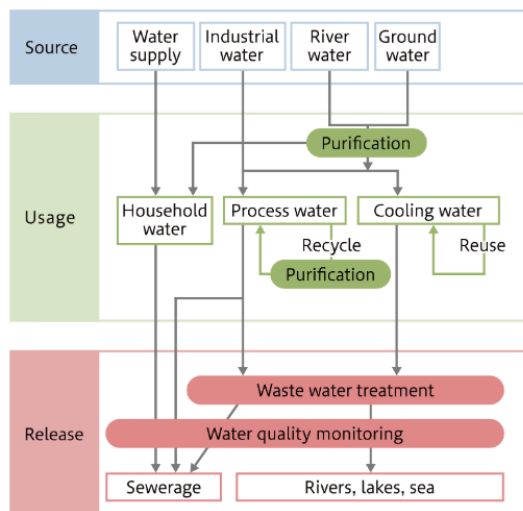
## Initiatives

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### Risk reduction

#### Water resource management

Our group promotes appropriate management of water resources at all of its production sites through improvements in manufacturing processes, water conservation activities, and the use of recycled water.



#### Water reusing and recycling system

Our group's manufacturing facilities process includes the cooling process for plastic resin products. Water used as cooling water is repeatedly used without being discharged.

#### Collaboration with local community

The Tsuruga Research and Production Center of our group participates in the "Tsuruga City Water Environment Improvement Roundtable," which consists of local government officials, academics, residents, companies, and NGOs that have come together for the purpose of groundwater management. At that community, we report on methods to achieve the water withdrawal reduction targets promised to the government and citizens, as well as the results of our activities and plans for the future.

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### Identifying opportunities

#### Contributing to the elimination of water shortage through business operations

Almost all of the water covering the globe is seawater, with limited quantities of the fresh water that we use. As a result, regions where fresh water is difficult to use are facing water shortages. The Middle East and the Gulf region in particular are seeing ongoing, remarkable economic development, with improved living standards and increased populations. As a result, securing water for both industrial and domestic use has become problematic, and the introduction of desalination plants\* is underway. The Toyobo group supplies the membranes used in seawater desalination facilities, thereby helping to eliminate water shortages in these regions.

\* Seawater desalination facilities: These remove the various salts present in seawater in order to produce fresh water, providing water for drinking and industrial use.

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## Expansion of opportunities.

### **HOLLOSEP® hollow fiber reverse osmosis membranes**

Toyobo group's hollow fiber type reverse-osmosis (RO) membrane element HOLLOSEP® is a membrane that contributes to desalination of seawater. It boasts high water recovery rate, offers superior chlorine tolerance, and can inhibit the proliferation of microorganisms through chlorine sterilization. We produce high quality drinking water in the Middle East and Gulf countries that have high-temperature, highly saline seawater, harsh conditions for reverse osmosis membranes. With over 30 years' usage, these are highly acclaimed and hold a high market share. These are also used domestically, in Japan's largest seawater desalination plant.

- [Hollow-fiber Reverse Osmosis membrane module HOLLOSEP® RO Membrane](#) 

# Chemical Substance Management

Materiality	
Related ESG : <b>E</b>	
Clean water areas, air and soil, and preservation of biodiversity	<div> <div>3 GOOD HEALTH AND WELL-BEING</div> <div>6 CLEAN WATER AND SANITATION</div> <div>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</div> <div>14 LIFE BELOW WATER</div> <div>15 LIFE ON LAND</div> </div>

[↓ Basic approach](#)
[↓ Chemical substance management structure](#)
[↓ Product safety management](#)
[↓ Place safety Management](#)

## Basic approach

Toyobo group considers the proper management of chemical substances to be crucial for both "product safety" to protect the safety of our customers and "place safety" to protect the environment and the safety of people working at our plants and offices and the local communities.

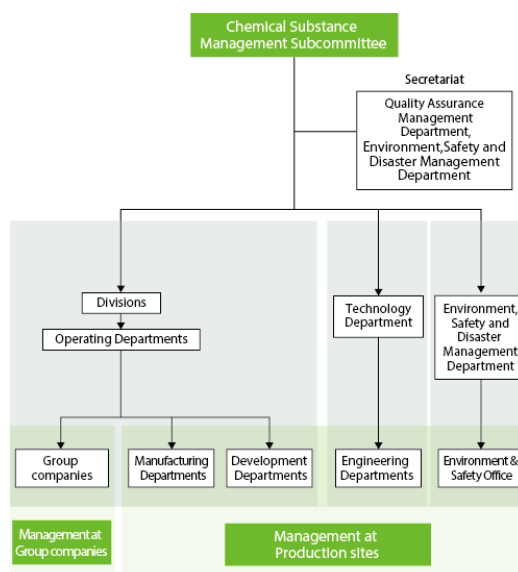
In terms of "product safety", under the "TOYOBO Group's Basic Policy on Product Safety and Quality Assurance" and the "TOYOBO Group Fundamental Policy on the Global Environment," we are striving to properly manage chemical substances throughout the product life cycle (research, development, design, manufacturing, sales, use, and disposal) to protect the global environment, prevent disasters, ensure occupational safety and health, ensure product safety, and comply with chemical substance regulations in countries around the world. In terms of "place safety," under the "TOYOBO Group Fundamental Policy on the Global Environment," we have set voluntary standards and reduction targets for chemical substances released into the atmosphere and water, which are stricter than legal limits, to ensure thorough control and reduction of emissions.

## Chemical Substance Management Structure

In order to promote appropriate management of chemical substances, Toyobo group has established a management structure at each production site. Each Solutions Division supervises the activities of the production sites and group companies under their jurisdiction.

In addition, we have created the TOYOBO Chemical Substance Management Classification in compliance with relevant laws and regulations—both international and domestic—as well as client requests. This classifies the chemical substances we handle into three levels, and the management procedures are specified for each level or "rank." Use of substances in rank A and B is permitted only when the risks are thoroughly assessed, mitigation measures are taken, and the risk is deemed tolerable. We are continuously making efforts to reduce the overall usage volume of rank A and B substances by optimizing and replacing these substances.

## Chemical Substance Management Structure



## TOYOBO Chemical Substance Management Classification

Rank	Management Category	Notes (laws and regulations, etc.)
A	Substances requiring particularly strict management	Chemical Substances Control Law <sup>*1</sup> , Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, Act on the Protection of the Ozone Layer through the Control of Specified Substances, etc. and Other Measure, Act on the Prohibition of Chemical Weapons and Control, of Specific Chemicals, POPs <sup>*2</sup> , PIC <sup>*3</sup> , RoHS <sup>*4</sup> , REACH <sup>*5</sup> , etc.
B	Substances requiring strict management	Chemical Substances Control Law, PRTR <sup>*6</sup> , Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, REACH, etc.

\*1 Chemical Substances Control Law: Act on the Regulation of Manufacture and Evaluation of Chemical Substances

\*2 POPs (treaty): Stockholm Convention on Persistent Organic Pollutants

\*3 PIC (treaty): Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

\*4 RoHS: Restriction of the use of certain Hazardous Substances in electrical and electronic equipment

\*5 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

\*6 PRTR: Pollutant Release and Transfer Register

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# Product Safety Management

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## Initiatives

### Chemical Substance Regulation Compliance

Recent years have seen new requirements to manage chemical substances within the supply chain. In addition to the European RoHS Directive and REACH regulations, such requirements also apply in Japan, following the coming into effect of the Act on the Regulation of Manufacture and Evaluation of Chemical Substances (Chemical Substances Control Law), as well as other regulations relating to chemical substance management. Additionally, the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) has been adopted by the United Nations.

In view of this situation, Toyobo has introduced a chemical substance management system (TCAS<sup>\*1</sup>) covering every stage from procurement through to manufacturing and sales. We revise the content of chemical substance surveys for our suppliers as necessary in accordance with the laws and regulations of each country and revisions to the Japanese "chemSHERPA<sup>®</sup>"<sup>\*2</sup> and other regulations. This is to realize green procurement while providing accurate and prompt support to our customers. We employ this system to investigate the use of regulated substances and carry out surveys regarding content in products.

<sup>\*1</sup> Toyobo Chemical Administration System

<sup>\*2</sup> A scheme that facilitates sharing information on chemical substances in products led by the Ministry of Economy, Trade and Industry

### Green procurement

We prioritize procurement of raw materials with a low environmental impact, and work with business partners who take a proactive approach to protecting the environment. To this purpose, we have established our group-wide Green Procurement Standards (selection standards for suppliers and selection standards for materials) in Green Procurement Guidelines, which are made known to our suppliers and widely available on our website.

In particular, with regard to chemical substances management, we strictly control chemical substances in accordance with the Toyobo Chemical Substance Management Classification, and we comply with various chemical substances management regulations, including the European RoHS Directive and REACH regulations.

- [Green Procurement Guidelines](#)

### Supplier monitoring

Our group has established "CSR Procurement Guidelines", and we ask our business partners to cooperate in initiatives that support the development of a sustainable society throughout the supply chain. "CSR Procurement Guidelines" also includes the above-mentioned promotion of green procurement.

Our group conducts "CSR procurement survey" based on "CSR Procurement Guidelines" and monitors the status of CSR initiatives. As a result of the questionnaire survey, we are asking our suppliers to make improvements. For the results of the latest questionnaire and the countermeasures (corrective measures), please refer to the following items.

- [Supply Chain Management > CSR Procurement Survey](#)
- [CSR Procurement Guidelines](#)

### Participating in initiatives

We also participate in Joint Article Management Promotion-consortium (JAMP) for the smooth disclosure and transmission of information on chemical substances contained in products in supply chain.

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## Place safety Management

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### Targets and results

We have set ourselves the targets of reducing emissions into the atmosphere of substances that have an impact on the environment by 60%, and of reducing such emissions into water area by 80%, compared to fiscal 2015, by fiscal 2031.

Category	Initiatives	Targets (FY2031)	Results (FY2024)
Atmosphere	VOC emissions (Japan total)	60% reduction (compared to FY2015)	77% reduction
Water	Discharge of hazardous substances into water (Japan total)	80% reduction (compared to FY2015)	73% reduction

Japan Total: TOYOBOKO CO., LTD. and domestic consolidated subsidiaries

In fiscal 2022, we succeeded in reducing emissions into the atmosphere by 60%, compared to fiscal 2015. This was due to an operation of VOC recovery equipment at several plants.

Emissions of environment pollutants into water also reduced by 71% compared to fiscal 2015.

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### Initiatives

#### Compliance with the Pollutant Release and Transfer Register Act (PRTR Law)

Toyobo group estimates and reports the amount of emissions and amount transferred for chemical substances that are subject to PRTR Law. Based on the overall results that are announced each year, we strive to utilize this information effectively in reducing the amount of emissions and the amount transferred.

We are proceeding with the improvement and replacement of production equipment and installations, the improvement of operating conditions, the installing of equipment for removing relevant substances, and the adoption of substitute raw materials and auxiliary materials, in order to reduce emissions.

#### Initiatives for preventing air and water pollution

Toyobo group complies with environmental regulations set by national and local government authorities and rules set by environmental conservation agreements. In addition, we implement management for air emission and water discharge from our production sites, by setting self-management standards more rigorous than the statutory requirements in some cases.

We have installed monitoring systems within our production process, and remove harmful chemical substances from gases and water emitted at our production site by utilizing a variety of environmental protection technologies, including in-house developed VOC treatment equipment. We also strive to improve our manufacturing processes so as to minimize the amount of these substances that is used and emitted.



# Biodiversity

Materiality	
Related ESG : <b>E</b>	
Clean water areas, air and soil, and preservation of biodiversity	<div> <div>6 CLEAN WATER AND SANITATION</div> <div>14 LIFE BELOW WATER</div> <div>15 LIFE ON LAND</div> </div>

- ↓ Policy and approach
- ↓ Identifying risks
- ↓ Initiatives for reducing environmental impact
- ↓ Initiatives for nature positive
- ↓ Engagement and collaboration with governments, non-profit organizations and local community

## Policy and approach

Toyobo Group Fundamental Policy on the Global Environment calls for the group to actively support and participate in environmental protection and biodiversity conservation activities throughout society and in local regions, as a good corporate citizen. In doing this, we strive to minimize the impact of our business activities on ecosystems and aim to realize a nature positive through conservation and maintenance activities in cooperation with local communities.

### Action Guidelines for Biodiversity Conservation

We recognize that biodiversity is an essential part of a sustainable society. As a group which continues to create the solutions needed by people and the earth, understanding the impact of our business activities on conservation of biodiversity, we will endeavor to conserve the three types of biodiversity (species, genetic, and ecosystem diversity) through various activities.

- We will work to understand how the group's business activities depend on and affect biodiversity, and endeavor to avoid or minimize negative impacts.
- We will strive to give consideration to biodiversity conservation throughout the entire value chain.
- We will contribute to the conservation by promoting development of Biodiversity-conscious products and technology.
- We will support and promote conservation activities through the employee's participation, and cooperation and collaboration with various stakeholders including local communities and NGOs.
- We will comply with domestic and overseas agreements on biodiversity.

- [TOYOBO Group Fundamental Policy on the Global Environment](#)

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## Participation status of biodiversity conservation

We are promoting activities based on the "Action Guidelines for Biodiversity Conservation" with respecting "Declaration of Biodiversity, Guide to Action Policy" issued by Keidanren (Japan Business Federation), and "Guidelines for Private Sector Engagement in Biodiversity" formulated by the Ministry of the Environment, Japan.

Period	Initiatives
Nov.2021	Formulated the "Action Guidelines for Biodiversity Conservation."
Jan.2022	Endorsed the "Initiative based on the Declaration of Biodiversity by Keidanren."
Nov.2022	Participated in 30by30 Alliance for biodiversity.
First half of fiscal 2024	"Toyobo Aya-no-Mori" forest was certified as a "Nationally Certified Sustainably Managed Natural Site" by the Ministry of the Environment, Japan
Aug.2024	"Toyobo Aya-no-Mori" forest was listed in the World Database on Other Effective area-based Conservation Measures.

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## Identifying risks

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### Toyobo group's business activities and its involvement in biodiversity

At all domestic and overseas production sites of our group, by using IBAT,<sup>\*1</sup> we will conduct surveys to determine whether there are any rare species or natural environments such as the World Natural Heritage sites, IUCN<sup>\*2</sup> Protected Area Management Categories I-VI, and the Ramsar Convention<sup>\*3</sup> that should be conserved within 1 km around the site, and we have picked up the following sites.

In addition, we will set up initiatives in accordance with each local situation at our sites as Biodiversity Action Plan (BAP). We confirm their progress at a company-wide meeting (Global Environment Conservation Conference) starting in fiscal 2024, along with the promotion of biodiversity conservation.

<sup>\*1</sup> The abbreviation of "Integrated Biodiversity Assessment Tool" refers to a database of the world's protected areas in which the United Nations Environment Programme (UNEP) and other organizations participate.

<sup>\*2</sup> The abbreviation of "International Union for Conservation of Nature" refers to an international nature conservation network consisting of national, governmental and non-governmental agencies.

<sup>\*3</sup> Official name is "Convention on Wetlands of International Importance Especially as Waterfowl Habitat". It aims to conserve wetlands, which are an important habitat for a variety of organisms and a valuable resource for human life, through international cooperation and promote the wise use.

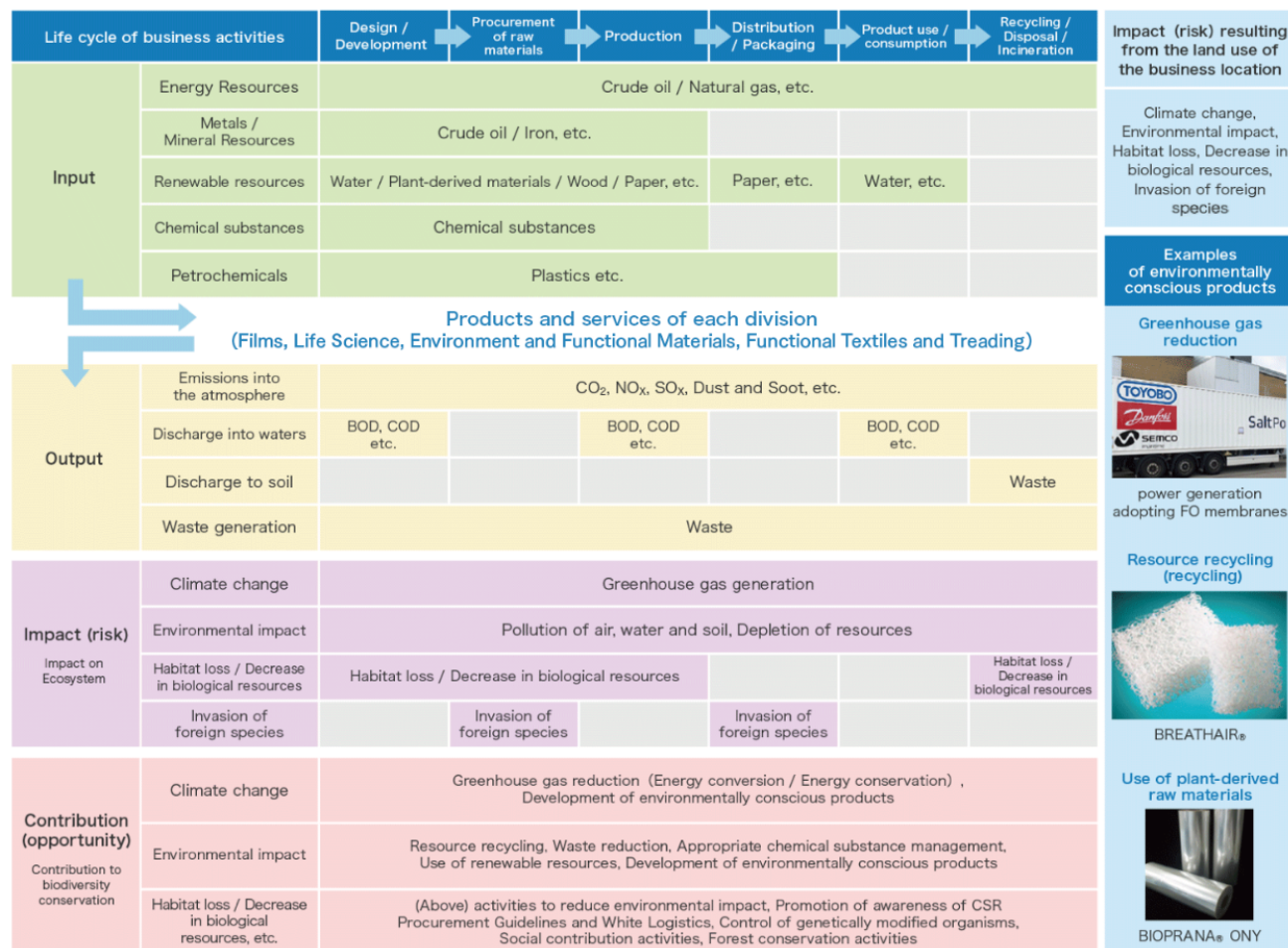
## Sites with a Natural Environment to be Conserved

Site name	IBAT assessment result	Explanation
Toyobo Iwakuni Production Center TOYO CLOTH CO., LTD Iwakuni Plant (Iwakuni, Yamaguchi)	Protected landscape areas Resource conservation areas	Part of a national park or quasi-national park Areas to be protected for the sustainable use of natural resources
Toyobo Research Center (Otsu, Shiga)	Species and habitat management areas	Natural Habitat Conservation Areas, National Wildlife Protection Areas
TOYO CLOTH CO., LTD Tarui Plant (Sennan, Osaka)	Resource conservation areas	Areas to be protected for the sustainable use of natural resources
JAPAN EXLAN COMPANY, Ltd. TOYOBO PHOTO CHEMICALS CO., LTD. (Okayama, Okayama)	Resource conservation areas	Areas to be protected for the sustainable use of natural resources
Toyobo Tsuruga Research and Production Center (Tsuruga, Fukui)	Species and habitat management areas	Natural Habitat Conservation Areas, National Wildlife Protection Areas
Toyobo MC Takasago Plant (Takasago, Hyogo)	Resource conservation areas	Areas to be protected for the sustainable use of natural resources

\* Toyobo Tsuruga Research and Production Center, and Toyobo MC Takasago plant: Areas to be protected are located more than 1 km (but less than 2 km) from the site, but are included in the scope of this activity

## Relationship between business activities and biodiversity

Made with reference to the "Map of Relationships between Corporations and Biodiversity" published by the Japan Business Initiative for Biodiversity.



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## Initiatives for reducing environmental impact

To minimize the negative impact on biodiversity, we are proceeding following activities.

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### Reduction of environmentally hazardous substances emitted from production sites and plants

Under TOYOBBO Group Fundamental Policy on the Global Environment, we have established voluntary standards for chemical substances discharged into the atmosphere and water that are stricter than those required by law, and we are working to thoroughly manage these substances and reduce their emissions.

Please see chemical substance management section for targets and achievements for fiscal 2031.

- [Chemical Substance Management](#)

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### Environment impact assessment (Eco-Review System) at development

Since 1998, we have been using the Eco-Review System to evaluate the impact of our products on environment from the viewpoint of environment conservation. Under this system, we evaluate our products/technologies from the viewpoints of "preventing climate change," "reducing chemical substances," "resource conservation," "waste reduction," "environment contributing," and "biodiversity" at every stage from raw materials to disposal. Since this system is implemented at each stage from R&D to commercialization, the themes that are deemed necessary to be improved at the R&D stage will be improved by the time of the next Eco-Review. As a result, while developing products and technologies, we are working to reduce the burden on environment and improve products that contribute to biodiversity conservation and other.

- [Eco-Conscious Products](#)

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### Implementation of cleanup activities to preserve the biodiversity of the Seto Inland Sea

The Seto Inland Sea is one of the most important areas for biodiversity conservation. Our business sites and group companies (Iwakuni Production Center, Toyobo MC Takasago Plant, Toyo Cloth Co., Ltd., Japan Exlan Co., Ltd., Toyobo Photo Chemicals Co., Ltd.) are located in this surrounding area. These business sites, and companies conduct cleanup activities at least once a year to pick up litter along the coast and in rivers flowing into the Seto Inland Sea.



Cleanup activities at Japan Exlan Co., Ltd.

We are also expanding our activity areas to areas outside the Seto Inland Sea, and are working as a group to conserve habitats.





Cleanup activities at Toyoshina Film Co., Ltd.



Cleanup activities at Inuyama Plant

## Initiatives for nature positive

### Research Center

#### Biodiversity conservation initiatives at Research Center

The Research Center is located adjacent to Lake Biwa, which is a "species and habitat management area" based on IBAT's risk assessment. We are grateful for our location, which is blessed with remaining biodiversity not only in Lake Biwa but also in the rivers and satoyama landscape, and are committed to conservation activities aimed at creating an environment where people and living things can coexist in harmony.

#### Conducting biological surveys

In fiscal 2024, we conducted a survey of plants, insects, birds, amphibians, reptiles, mammals, and aquatic organisms at the Research Center. As a result, about 600 species of organisms were found, including about 500 native species, 100 non-native species, and 20 species listed in the Red Data Book. The survey revealed that the Research Center is a "buffer zone between people and Lake Biwa" with remnants and connections to Lake Biwa, as there are lakeside forests such as willow and hackberry, reed beds growing in the adjustment pond, and dragonflies and aquatic species that breed in Lake Biwa. The survey debriefing session held in March 2024 was attended by about 100 people, including online participants, who were able to once again experience the rich nature of the Research Center, leading to an increased awareness of biodiversity conservation.

In the future, based on the results of the surveys conducted so far, we will plan conservation measures appropriate for the region.



Biological surveys at Research Center

#### Lake Biwa shoreline cleanup activities

Every year, we conduct cleanup activities in the Research Center and neighboring areas, with particular emphasis on picking up trash and removing weeds along the shores of Lake Biwa. Based on the results of the biological survey, in fiscal 2025, we also started extermination of designed invasive alien species in the Research Center. On the day of the activity, a total of 524 employees including those from partner companies participated. These activities are linked to raising employee awareness and contributing to the local community through beautification of the surrounding area. We will continue our efforts to preserve the rich ecosystem.

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## “Toyobo Aya-no-Mori” forest

We had purchased forests since the 1950s to ensure domestic self-sufficiency of chemical fiber raw materials. Subsequently, due to changes in the composition of the chemical fiber business, the forests ceased to be a source of raw materials and we now hold only a portion of the forests for timber production.

We promote forestry activities while maintaining its function as a water source conservation forest. We will also promote sustainable forest management with the aim of coexistence between people and nature by placing emphasis on continuity with the abundant forests surrounding us.

### Biodiversity conservation initiatives at “Toyobo Aya-no-Mori” forest

In fiscal 2023, we began a monitoring survey of company-owned forests located in Aya Town, Miyazaki Prefecture. Through surveys, we confirmed the existence of rare organisms (e.g., domestic rare wild fauna and flora species, Ministry of the Environment Red List 2020: endangered IB species, and Miyazaki Prefectural Red List 2022: endangered I species) exist and feeding damages caused by deer and other predators. Regarding animal pollution, we have already implemented measures such as installing a deer fence in the afforestation area, but this is the first time we have conducted a survey of the entire forest.

In the future, we will continue monitoring surveys and consider new activities in collaboration with local communities and recovery from animal damage.



“Toyobo Aya-no-Mori,” a forest in Aya-cho, Miyazaki Prefecture

### Participation in biodiversity certification programs

The Ministry of the Environment, Japan began certifying areas where biodiversity conservation is promoted through the efforts of the private sector as “Nationally Certified Sustainably Managed Natural Sites”.

In the first half of fiscal 2024, the “Toyobo Aya-no-Mori” forest was certified as “Nationally Certified Sustainably Managed Natural Sites” in recognition of the group’s efforts to conserve biodiversity in the forest.

Subsequently, in August 2024, the forest was listed in the World Database on Other Effective Area-Based Conservation Measures (WD-OECM). This will contribute to achieving the “30by30” goal, an international target to conserve at least 30% of the Earth’s land and oceans by 2030.



- [“Toyobo Aya-no-Mori” forest receives certification to be registered as OECM](#)

### Calculation of CO<sub>2</sub> absorption

The amount of CO<sub>2</sub> absorbed in our company-owned forests is currently estimated to be approximately 6 thousand tonnes/year for a forest area of 1500 ha.

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## Contributing through business processes and products

### Environment and fiber business

We are also contributing to reduce impact on the environment of our customers through the markets of waste fluids, drain, and exhaust gas treatment equipment, as well as water treatment membranes.



## Engagement and collaboration with governments, non-profit organizations and local community

### Environmental education activities

Environmental seminars are held every year as part of the group's environmental education. In June 2023, as part of biodiversity conservation activities of Toyobo Research Center, (Otsu City, Shiga Prefecture) we invited a professor from Biodiversity Science Research Centre, Ryukoku University (Otsu City) to give a lecture on biodiversity conservation and its significance: environment DNA analysis as an observation technology. A total of about 200 participants studied cutting-edge science studies on biodiversity conservation, with Toyobo Research Center as their primary venue and company-wide online.



Scenes of environmental seminars in FY2024

### Cooperative management of groundwater (Tsuruga Research and Production Center)

Tsuruga Research and Production Center of our group participates in the "Tsuruga City Water Environment Improvement Roundtable", which consists of local government officials, academics, residents, companies, and NGOs that have come together for the purpose of groundwater management. The report provides information on measures to achieve the reduction targets promised to the local government and citizens, as well as the results of activities and future plans.

Toyobo group will continue to work with local communities to properly manage groundwater use in order to conserve biodiversity.

### Lake Biwa day event: 100 sites eDNA survey (Research Center)

Toyobo group has supported "Lake Biwa Challenge: 100 sites eDNA survey," a project to research living organisms in Lake Biwa, Japan's largest lake in Shiga Prefecture. The survey, conducted by Ryukoku University's Center for Biodiversity Science, is a sub-project of "Ryukoku Lecture with Shiga Prefecture related to Lake Biwa Day," an open lecture of Ryukoku University. In this survey, local citizens, organizations, and companies collect water samples at 100 locations around the lake each year. The samples are analyzed for environmental DNA\* to provide data essential for biodiversity conservation, such as habitat distribution and the spread of invasive species.

The Research Center has participated in local environmental activities and launched its own campaigns to clean up the lake with the aim of conserving the lake's biodiversity. Furthermore, we have been participating in the survey since fiscal 2023. We will continue to collect water on a regular basis for the future and contribute to the survey of Lake Biwa.

\* DNA expelled by living organisms, such as those originating in their body fluids and feces.

- [Toyobo supports "Lake Biwa Challenge: 100 sites eDNA survey" to accelerate efforts for biodiversity conservation](#)

### Forest conservation activities at "Toyobo Future Forest" in Wakayama prefecture

We have worked on Forest Conservation Activities of "Toyobo Future Forest" in a mountain forest in central Wakayama prefecture. Since its inception in 2006, in cooperation with the local Hidaka town and the forest association of Kichuu (or central Wakayama prefecture), we have been working on tree planting and weeding, etc. In November 2021, we supplementally planted broadleaf trees such as wild cherry, sawtooth oak, and maple.

Wild deer live in this area of the forest and sometimes eat the seedlings of the trees. For the coexistence of deer and trees, the area around the "Future Forest" is enclosed with nets which use our material, IZANAS® to prevent animals from entering.

Through forest conservation activities in Wakayama prefecture, we will contribute to issues such as biodiversity and climate change.



Putting covers preventing feeding damage by deer on saplings

## Join the 30by30 alliance

In November 2022, TOYOBO and Toyobo Real Estate Co., Ltd. joined 30by30 alliance for biodiversity to promote activities aimed at halting and restoring biodiversity losses.

- [Toyobo joins 30by30 Alliance for Biodiversity](#)

## Comprehensive partnership agreement with the town of Aya, Miyazaki Prefecture ("Toyobo Aya-no-Mori" forest)

In June 2023, we concluded a comprehensive collaboration agreement with Aya town, Miyazaki Prefecture, where one of our group-owned forests is located.

Aya town has one of the largest laurel forests in Japan, and has been registered as a UNESCO Eco Park by UNESCO (United Nations Educational, Science and Cultural Organization) in 2012, receiving high praise worldwide for its efforts to create a community that coexists with nature.

In the future, we will work together to revitalize the Aya town area using our company-owned forests and to coexist with our sustainable manufacturing and conservation of the natural environment.

- [Toyobo signs a comprehensive partnership agreement with the town of Aya, Miyazaki Prefecture](#)

# Social



## Employee well-being and human rights in the supply chain

We are working to create workplaces ("People Fast") where employees feel safe secure and comfortable, and pride and rewarded, to ensure the safety and health of employees (health and productivity management), to enhance reskilling and recurrent education, and to respect human rights throughout the supply chain.



Respect for Human Rights



Safety, Disaster Prevention



Quality



Supply Chain Management



Human Resource Management



Diversity, Equity, & Inclusion (DE&I)



Health and Productivity Management



Social Contribution





**Zero industrial accidents** in workplaces



**Respect** for human rights across the entire supply chain





**Employee** engagement score: **over 70%**



**Expanding and improving educational and training systems for employees** reskilling and recurrent education, etc.

ESG Performance Data →

# Respect for Human Rights

Materiality	
Related ESG : <b>S</b>	   
Human rights in the supply chain	

↓ Management approach    ↓ Initiatives

## Management approach

### Policy and approach

Respecting human rights is essential for Toyobo group to fulfill its responsibilities as a member of society and continue as a trusted company. In this regard, respecting the rights of employees and trading partners, who are important stakeholders for the group, is crucial to enabling them to demonstrate their abilities, and to work with vigor and energy. In recognition of this, we have included “4. Respect for Human Rights” and “6. Active Employee Participation” within the 10 principles of the Toyobo Group Charter of Corporate Behavior. We also support and respect other international agreements relating to human rights, such as the International Bill of Human Rights, the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, the Children’s Rights and Business Principles, and the UN Guiding Principles on Business and Human Rights.

#### < TOYOBO Group Human Rights Policy >

Toyobo group defines its corporate philosophy as “*Jun-Ri-Soku-Yu*” (adhering to reason leads to prosperity) in the corporate philosophy framework “TOYOBO PVVs” and aims to be a group that will continue to create the solutions needed by people and the earth with materials and science. We also uphold the respect for human rights in the TOYOBO Group Charter of Corporate Behavior and Employee Conduct Standards, and are always aware that all individuals are born free and equal in dignity & rights, and fulfills the responsibility to respect human rights in our all activities.

##### 1. Compliance with laws and norms related to respect for human rights

Based on the United Nations Guiding Principles on Business and Human Rights, Toyobo group supports and respects international norms on human rights, including the United Nations International Bill of Human Rights (the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, and the International Covenant on Civil and Political Rights) which stipulates fundamental human rights for all people, and core labor standards according to the International Labor Organization (ILO) “the ILO Declaration on Fundamental Principles and Rights at Work. In addition, as a signatory to the United Nations Global Compact, the group supports and respects its ten principles and others.

The group complies with the laws and norms of each country and region in which it conducts its business activities. Where there are differences between internationally recognized human rights norms and the laws and regulations of each country, it will seek ways to maximize respect for internationally recognized human rights norms.

##### 2. Scope of application

This policy applies to all officers and employees of Toyobo group. Furthermore, the group seeks the support of all stakeholders involved in its business, products, and services and expects them to work together with the group to respect human rights.



### 3. Responsibility for respecting human rights throughout business activities

Toyobo group not only ensures that it does not infringe on human rights, but also fulfills its responsibility of respecting human rights by taking appropriate measures to remedy the adverse impacts on human rights that are found in its activities.

### 4. Human rights due diligence

Toyobo group establishes a system of conducting human rights due diligence in line with the United Nations Guiding Principles on Business and Human Rights. Through this system, the group identifies the adverse impacts on rightsholders\* and prevent or mitigate such impacts.

\* Stakeholders whose human rights are affected through the corporate activities, such as employees, consumers, and local residents

### 5. Remediation and relief

If the corporate activities of Toyobo group have caused adverse impacts on human rights or if there are indications or suspicions of involvement in such impacts through business partners or other parties, the group will remedy and relieve the situation through appropriate measures and procedures.

### 6. Education

Toyobo group strives to reflect this policy in the necessary procedures to root in the entire corporate activities. We educate and train the officers and employees to ensure that this policy is correctly understood and appropriately applied and that our business partners and other related parties also understand the policy.

### 7. Dialogue

In the process of implementing this policy, Toyobo group appropriately utilizes the knowledge of external experts and specialists on human rights and engage in sincere dialogue with rightsholders.

### 8. Information disclosure

Toyobo group discloses and reports the status and results of its efforts for respecting human rights and the implementation of human rights due diligence on its website and other media.

This policy was approved at the Board of Directors meeting of TOYOBO CO., LTD. on February 21, 2024.

Established on October 26, 2020  
Revised on February 25, 2024

Ikuo Takeuchi  
President & Representative Director  
CEO & Co-COO  
TOYOBO CO., LTD.

### Toyobo group Priority Issues on Human Rights(As of February, 2024)

Toyobo group has identified its priority issues concerning human rights as follows. Based on this policy, it appropriately implements them through the system of human rights due diligence.

These issues will be reviewed accordingly, considering changes in social conditions and other factors.

Cross-Company Issues:

- Forced labor, child labor, human trafficking, poor working conditions, restrictions on freedom of association and collective bargaining rights, inadequate DE&I consideration, inappropriate working conditions and wages, inadequate occupational health and safety, inappropriate working hours, violation of foreign workers' rights, violation of privacy rights, etc.
- All forms of discrimination, such as race, gender, sexual orientation, gender identity, age, place of origin, nationality, language, religion, and disability
- All forms of harassment

### Related Policies

- [TOYOBO Group Charter of Corporate Behavior: 4. Respect for human rights, 6. Active employee participation](#)
- [TOYOBO Group Diversity Promotion Policy](#)



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## Structure

The persons in charge of the group's employees are assigned to the Human Resources Department, and those in charge of the supply chain are assigned to the Procurement and Logistics Department, with the aim of emphasizing respect for human rights in Toyobo group in a proactive, systematic manner. We are deepening our understanding of international human rights related issues that companies need to be aware of and preparing for initiatives on human rights due diligence.

The Senior Managing Executive Officer who is the Controlling Supervisor of the Corporate Planning Division has overall responsibility for matters relating to human rights.

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## Targets and KPIs

### < Targets >

- Toyobo group will carry out initiatives to ensure respect for basic human rights and diversity throughout the entire group, including providing training to foster such respect among employees.
- Through these initiatives, we will aim to be a fair company that is trusted by society.

### < KPIs and results >

Initiatives	KPI	Target (FY2024)	Result (FY2024)
<ul style="list-style-type: none"><li>● Avoid human rights violations</li><li>● Eliminate forced and child labor</li><li>● Respond to human rights laws and regulations (Modern Slavery Act, etc.)</li><li>● Ensure equality in recruitment and treatment of employees</li></ul>	1. Implementation status of human rights education and training	Implement at least four times	For management: 5 sessions For others: 18 sessions Total participants: 2,767

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## Initiatives

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### Respect for human rights from a global perspective

In the countries and regions where Toyobo group has business sites, there are various human rights related issues that reflect the specific political, economic and social circumstances. Such issues may include discrimination in regard to employment and work roles, unfair labor practices, forced labor and child labor, infringement of the human rights of foreign workers, and involvement in corruption. For each Toyobo group business site, it is vitally important to give due consideration to these human rights related issues.

In order to identify the issues that Toyobo group needs to take into consideration, we are participating in the relevant sub committees of Global Compact Network Japan, alongside other participant companies. We are aiming to deepen our understanding of human rights by gathering information on international human rights issues and other issues that corporations need to pay attention to. Going forward, we will continue to identify human rights related issues that we need to consider at each of Toyobo group's business sites.

In FY2024, we conducted a survey targeting all domestic group companies regarding the utilization of the foreign technical intern training program. As a result, we confirmed that the companies do not retain passports or similar documents and do not restrict the freedom of movement for interns. Furthermore, persons in charge of labor affairs and human resources have interviewed interns and confirmed that there are no current issues.

Theme	Details of initiatives
Prevention of child labor	We prohibit the employment of persons under the age of 15 years, or the age for completing compulsory education, or the minimum age for employment in the country or region, whichever is the highest in our business activities.
Prevention of forced labor	Our recruitment of talent is always premised on applications from persons responding to calls for applicants. We notify successful applicants after one or more recruitment screenings. We present information on working conditions when an applicant joins the company, and begin employment with the consent of the applicant.
Support for living wages	We pay wages in compliance with laws and ordinances that stipulate minimum wages in the countries and regions in which we operate.

## Labor and human rights survey

At our domestic (non-consolidated) business sites in FY2024, we conducted a Labor and Human Rights survey addressing matters including child labor, employment equality, and occupational safety and health. Through the survey, we were able to confirm the absence of any violations of human rights laws and ordinances.

For technical intern trainees from overseas, we surveyed implementation and management of technical internships and compliance with labor-related laws and ordinances at relevant business sites and group companies. Through the survey, we confirmed compliance and appropriate implementation in all cases.

Furthermore, we conducted interviews directly with technical intern trainees from overseas at the relevant business sites and group companies, and also conducted on-site inspections. Through these measures, we directly confirmed that human rights are being respected without issues across all business locations.

## Enhancing diversity and equal opportunities

Toyobo group believes that personal and organizational growth is achieved through a process of mutual respect among our employees, with their differing work styles, careers, gender, nationality, race, and beliefs, and through cooperation to achieve our shared objectives. We respect different opinions and a wide range of values, and cooperate to achieve ambitious goals together.

- [Diversity, Equity & Inclusion](#)

## Respecting workers' rights

### Respecting freedom of association and collective bargaining rights

Toyobo group respects freedom of association and collective bargaining rights.

We have set shared targets for labor and management to realize TOYOBO PVVs and we strive to build constructive and stable relationships between management and workers. Labor union activity at Toyobo is based on the union shop system,\* and all employees that are eligible to join a labor union under the labor-management agreement reached between labor and management join the labor union. Our unions represent all their members and the results of negotiations between management and labor are applied to all members without conditions. However, employees in management and other positions above management level are not eligible to join based on a labor-management agreement, and the union membership rate for all employees is 84.9% (as of the end of FY2024).

\* The union shop system is a system whereby all workers employed at a particular workplace are required to join the labor union for that workplace.

## Dialogue between management and labor

We arrange repeated opportunities for frank discussion between labor and management aimed at realizing the TOYOBOPVVs, and we promote the building of the foundations needed for every single employee to be able to work with energy and enthusiasm.

Meetings of the Central Management Council, attended by representatives of the labor union headquarters and of company management, are held once a year, and meetings of the Branch Management Councils are held once a year at each of the nine branches in Japan.

The labor union is represented at meetings of the Central Management Council by staff from the union headquarters, and is represented at Branch Management Council meetings by staff from the relevant union branch, while the company is represented by the President at meetings of the Central Management Council, and by the business site manager or plant manager at Branch Management Council meetings. Topics addressed during discussions between labor and management include the operational status of the company, changes in the amount of pay rises, and the working environment.

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## Reducing excessive working hours

We are engaged in workstyle reform, so that our employees can work with renewed efficiency and achieve a good balance between work and personal life. We aim to ensure that our employees will take at least one day off every seven days in the future.

- [Work-life balance](#)

### Handling of non-compliance with labor standards

	Unit	Scope	FY2020	FY2021	FY2022	FY2023	FY2024
Major violations of laws, regulations, or rules	Incidents	Global	0	0	0	0	0
Serious non-compliance with labor standards	Incidents	Total in Japan	0	0	0	0	0
Number of incidents of serious human rights violations	Incidents	Total in Japan	0	0	0	0	0
Compliance-related incidents that resulted in a criminal complaint	Incidents	Total in Japan	0	0	0	0	0

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## Establishment of complaint handling and internal reporting systems

The Complaint Handling Committee, the Compliance Consultation Service, which is an internal reporting system, and the recently opened the LGBTQ+ Consultation Service accept human rights-related consultations and reports. At each business site, members representing both the company and labor are elected to the Complaint Handling Committee that handles requests for consultation from employees concerning issues related to the Equal Employment Opportunity Law.

In order to ensure that employees can use these systems without concern, the name and other details of employees making reports or receiving consultations are kept private and we guarantee that these individuals will not be negatively affected by their action. We also strive to detect and solve human rights issues at an early stage through compliance surveys.

- [Compliance consultation desks](#)
- [LGBTQ+ consultation desk](#)
- [Initiatives to prevent harassment](#)

## Internal education initiatives

### Internal communication of our Code of Conduct and Compliance Manual

Toyobo group has created English and Chinese versions of the TOYOBO Group Charter of Corporate Behavior in order to implement internal education that enables employees around the world to share the same vision.

We use our TOYOBO Group Compliance Manual to familiarize employees with rules and case studies concerning respect for human rights, prohibition of discrimination, prohibition of child labor and forced labor, and protection of personal information.

We also familiarize and educate hiring recruiters on human rights-related cautions to be observed in interviews.

### Human rights-related training

Since FY2020, we have included employees of group companies to the scope to raise awareness of human rights, mainly through seminars and training.

In FY2023, we conducted various activities including training for new hires, grade-specific training, lectures, and training sessions for personnel appointed as promoters of human rights at each business site, with a total of 515 individuals participating in such activities.

Starting from FY2024, the Corporate Sustainability Department, Human Resources Department, and Procurement and Logistics Department have jointly initiated "business and human rights training" for all employees to enhance their understanding of human rights due diligence.

Lectures on "business and human rights" have been conducted on numerous occasions, with 2,767 participants having undergone training on this topic.

In addition to these seminars and training sessions, we have also introduced "business and human rights" e-learning to allow employees the flexibility to voluntarily participate. Our efforts aim to foster an environment where sensitivity to human rights is enhanced over the long term.

#### Business and human rights study session in FY2024

Months	Instructor	Participant
Jun. 2023	Mr. Shuichi Osaki, General Manager, Sustainability Development and Engagement Department, TEIJIN LIMITED	Officers
Oct. 2023	Ms. Mikiko Morimoto, Representative Director, karna ltd.	Persons in charge of labor affairs at the business sites
Dec. 2023	Ms. Emi Sugawara, Professor, Osaka University of Economics and Law	Officers
Feb. and Mar. 2024	Sustainability, persons in charge of the human resources and labor affairs, and procurement and logistics	Officers and employees



Study session for persons in charge of labor affairs at the business sites in Oct. 2023



Study session for officers in Dec. 2023



Study session for officers and employees in Feb. 2024

In October 2023, we began distributing 14 videos on "business and human rights" to all officers and employees including those of three major group companies, making them available to view on demand.

We have added "business and human rights" to the theme of our compliance study sessions for managers since FY2024. We plan to hold these sessions at 12 group companies, which hold them by the end of the fiscal year.



## Participation in the Global Compact Network Japan Subcommittee

In order to identify the issues that Toyobo group needs to take into consideration from among the human rights related issues existing in each region, we are participating in the relevant sub committees of Global Compact Network Japan, alongside human rights NGOs and other participant companies. We are aiming to deepen our understanding of human rights by gathering information on international human rights issues and other issues that corporations need to pay attention to and apply it to our awareness-raising activities.

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## Respecting human rights in the supply chain

### Revision and communication of the CSR Procurement Guidelines

To achieve the SDGs throughout our supply chain, in September 2022 we conducted a review with strengthened consideration of respect for human rights and the environment, and revised our CSR Procurement Guidelines.

We clearly state in the guidelines that we take matters involving human rights (including the prohibition of child labor, forced labor, and discrimination against people of any attributes, including LGBTQ+) into account in our selection of business partners, and we communicate these guidelines to them.

### Human rights risk assessment based on the CSR procurement survey

Our company also conducts a CSR procurement survey based on our CSR Procurement Guidelines, directed at our major business partners. From the human rights items in the survey, we evaluate partners' initiatives aimed at human rights.

After analyzing and evaluating survey responses, we perform appropriate follow-up through interviews and other means to address business partners that are judged to be at high risk.

### Dealing with new and existing business partners

We ask new business partners to cooperate with our questionnaires when commencing new dealings with these, and periodically make the same request to existing business partners.

- [Supply Chain Management](#)
- [CSR Procurement Guidelines](#)

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## Engagement with stakeholders

### Engagement with local communities

To protect the human rights of stakeholders in local areas, in cooperation with government bodies we engage with issues that affect human rights in communities through information exchanges with neighboring residents, community associations, cooperatives, and other parties, as well as steadfast public relations activities. The results of this engagement are of aid in measures to combat noise, odors, wastewater, and other issues.

As an example, our Tsuruga Research and Production Center conducts information exchanges with local community associations and cooperatives once a year. We also provide neighboring areas with advance notice when performing periodic inspections.

### Engagement with overseas technical intern trainees

In our engagement with overseas technical intern trainees, the support we provide at relevant business sites includes the preparation of materials in trainees' native languages, support for official procedures, and accompaniment on hospital visits. We have also set up venues for listening to trainees' everyday troubles related to differences in lifestyles, addressing these as needed.

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## Participation in initiatives

We participate in the labor subcommittee meetings of the industry associations, Spinners' Association of Japan and Chemical Fibers Association of Japan. The subcommittee discusses work-related issues (working hours, leave systems, personnel systems, retirement benefits, etc.), including labor standards, and labor issues (e.g., measures against COVID-19, teleworking and other work styles).

In September 2023, we participated in the declaration for Responsible Business Conduct for the Textile and Clothing industry of Japan by the Japan Textile Federation. This declaration indicates that the company understands the purpose of the Guideline for Responsible Business Conduct for the Textile and Clothing Industry of Japan released by the Federation in 2022, and agrees to promote respect for human rights in accordance with the Guidelines (As of November 2023, 731 companies have declared).

In November 2023, the Chemical Fibers Association of Japan established the "Human Rights DD Response Committee" consisting of the regular members of the association, in which we are also participating. The committee members share information and exchange opinions on human rights issues in the supply chain, including trends of government policy and the Japan Textile Federation, as well as the status of responses at each company, and hold seminars and other events.



# Safety, Disaster Prevention

Materiality	
Related ESG : <b>E S G</b>	    
Safety and industrial accident prevention	

↓ Management approach   ↓ Initiatives   ↓ Fire prevention measures (FY2024)

## Management approach

### Policy and approach

Toyobo group recognizes that ensuring health and safety is a precondition for corporate activities. We have formulated the Toyobo Group Basic Policy on Health & Safety, which applies not only to our employees but also to the personnel of partner companies (contractors), and we are striving to build a safe workplace environment.

Our safety declaration, instituted in April 2022, states that “We will ensure ‘safety first’—occupational safety, environmental safety, product safety, and equipment safety.” Our slogan in FY2024 was “Protect yourself, protect your colleagues, and speak up when noticing something,” and it remains the same in FY2025.

Toyobo group designates September as “Disaster Preparedness Month” and September 6 as “Toyobo Group Disaster Preparedness Day,” when we conduct awareness-raising activities related to preparedness for fires and other disasters.

We do so out of a powerful determination to never forget the fatal fires that occurred at the Tsuruga Research and Production Center (No. 2 Plant) on September 6, 2018, and the Inuyama Plant on September 27, 2020, and to never allow the lessons learned from these to fade away.

We are committed to creating fire-resistant workplaces and developing personnel with the competence to securely prevent fires, aiming to rebuild trust from society by establishing robust production sites.

#### < TOYOBO Group Basic Policy on Health & Safety >

##### 1. Health & safety principle

Based on the concept that ensuring safety and sanitation is a major premise for business activities, we will actively work to ensure the safety of employees, enhance the cleanliness of working environments, and improve health under the spirit of respect between people with the aim of creating cheerful, happy workplaces and a prosperous society.

##### 2. Policy for health & safety activities

###### (1) Ensuring workplace safety

Toyobo group works to enhance the safety and security of environments at its workplaces with the aim of achieving zero accidents.

###### (2) Enhancing environmental sanitation and improving health

Toyobo group is enhancing the sanitation of environments at its workplaces and working to improve the health of its employees with the aim of realizing happy workplaces.

###### (3) Compliance with social norms

Toyobo group complies with social rules and works to realize a prosperous society and communities with which the company can coexist.

## Structure

To ensure steady progress in safety and disaster prevention initiatives, which are among our most important management issues, we have established the Safety and Disaster Management Division.

This division reports directly to the President and possesses a high degree of decision-making authority.

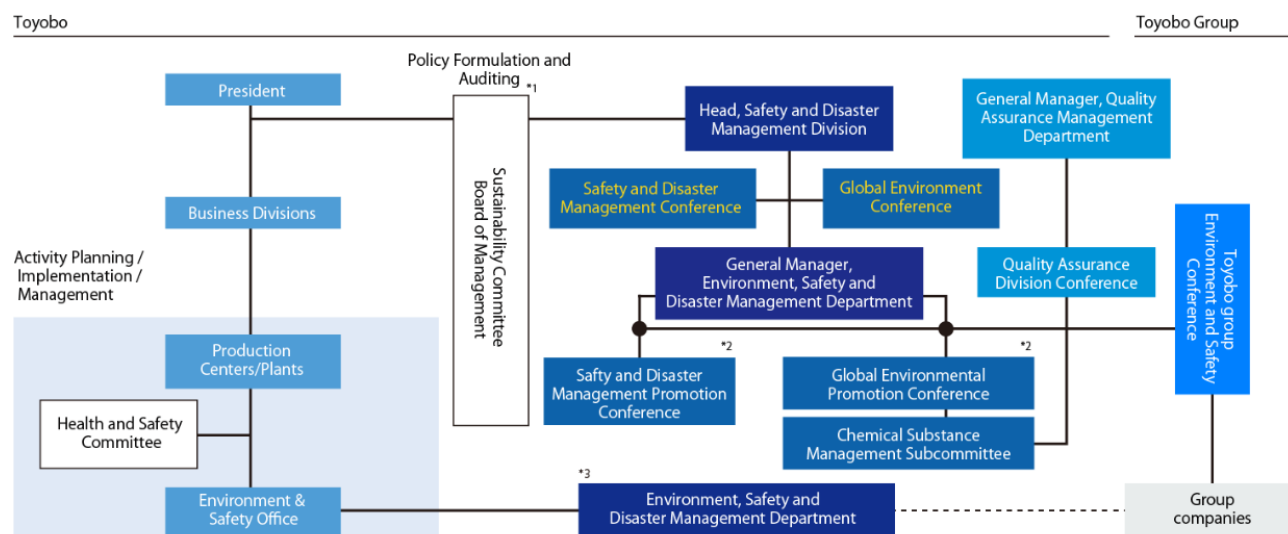
The Head of the Safety and Disaster Management (S&DM) Division, who is also the Representative Director and Senior Managing Executive Officer, leads the Safety and Disaster Management Conference. This conference includes experts from various fields as its members. During these meetings, the members evaluate the effectiveness of safety and disaster management activities and draft company-wide policies, which are then finalized by the Sustainability Committee. The conference also reports on progress to the Board of Directors as appropriate.

Under the SD&M, the Environment, Safety and Disaster Management Department plans and advances safety and disaster management activities. It also hosts the Safety and Disaster Management Promotion Conference, which is composed of representatives from each department. This conference handles discussions, decision-making, and progress on specific matters based on established policies. It also organizes teams of members and a chairperson to visit the company's business sites, factories, and group companies to conduct safety and environmental assessments and to inspect local activities. To address fire and explosion risks in particular, we perform periodic on-site management inspections through third-party experts.

Furthermore, each production center, plant, and research center has its own Health and Safety Committee. These committees, composed of employee representatives, managers and experts, investigate and deliberate on matters relating to employee safety, disaster prevention, and health, including the status of risk assessments, at each workplace.

Labor union representatives also participate in the discussions of the Safety and Disaster Management Promotion Conference and the Health and Safety Committee.

### Toyobo group structure for safety, disaster prevention, and the environment



\*1 Evaluates the effectiveness of and decides policy on safety, disaster prevention, and environmental activities

\*2 Deliberates on and decides specific matters, and manages progress

\*3 Supports activities, provides information, and conducts departmental coordination

## Targets and KPIs

### < Targets >

- We will strive to prevent disasters and accidents by clarifying and thoroughly complying with basic safety throughout the entire Toyobo group.

## < KPIs and results >

Initiatives	KPIs	Targets	Results (2023)
<ul style="list-style-type: none"><li>● Build a culture of safety</li><li>● Prevent workplace accidents (make human-operated equipment safer, promote security and disaster prevention)</li></ul>	1. Number of major accidents*	0 accidents per year	0 accidents
	2. Frequency rate of workplace accidents resulting in lost workdays	0.25 or less	1.15
	3. Number of fires or explosions	0 accidents per year	0 accidents
	4. Number of spill accidents	0 accidents per year	1 accidents

\* Major accidents: Defined according to internal standards based on the definition stipulated by the Ministry of Health, Labour and Welfare

## Initiatives

### Safety initiatives

Under the TOYOB0 Group Basic Policy on Health & Safety, we are implementing the following occupational safety initiatives.

#### Making people, equipment, and processes safer

We identify sources of serious hazards and enact measures to prevent major accidents. Specifically, we use risk assessments and work research to assess on-site risks, then make improvements to equipment and work processes. We are also making efforts to prevent accidents by incorporating those improvements in procedure manuals and by educating employees. When an accident occurs at other companies or workplaces, we review the incident as a case study to prevent the occurrence of similar accidents, while checking for and addressing similar risks in our own workplaces.

We issue "Safety and Disaster Prevention News." Using the lessons from accidents and disasters that have actually occurred in the past, it helps to spread awareness by providing easy-to-understand explanations, supported by illustrations, regarding key points to note to conduct operations safely, and how to respond in the event of an accident. These are becoming widely used as tools for dialogue at workplace safety meetings, and back issues of the documents are available on our company intranet for viewing at any time.

In production centers where the foreign technical training system (overseas trainees) is in operation, we have assigned instructors to provide Japanese language education and support for daily life to ensure the safety and livelihood (communication) of the trainees.

As an example, for trainees to work safely, we devise ways to make it easier for them to understand, such as translating the standard operating procedure (SOP) and using hiragana to write the reading kana.

## Promotion of disaster prevention

In order to learn from the fire that occurred at our plants and empower employees to protect their own workplaces in the event of a fire, we revised the content of our fire drills to make them more practical and enabled participation in drills by all employees, including those of cooperating companies, at least once a year. For group companies inside and outside of our business sites, we advance these activities under our group policy and are gradually expanding the number of targeted companies.

Together with people at workplaces, we promote steady actions to strengthen disaster prevention, with the aim of creating worksites that prevent fires from occurring and that, in the event a fire does occur, prevent personal harm and minimize other damage. Toward that end, we have established guidelines for fire prevention equipment and standards for disaster prevention management to reduce the risk of fires. To address fire and explosion risks, we perform periodic inspections of on-site management through third-party experts.

With regard to natural disasters, we will continue to implement disaster mitigation measures by reinforcing buildings against earthquakes, improving office and plant infrastructure, and conducting emergency response drills.

## 3S activities and training

We undertake 3S (sort, sweep, and standardize) activities, which are the foundation for safety and disaster prevention activities, on a company-wide basis. We have put in place a safety and disaster prevention training system that is shared throughout the company, and we provide the safety and disaster prevention training that is needed at each level.

In addition, with the aim of realizing effective safety and disaster prevention knowledge training, we have installed Disaster Prevention Training Workshops—training spaces in which panel exhibition plays a central role—in all production centers, and we have established Disaster Prevention Experience Training Facilities at key sites.

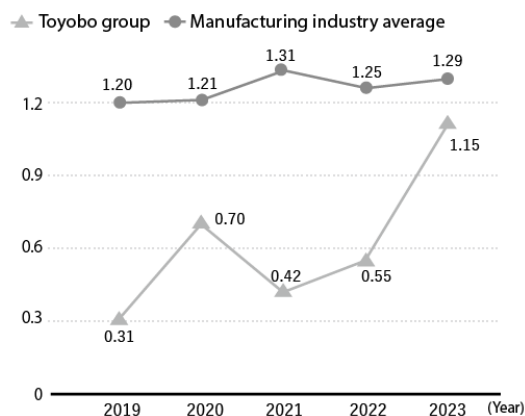
### Utilization of facilities for experiential safety and disaster preparedness training

To review past disaster incidents and prevent them from fading into obscurity, disaster prevention training centers have been established at the Tsuruga Research and Production Center, the Iwakuni Production Center, and the Inuyama Plant. These facilities aim to enhance knowledge and awareness of safety and disaster prevention, allowing participants, from both within and outside the company, the opportunity to experience the severity of disasters through simulated equipment.

These facilities provide a range of experiences, from common scenarios like slips and falls during walking, which are widespread nationally as well as within our group, to incidents involving falls from steps and platforms, accidents where individuals are pulled into machinery, and the challenges of dealing with smoke and evacuations during fires. Additionally, they simulate the risks associated with fires and explosions caused by dust and static electricity. The centers also share case studies of accidents that have occurred in Toyobo group in the past through digital signage and other means, providing a platform for trainees to gain fresh insights into safety and disaster prevention.



## Frequency rate of lost workday injuries (Japan)



Toyobo group is striving to achieve zero accidents in accordance with the TOYOBO Group Basic Policy on Health & Safety. We place importance on the frequency rate of workplace accidents resulting in lost workdays<sup>\*1</sup>. This was 1.15 in 2023, including affiliated businesses at the same business site.

We have set a goal of zero major incidents<sup>\*2</sup> as a KPI, we achieved zero major accidents.

<sup>\*1</sup>: Frequency rate of workplace accidents resulting in lost workdays refers to the rate of accidents resulting in lost workday injuries per one million hours worked

<sup>\*2</sup>: Major accidents: Defined according to internal standards based on the definition stipulated by the Ministry of Health, Labour and Welfare

### • [Health and Productivity Management Efforts](#)

## Acquisition of occupational safety and health management system certification (ISO45001)

We are pursuing ISO45001 certification to conform with requirements for an occupational safety and health management system, aiming to mitigate risks in our working environments. As of March 31, 2024, we have obtained certification at three sites: the Tsuruga Research and Production Center, the Iwakuni Production Center, and the Utsunomiya Plant. We plan to continue obtaining certifications at our other production centers and plants.

## Fire prevention measures (FY2024)

In the wake of the September 2018 fire accident at the Tsuruga Research and Production Center (No. 2Plant) and the September 2020 fire accident at Inuyama Plant, Toyobo group is taking two main approaches to improving safety prevention. We are fostering a culture of safety by clearly establishing safety as the highest priority and revising our education structure. We are also fortifying our safety infrastructure by formulating a plan to enhance our safety and disaster prevention equipment and management and by developing specific PDCA cycles.



## Fostering a culture of safety

We had always emphasized that “safety is the highest priority” at our worksites. However, we recognized that insufficient management involvement had been a problem. To foster a deeply ingrained culture of safety, in April 2022 we introduced the New Safety Declaration. This declaration clarifies for all employees our commitment to prioritizing safety in occupational labor, as well as in relation to our products and equipment, and the environment.

Measures to enhance our awareness of safety issues include restructuring the position-based safety education system and introducing safety workshops for top management and educational programs for managers conducted by external organizations. A safety workshop for top management was held in December 2021, where company executives had the opportunity to study safety practices at different companies. We have held safety workshops for newly appointed officers and group company presidents since FY2023, a practice that continues to this day.

In November 2022, we conducted a survey of safety awareness among top management, Toyobo employees, and employees of cooperating companies involved in production to assess safety awareness within their respective organizations. The survey targeted 7,525 individuals, achieving a response rate of 93%. Strengths and weaknesses in every aspect of organizational structure, business operations, and leadership related to safety were visualized. Drawing on the survey findings, we are advancing activities to address weaknesses and enhance the safety culture across the organizations.

## Fortifying for safety infrastructure

To address delays in funding and implementing safety and disaster prevention measures due to a focus on short-term budgets in business operations, in FY2022 we formulated the Medium-Term Management Plan for Safety and Disaster Prevention.

Working with external specialists, we created detailed risk maps for 29 sites, including domestic group companies, and evaluated the natural disaster risks for each location. We are integrating this information into future workplace planning while advancing disaster preparedness measures.

Additionally, we conducted assessments of disaster prevention capabilities at all business sites and identified areas requiring improvements to mitigate the spread of fires. As a result, we plan to invest an additional ¥18.6 billion across the group, with completion of these measures scheduled for FY2026.

We have also initiated the Disaster Management Project, aimed at establishing comprehensive disaster prevention management mechanisms. Specifically, we consulted experts to develop group-wide standards for fire prevention management. These standards are designed to align with actual conditions, enabling on-site self-inspections. Additionally, we have implemented a system where specialists conduct regular checks on operational conditions at workplaces.

## Key issues in FY2025

In FY2025, we will advance initiatives with the following set as key issues:

- Deployment of safety and disaster prevention activities with participation by all employees
- Prevention of recurring occupational accidents
- Enhancement of hierarchy-specific training



### Steps to enhance our culture of safety

	FY2024	FY2025	FY2026	FY2027	FY2028 onward
Fostering a culture of safety Reform of behavior and consciousness Reestablish shared values and communications	Dependency*	Challenge toward independence*	Transition to independence*	Challenge toward mutual enlightenment*	
	Workshops for specific position levels Management executives, site/plant managers and supervisors		Broaden to group companies and overseas sites		Repetitive education
	Utilization of safety awareness surveys Enhancement of opportunities for participation in safety activities and continuation of safety dialogues				

\* This expression is a quote from the dss+ Bradley curve of the stages of safety culture development



# Quality

Materiality	
Related ESG : <b>S G</b>	 
Quality	

↓ Management approach   ↓ Initiatives   ↓ Response to the improper quality incidents

## Management approach

### Policy and approach

Toyobo group is striving to ensure customer satisfaction and win customers' trust, not only through the safety of our products and services, demonstrating concern for the environment, and maintaining compliance with relevant laws and regulations, but also through high quality standards. In order to achieve this, we have formulated The Toyobo Group's Basic Policy on Product Safety and Quality Assurance. To safeguard the quality and safety of the products and services that we provide, we have established an appropriate management system, we perform quality inspections using suitable procedures, and we also strive to ensure that data is properly handled.

#### < The Toyobo Group's Basic Policy on Product Safety and Quality Assurance >

##### 1. Product Safety and Quality Assurance Principle

The Toyobo Group will strive to provide products and services that satisfy and earn the trust of society, consumers, and customers.

- We will ensure all employees have a keen awareness of the need to prioritize quality while keeping the customer's perspective in mind.
- We will provide products and services that meet the changing needs and expectations of the times, that are useful to society, and that give due consideration to the safety and protection of the environment and information.

## 2. Activity Policy for Product Safety and Quality Assurance

- (1) Comply with all applicable laws and regulations  
We will comply with all relevant laws, regulations, standards, and norms in relation to the safety of our products and services.
- (2) Ensure product safety  
We will ensure the safety of our products and services not only for their intended use but also against any reasonable, foreseeable misuse.  
We will also strive to improve safety by voluntarily setting higher safety standards when necessary.
- (3) Establish a system for promoting product safety  
We will promote product safety and quality assurance throughout the product lifecycle, from development, design, manufacturing, sales, use and disposal, as well as throughout the supply chain.
- (4) Protect and provide information appropriately  
We will strive to protect all confidential information obtained through any product safety and quality assurance activities as set forth in the Toyobo Group Privacy Policy.  
We will also proactively provide relevant information to stakeholders whenever appropriate.
- (5) Promote education and awareness  
We will promote awareness of product safety and quality assurance through education and awareness activities of all employees, including officers.

## Structure

Our group has established a Quality Assurance Division Conference to oversee product liability (PL) and quality assurance (QA). In this conference, executives overseeing quality, the Quality Assurance Department General Manager in charge of business divisions, and members of the Quality Assurance Management Department meet every month. We also plan to convene the PL/QA Promotion Committee, composed of members at the business division General Manager level, six times a year, and did so in FY2023.

We have established the Quality Assurance Division as one of the measures to prevent recurrence of inappropriate conduct. Under the division, we have placed the Quality Assurance Management Department, and also the Quality Assurance Departments which are in charge of the division. By establishing the independence of the quality assurance related departments, a function which was previously implemented in each business division, we have strengthened its control over the business divisions. In addition, the Quality Assurance Management Department has been given the authority to guide and suspend the development, production, and sales of the company and group companies regarding product safety (PS) and QA of Toyobo group, and we are working to construct an appropriate quality management system and strengthen governance.

### QA structure (As of April 2024)



## Targets and KPIs

### < Targets >

- We will increase customer satisfaction by practicing quality management throughout our entire supply chain, including upstream areas, and ensuring quality that can be trusted.

## < KPIs and results >

Initiatives	KPIs	Targets	Results (FY2024)
<ul style="list-style-type: none"> <li>Realize stable supply, contribute to solutions for customer issues, fulfill customer needs</li> <li>Ensure product safety and quality</li> </ul>	1. No. of incidents related to products*	0 incidents per year	0 incidents
	2. Implemented status of products safety and quality assurance training	100%	100%

\* Incidents related to products: Defined according to internal standards based on the definition stipulated by the Ministry of Economy, Trade and Industry

## Initiatives

### QA initiatives

Employees have shared access to the Quality Assurance Manual, which describes the basic approach and code of conduct for all employees when implementing Toyobo group's development, production and sales activities, and use it as the basic philosophy for Toyobo group manufacturing.

We have multilingualized our Quality Assurance Manual and deployed it to each location in countries. We also hold study sessions using the digest version to deepen understanding of manufacturing in our group.

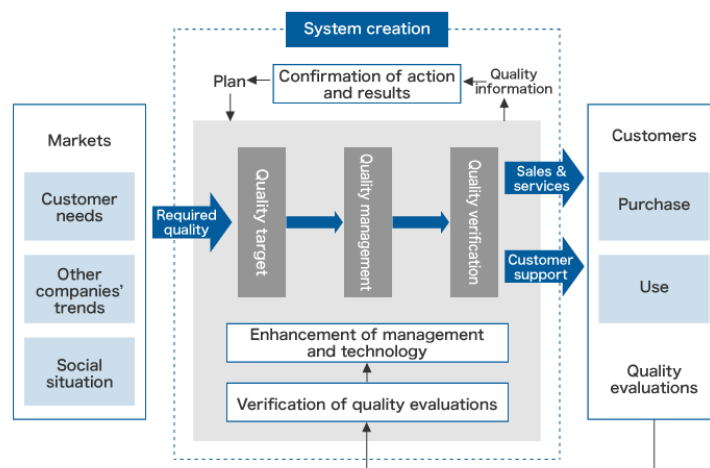
We have further set out Quality Assurance Guidelines and are taking action to build systems that can guarantee quality.

From FY2022, we have conducted quality assurance reviews led by the head of the Quality Assurance Division to assess the quality assurance initiatives of business divisions, with the aim of strengthening quality assurance systems and governance. These reviews have clarified quality issues, while interim reviews are conducted to monitor progress in improvements.

We have enhanced our QA systems for products and services to ensure quality and product safety at every stage. In addition, our Quality Assurance Guidelines undergo rigorous scrutiny by business managers, relevant stakeholders both inside and outside the company, and specialists. This thorough review aims to prevent accidents or disruption in markets.

November was once again designated as Quality Month for FY2022. During this period, key initiatives included disseminating quality assurance messages from the president and division heads, along with displaying Quality Month posters and digital signage across all sites. We held PL/QA seminars, and reviewed quality-related misconduct at individual workplaces in accordance with the Compliance Manual.

### Overview of QA initiatives

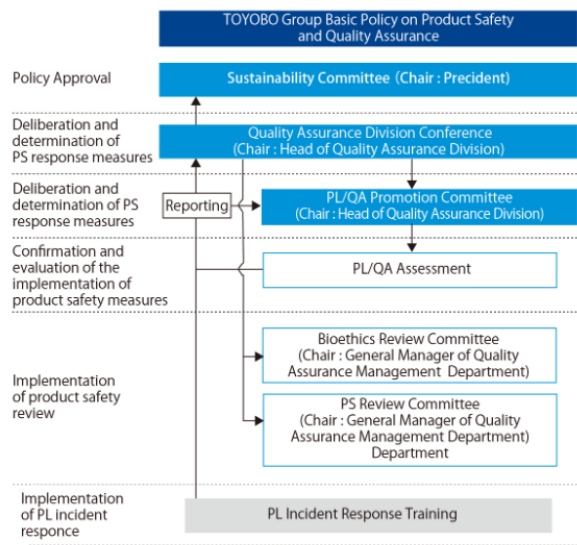


## Product safety promotion activities

For each department and group company, we conduct PL/QA assessments carried out by the Quality Assurance Division, which has been made independent of the business divisions, or by QA personnel from different departments, to verify and improve PS activities. Moreover, we have established criteria for assessing PL and PS risk, and based on these criteria, we carry out inspections at each stage, from product development to sales, striving to reduce risk.

All possible measures are taken to ensure PS, and training drills are also conducted on a regular basis at all business divisions based on PL incident scenarios. PS remains a crucial theme throughout the whole of the group, and we will continue to mitigate risk as much as possible and strive to fulfill our social responsibility.

### PL response system



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## Product safety and quality assurance education

We implement PS and QA education not only for new employees and new managers, but also for other employees at each level.

Name of seminar	Number of times held	Target / purpose	Notes
Seminar on basics of quality assurance	4 times per year	Education for new employees and department-specific education	Packaged into e-learning format
Qace seminar*	4 times each in the first half and the second half of the year	Development of core human resources for quality control and quality assurance, and construction of an in-house human resource network for quality	Launched in FY2023
Training in case studies involving quality irregularities	10 times per year	Training involving quality irregularities	Launched in FY2023
Education on cases of quality irregularities	43 times per year	Education to raise awareness about the importance of eliminating quality irregularities by introducing past cases	Launched in FY2024

\* "Qace" is an acronym formed from "Qa\_assurance," "Qc\_control," and "Qe\_ensurance."

Name of seminar	Month held	Target / purpose	Theme in FY2024
PL/QA seminar	November	Held as a component of quality assurance in which all employees participate	Activation of individuals and organizations
Quality management seminar	January	Held as an opportunity for top management to consider quality management	Problem-solving through data science and its standard scenarios

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## ISO 9001 Certification Status

- [ISO9001 Certification Status](#)

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## Response to the improper quality incidents

Toyobo group is responding to the improper quality incidents discovered related to the PLANAC® and other engineering plastics in 2020 by firmly establishing "manufacturing that fulfills our promise to provide safety and security from the customer's perspective" and by fortifying the inspection and quality confirmation mechanisms in the group's risk management system.

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## Status of the engineering plastics department

Following improper quality incidents involving PLANAC® and other products, we have individually contacted our customers and reacquired Underwriters Laboratories (UL) certification for most of our products.

We also proceeded to investigate the status of all our products through questionnaires and other methods. Any improper quality incidents in the Engineering Plastics Department deemed serious issues, such as violations of agreements with customers, were individually reported to all affected customers and addressed.

Based on our investigations and customers' cooperation with confirmations, we have not identified any serious defects in product safety or basic functions. Through the establishment of robust quality control systems and enhanced governance, we are dedicated to rebuilding trust in our company.

Additionally, we regained ISO 9001 certification, which had been revoked due to these incidents, from Lloyd's Register Quality Assurance Limited (LRQA) in May 2024.

## Lifting of the FDA Warning Letter at Otsu Pharmaceuticals Plant

On August 19, 2021, Toyobo received a Warning Letter from the U.S. Food and Drug Administration (FDA) regarding the quality management procedures of pharmaceutical manufacturing processes at the Otsu Pharmaceuticals Plant (Otsu City, Shiga Prefecture). Since then, we have been working closely with the FDA to address the issues identified.

Following an inspection by the FDA in February 2023, we received a Close-out Letter dated July 5, 2023 regarding the lifting of the Warning Letter. Moving forward, we will continue to maintain close collaboration with the FDA, dedicating our efforts to improving and strengthening our production and quality management systems.

Our goal is to strive towards being a contract manufacturer that contributes to providing high-quality pharmaceutical products needed by patients worldwide.

## Strengthening the quality risk management system

The company responded to the improper quality incident by adopting a “three lines of defense” structure at the start of fiscal 2021. The multi-layered structure for detecting and preventing quality-related misconduct positions the business divisions as the first line of defense and the Quality Assurance Division and Internal Audit Department as the second and third lines of defense.

The Quality Assurance Division, which is the second line of defense, identified improper inspections and other items as significant quality-related risks, and led and assisted risk assessments at each business unit. The division formulated measures to reduce risk and has begun assisting in the application of the measures.

The Internal Audit Department, the third line of defense, created a Risk Management Audit Team to perform quality audits for the first and second lines of defense. The department collects information on the operation status and current issues of the Quality Assurance Division and the business divisions, and examines the best approach to coordinating audits.

In the second half of fiscal 2021, the Internal Audit Department began a first line audit with the Quality Assurance Division. The department also audited the Quality Assurance Division and had a frank dialogue with the division about expectations for its supervision of each business division.

We also implemented data integrity (DI) measures related to quality, including automating the inspection report processes of each business division's Quality Assurance Departments to reduce human error, among other initiatives.

### The three lines model for quality assurance





# Supply Chain Management



↓ Management approach    ↓ Initiatives

## Management approach

### Policy and approach

In the recent context of rapid globalization and the expansion of social issues to be solved, there is an even stronger demand for CSR activities and risk management, as "contribution to the building and development of a sustainable society" is a corporate social responsibility.

In this environment, it is imperative for us to promote procurement activities that place greater emphasis than ever before on CSR factors such as the natural environment and labor environment, and human rights, in addition to the conventional quality, performance, price, and delivery conditions, when procuring products, materials, raw materials, and other items.

Toyobo group is contributing to achieve the SDGs, which support the development of a sustainable society, throughout our entire supply chain by establishing an appropriate trading policy and conducting procurement and logistics responsibly.

Based on the principle of "2. Fair business practices" in the TOYOBO Group Charter of Corporate Behavior, we practice fair competition and dealings, responsible procurements & logistics and, maintain sound relationships with society and stakeholders, including customers and business partners.

We have formulated CSR Procurement Guidelines that deal with matters such as legal compliance, fair trade, consideration for the environment, and respect for human rights (including the prohibition of child labor or forced labor and discrimination based on gender identity including LGBTQ+), and Green Procurement Guidelines that are considerate of the environment. In September 2022, we revised the CSR Procurement Guidelines based on various recent global issues.

#### < Basic Policy on Transactions in Procurement and Logistics >

##### 1. Compliance

We comply with the laws and regulations of the countries and regions in which we operate, respect corporate ethics and social norms, and behave conscientiously.

##### 2. Securing fairness, equality and transparency

We open the door wide to all companies and make fair and impartial judgments to ensure that business transactions are conducted in a highly transparent manner.

##### 3. Partnership

We make efforts to build sustainable partnerships with our business associates so that we can all grow by deepening mutual understanding through active dialogue.

#### 4. Promotion of CSR-based procurement

We promote business practices that meet our standard of corporate social responsibility, such as respect for human rights, environmental protection, product safety, quality assurance, and industrial safety and health.

- Promote CSR and actively work toward social contribution
- Maintain and strengthen legal and other compliance, fair business transactions, and corporate ethics
- Maintain and strengthen environmental activities
- Assure quality and safety in our supply of products
- Respect human rights
- Disclose information to stakeholders and engage in dialogue in a timely and appropriate manner, and maintain and strengthen information security measures

## CSR procurement

We have formulated our CSR Procurement Guidelines and Green Procurement Guidelines with the aim of fulfilling our social responsibilities, such as ensuring legal compliance, product quality and safety and respect for human rights, and enhancing value throughout our entire supply chain through initiatives such as contributing to regional communities and environmental conservation. In addition to sharing these guidelines through our website, we carry out CSR procurement surveys for business partners requesting their understanding and cooperation in actively advancing initiatives.

- [CSR Procurement Guidelines](#)
- [Green Procurement Guidelines](#)

## Targets and KPIs

### < Targets >

- Throughout its supply chain, Toyobo group aims to realize procurement and logistics that involve fair and sincere transactions, respect human rights, are environmentally friendly, and consider impact on both society and the environment.
- We will reduce CO<sub>2</sub> emissions by promoting green logistics, such as implementing a modal shift to rail and sea transportation and improving loading efficiency.

### < KPIs and results >

Initiatives	KPIs	Targets	Results (FY2024)
<ul style="list-style-type: none"><li>• Realize sustainable, responsible procurement and logistics</li><li>• Carry out transactions that are fair and respect human rights</li><li>• Build a low-carbon society</li></ul>	1. Ratio of CSR procurement surveys returned	90% or above (In years when a survey is not implemented, we carry out dialogue with business partners that past surveys have shown have issues)	1. 93% (FY2024)
	2. Ratio of reduction in CO <sub>2</sub> emissions per unit of transportation* in relation to logistics	Year on year reduction of 0.5%	2. Year-on-year reduction of 0.4%

\* CO<sub>2</sub> emissions per unit of transportation (in g-CO<sub>2</sub>/t-km) represents the number of grams (g) of CO<sub>2</sub> emitted per tonne of goods transported over one kilometer.

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# Initiatives

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## Fairness and transparency in trade

We take a rigorous approach to ensuring fairness and transparency, based on sound trading. We do not give or accept gifts or entertainment in order to secure unjust profit or preferential treatment from our business partners, and we have established a prior consent system to strengthen our checking system to ensure that actions that go beyond what is deemed socially acceptable do not occur.

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## Toyobo group CSR procurement seminar

In October 2023, we distributed a movie of the CSR procurement briefing to our approximately 500 major suppliers worldwide.

At the seminar, we explained the sustainability initiatives of Toyobo group, including carbon neutrality, respect for human rights, and CSR procurement, and requested compliance with the Toyobo Group CSR Procurement Guidelines. We also expressed our commitment to cooperate with our suppliers and contribute to the development of a sustainable society throughout the supply chain.

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## CSR procurement survey

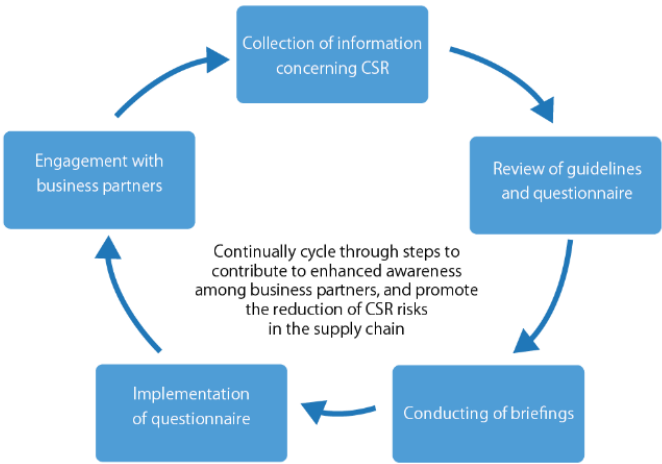
### Implementation of the CSR procurement survey and risk assessments

Our company communicates our CSR Procurement Guidelines to major business partners worldwide and conducts risk assessments concerning information security and social issues that include the environment, safety, human rights, labor, and compliance (including the prevention of graft, bribery, fraud, money laundering, and other corruption). These risk assessments involve questionnaire surveys distributed to our major business partners worldwide, aligning with our CSR Procurement Guidelines. Based on the self-assessments received from these questionnaires, we initiate improvement activities aimed at mitigating societal and environmental impacts and reducing risks. Collaborating closely with both suppliers and buyers, we work to advance CSR procurement practices that promote the sustainability of society.

We conduct annual surveys and follow-up dialogues with our business partners, completing a supplier engagement cycle every two years. The most recent survey was conducted in fiscal 2024. In fiscal 2025, we will request initiatives for improvement individually based on the survey results.

### Engagement with new and existing business partners

We regularly ask existing business partners to cooperate with our questionnaires and then perform risk assessments. We also confirm that new business partners have acknowledged our CSR Procurement Guidelines at the start of business with us.



## Results obtained in CSR procurement surveys in FY2024

Through these surveys, we evaluate suppliers' risk related to social issues. We collaborate with suppliers to address identified issues from the risk assessment and aim to elevate CSR across the entire supply chain. When onboarding new suppliers, we request their participation in surveys, and we engage existing suppliers in ongoing survey collaboration. If CSR procurement surveys reveal issues, we implement corrective measures.

### 1. Survey overview

● Aggregation scope and no. of suppliers covered: 476 suppliers representing 90% of overall transaction volume

● Breakdown of Suppliers

Raw materials suppliers	Equipment and machinery suppliers	Logistics providers	Outsourced manufactures, etc.
69%	23%	4%	4%

● Survey content

The survey was drawn up based on the CSR Procurement Self-Assessment Questionnaire issued by Global Compact Network Japan.

● Survey items

Corporate governance, human rights, labor practices, environment, fair business practices, quality and safety, information security, supply chain, and coexistence with local communities

### 2. Aggregated results

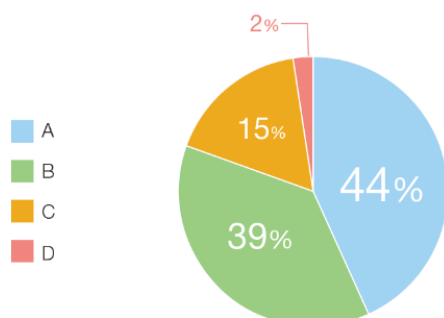
The response rate was 94%.

Risk assessment rank	Points band	No. of companies	Share of total	Content and response
A	90 points or higher	195	44%	CSR measures implemented are excellent → Feedback on survey results
B	61-89 points	176	39%	CSR measures implemented are adequate → Feedback on survey results
C	Total 60 or under with no significant risk items	66	15%	Progress is being made in CSR initiatives and significant risks are low → Feedback on survey results
D	Total 60 or under with low scores for significant risk items	11	2%	For items with risks, particularly regarding human rights, we will request initiatives for improvement individually.
-	Total	448	-	-

Number of companies requested 476

Response rate 94%

### Evaluation results of CSR procurement survey



### Evaluation scores of CSR procurement survey



### 3. Evaluation results

The average score of the survey was 79%. After respondents completed the survey, we provided feedback in the form of an “evaluation score” and a “radar chart” to help them assess strengths and weaknesses. Regarding “weaknesses,” we request continued efforts for improvement.

After analyzing and evaluating the survey responses, we identified 11 companies with relatively high risk (Rank D) and plan to engage in dialogue with them to request initiatives toward improvement.

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## Green procurement

In order to contribute to the creation of a sustainable society, we carry out procurement from suppliers who actively work to conserve the environment and procure materials that have low environmental impact on a priority basis. Additionally, we have formulated Green Procurement Guidelines with the aim of promoting environmentally friendly procurement. We ask our business partners to understand our green procurement approach and provide the following information regarding chemical content.

(1) That the material does not contain any of the prohibited substances specified by Toyobo.

(2) That the content of hazardous substances specified by Toyobo has been identified.

In fiscal 2022, we revised our “Chemical Content Information Sheet” based on the information sharing scheme “chemSHERPA<sup>®</sup>”, developed by Japan's Ministry of Economy, and the 'Information Sheet on Chemical Substance Content' has been revised in accordance with amendments to laws and regulations, and the survey has been carried out among suppliers. For general purchased goods, we are promoting green purchasing with the use of environmental labels.

\* “chemSHERPA<sup>®</sup>” is a registered trademark of the Japan Environmental Management Association for Industry (JEMAI).

• [Green Procurement Guidelines](#)

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## Educational activities for sustainable procurement

We ensure that all personnel with responsibilities for procurement and logistics are thoroughly informed about the CSR Procurement Guidelines on an annual basis.

We incorporate goals related to “contribution to sustainable procurement (stable procurement)” into the personnel performance evaluations of procurement and logistics staff, and manage their progress as part of their guidance and training. We also solicit improvement proposals related to sustainable procurement activities and award outstanding suggestions.

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## Addressing conflict minerals

In our CSR Procurement Guidelines, our group calls for the promotion of responsible procurement with respect to regulations on conflict minerals.

Using Specified Chemical Substances Data Sheets, we investigate whether conflict minerals (tin, tantalum, tungsten, and gold) are used in our raw materials.

In FY2023, we conducted investigations into the presence of conflict minerals in our raw materials. We also prepared an internal survey and response system to enable us to provide prompt and appropriate responses to survey requests from customers regarding conflict minerals.

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## Resolving social issues in logistics

To resolve social issues in logistics, we are pushing forward with initiatives to reduce environmental impact and realize sustainable logistics. To reduce our environmental impacts, we are working to shorten transport distances by utilizing the ports closest to our business sites, to make modal shifts to ships and railroads, and to enhance loading efficiency through vehicle allocation simulations using logistics systems.

In 2019, we submitted a voluntary action declaration in support of the “White Logistics Movement”<sup>\*\*</sup> advocated by Japan’s Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Economy, Trade and Industry and Ministry of Agriculture, Forestry and Fisheries. Starting in 2023, we joined the Chemicals Working Group, a subcommittee of the Physical Internet Realization Conference promoted by Japan’s Ministry of Land, Infrastructure, Transport and Tourism and Ministry of Economy, Trade and Industry. Through this group, we developed a voluntary action plan to respond to amendments to two logistics-related laws. The main objectives include reducing waiting and handling times (within two hours per operation) and promoting palletization, aiming to alleviate driver burdens and enhance logistics efficiency.

### Examples of our company’s responses to logistics-related legislative amendments

Logistics-related legislative amendments	Example of Chemicals Working Group voluntary action plan	Key actions by the company
Implementation status report and submission of our company’s medium to long-term logistics efficiency improvement plan (voluntary action plan) to the relevant authorities	Understanding waiting and handling times	• Monitor waiting times and handling durations for shipments and receipts.
	Waiting and handling times within 2 hours	• Ensure waiting and handling times are within 2 hours per operation.
	Promotion of palletization, etc.	• After assessing the current situation, promote palletization in product handling to reduce handling times for drivers.
	Lead time assurance	• Ensure adequate lead time from order to delivery, aiming to reduce logistics burdens.
	Logistics improvement proposals and cooperation	• Engage in sincere discussions with suppliers and logistics providers when we receive proposals for improvement and requests for cooperation.
Mandatory appointment of a Chief Logistics Officer (CLO)	Selection of CLO	• Select and appoint suitable personnel.

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## Response to natural disasters, etc.

In recent years, various areas have experienced significant damage from earthquakes, typhoons, and sudden localized rainstorms. We have gained knowledge in the process of responding to these events, and aim to realize even more stable procurement and logistics.

As part of our Business Continuity Plan (BCP), we strive to identify and manage risks throughout the supply chain. For procurement, we are looking to procure raw materials from multiple regions, and for logistics, we are establishing alternative transportation means and routes in collaboration with logistics operators.



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## Participation in initiatives

In January 2020, we joined the "Global Compact Network Japan", and since FY2022, through participation in its supply chain subcommittee, we have been gathering information and applying it to our daily activities.

### Declaration of partnership building

In October 2020, we agreed with the aims of the Council on Promoting Partnership Building for Cultivating the Future promoted by the Cabinet Office and the Small and Medium Enterprise Agency, and announced our "Declaration of Partnership Building".

In this declaration, We expressed our commitment to contribute to solving social and environmental issues throughout our supply chain. Based on the declaration, we will endeavor to add value with our entire supply chain.

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## Response to whistleblower protection system




We have established a consultation and contact point for business partners on our website.

It receives reports and inquiries for violations or suspected violations of laws and regulations, and corporate ethics. In compliance with the Privacy Policy, we have established a system to prevent any disadvantage to the persons consulting with us as a result of consultation or reporting.

### Main items for consultation

1. Violations or suspected violations of laws and regulations, and corporate ethics, etc.
  2. Acts violating respect for human rights
  3. Acts violating our CSR Procurement Guidelines
- [Receiving reports from business partners \(Japanese only\)](#)

# Human Resource Management

Materiality	
Related ESG : <b>S</b>	  
Human capital	

↓ Management approach    ↓ Initiatives

## Management approach

### Policy and approach

Toyobo group aims to realize its corporate philosophy framework, "TOYOBO PVVs," and to become an organization that continues to transform itself to create new value.

We put into operation the new human resource system in July 2022. implements specific policies such as promoting and supporting capacity building, treating and evaluating in accordance with job responsibilities, enhancing management skills, and encouraging the active participation of diverse professional human resources, so that each of our employees can feel growth, pride, and satisfaction.

### Structure

The Executive Officer in charge of the HR Division is responsible for the group's human resources management. Our operating departments responsible for human resources and labor affairs create regular opportunities for discussion and information sharing with the departments responsible for human resources at each business site and affiliated company, which leads to the formulation and execution of human resources management plans. Regarding key issues in the annual management plan, reports are made to the relevant executive officer each quarter and the issues are also deliberated on by the Sustainability Committee. Important measures are also discussed by the Board of Corporate Executive Officers and Controlling Supervisors and Board of Directors.

### Targets and KPIs

#### < Targets >

Toyobo group will build an organizational structure for the entire group that enables employees to work easily and feel satisfaction with their work, that ensures fairness and integrity, and that is considerate of diversity and human rights.

## < KPIs and results >

Initiatives	KPIs	Targets	Results (FY2024)
<ul style="list-style-type: none"> <li>• Nurture human resources (build careers, develop capabilities)</li> <li>• Promote work-life balance</li> <li>• Ensure equality in recruitment and treatment of employees</li> <li>• Maintain people-friendly work environments (promote health)</li> </ul>	1. Training core overseas personnel in Japan	15 employees per year*	7 employees per year
	2. Training investment per employee (Time spent on education)	¥50,000 per year*, 21hrs	¥50,000, 18.22hrs
	3. Ratio of annual paid leave taken	75%*	83.2%
	4. Ratio of employees working excess hours	Improvement in the ratio in FY2026 compared to FY2025	-
	5. Positive response ratio on employee's "degree of affirmation for work style" based on engagement surveys (1) "no difficulty in daily work" (2) "respect the diverse views and ideas of each person"	Increase of positive response ratio	(1) Not implemented (2) Not implemented

\* Targets for FY2026

## Initiatives

### Human resources development

#### Systems, education, and training for human resources development

Toyobo group considers human resources to be our most important asset. We support the growth of each and every one of our employees, while respecting their diversity. We believe that the continuation and development of the group as a whole can be achieved by building an environment in which our employees can flourish both inside and outside the company and realize their own potential.

Toyobo carries out human resource development based on a training program categorized by job level, type and objective, from the newly employed to top management. Over our long history, we have fostered an approach of valuing "people"—our most important asset—and this is shared throughout the group.

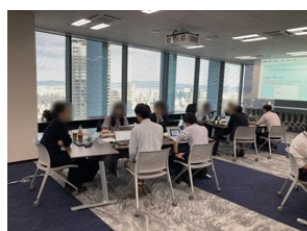
Based on this idea, under the Executive Officer in charge of the HR Division and is responsible for the execution of human resources management we have established a group specializing in human resource development and actively support training for employee skill development.

#### Education & training system

- [Toyobo Education and Training System for FY2024](#) 

## Education & training-related results

	Results (FY2024)
Training hours per employee	18.22hrs
Training investment per employee	¥50,000
Total training attendees	2,709
Total training hours	43,340hrs
Implementation status of training in career and skills	62%



Training in FY2024

## Main personnel systems

<b>Personnel appraisal system</b> <sup>*1</sup>	We perform personnel appraisals for all employees, with evaluations annually in October and interim checks in April. Employees and their supervisors together review the state of achievement toward goals, actions, and capacity development, then connect this to medium- to long-term growth and capacity development for individual employees.
<b>Self-reporting system (Career Development Sheet)</b>	This is a system by which individuals use the Career Development Sheet during personnel appraisals to express their career path-related wishes to the company. Individuals report to superiors their thoughts concerning their job category, location of work, and career. The supervisors then consider placement and personal development methods that will allow the employees to further grow and play active roles in the company.
<b>Career challenge system (in-house recruitment)</b>	This system is implemented as a component of human resources development to encourage employees to independently expand their careers and take on the challenge of new work.
<b>Mirai Jinzai Juku</b>	This in-house program for human resource development makes use of crowdfunding to promote the launch of new businesses. Employees gain practical experience in processes spanning product planning and development to sales.

\*1 Addresses all employees, including managers.

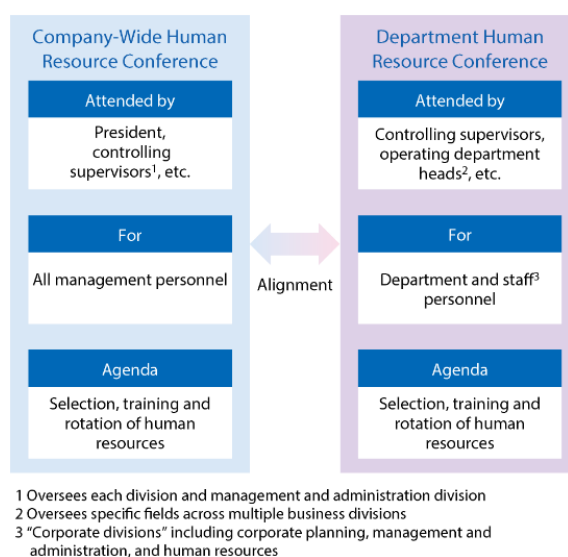
## Nurturing the next generation of management

For Toyobo group's initiative to train the next generation of management, the group plans to provide chosen personnel with internal and external management executive development training. In order to further broaden their experience, we will also give them the opportunity to undertake business operation and management duties to hone their management skills, which will help us achieve our succession plan.

In response, from FY2022, the group has operated a Human Resources Conference to discuss measures for the development of next-generation management human resources. We divide this into a Company-Wide Human Resources Conference that mainly discusses successors for management posts and a Departmental Human Resources Conference that mainly discusses successors for highly specialized positions, and implement actions including policy support for the development of successor candidates as well as selection and rotation of human resources. By linking these two conference bodies, we will uncover and develop human resources and increase their effectiveness.

At the same time, we are promoting diversity and inclusion in order to increase our medium to long term capabilities. Besides promoting the participation and advancement of women, we are actively taking on mid-career hires and staff from overseas so that we can bring in more knowledge and experience.

Under our TOYOBO PVs corporate philosophy framework, we conduct company-wide training for all management positions to ensure awareness of security and disaster preparedness, occupational safety, quality, and compliance, and to advance organizational initiatives.



## Developing global human resources

Toyobo implements "Short-term Overseas Business Training" in which around 10 employees in two separate groups from Japan are sent overseas for training each year (first and second half of the year). This motivates younger and mid-career employees to participate in Toyobo's global business, and also represents a major opportunity for them to further their careers.

In addition, local candidates for management from overseas group companies are selected to undergo training in Japan twice each year. This aims to enhance their understanding of Toyobo and deepen interaction with employees who work in Japan.

"Short-term Overseas Business Training" resumed in the second half of FY2023, with approximately 10 participants annually. The training for local candidates for management from group companies resumed in the second half of FY2024 after a four-year hiatus, with seven participants from five countries, namely Brazil, India, the United States, Taiwan, and South Korea.

## Initiatives for preventing harassment

Toyobo group strives to maintain harassment-free workplace environments and we are focusing on anti-harassment measures based on an approach that providing work incentives and raising job satisfaction leads to the securement and cultivation of excellent human resources. As a preventative measure, we are implementing management training to deepen understanding within the organization, and as a response measure, we carry out thorough internal reporting through the compliance consultation centers and the Complaint Handling Committee, which includes labor union representatives, so that we can detect and solve issues at an early stage.

- [Efforts for establishment of complaint handling and internal reporting systems](#)
- [Compliance consultation desks](#)

## Employee engagement

Under a relationship of equality between the company and individual employees, it is necessary that we align the vectors of organizational goal achievement and personal growth. Toward this end, in 2021 we launched a survey on organizational climate and job satisfaction, targeting all officers and employees.

These surveys will keep us periodically appraised of employee engagement, and create an environment in which they can proactively work with a sense of pride and fulfillment.

## Engagement survey results

We conducted the second Engagement Survey in September 2022. In addition to communicating an overview of the survey results to employees, we offer feedback on the survey results at the workplace level and are advancing dialogue and action plans within workplaces.

Increase in employee work satisfaction based on engagement survey	(Year)	
	2022	2023
(1) Percentage of positive responses to "No difficulty in performing daily work"	38%	Not implemented
(2) Percentage of positive responses to "Respects each individual's diverse opinions and ideas"	50%	Not implemented

Scheduled for FY2025

## Work-life balance

### Measures for the reform of working style

Toyobo group is engaged in work style reform so that our employees can work with renewed efficiency and achieve a good balance between work and personal life. We also provide support such as the Childcare Shortened Work Hour Program, nursing care and flextime system, and telecommuting. Building an environment that enables more flexible work styles tailored to each employee's life stage provides an opportunity to enhance creativity. Letting each individual do their best with confidence, pride, peace of mind, and a forward-looking mindset helps to build a stronger foundation for the company.

The TOYOBO Group Charter of Corporate Behavior declares, "We will respect employee diversity and support work practices that allow employees to demonstrate their individual skills. Moreover, we will provide workplaces that are conducive to productive work while taking health and safety into consideration."

### Development of systems

Toyobo has introduced schemes that go above and beyond the legal requirements, including the Childcare Shortened Work Hour Program and nursing care leave, and we also provide a flextime system. Since fiscal 2020, five days of paid leave has been offered as Childcare Leave. In conjunction with this change in the system, we are encouraging men to take childcare leave. Men employees who have a child are notified of the system individually and are recommended to take this leave by their immediate supervisor. We will continue these promotion efforts until it becomes normal for men employees to take childcare leave.

We introduced a 15-Minute Shortened Work Hour Program at head and branch offices in FY2018, and at the Research Center in FY2019.

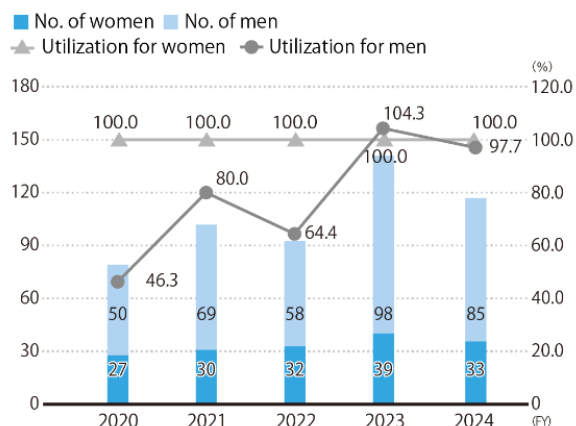
We are also increasing the number of days of leave at other offices and we are creating opportunities for employees to spend quality personal time together with family and friends, such as holding a No Overtime Day at least once a month. In fiscal 2020, we introduced a Teleworking scheme at head and branch offices, and have expanded to also include other offices in fiscal 2021.

### Scheme usage

	(FY)				
	2020	2021	2022	2023	2024
Women taking childcare leave	27	30	32	39	33
Ratio of women taking childcare leave (%)	100	100	100	100	100
Men taking childcare leave	50	69	58	98	85
Ratio of men taking childcare leave (%)	46	80	64	104.3	97.7
Employees taking childcare shortened work hour program	64	70	67	83	97
Annual paid leave utilization ratio (%)	73	64	72	80	83
Taking telecommuting systems	206	2,045	2,413	2,520	2,357



## Childcare leave utilization



## Main support systems

	Main system	Details
Systems supporting diverse work styles	Teleworking scheme	Employees can work outside the office, in principle at their home. Can be used in conjunction with Half-Day Annual Leave, Childcare and Nursing Care Shortened Work Hour Programs, and the Flextime system.
	Flextime system	Managed in one-month installments with core time set from 11:00 to 14:00. Introduced in 1990.
	Half-day annual leave	Annual paid leave can be taken in half-day installments. Introduced in 1990.
	Volunteer leave	Applies to employees participating in the Japan Overseas Cooperation Volunteers initiative. In principle, leave can be up to two years and four months.
Systems supporting work-life balance	Childcare leave	Can be taken up to the day the child turns two. * Salary is paid from the first day for a period of up to five consecutive days
	Childcare shortened work hour program	One workday can be shortened in 15-minute installments up to two hours. However, the period from 10:00 to 16:00 has to be worked (including designated breaks). (Can be used up to the child finishes the third grade of elementary school)
	Nursing care leave	Can be taken up to three times per case (same illness of the same family member) for a maximum of 366 days (which can be taken in installments).
	Nursing care shortened work hour program	Designated work hours for a single day can be shortened by up to two hours for up to two times per case (same illness of the same family member).
	No overtime day	At least once a month, employees are able to spend quality personal time together with family and friends as an opportunity to improve motivation and enhance creativity.
	Childcare facilities	In April 2018, a nursery was established inside the Research Center.
	Babysitters	The company assists with babysitting expenses during business travel and company-designated training.

# Diversity, Equity, & Inclusion (DE&I)

Materiality	
Related ESG : <b>S</b>	 
Employee well-being: Diversity and inclusion	

↓ Management approach    ↓ Initiatives

## Management approach

### Policy and approach

Toyobo group believes that personal and organizational growth is achieved through a process of mutual respect among our employees, with their differing work styles, careers, gender, nationality, race, and beliefs, and through cooperation to achieve our shared objectives.

We respect different opinions and a wide range of values, and cooperate to achieve ambitious goals together.

The TOYOBO Group Charter of Corporate Behavior also contains the following declaration.

#### 6. Active employee participation

We will respect employee diversity and support work practices that allow employees to demonstrate their individual skills. Also, we will provide workplaces that are conducive to productive work while taking health and safety into consideration.

- 6-1. We will work toward developing workplace environments that facilitate active participation among a diverse range of human talent.
- 6-2. We will prevent various types of harassment and other forms of mistreatment in our workplaces, and accordingly we will not engage in discriminatory practices neither in regard to hiring nor terms of employment.
- 6-3. We will strive to create workplaces that are safe, hygienic and rewarding, and will work to prevent excessive workloads and reduce overtime work.

### <TOYOBO Group Diversity Promotion Policy>

Toyobo group is convinced that the happiness of its employees and the sustainable growth of the group stem from diverse employees being able to fully participate in the organization and society with pride and fulfillment.

For the creation of such a workplace, the group is committed to the promotion of diversity based on the following three elements.

#### 1. Diversity:

Diversity is a strategy that leverages individuality to enhance corporate value. It means mutually accepting, respecting, and maximizing the individuality. Individuality here refers to the inner and outer aspects of a person including sense of values, culture, religion, personality, experience, sexual orientation, gender identity, gender expression, race, ethnicity, nationality, language, gender, age, disability, health, family, social status, educational background, work experience, and all other differences. Toyobo group respects differences as diversity and strives to turn them into the strength and vitality of the group.

#### 2. Equity:

Equity is a pursuit of "provision of opportunity" and "fairness" to each individual who takes boldly on the task. It is to devise a way for everyone to have the opportunity to take on new leaps forward by utilizing information, tools, and mechanisms according to the individuality of each person and to transform them into the vitality of the Toyobo group. The group continues to reform the workplaces and work styles where diverse human resources can work fairly, without fixing job classifications based on gender, age, or any other attributes.

### 3. Inclusion:

Inclusion means that each individual who boldly takes on the task demonstrates their individuality, mutually recognizes others, and make the most of them as an organization. Each employee of the Toyobo group wishing to contribute in the organization and society thinks independently and realizes the corporate philosophy of "Jun-Ri-Soku-Yu\*."

\* "Jun-Ri-Soku-Yu" means adhering to reason leads to prosperity.

We at the Toyobo group believe to be able to create even more value both internally and externally by promoting Diversity, Equity and Inclusion.

Date of enactment: February 21, 2024

## Targets and KPIs

### < KPIs and results >

Initiatives	KPIs	Targets (FY2026)	Results (FY2024)
Realize diversity and inclusion	1. Women manager ratio	5.0% or above	5.5%
	2. Ratio of men employees taking childcare leave	Over 80% of eligible persons take absence leave, averaging 14 or more days (20% increase from FY2021)	97.7%
	3. Employment ratio of people with disabilities	2.5%	2.29%

## Initiatives

### Participation of women in the workforce

Toyobo group established the Diversity & Inclusion Group within the Human Resources Department, and the group has been engaged in activities to promote the empowerment of women. We hold events such as presentations, seminars for managers, women leader development seminars, and Women Empowerment Promotion Project on a continuous basis, in order to realize a change of mentality among our employees.

We have also opened a nursery school within in the Research Center in Otsu, Shiga Prefecture, as a means of support for childcare. This enables early return to work from childcare leave and planned return to work, and supports the development of an environment in which employees can approach childbirth with peace of mind.



Toyobo Nursery School at the Research Center

- [Promotion of Women's Participation and Advancement](#)

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## External evaluation

### Certified as an Eruboshi (second level) company based on the Law for Promotion of Women's Activities

Toyobo received the second level Eruboshi certification from the Minister of Health, Labour and Welfare as a company that actively promotes the advancement of women on December 14, 2021.

The "Eruboshi" certification is given to companies that have made excellent efforts to promote the activities of women in accordance with the "Act on Advancement of Women in Employment" (Women's Activity Promotion Act).

In 2015, we established a dedicated organization, the Women Empowerment Promotion Group (the Diversity & Inclusion Group, in April 2023), which has been active in creating an environment and organizational climate where women can play an active role.

Since then, we have held seminars for managers and women employees and introduced a mentoring system. In 2018, we opened a nursery within the company at the Research Center (Otsu City, Shiga Prefecture). We made revisions to the childcare leave system to encourage men employees to take paternity leave, including setting five days of paid paternity leave. The rate of men employees taking paternity leave exceeded 80% in FY2021 and has remained high since.

We are certified as a "2-star" company, the second of three levels, based on the evaluation that the items of "recruitment," "continued employment," "work styles such as working hours," and "various career courses" have reached the specified levels.



### Acquisition of Platinum Kurumin certification

The Platinum Kurumin certification is awarded to companies that have achieved a higher level of initiative, such as the introduction and use of systems to support a balance between childcare and work, selected from among those that have received Kurumin certification as companies that support the childcare of their employees in accordance with the Act on Advancement of Measures to Support Raising Next-Generation Children.

In June 2023, we were certified as a Platinum Kurumin in evaluation of our various initiatives.



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## Active participation of diverse human resources

In addition to activities to promote the participation and advancement of women, we are also working to ensure that the assessment and treatment of employees focuses on ability and is not influenced by differences such as gender and nationality, and we are aiming to cultivate a corporate culture in which diverse employees can participate actively and find job satisfaction.

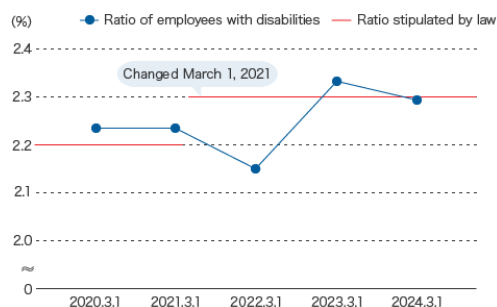
## Promotion of employment of persons with disabilities

To raise the employment rate of persons with disabilities, it is crucial to implement initiatives at a company-wide level. We therefore share information on the employment status and actively encourage the recruitment of persons with disabilities during the quarterly meetings of the General Administration Departments managers from each business site.

As part of efforts to improve working environments, we have made the offices at the Tsuruga Research and Production Center and Inuyama Plant barrier-free. We are also progressively renovating other business sites to ensure they are barrier-free.

To meet the rising statutory employment rate in the future, we are actively recruiting. Alongside recruitment, we are also taking steps to prevent turnover. This involves gradually assigning tasks from various workplaces to help new employees adapt to the environment and ensuring they are placed in positions suited to their skills and abilities.

### Ratio of employees with disabilities



## Promotion of employment of senior employees

We have introduced a senior employee system to promote employment by rehiring employees who have retired at the retirement age of 60 and who wish to continue working and are considered capable of working normally. The rehired senior employees actively help to train younger employees and pass on skills.

## Support system for employees on leave

To enable the smooth return to work by employees who have taken childcare leave, family care leave, or mental health leave, we provide the following support.

Targets	Details
Persons taking childcare or long-term care leave	<ul style="list-style-type: none"><li>• Hold interviews with supervisors when returning to work, and carry out support for a smooth return to work (Interviews are also obligatory before returning to work after childcare leave)</li><li>• Hold lunch meetings before returning to work (suspended due to the COVID-19 pandemic)</li><li>• Send group newsletters during the leave period</li></ul>
Persons taking mental health leave	<ul style="list-style-type: none"><li>• Conduct follow-up after a leave through the "acclimatization work system" to enable a staged return to work</li><li>• Send group newsletters during the leave period</li></ul>

To support employees raising children, we have introduced the following systems.

System	Details
Establishment of a nursery school in the company	Opened in Research Center (Otsu, Shiga Prefecture)
Baby-sitter support program	The company assists with babysitter expenses during business travel and company-designated training

## LGBTQ+ initiatives

To foster a work environment where diverse individuals, including gender minorities, can thrive, we have implemented the following initiatives.

Actions implemented	Details
Consultation desk	Toyobo has established a LGBTQ+ consultation desk. To ensure a worry-free experience, we guarantee strict privacy protection, including confidentiality of individuals seeking consultations. We also assure that there will be no repercussions for employees who seek advice or report issues, and we accept anonymous consultation requests.
Furthering use of preferred names	Starting in FY2025, we have introduced a system that allows the use of preferred names based on gender identity. This enables individuals to use their chosen names that align with their gender identity.
Training for operations staff	We provided LGBTQ+ training to all operational staff, including those in the Human Resources Department, deepening their understanding of sexual minorities and the prohibition of outing, creating a supportive environment where they can engage in their work with a sense of security.
Unisex uniforms	In FY2023, we made all standard uniforms worn in manufacturing sites unisex.
Gender-neutral restrooms	We have completed the installation of restrooms that can be used regardless of gender across all sites (excluding certain tenant-occupied locations).
In-house awareness activities	In addition to addressing this theme in relevant training sessions, we regularly post information on our internal portal to deepen understanding of LGBTQ+ issues. We are also working to foster an LGBTQ+ friendly culture within the group.



# Promotion of Women's Participation and Advancement

↓ Progress so far, and the key issues   ↓ Targets and action plans   ↓ Message from manager

## Progress so far, and the key issues

### Promoting women's participation and advancement from the three perspectives of recruitment, cultivation, and support for employment continuation

As of 2015, the company was predominantly men-oriented, thus not providing adequate opportunities for women to thrive and grow. However, the group's activities to promote women's participation and advancement in the workplace started in earnest with the launch of the Women Empowerment Promotion Group in 2015.

In our Phase One Action Plan that spanned FY2017 to FY2021, we set targets of doubling the number of women managerial staff from the FY2016 level and raising the ratio of women career staff\*<sup>1</sup> to 15%. We have advanced a number of initiatives focused on the three aspects of recruitment, development, and support for continued employment. As a result, by the end of FY2021, we had tripled the number of women managerial staff to 13 and raised the ratio of women in career track positions to 17.1%, achieving our targets.

For our Phase Two Action Plan from April 1, 2021 to March 31, 2026, we announced a plan to raise the proportion of women in managerial positions to at least 5% and the proportion of women career staff to at least 22%. Additionally we set targets to achieve at least 80% of eligible men employees taking paternity leave and to increase the number of days of leave taken by 20% compared to FY2021 levels. We have already exceeded the targets for women representation in managerial positions and men's parental leave uptake ahead of schedule.

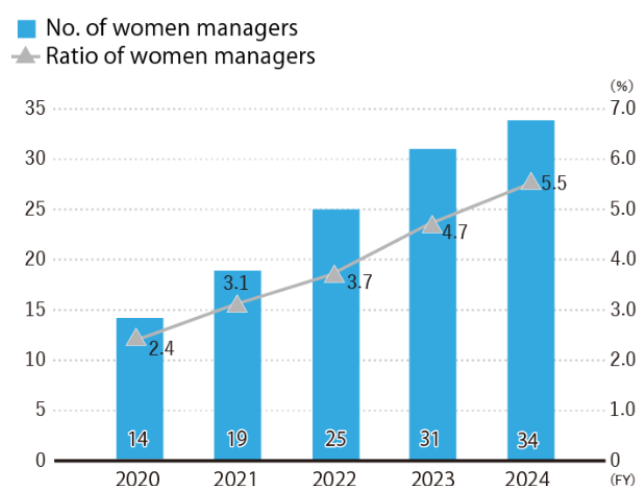
A significant factor contributing to the achievement of these goals was our implementation of a recruitment policy setting a target of 40% women among recent graduate hires on the global career track\*<sup>2</sup>. In parallel with this, we expanded the range of roles available to women and substantially increased their representation in traditionally men-dominated divisions such as sales and manufacturing. These actions have made the advancement of women more relevant for many managers, leading to shifts in attitudes and a transformation of the organizational culture overall.

In addition to continuing these measures, our ongoing challenge is to establish equal opportunities and responsibilities without gender discrimination as the standard practice, eliminating the need for affirmative action. We believe that achieving our Phase Two Action Plan is crucial for this transition, emphasizing the importance of increasing employee awareness and sensitivity toward diversity issues.

\*1 Defined as all employees on the managerial career track, including those who have only recently joined the company.

\*2 Includes all women employees holding the rank of section chief or higher.

### Ratio of women Managers



## Main measures implemented

- Women leader development seminars
- Diversity & inclusion training seminars for managers
- Career development support program
- Mentoring system (for women within the first two years after new graduate hiring or mid-career hiring)
- Promoting notification to superiors and employees planning to take leave, and conducting pre- and post-leave interviews to encourage more employees to take leave
- Babysitter support system, including partial coverage of childcare costs during business trips
- Establishment of an on-site nursery at the Research Center, with a capacity for 10 children
- Introducing maternity workwear for women employees in manufacturing

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## Targets and action plans

In April 2021, we started our Phase Two Action Plan for promoting participation and advancement by women. We set numerical targets to be achieved by FY2026 including at least 5% ratio of women managerial staff<sup>\*3</sup>. To meet these targets, we are advancing an initiative to increase the ratio of women among recent graduate hires on the global career track to 40%. In FY2024, our ratio of women managerial staff was 5.5% and the ratio of women among recent graduates hires on the global career track was 35%.

In addition, we introduced a new Career Development Support Program for women employees who are currently on the regional career track<sup>\*4</sup>. Participants meet with their supervisor over a period of three years to discuss a career development cultivation plan that incorporates a formal schedule for the acquisition of specialist technical know-how and other knowledge, for example through on-the-job training, as well as self-development, etc., with an implementation cycle that includes an annual progress report and refresher training.

We will present career development paths for women on the area career track, which had been unclear in the past, and will support the subsequent demonstration of capabilities by women employees.

Toyobo also has a policy of participating actively in external initiatives. The company has already expressed its support for 30% by 2030 Challenge<sup>\*5</sup> goal announced by the Japan Business Federation (Keidanren) to raise the ratio of women executives to 30% by 2030, and for the Women's Empowerment Principles<sup>\*6</sup>, which outline a code of conduct for actively promoting women empowerment; Toyobo has signed a statement committing itself to act in accordance with the WEPs.

Through these activities, we received the second level Eruboshi<sup>\*7</sup> certification from the Minister of Health, Labour and Welfare in December 2021.



## Targets and Initiative Content

### 【Target No.1】 Raise the share of managers who are women to at least 5% by the end of fiscal 2026

April 2021 onwards:	Implement women leader cultivation training for managers and women candidates for managerial positions (continued implementation since August 2017)
April 2021 onwards:	Implement women leader cultivation training for section chiefs and women candidates for section chief positions (continued implementation since September 2019)
April 2021 onwards:	Implement mid-career hiring of women managers
May 2022 onwards:	Launch diversity & inclusion training seminars for managers Aim to enhance communication with diverse employees

### 【Target No.2】 Raise the share of women on the career track to at least 22% by the end of fiscal 2026

April 2021 onwards:	Maintain women's share of new graduate recruitment at a level of at least 40%
April 2021 onwards:	Actively promote mid-career hiring of women employees
April 2021 onwards:	Implement follow-up interviews for women employees (continued implementation since April 2015)
April 2021 onwards:	Establishment and operation of a three-year career development support program

### 【Target No.3】 Raise the percentage of eligible men employees taking childcare leave to at least 80%, and increase the number of days of childcare leave taken by at least 20% by the end of fiscal 2026

April 2021 onwards:	Make eligible employees aware of the childcare leave system (continued implementation since April 2019)
April 2021 onwards:	Send eligible employees' supervisors details of the encouragement that should be provided to subordinates to encourage them to take childcare leave (continued implementation since September 2019)
October 2022 onwards:	To support trouble-free acquisition of leave and return to work, interviews between superiors and leave-takers before and after taking childcare leave are mandatory

\*3 Career track for employees who are expected to be active throughout the entire company.

\*4 Career track for employees whose career is expected to be confined to one specific business site.

\*5 This is one of the targets for promoting D&I to realize sustainable growth in line with “The NEW Growth Strategy” announced by the Keidanren in November, 2020.

\*6 The Women's Empowerment Principles were formulated jointly by UNGC and UN Women in 2010.

\*7 Eruboshi (2-star) criteria: Must meet 3–4 of the specified criteria, and must demonstrate continued improvement for a period of at least two consecutive years.

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## Message from manager

Our group's activities to promote women's participation and advancement in the workplace started in earnest with the launch of the Women Empowerment Promotion Group in 2015.

In April 2023, the department name was changed to Diversity & Inclusion Group. In addition to the existing women empowerment promotion, we have broadened the scope to include human rights issues and employment of people with disabilities, and we are addressing the foreign employees and LGBTQ+.

Achieving innovation and growing the company sustainably require that we remain a company that is able to acquire and utilize the skills and knowledge of diverse human resources. For participation and advancement by women, it is important that every woman is aware of her own capabilities and works where she can demonstrate those capabilities. For superiors, the maturity to provide opportunities and responsibilities fairly and without gender discrimination is vital.

The purpose of achieving diversity is adding value to people and making them strengths of the company.

Although we will continue affirmative action toward women due to its importance, we will go beyond that to also emphasize the importance of superiors realizing that attitudes and values have changed significantly among young people, and taking a stance of addressing people as individuals and providing opportunities fairly. We believe that workplaces where opportunities and responsibilities are provided regardless of personal attributes and where employees are able to grow will result in companies that are able to attract employees who have abundant knowledge and play active roles. Based on this conviction, we will retain affirmative action for women in the future and provide support for women, while taking steps to build workplaces where women can participate and advance without gender consciousness.



Diversity & Inclusion Group Manager,  
Labor Affairs Department  
Masako Tezuka

# Health and Productivity Management

Materiality	
Related ESG : <b>S</b>	
Employee well-being: Health and productivity management	

↓ Management approach    ↓ Initiatives

## Management approach

### Policy and approach

Our group believes that investing in the health of employees and vibrant workplaces where employees can work with motivation will lead to long-term growth for the company.

To create workplaces that are comfortable places to work and that take employees' health into account, we are advancing initiatives for the occupational safety and health underlying such workplaces. From FY2020, we have undertaken health and productivity management that strategically implements health management considered from a managerial perspective.

Until now, the company and the health insurance association have cooperated in supporting health. To continue those activities and to positively and systematically undertake even more health and productivity management, we built a system for its promotion and formulated the TOYOBO Health & Productivity Management Declaration that was announced by the President in March 2020.

- [Initiatives for occupational safety and health](#)

#### < TOYOBO Health & Productivity Management Declaration >

Under the group's corporate philosophy, *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity), we aim to become a company which achieves sustainable growth.

We believe that in order to ensure strong, sustainable growth, we need the capabilities, effort, and energy of every employee, and that the growth of the group is linked to the job satisfaction of our employees and the feeling that they and their families are being enriched.

Health is the source of our employees' energy and effort, and as a group we recognize that actively working to maintain and improve employee health is an important management issue. At the same time, we believe that this initiative will contribute to realizing a sustainable society.

It is also important that employees themselves realize the importance of their health.

Therefore, we declare that we will actively engage in health and productivity management.

Ikuko Takeuchi  
Representative Director, President, and CEO  
April, 2021

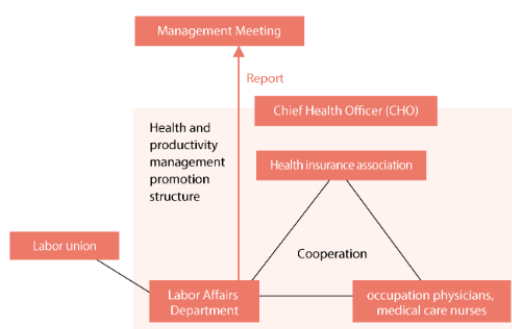
## Key measures under the TOYOBO Health & Productivity Management Declaration

1. Initiatives for raising employees' health awareness: education and training
2. Initiatives for improving employees' lifestyle habits: exercise, diet, support for quitting smoking, etc.
3. Initiatives for strengthening mental health, including improvement measures for high-stress employees and workplaces

## Structure

### Health management system

Aiming to positively and systematically address health and productivity management, Toyobo group is working on the above priority measures in cooperation with the Labor Affairs Department, occupation physicians/medical care nurses, and health insurance union under the Executive Officer supervising the HR Department, who serves as Chief Health Officer (CHO), while also hearing opinions from labor union.



### Health management strategy (strategy map)

We have positioned health and productivity management as one of our management strategies. Under our "Sustainable Vision 2030" announced in May 2022, we will work to solve issues, especially those related to "employee wellbeing" through the health and productivity management and contribute to the creation of a "company with pride and fulfillment" where employees are healthy, can play an active role with peace of mind, and can grow. Specifically, as an indicator, we aim to achieve an engagement score of 70% or higher (target for FY2031). To achieve this overall health and productivity management indicator target, we are organizing the linkage of "management issues to be solved", "expected effects", and "specific initiatives" under the above structure.

## Targets and KPIs

### < KPI and result >

Initiative	KPI	Target(FY2026)	Result(FY2024)
Maintain people-friendly work environments (Promote health)	1. Certified as a top 500 for Outstanding Health and Productivity Management	Obtain / Maintain	Certified as a top 500 for Outstanding Health and Productivity Management

We set targets and check our performance over time for various indicators related to health management. By analyzing quantitative data, we are able to understand our health issues and use the information to solve them.



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## Initiatives

In the area of health and productivity management initiatives, we organize and analyze issues from multiple angles, including health check-up results and the use of scoring reports and index data over time in cooperation with insurers, to put measures into practice.

We respond every year to the survey of health and productivity management by the Ministry of Economy, Trade and Industry, and use the feedback we obtain from it to conduct annual reviews of our initiatives, which we then connect to our activities in the following fiscal year. Through this continuous effort, issues calling for priority treatment have come to light. We will resolve these issues through health and productivity management and be a company where people feel pride and motivation, which will ultimately contribute to the enhancement of corporate value and productivity.

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## Measures undertaken

In addition to the initiatives we have undertaken since beginning health and productivity management, we are implementing the following as initiatives to improve employees' lifestyle habits.

### Recognized as a White 500 enterprise with Outstanding Health and Productivity Management

Toyobo was certified for the second consecutive year as a White 500 enterprise with Outstanding Health and Productivity Management 2024 (Large Enterprise Category) under the Certified KENKO Investment for Health Outstanding Organizations Recognition Program, jointly conducted by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi.

Toyobo group positions health and productivity management as one of its management strategies. Under the Chief Health Officer (CHO), the Labor Affairs Department, the occupational physicians and nursing professionals and the health insurance association collaborate to enhance employees' health awareness, improve lifestyle habits, and strengthen mental health measures.

As a result, the company has been certified as a Health & Productivity Management Outstanding Organization since FY2021, attaining White 500 status for the first time last fiscal year. In FY2024, we launched a video distribution service that employees can access online at any time, providing content that helps maintain their health.

Additionally, we encouraged employees needing follow-up exams after their regular health check-ups to complete these examinations and made it mandatory to report the results. These efforts to further promote employee health and productivity have been recognized, resulting in White 500 certification again this year.

The group will continue to actively promote health and productivity management to create a workplace where employees can work energetically and in good physical and mental health, aiming to enhance corporate value.



### Activities to raise awareness among employees

It is important for all employees to review their lifestyle habits with an awareness of protecting and building their own health, and to continuously put initiatives for better living into practice.

Toward this end, we hold seminars to encourage employees to give thought to their own health and undertake health promotion from their individual standpoints.

From 2022, we have set the first Thursday of every month as Health Day and distribute health seminar videos once a month.

## Implementation in FY2024

	Number of times	Theme
Seminars	3	<ul style="list-style-type: none"> <li>• Seminars on non-smoking</li> <li>• Women's health seminar</li> <li>• Seminars by occupational physicians on lifestyle-related diseases</li> </ul>
Video distribution	4	<ul style="list-style-type: none"> <li>• Shoulder and lower back pain</li> <li>• Eye health</li> <li>• Mental health and self-care</li> <li>• Accurate health information</li> </ul>
Awareness emails	4	<ul style="list-style-type: none"> <li>• Mental health</li> <li>• Lifestyle diseases</li> <li>• Health issues for working women</li> <li>• Health check-ups</li> </ul>

## Improvement of employees' lifestyle

Amid revolutionized working styles and lifestyles, and the various restrictions brought about by the COVID-19 outbreak, we recognize the critical importance of prioritizing both mental and physical well-being. Our focus is on improving lifestyle habits by implementing measures for exercise routines and smoking cessation, as well as providing educational opportunities such as seminars to enhance health literacy.

In FY2022, we created and deployed our own proprietary application, "Tsunagaru Kenko TOYOBO Zukan," designed to operate on smartphones. This application was developed by a subcommittee of the "KAERU Project," an internal initiative for organizational climate reform, incorporating diverse perspectives. The inaugural release, "Flower Series," allows employees to share photos of flowers they encounter during walks and engage in interactive commentary.

Our goal is for this application to encourage regular exercise among employees and facilitate meaningful connections, fostering a positive ripple effect.

In FY2023, in conjunction with seminars on passive smoking and nicotine addiction, we provided information on online outpatient clinics for smoking cessation and implemented measures to partially subsidize the cost of outpatient smoking cessation treatment for those who successfully quit.



## Support for employees' health maintenance and promotion through health checkups

Toyobo aims to have a (actual) 100% rate of health checkups by industrial health staff at each business site.

Our health checkups for lifestyle-related diseases, cancer, and other ailments are more comprehensive than required by law. In cooperation with the health insurance association, we conduct cancer screenings for any staff (employees and their dependents) who want them, and we are working to ensure early detection and treatment of diseases including in family members.

Our occupation physicians check the results of health checkups for all employees, and in the event of any abnormal findings, meet with and provide health guidance in cooperation with nursing professionals. If necessary, they also provide examinations and treatment at clinics, and referrals to specialized medical institutions. We also support the maintenance and improvement of employee health by providing health consultation structures and environments. Furthermore, the health insurance association actively provides specific health guidance on approaches to reduce risks faced by high-risk patients.

We improve structures and environments for health examinations and consultations, to support the maintenance and improvement of employee health.

## Improvement of implementation rate of specified health guidance

As an example of improvements made with respect to a specific issue, by undertaking a variety of measures and cooperating with insurers on strengthening the implementation rate for specific health guidance to raise awareness concerning exercise and eating habits, we achieved a decline in the number of persons targeted for specific health guidance by approximately 2% between FY2021 and 2022.

## Restricting long working hours

To curb long working hours, in management meetings we examine measures to prevent recurrence when employees (including managerial staff) anywhere in the company exceed certain working hour standards for three consecutive months\*. Management and employees at each business site have set a specific cutoff point, and keep tabs on work that leads to excessive hours in order to promote their reduction. We have also set the number of employees doing overtime as a KPI, and have set a reduction of 20% as a target.

Management and employees at each business site have designated a no overtime day, and we encourage employees to go home on time so they can enjoy personal and family time.

Furthermore, in order to prevent mental health issues caused by long working hours, we have put in place stricter standards than legally mandated, and we hold interviews with occupation physicians.

\* Over 80 hours overtime in two consecutive months + over 45 hours in the third month

## Mental healthcare initiatives

Toyobo provides annual mental health lectures to managerial staff in order to increase their awareness and understanding of mental healthcare. Individual consultations are also given by industrial health staff at each business site. We also provide personalized support to employees suffering from high levels of stress, based on the results of a stress checkup. We are undertaking actions such as providing feedback to managerial staff on the results of FY2024 group analysis.

With regard to mental healthcare when telecommuting, we have addressed the importance of self-care and so-called "line care," care provided by managerial staff for the wellbeing of the employees and measures to improve the workplace, issuing information so as to maintain and support our employees' physical and mental wellbeing.

## Health care support for expatriates

The number of group employees posted overseas is growing year by year in line with our accelerating global business expansion. For employees and their families preparing for overseas assignments, we provide medical checkups, vaccinations recommended by the Ministry of Health, Labour and Welfare (hepatitis AB, measles/rubella, tetanus, etc.), local medical system support in cooperation with medical assistance services, information on travel destinations, and more. We recognize the importance of the world's three major infectious diseases (tuberculosis, malaria, and HIV/AIDS), and will enact necessary measures against these as our business expands.

We provide follow-up medical checkups after traveling to the destination and support them in maintaining their health status while engaged in their work. We have a system in place to support the health management of expatriates and their families through collaboration among various internal organizations.

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## To our business partners

At our company, the labor department, health insurance union, and nursing staff play a central role in promoting health management in cooperation with each other.

We may be able to help you with our efforts. We would like to support our business partners in their promotion of health management as well.

If you are interested in our efforts, please contact us at the following address for information exchange, and so on.

For inquiries, please contact us at:

Human Resources Department

Health Management Secretariat

kento\_miyazaki@toyobo.jp

# Social Contribution

## Materiality

Related ESG : **E S**

Partnership: Social contribution



↓ Management approach    ↓ Initiatives

## Management approach

### Policy and approach

The TOYOBO Group Charter of Corporate Behavior declares that “we will actively participate in society and contribute to its development as a good corporate citizen.” It is our belief that fulfilling our responsibilities as a good corporate citizen and making investments for the future is one way for us to put our corporate principle of “*Jun-Ri-Soku-Yu* (Adhering to reason leads to prosperity)” into practice. In fiscal 2024, we established the TOYOBO Group Social Contribution Policy to actively encourage employee participation. To build and support a better society as a member of that society, we will engage in the promotion of science and technology, environmental conservation, and communication with local communities, and will incorporate what we gain from these activities into our corporate activities.

Through our website and other means, we will communicate information that allows people to learn about our group's thinking and its businesses.

#### <TOYOBO Group Social Contribution Policy>

1. Toyobo group will conduct social contribution activities based on the corporate principle of “*Jun-Ri-Soku-Yu* (Adhering to reason leads to prosperity),” contributing to a sustainable society and the group's sustainable development.
2. Toyobo group will identify the promotion of science and technology, next generation development, environmental conservation, and contribution to local communities as key focus areas for social contribution activities, supporting “Innovation and the three Ps: Plant, People, and Prosperity” as outlined in our Sustainable Vision 2030.
3. Toyobo group will actively support the volunteer activities of employees.
4. Toyobo group will value bi-directional communication and partnerships with local communities, government bodies, NGOs, and NPOs.

#### <Focus areas>

-Next Generation Development: By conducting activities such as promoting science and technology through the Toyobo Biotechnology Foundation, we support the healthy development of youth who will lead the next generation primarily at operational sites, thereby contributing to the realization of a vibrant society.

-Environmental Conservation: With a focus primarily on operational sites, Toyobo group actively participates in environmental conservation efforts, contributing to society's sustainable development.

-Contribution to Local Communities: As a responsible corporate citizen, the Toyobo group builds strong relationships with local communities around operational sites, engaging in dialogue and collaboration to earn trust and support.

#### Related policies:

- [TOYOBO Group Charter of Corporate Behavior: 8. Social contribution](#)
- [TOYOBO Group Basic Policy on Health & Safety](#)
- [TOYOBO Group Fundamental Policy on the Global Environment](#)



## Initiatives

### Cultivating future generations

In order for our society to continue developing into the future, it is vital that we foster the human resources who will lead that future. Toward that end, our group is undertaking promotion of science and technology through research grants and other support via the Toyobo Biotechnology Foundation.

#### <Supporting science and technology>

##### A foundation that contributes to the biotechnology field by supporting young researchers

In 1982, Toyobo group established the Toyobo Biotechnology Foundation (hereafter “the Foundation”). Through activities such as research subsidies without restrictions on the use of funds, study groups, and symposiums, the Foundation has supported interdisciplinary research in the field of biotechnology. In recent years, we have also concentrated on research subsidies for those studying abroad, as support for young researchers who will shoulder the future of the field.

In FY2024, three young researchers were granted long-term research subsidies totaling 16.5 million yen. One recipient is working on the theme of new perspectives in Parkinson's disease diagnosis. At a university hospital overseas, they are developing a new imaging diagnostic method for Parkinson's disease, a type of neurodegenerative disorder, using probes labeled with radioactive isotopes. With the current fiscal year included, a total of 223 researchers have received long-term research subsidies. Recipients are active on the front lines of the biotechnology and education fields and some of them want to contribute to the cultivation of the next generation of researchers by serving as directors and advisors of the Foundation.



Recipients of FY2024 long-term research subsidies and other people connected to the Foundation

##### 62th L-GRANT Research “Toyobo Polymer Science Award” selected

Using the mechanism of the Leave a Nest Research Fund operated by Leave a Nest Co., Ltd., Toyobo group established an open research grant system in FY2022, and through the awarding of the TOYOBO POLYMER SCIENCE Award, we support young researchers.

Based on our desire to highlight the work of researchers who passionately advance steady materials research, rather than just the applied development often required by competitive research funds in recent years, we have set basic and general-purpose research on polymer materials as the target field for three consecutive years.



Award winners and our company's concerned personnel

• [Leave a Nest Co., Ltd.](#) 

##### Support for R&D startups and next generation cultivation through the Shiga-based Growth Business Identification and Cultivation Consortium

Toyobo group supports the goals of the Shiga-based Growth Business Identification and Cultivation Consortium (hereafter “the Consortium”), an industry-academic-government collaborative organization that aims to encourage industry in Shiga and revitalize the region. Since the start, we have been a partner company of the Consortium's Shiga Tech Planter, an R&D startup support program, the Shiga Tech Plan Grand Prix, a business plan contest, and the Shiga Junior Research Grant, which aims to support the research activities of junior and senior high school students in Shiga Prefecture.

For detailed information on the latest Shiga Tech Plan Grand Prix and Shiga Junior Research Grant, please refer to the [“Case Studies”](#) section.





Shiga Tech Plan Grand Prix  
Toyobo Prize was awarded.



Shiga Junior Research Grant  
Award winners and our company's concerned personnel

## <Visiting lectures and career education>

### Visiting lecture on plastic films (since FY2021) (Toyobo Packaging Operating Department)

On September 13, 2023, we conducted a visiting lecture titled “How plastic films work” to 23 students at the private Teikyo University Elementary School in Tokyo, Japan. We introduced our business and explained the types and features of plastic films, and conducted a workshop where participants used films that allow for precise straight-line cutting to create their own original bags. Participants expressed interest in recreating the workshop activities at home and expressed a desire for future sessions, indicating they enjoyed the learning experience.



Visiting lecture at Teikyo University Elementary School

### Visiting lecture on technology related to semipermeable membranes, and science careers (Aqua Membrane Sales Unit, Iwakuni Environment and Fiber Plant, TOYOBO MC Corporation Toyobo Corporate Sustainability Department, Green Transformation Promotion Department)

On June 1, 2024, we conducted a visiting lecture for 67 students of Kobe Ryukoku Junior High School related to semipermeable membranes and science careers.

In the lecture on semipermeable membranes, we explained the phenomenon of osmosis, the function of semipermeable membranes, and introduced the semipermeable membrane manufacturing process at a seawater desalination plant in operation in an area where water is scarce. The students experienced how water is extracted from seawater using semipermeable membranes by using our “Aqua Hum Hum” reverse osmosis experience machine. Additionally, the lecturers introduced our sustainability initiatives, insights from employees about their student life, work at the company, and experiences overseas as part of career education.



A scene from the lecture



Demonstration of reverse osmosis using Aqua Hum Hum

## Collaborative research with Yokkaichi Agricultural High School utilizing waste materials (Miyuki Keori Co., Ltd.)

Since December 2021, Miyuki Keori Co., Ltd., a group company, has been collaborating with approximately 20 students from Mie Prefectural Yokkaichi Agricultural High School (with about 10 participants from Miyuki Keori Co., Ltd.) on a joint research project called “Wool Agri,” which utilizes wool waste as fertilizer. Experimental vegetable cultivation is being carried out in fields containing this waste material, with ongoing analysis of the size, color, and taste of harvested vegetables. Additionally, contributions are being made to the factory’s personnel recruitment efforts through this joint research.



Agricultural work with the students

### <Other initiatives>

Toyobo Packaging Operating Department

- Visiting lecture on plastics at Minato Ward’s Kogai Elementary School in Tokyo (October 2023)

Toyobo Tsuruga Research and Production Center

- Visiting lecture for 31 students at Kutsumi Elementary School in Tsuruga City using our product BREATHAIR® (October 2023)
- Simple practical training in biology using micro-pipettes for 20 students from the Faculty of Education at the University of Fukui (September 2023)

Toyobo Iwakuni Production Center

- Conducted a Junior Summer Science Camp jointly with the Yamaguchi Industrial Promotion Foundation

Miyuki Keori Co., Ltd.

- Collaborated with Marushige Shimizu Seicha Co., Ltd. to utilize wool waste as fertilizer in tea gardens (since 2022)
- Implemented an upcycling project using scrap fabric in collaboration with Aichi Prefecture Selp Center (since 2021)

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## Environmental conservation

[Click here to investigate our initiatives regarding environmental conservation.](#)

- [Biodiversity](#)

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## Contribution to local communities

As a manufacturer of materials, Toyobo group provides a variety of information for the peace of mind of local communities and engages in educational and awareness-raising activities for residents. We undertake activities that contribute to creating flourishing towns and cities, advancing together with communities as a good corporate citizen.

Toward that end, the group collaborates with government bodies and industry organizations to provide support to disaster-affected areas, participates in cultural events in the vicinity of our facilities, and holds open house activities that let residents learn about our group’s businesses and initiatives. Our business sites also work to employ local human resources for the vitalization of regions where we operate.

## <Providing disaster relief>

### Support following the Noto Peninsula Earthquake

Toyobo group provided support to the areas affected by the Noto Peninsula Earthquake in 2024 through various initiatives: a donation of 10 million yen via the Japanese Red Cross Society, approximately 300 cold-weather emergency sleeping bags using BREATHAIR® manufactured and sold by TOYOBO MC Corporation, and emergency toilet sets named “Nioi Bye-Bye Bags” using our own product, the next-generation polyester film Olyester®, which were supplied as relief materials through the nonprofit organization Peace Winds Japan to the affected areas. We will continue to provide appropriate support in collaboration with government bodies and industry organizations according to the circumstances of the disaster.



Distributing relief supplies (Photo courtesy of Peace Winds Japan)

## <Company tours and workplace experiences>

### Factory tours for local community associations (Toyobo Iwakuni Production Center)

On November 7, 2023, we conducted a factory tour at the Iwakuni Production Center for 13 members of a local community association focused on environmental and traffic safety. At the Iwakuni Production Center, we promote locally rooted operations and regularly conduct factory tours for local residents to deepen their understanding of our business activities. On this occasion, we focused on introducing newly established facilities, including the private thermal power plant that began operations in October 2023, a disaster preparedness training center, which emphasizes the importance of safety and disaster prevention, and the Multifunctional Nonwoven Fabric Center, where high-performance melt-blown nonwoven fabrics are developed and manufactured.



Tour of the private thermal power plant

### “Machi-Zemi” site tour (Toyobo Tsuruga Research and Production Center)

On March 3, 2024, we conducted a plant tour under the Tsuruga Machi Seminar\* program of the Tsuruga Chamber of Commerce and Industry. This year, five general residents of the city of Tsuruga took part. After receiving an overview of the worksite, participants toured the exhibition room and the Tsuruga Film Plant, walking through the premises. Many participants reported being surprised to learn how items made at the Tsuruga Research and Production Center are in common use around them.

\* Machi Seminar is a small-group free course in which store owners and company employees in the city act as instructors to convey specialized knowledge and information to participants. The project is held nationwide with the aim of building relationships of trust between business operators and local residents through communication in the course.



Visiting the exhibition room

## <Other initiatives>

Toyobo Tsuruga Research and Production Center, Tokyo Branch, Nagoya Branch

- Site tour for 16 elementary school students (including parents) in Tsuruga City, featuring a workshop using film (March 2024)

Toyobo Inuyama Plant

- Site tour for third-year students from Komaki High School of Technology and Engineering (June 2023)

Cosmo Denshi Co., Ltd.

- Twice a year, hosting two students each from Shiohama Junior High School and Yokkaichi Technical High School, allowing them to experience light manufacturing processes  
(June 2024, and planned for November 2024)

Toyoko Cloth Co., Ltd.

- Site tour for approximately 10 students from Sano Technology High School (December 2023)

## <Solution offering>

### Utilization of functional cushion material, BREATHAIR<sup>®</sup>, at zoos (TOYOBO MC Corporation)

In Kobe Oji Zoo, TOYOBO MC Corporation's functional cushion material, BREATHAIR<sup>®</sup>, is being utilized to reduce pressure sores for elderly bears with mobility issues. BREATHAIR<sup>®</sup> has been used in Shinkansen seat covers and bedding mattresses. Looking ahead, it will be supplied not only to zoos but also to nursing facilities and medical institutions.



A bear named Rokuji enjoys a meal on its BREATHAIR<sup>®</sup> mattress

[Click here to investigate our case studies regarding contribution to local communities.](#)

- [Case Studies](#)



# Governance



Corporate Governance



Compliance



Risk Management





Tax Affairs Policy



ESG Performance Data →

# Corporate Governance

Materiality	
Related ESG : 	
Governance	

- ↓ Management approach
- ↓ Structure
- ↓ Overview of boards and committees
- ↓ Targets and KPIs
- ↓ Progress in system enhancement
- ↓ Officer compensation system
- ↓ Evaluating the effectiveness of the board of Directors
- ↓ Outside Director message
- ↓ Cross-shareholding

## Management approach

### Policy and approach

Based on the corporate philosophy “*Jun-Ri-Soku-Yu*,” the company believes that its purpose is to contribute to solving social issues through its proprietary technologies after ascertaining these issues from a long-term perspective.

The company, to respond to the changing times and enhance sustainable corporate value in the future as well, has established the policies of (1) ensuring timeliness and accuracy in decision-making, (2) ensuring transparency in management, and (3) emphasizing fairness, and will work to appropriately collaborate with all stakeholders, such as shareholders. Furthermore, by carrying out its fiduciary responsibility and accountability to shareholders, the company will ensure the effectiveness of corporate governance and continually work on its improvement.

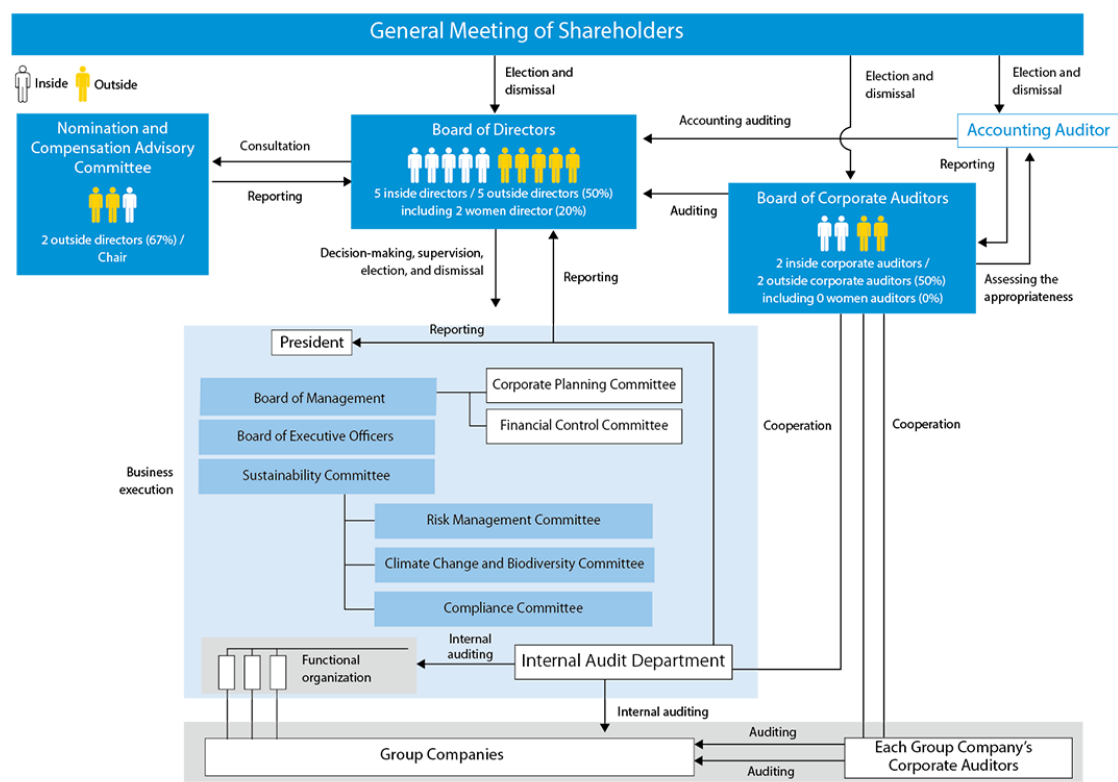
- [Corporate Governance Report](#)

### Structure

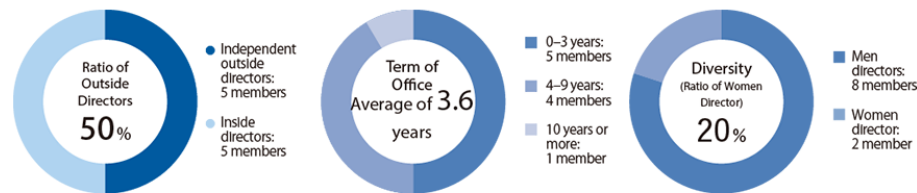
Toyobo is a company with Board of Corporate Auditors and, under this governance system, has adopted the executive officer system. In the executive officer system, which is defined in our Articles of Incorporation, the Board of Directors oversees the business execution of executive officers. Under Toyobo's governance framework, a clear separation is made between the role of the Board of Directors—which oversees decision-making and performs management oversight—and the executive officers who are in charge of business execution. This system enables rapid decision-making and efficient business execution.



Corporate governance structure (as of June 2024)



Composition of the Board of Directors



## Overview of boards and committees

\* As of June 2024

	Members and roles		Main issues (FY2024)
<b>Board of Directors</b> Number of meetings held in FY2024: 17	Members	10 members. The Board of Directors is composed of five independent outside directors, a director who is also an executive officer, and the company Chair, who serves as the chair of the Board of Directors. The number of directors on the Board of Directors is set to 14 or fewer.	<ul style="list-style-type: none"> <li>- Review of 2025 medium-term management plan</li> <li>- Business strategy and management issues</li> <li>- Safety, disaster prevention, and quality initiatives</li> <li>- Important investment projects</li> <li>- Respect for human rights, diversity promotion, human resource development</li> <li>- Matters related to cross-shareholdings</li> <li>- Matters related to R&amp;D</li> </ul>
	Role	The Board of Directors receives reports on the progress of medium- and long-term themes, including from the perspective of sustainability, and the status of business execution in each business, and conduct appropriate supervision. In addition, by taking our fiduciary responsibility and accountability to shareholders into account, it works to build a corporate governance structure that will enable us to sustainably enhance corporate value.	
<b>Board of Corporate Auditors</b> Number of meetings held in FY2024: 15	Members	4 members, including 2 independent outside corporate auditors.	<ul style="list-style-type: none"> <li>- Determination of auditing policy and auditing plans</li> <li>- Sharing the results of operational and accounting audits, and visiting audit to group companies</li> <li>- Confirmation of the content of proceedings at Board of Directors meetings and other important meetings</li> <li>- Sharing details of discussions with board</li> <li>- Confirming important documents</li> <li>- Confirmation of matters related to accounting auditor</li> </ul>
	Role	The Board of Corporate Auditors attends the Board of Directors meetings and other important meetings, states opinions when necessary, and audits the execution performance by directors through audits of each department's operation. KPMG AZSA LLC has been appointed to conduct accounting audits required under Japan's Companies Act. The Board of Corporate Auditors receive reports on auditing plans and auditing results from the accounting auditor, and meet with them to periodically exchange information. Information is also exchanged with the Internal Audit Department, which monitors the effectiveness of internal control.	
<b>Nomination and Compensation Advisory Committee</b> Number of meetings held in FY2024: 5	Members	3 members, including 2 independent outside directors and the Chair. The Nomination and Compensation Advisory Committee is led by an outside director. 1 outside corporate auditor also participates as an observer.	<ul style="list-style-type: none"> <li>- Director nomination proposals</li> <li>- Setting of company-wide performance targets used in calculating short-term incentive compensation</li> <li>- Revising of officer compensation system</li> </ul>
	Role	Based on proposals from the President, the Nomination and Compensation Advisory Committee objectively and fairly deliberates on basic policies for nominations, including proposals for individual director nominations, as well as the system, level, and calculation method of officer compensation. Subsequently, it reports to the Board of Directors.	

<b>Board of Managing Executive Officers and Controlling Supervisors*</b> Number of meetings held in FY2024: 32	<b>Members</b>	12 members, including those also serving as directors. The Chair and 2 inside corporate auditors may also participate and state their opinions.	Same issues as the Board of Directors
	<b>Role</b>	The Board of Managing Executive Officers and Controlling Supervisors deliberates in advance on matters to be resolved by the Board of Directors, and determines matters related to business execution entrusted by the Board of Directors. The Corporate Planning Committee and the Financial Control Committee have been established under the Board of Managing Executive Officers and Controlling Supervisors to manage risks related to management.	
<b>Sustainability Committee</b> Number of meetings held in FY2024: 6	<b>Members</b>	13 members. The Sustainability Committee consists of the members of the Board of Managing Executive Officers and Controlling Supervisors, and the President serves as chair. 2 inside corporate auditors may also participate and state their opinions.	<ul style="list-style-type: none"> <li>- Progress report on materiality and KPIs</li> <li>- Participation in the GX League</li> <li>- Sharing of value creation stories</li> <li>- Group deployment of risk management</li> <li>- Initiatives to respect human rights in the group and supply chain</li> </ul>
	<b>Role</b>	The Sustainability Committees convenes six times per year to comprehensively discuss key issues (materiality), deliberate on strategies, measures, and indicators from the perspectives of risks and opportunities, and manage progress. The content of the Committee's discussions is reported to the Board of Directors on a regular basis.	
<b>Corporate Planning Committee</b> Number of meetings held in FY2024: 12 (including deliberations via written communication, etc.)	<b>Members</b>	19 members. The Corporate Planning Committee members are selected from each specialized field and business departments. The Director in charge of planning serves as chair.	<ul style="list-style-type: none"> <li>- Significant capital investment projects</li> <li>- Matters regarding new businesses</li> <li>- Matters regarding the establishment of new companies</li> <li>- Other important matters (investments, technology introductions, business alliances, acquisitions, etc.)</li> <li>- Review of major Corporate Planning Committee matters</li> </ul>
	<b>Role</b>	The Corporate Planning Committee provides opinions and deliberates from a professional and managerial perspective on strategic matters, including important capital investments, new businesses, new company establishment, technology introduction, and business alliances, based on the entrustment of the Board of Managing Executive Officers and Controlling Supervisors. This is to improve the efficiency of deliberations and resolutions by the Board of Managing Executive Officers and Controlling Supervisors and to ensure the proper approval process, including matters concerning affiliate companies.	

<b>Financial Control Committee</b> Number of meetings held in FY2024:19	<b>Members</b>	1 Chairperson, and 4 standing committee members.	The following matters of individual importance:  - Investments and lending - Guarantees and reservations of guarantees (including management awareness letters) - Collateral provision for third parties
	<b>Role</b>	The Financial Control Committee pursues improving the efficiency of deliberations and resolutions at the Board of Managing Executive Officers and Controlling Supervisors, and the appropriateness of the approval process by expressing opinions and deliberating from a professional and managerial perspective on important individual investments, loans, guarantees, and other matters. In addition, it seeks to streamline the deliberation or resolution of matters not subject to deliberation or resolution at the meetings, as required by various rules and regulations.	

\* The Board of Managing Executive Officers and Controlling Supervisors was renamed the Board of Management in fiscal 2025.

## Targets and KPIs

### < Targets >

Toyobo group is building a fair and highly transparent governance structure through compliance with the Corporate Governance Code and proactive information disclosure.

### < KPIs and results >

Initiatives	KPIs	Targets	Results (FY2024)
<ul style="list-style-type: none"> <li>Strengthen corporate governance</li> <li>Strengthen information disclosure</li> </ul>	1. Number of Board of Directors' and committee meetings*	1. Disclose results	1. 22
	2. Attendance rate of officers at meetings in 1.	2. Disclose results	2. <a href="#">Share on the company website</a>
	3. Disclosure of details of evaluation of Board of Directors' effectiveness	3. Disclose details of effectiveness evaluation	3. <a href="#">Share on the company website</a>

\* Nomination and Compensation Advisory Committee

## Progress in system enhancement

Toyobo group has worked continuously to strengthen corporate governance.

### Initiatives to strengthen corporate governance

Year	Initiative & objective
1998	<ul style="list-style-type: none"> <li>Established the Ethics Committee (the current Compliance Committee)</li> <li>To promote company-wide compliance activities as a key element of management</li> </ul>

2004	<ul style="list-style-type: none"> <li>- Appointed one outside director, shortened the term of office for directors to one year To clarify management accountability by strengthening the supervisory function and shortening the term of office</li> <li>- Established an Advisory Board on Officer Provisions, etc. (the current Nomination and Compensation Advisory Committee) To ensure transparency and fairness in procedures for determining officer compensation</li> </ul>
2005	<ul style="list-style-type: none"> <li>- Introduced a corporate officer system and reduced the number of directors To split the decision-making/supervisory and executive functions</li> </ul>
2015	<ul style="list-style-type: none"> <li>- Increased number of outside directors to two To strengthen the supervisory function by multiple appointments</li> <li>- Established an outside officer liaison meeting Held regular opportunities for sharing of understanding and exchange of information by outside officers only</li> <li>- Established the Nomination Committee (the current Nomination and Compensation Advisory Committee) To ensure transparency and fairness in procedures for nominating/dismissing directors</li> </ul>
2016	<ul style="list-style-type: none"> <li>- Made an analysis/evaluation of the overall effectiveness of the Board of Directors Will annually identify issues and make improvements</li> </ul>
2018	<ul style="list-style-type: none"> <li>- Increased number of outside directors to three, raising their ratio to one third of all directors To ensure diversity among members of the Board of Directors, as well as strengthen governance</li> </ul>
2019	<ul style="list-style-type: none"> <li>- Increased number of outside directors to four (adding a female director) To further promote diversity among members of the Board of Directors</li> <li>- Revised the officer compensation system (introduced compensation in the form of restricted stock units) To offer longer term incentives and realize greater sharing of value with shareholders</li> </ul>
2021	<ul style="list-style-type: none"> <li>- Established the Nomination and Compensation Advisory Committee Integrated advisory and compensation advisory bodies, and improved their functionality</li> </ul>
2022	<ul style="list-style-type: none"> <li>- Increased number outside directors to five</li> <li>- Review of the executive compensation system (changes in the composition ratio of compensation and KPIs)</li> </ul>
2023	<ul style="list-style-type: none"> <li>- Increase in the number of female directors to two</li> </ul>
2024	<ul style="list-style-type: none"> <li>- Revised the officer compensation system (incorporated sustainability indicators as one of the evaluation criteria) Election and dismissal of top management and nomination of candidates for directors and corporate auditors</li> </ul>

## Election and dismissal of top management and nomination of candidates for directors and corporate auditors

### Policy

The election and dismissal of top management members (executive officers who also serve as directors) and the nomination of candidates for directors and corporate auditors are based on whether they are outstanding individuals who have the appropriate personality and insight for their respective posts, while also taking into consideration the criteria for nominating directors and corporate auditors, and are decided by the Board of Directors after deliberation by the Nomination and Compensation Advisory Committee.

#### (1) Stance on composition of the Board of Directors and Board of Corporate Auditors

##### a) Board of Directors

The Board of Directors is comprised of the Chair of the Board, outside directors, and directors who also serve as executive officers, in order to have a balanced structure with the expertise and skills necessary to appropriately provide strategic direction and make decisions on important business operations, and the independence necessary to strengthen supervision of management, while also ensuring diversity in terms of professional background, gender, age, etc. Based on the concepts of (1) ensuring timeliness and accuracy in decision-making, (2) ensuring transparency in management, and (3) emphasizing fairness, the Articles of Incorporation stipulate that the Board of Directors must have no more than 14 members, and that the ratio of outside directors be at least one-third of members.

##### b) Board of Corporate Auditors

The Board of Corporate Auditors comprises human resources with expertise and skills in finance and accounting as well as knowledge of the group's business, from the perspective of ensuring the effectiveness of auditing.



## **(2) Summary of criteria for nomination, etc.**

### **a) Candidates for directors (excluding candidates for outside directors)**

Candidates for directors should have knowledge, achievements, experience, and skills as a manager, as well as a company-wide perspective

### **b) Candidates for outside directors**

- Candidates for outside directors are expected to contribute to the enhancement of corporate value and the strengthening of supervision, such as providing business suggestions and management support
- Candidates for outside directors must meet separately specified independence criteria for outside directors

### **c) Candidates for corporate auditors**

- Candidates for outside corporate auditors are expected to have ability to make appropriate judgments from an independent and objective standpoint in the auditing of the performance of duties, etc.
- Candidates for outside corporate auditors must meet the independence criteria

## **[Reference] Independence standards for outside officers**

The company has deemed that if none of the attributes in the following items apply, the outside Director or outside Corporate Auditor (or the candidate for outside Director or outside Corporate Auditor) has a high degree of independence from the company, and there are no concerns of conflicts of interest with general shareholders.

- (1) A major shareholder in the company (refers to a shareholder with a voting rights ownership ratio of 10% or more; the same applies below) or an individual who executes business for the shareholder
- (2) An individual who executes business for a company of which the company is a major shareholder
- (3) A business partner of the company for which the company is a major partner (refers to a party that provides products or services to the company for which the average annual transaction amount for the past three fiscal years is over 2% of that business partner's annual gross sales) or an individual who executes business for that company
- (4) A major business partner of the company (refers to a party that the company provides products or services to for which the average annual transaction amount for the past three fiscal years is over 2% of the company's annual gross sales) or an individual who executes business for that company
- (5) An individual who executes business as an employee of a financial institution that is a major lender to the company (refers to a lender for which the loan balance amount is equivalent to over 2% of the company's total assets)
- (6) An individual who obtains over ¥10 million per year in cash or other assets in profit from the company as a specialist, such as a consultant, accountant, or attorney at law, other than officers' compensation (or an individual who belongs to a corporation, etc., that obtains over ¥100 million per year in this matter)
- (7) An individual for which any item in (1) to (6) above has applied within the past three years
- (8) A relation within the second degree of an individual for which any item in (1) to (7) above applies

Note: Even if none of the attributes above apply, in some cases it may be deemed that there is no independence in consideration of matters such as transaction volumes at a group company of the company or a group company of a business partner.

## **Procedures for nominations, etc.**

The Nomination and Compensation Advisory Committee, comprising a majority of outside directors, has been established as an advisory body to the Board of Directors to ensure fairness and transparency, and is chaired by an outside director.

The Committee deliberates and reports to the Board of Directors on basic policies and criteria for nominating officers and succession planning, etc., based on proposals from the President.

## **Dismissal policy and procedures**

In the event of an act of misconduct, impropriety, or actions suggesting a breach of trust, or of other reasons that make the member unsuitable to serve as an officer, after deliberation by the Nomination and Compensation Advisory Committee, a decision will be made by the Board of Directors on their dismissal.



## Attendance record at board of Directors and Corporate Auditors, skill matrix

Attendance Record at Board of Directors and Corporate Auditors, Skills (As of June 2024)

Attendance record (attendance percentage) FY2023							Of the experience and background required by the company, skills that are particularly beneficial										Term of Office	Reason for Appointment	
Board of Directors	Board of Corporate Auditors	Nomination and Compensation Advisory Committee	Corporate Management	Production/Technology/Development	Marketing/Sales	Finance/Accounting	Environment/Safety	Customer/Risk Management/Compliance	IT/ISX										
Seiji Nishihara		67	Men	○	Board of Directors	17/17 (100%)		5/5 (100%)	○				○	○	○			13 years	Based on his deep knowledge of finance, accounting, and other areas, Mr. Nishihara has supported the long-term reform of the company's business portfolio, and, acting as President and Representative Director from April 2014, has led the management of the group, including the reworking of our corporate philosophy structure and the expansion of the film business. He has made an effort to contribute to the enhancement of corporate value. He assumed the post of Chair of the Board & Director in April 2021, and as the Chairman of the board, plays an appropriate role in decision-making on key matters and in the oversight of execution.
Ikuo Takeuchi		61	Men		Board of Managing Executive Officers and Controlling Supervisors	17/17 (100%)			○		○			○	○	○		4 years	After serving in key positions in corporate planning and overseas business sites of the company, Mr. Takeuchi was appointed as Head of the Functional Membranes and Environment Division, a position from which he set a concrete path toward growth of the business. From April 2021, he undertook formulation of the 2025 medium-term management plan as President and Representative Director, demonstrating strong leadership and steering the sustainable growth of the group.
Tsachi Sakai (Newly appointed)		61	Men			17/17 (100%)				○				○	○	○		1 years	Mr. Sakai has held key positions in the company's Production Technology Division and core manufacturing sites and, drawing on his abundant experience and expertise in the field of production technology, contributes to initiatives aimed at technological innovation.
Takahito Sagara (Newly appointed)		57	Men							○	○				○	○		0 years	Mr. Sagara has held key positions in the medical materials business within the Life Science Division of the company. Leveraging his expertise in the field of research and development and extensive experience in the field of marketing and sales, he has contributed to business development.
Takehiko Inada (Newly appointed)		59	Men						○					○	○	○		0 years	Mr. Inada has held key positions in the staffing sector, including the Human Resources Department, the Finance Department, and the Corporate Planning Department of the company. He has contributed to developing human resources and transforming human resources systems, as well as strengthening the corporate governance of the group.
Takafumi Iizumi	○	75	Men			17/17 (100%)				○					○			6 years	Leveraging specialized knowledge and wide-ranging insights gained as an academic expert versed in the field of quality control, Mr. Iizumi made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, advising management in areas including technology and R&D.
Kimie Sakuragi	○	65	Women	○		17/17 (100%)		5/5 (100%)						○	○			5 years	Leveraging her abundant experience and wide-ranging insights in fields including corporate ethics, compliance, and sustainability, Ms. Sakuragi made proactive statements from an independent standpoint at meetings of the Board of Directors. She appropriately fulfills roles expected of her by the company, including those of supervising management through vital decision-making and providing counsel to management, serving as a member of the Nomination and Compensation Advisory Committee.
Masaaki Harima	○	73	Men			17/17 (100%)										○	○	4 years	Leveraging specialized knowledge and wide-ranging insights gained as an attorney, Mr. Harima made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, advising management with the aim of strengthening risk management and governance.
Hiroshi Fukushi	○	66	Men	○		17/17 (100%)		3/3 (100%)	○	○	○							2 years	Leveraging specialized knowledge and wide-ranging insights gained as a business manager, Mr. Fukushi made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, drawing on his high-level expertise in the bio and digital fields to advise management.
Shoko Takase	○	59	Women			13/13 (100%)				○	○							1 years	In addition to extensive experience and wide-ranging insights as a business manager, Mr. Takase possesses high-level expertise in the IT and digital fields. The company expects that she will appropriately fulfill roles expected of her by supervising management through vital decision-making and providing counsel to management.
Takayuki Tabo		63	Men			17/17 (100%)	15/15 (100%)		○		○	○			○			3 years	Mr. Tabo has a long involvement in the Accounting and Control Department of the company, possesses considerable knowledge of finance and accounting, and has a deep understanding of the management and business operations of the group.
Yasuo Ohta		64	Men			17/17 (100%)	10/10 (100%)		○	○	○							1 years	Mr. Ota has a long involvement in the field of research and development, and, after serving as head of the Research Center, has held key positions in the biochemical business and in corporate planning, contributing to new business development and global expansion. He possesses abundant experience and a record of performance as a manager in charge of various departments, and has a deep understanding of the management and business operations of the group.
Akihiko Irie	○	67	Men			17/17 (100%)	15/15 (100%)		○		○				○	○		3 years	Mr. Irie possesses abundant experience in auditing and has served as a corporate auditor at listed companies.
Wakyu Shimmen	○	67	Men	Observer		13/13 (100%)	10/10 (100%)	3/3 (100%)					○		○			1 years	Mr. Shimmen possesses abundant experience in auditing as a certified public accountant.

\* Click to enlarge the diagram

## Training programs for officers

For our newly appointed directors and corporate auditors, we provide orientation concerning their roles and duties, as they undergo an external training program upon their appointment, in order to acquire the necessary knowledge.

They are also encouraged to continue participating in external training programs and lectures to continuously build on their managerial literacy.

In addition, newly appointed outside directors and outside corporate auditors also attend orientations regarding the company's operations, finances and organization, and more.

## Officer compensation system

### Basic policy

Toyobo's system of officer compensation is designed as follows, in line with basic policy, within the monetary amount resolved at the Annual General Meeting of Shareholders.

- 1) Provide incentives that lead to Toyobo group's sustained growth and enhance corporate value over the longer term
- 2) Secure highly talented management personnel
- 3) Set determination procedures that are objective and highly transparent

Compensation structure and levels are reviewed based upon the company's business environment, levels of employee salaries, and other companies' levels based upon surveys conducted by specialized external organizations.

## Monetary compensation (including performance-based amounts)

### (1) Composition of monetary compensation

Monetary compensation for directors (excluding outside directors) and executive officers is a fixed monthly compensation, comprising the following two components:

- 1) Basic compensation
- 2) Short-term incentive compensation

### (2) Short-term incentive compensation

- 1) Short-term incentive compensation reflects evaluations of company-wide performance and the performance of department under charge, in accordance with position.
  - Representative Director and Executive Director: company-wide performance only
  - Director: company-wide performance 2; performance of department under charge 1
  - Executive Officer (full-time): company-wide performance 1; performance of department under charge 2
- 2) Individual compensation reflecting company-wide performance and the performance of the department under charge is calculated and is determined by the Board of Directors.
- 3) The major management indicator EBITDA is used as a KPI for company-wide performance. It varies between 0% and 200%, according to the degree of achievement with respect to the target value.
- 4) With regard to specific target values, the Nomination and Compensation Advisory Committee is consulted. Based on its report, the Board of Directors makes decisions.
- 5) Performance of the department under charge is evaluated on a 5-point scale that takes into account the degree of operating income achieved, ROA, EBITDA, and other factors in the department under charge. It varies between 50% and 200%.

## Stock compensation

In order to increase incentives to sustainably enhance corporate value and to promote more value sharing with shareholders, a certain percentage of compensation is granted annually as non-monetary compensation for granting restricted shares (non-performance-based, provided in advance).

## Ratio of compensation

The ratio is designed to allow incentives for enhancement of corporate value to function appropriately. For basic compensation, short-term incentive compensation, and long-term incentive compensation, a ratio of 6:3:1 is set as a guideline (when KPI achievement is 100%).

## Other

- (1) Compensation for outside directors is to be fixed monetary compensation in view of their role and independence.
- (2) Compensation for corporate auditors is to be fixed monetary compensation in accordance with their duties and responsibilities, and is to be decided by discussions with the corporate auditors in view of their duties and responsibilities.
- (3) The Nomination and Compensation Advisory Committee, comprising a majority of outside directors as members, has been established as an advisory body to the Board of Directors to ensure the transparency and objectivity of decisions regarding compensation. The Nomination and Compensation Advisory Committee receives advice from the Board of Directors and deliberates on the system, level, and calculation method of officer compensation, in addition to the targets set for the company-wide performance evaluations forming part of the compensation by position. The Board of Directors makes the final decision on the amount of individual compensation based upon the report from the Nomination and Compensation Advisory Committee.

## Details of officer compensation (FY2024)

\* Including mid-period appointments and resignations

Position	Total compensation, etc.	Total compensation by type			Number of officers*
		Basic compensation	Performance-based compensation	Non-monetary compensation (Compensation for granting restricted shares)	
		(¥ mn)	(¥ mn)	(¥ mn)	
Directors (Including outside directors)	308 (53)	245 (53)	30 (—)	32 (—)	12 (6)
Corporate Auditors (Including outside corporate auditors)	71 (18)	71 (18)	— (—)	— (—)	6 (3)
Total (Including outside officers)	379 (71)	316 (71)	30 (—)	32 (—)	18 (9)

### Review of officer compensation system

In April 2024, the Board of Directors partially revised the officer compensation system based on a study of social trends surrounding executive compensation and appropriate incentives to improve performance. The main points of the review are as follows and were implemented starting in July 2024.

#### (1) Composition of short-term incentive compensation

Pre-change	Representative directors and executive directors:	Company results only
	Directors:	Company performance : Performance of the department one is responsible for = 2 : 1
	Executive officers (full-time):	Company performance : Performance of the department one is responsible for = 1 : 2
Post-change	President and Representative Director:	Company results only
	Representative directors (who also serve as executive officers)	Company performance : Individual performance = 2 : 1
	Directors (who also serve as executive officers)	Company performance : Individual performance = 1 : 1
	Executive officers (full-time):	Company performance : Individual performance = 1 : 2

#### (2) Evaluation criteria for short-term incentive compensation

1. There will be a shift from "Performance of the department one is responsible for" to "Individual performance." Individual performance will include setting new personal objectives in addition to the performance of the department one is responsible for and evaluating the degree of achievement.
2. Sustainability indicators will be added to the evaluation criteria, set as common goals based on the annual management policy, and evaluated based on the degree of achievement.

#### Sustainability indicators

In June 2023, the Board of Directors decided to incorporate sustainability indices such as Environment, Society, Governance (ESG) into the executive compensation system, starting from July 2024.

Key performance indicators (KPIs) related to safety and disaster prevention, human capital, and climate-change response will be established annually and their achievement levels evaluated.

The indicators for safety and disaster prevention, as well as human capital have been applied to compensation from July 2024, based on fiscal 2024 results. The indicator for climate-change response will be applied from July 2025, based on fiscal 2025 results.

Sustainability indicators	KPIs		Reflection method
Safety and disaster prevention Indicators	Number of major accidents	0 accidents per year	An additional 5% of the total short-term incentive compensation base amount* will be added if all items are achieved.
	Frequency rate of workplace accidents resulting in lost workdays	0.25 or less	
	Number of fires or explosions	0 accidents per year	
	Number of spill accidents	0 accidents per year	
Human capital indicators	Results of the engagement survey	+5% vs. last year	An additional 5% of the total short-term incentive compensation base amount*
Climate-change response indicator	Reduction in GHG emissions (Scope 1 and 2)	Down 2.9% vs. last year	5% of overall short-term incentive is added

\* The base amount is set at 100% of the short-term incentive compensation.

## Evaluating the effectiveness of the board of Directors

In order to further enhance the functions of the Board of Directors, the company carried out an overall analysis and evaluation of the effectiveness of the Board of Directors in fiscal 2024 with the support of an external organization. An outline of this evaluation is as follows.

### Implementation method

- (1) Target: All directors and corporate auditors
- (2) Method: Conducted a survey with approximately 50 questions, and provided the responses directly to an external service provider.
- (3) Analysis and evaluation: The Board of Directors conducted the analysis and evaluation based on reports of aggregate results from the service provider.

### Overview of analysis and evaluation results

- (1) Member numbers for the Board of Directors, the frequency of meetings, the ratio of internal and external members, and the Chair's management of meetings procedures were evaluated as generally appropriate. Moreover, the Board's discussions were highly praised for being characterized by constructive debates and exchanges of opinions.
- (2) It was confirmed that certain results and improvements were achieved as a result of addressing the five issues identified previously [1) strengthened risk management including of quality assurance (QA) and of safety and disaster prevention, and QA, 2) Revision of our business portfolio, 3) Strengthening of group governance, 4) Initiatives for CEO succession planning and appointment procedures, and 5) Initiatives aimed at medium- to long-term themes, 3) Initiatives for succession planning and appointment procedures, 4) Further streamlining of management of meeting procedures, and 5) Strengthening of group governance]. However, some voices viewed the improvements as insufficient.
- (3) The items 2), 3), and 4) above in particular received relatively low evaluations, and were identified as issues to be addressed along with the newly identified issue of reviewing our business portfolio examining policies for understanding and improving capital costs and capital profitability. In addition, the item 1) above remained an issue to be addressed in order to make further improvements through ongoing initiatives.

### Issues and future initiatives

The Board of Directors is working to improve its own effectiveness as a whole through the following initiatives.

#### (1) Risk management including of safety and disaster prevention, and QA

We will further enhance the risk management systems of our group as a whole, by means including supervision of the status of our initiatives for materiality targets and KPIs and materiality targets.

## (2) Examination of policies for understanding and improving capital costs and capital profitability

We will consider and oversee initiatives to understand and improve the company's capital costs and capital profitability.

## (3) Revision of our business portfolio

We will identify the current status and key issues of the business portfolio and consider and oversee initiatives for its revision.

## (4) Initiatives for CEO succession planning and appointment procedures

We will further ensure transparency and fairness by enhancing activity reports from the Nomination and Compensation Advisory Committee.

## (5) Strengthening of group governance

- We will receive reports on risk management at group companies and on other topics from the Corporate Business Management Department, and will engage appropriately.
- We will ensure the effectiveness of internal audit functions through means including audit plans from the Internal Audit Department and reports on their outcomes, and outcomes and will work to strengthen group governance.

## Roundtable discussion with outside directors



Roundtable discussion with outside directors in the Integrate Report 2024 (766KB)



## Cross-shareholdings

The company shall periodically review cross-shareholdings from assorted perspectives, such as the impact on improving medium-to long-term corporate value and economic rationality, and sell any stock which is no longer meaningful as is appropriate. On the other hand, the company shall enter into cross-shareholdings with key business partners when judging that the maintenance and strengthening of stable relationships with the business partners will contribute to sustainable growth and enhancement of medium-to long-term corporate value of the company.

The Board of Directors individually reviews cross-shareholdings every year, including future business strategies and operational relationships, and determines whether or not to continue holding these shares.

Also, with regard to the exercise of voting rights in cross-shareholdings, the company deeply considers the status of the business partner and the content of the proposals, and as needed, discusses with the business partner. The company thereby confirms whether these holdings contribute to the sustainable growth and medium-to long-term enhancement of corporate value of the company and its business partner, and makes a comprehensive decision.



Attendance Record at Board of Directors and Corporate Auditors, Skills (As of June 2024)

		Outside	Independent	Age	Gender	Nomination and Compensation Advisory Committee	Chair of Each Committee	Attendance record (attendance percentage) FY2023			Of the experience and background required by the company, skills that are particularly beneficial							Term of Office	Reason for Appointment
								Board of Directors	Board of Corporate Auditors	Nomination and Compensation Advisory Committee	Corporate Management	Production/Technology/Development	Marketing/Sales	Finance/Accounting	Environment / Society	Governance/ Risk Management /Compliance	IT/DX		
D i r e c t o r s	Seiji Narahara			67	Men	○	Board of Directors	17/17 (100%)		5/5 (100%)	○			○	○	○		13 years	Based on his deep knowledge of finance, accounting, and other areas, Mr. Narahara has supported the long-term reform of the company's business portfolio, and, acting as President and Representative Director from April 2014, has led the management of the group, including the reworking of our corporate philosophy structure and the expansion of the firm business. He has made an effort to contribute to the enhancement of corporate value. He assumed the post of Chair of the Board & Director in April 2021, and as the Chairman of the board, plays an appropriate role in decision-making on key matters and in the oversight of execution.
	Ikuo Takeuchi			61	Men		Board of Managing Executive Officers and Controlling Supervisors	17/17 (100%)			○		○		○	○	○	4 years	After serving in key positions in corporate planning and overseas business sites of the company, Mr. Takeuchi was appointed as Head of the Functional Membranes and Environment Division, a position from which he set a concrete path toward growth of the business. From April 2021, he undertook formulation of the 2025 medium-term management plan as President and Representative Director, demonstrating strong leadership and steering the sustainable growth of the group.
	Taichi Sakai (Newly appointed)			61	Men			17/17 (100%)				○			○	○	○	1 years	Mr. Sakai has held key positions in the company's Production Technology Division and core manufacturing sites and, drawing on his abundant experience and expertise in the field of production technology, contributes to initiatives aimed at technological innovation.
	Takahito Sagara (Newly appointed)			57	Men							○	○			○	○	0 years	Mr. Sagara has held key positions in the medical materials business within the Life Science Division of the company. Leveraging his expertise in the field of research and development and extensive experience in the field of marketing and sales, he has contributed to business development.
	Takehiko Inada (Newly appointed)			59	Men						○			○	○	○		0 years	Mr. Inada has held key positions in the staffing sector, including the Human Resources Department, the Finance Department, and the Corporate Planning Department of the company. He has contributed to developing human resources and transforming human resources systems, as well as strengthening the corporate governance of the group.
	Takafumi Isogai	○	○	75	Men			17/17 (100%)				○			○			6 years	Leveraging specialized knowledge and wide-ranging insights gained as an academic expert versed in the field of quality control, Mr. Isogai made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, advising management in areas including technology and R&D.
	Kimie Sakuragi	○	○	65	Women	○		17/17 (100%)		5/5 (100%)			○		○	○		5 years	Leveraging her abundant experience and wide-ranging insights in fields including corporate ethics, compliance, and sustainability, Ms. Sakuragi made proactive statements from an independent standpoint at meetings of the Board of Directors. She appropriately fulfills roles expected of her by the company, including those of supervising management through vital decision-making and providing counsel to management, serving as a member of the Nomination and Compensation Advisory Committee.
	Masaaki Harima	○	○	73	Men			17/17 (100%)							○	○		4 years	Leveraging specialized knowledge and wide-ranging insights gained as an attorney, Mr. Harima made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, advising management with the aim of strengthening risk management and governance.
	Hiroshi Fukushi	○	○	66	Men	○		17/17 (100%)		3/3 (100%)	○	○	○				○	2 years	Leveraging specialized knowledge and wide-ranging insights gained as a business manager, Mr. Fukushi made proactive statements from an independent standpoint at meetings of the Board of Directors. He appropriately fulfills roles expected of him by the company, including those of supervising management through vital decision-making and providing counsel to management, drawing on his high-level expertise in the bio and digital fields to advise management.
C o r p o r a t e  A u d i t o r s	Shoko Takase	○	○	59	Women			13/13 (100%)				○	○				○	1 years	In addition to extensive experience and wide-ranging insights as a business manager, Ms. Takase possesses high-level expertise in the IT and digital fields. The company expects that she will appropriately fulfill roles including those of supervising management through vital decision-making and providing counsel to management.
	Takayuki Tabo			63	Men			17/17 (100%)	15/15 (100%)		○		○	○		○		3 years	Mr. Tabo has a long involvement in the Accounting and Control Department of the company, possesses considerable knowledge of finance and accounting, and has a deep understanding of the management and business operations of the group.
	Yasuo Ohta			64	Men			17/17 (100%)	10/10 (100%)		○	○	○		○			1 years	Mr. Ota has a long involvement in the field of research and development, and, after serving as head of the Research Center, has held key positions in the biochemical business and in corporate planning, contributing to new business development and global expansion. He possesses abundant experience and a record of performance as a manager in charge of various departments, and has a deep understanding of the management and business operations of the group.
	Akihiko Irie	○	○	67	Men			17/17 (100%)	15/15 (100%)		○		○			○	○	3 years	Mr. Irie possesses abundant experience in auditing and has served as a corporate auditor at listed companies.
	Wakyu Shinmen	○	○	67	Men	Observer		13/13 (100%)	10/10 (100%)	3/3 (100%)				○		○		1 years	Mr. Shinmen possesses abundant experience in auditing as a certified public accountant.



# Demanding the pursuit of new challenges and commitment to growth

## Features and challenges of the Board of Directors

**Harima** At Toyobo's Board of Directors' meetings, while there are active discussions on various proposals, occasionally there isn't enough time for important individual proposals.

**Takase** One of the features of the board is the ability to freely and openly express opinions based on individual expertise.

**Fukushi** The chairperson is adept at effectively summarizing the numerous opinions presented during meetings, contributing to a generally positive atmosphere for discussions. However, a challenge faced by traditional Japanese companies is that internal directors often speak from the perspective of their own departments. It would be beneficial if Toyobo's internal directors could consider all stakeholders and provide input from a company-wide perspective. Given their earnest nature, they are likely to develop this capability through continued discussions.

**Harima** Adding a question about whether directors speak from a company-wide perspective to the board's effectiveness evaluation survey could provide a valuable opportunity for individuals to reflect on their own approach.

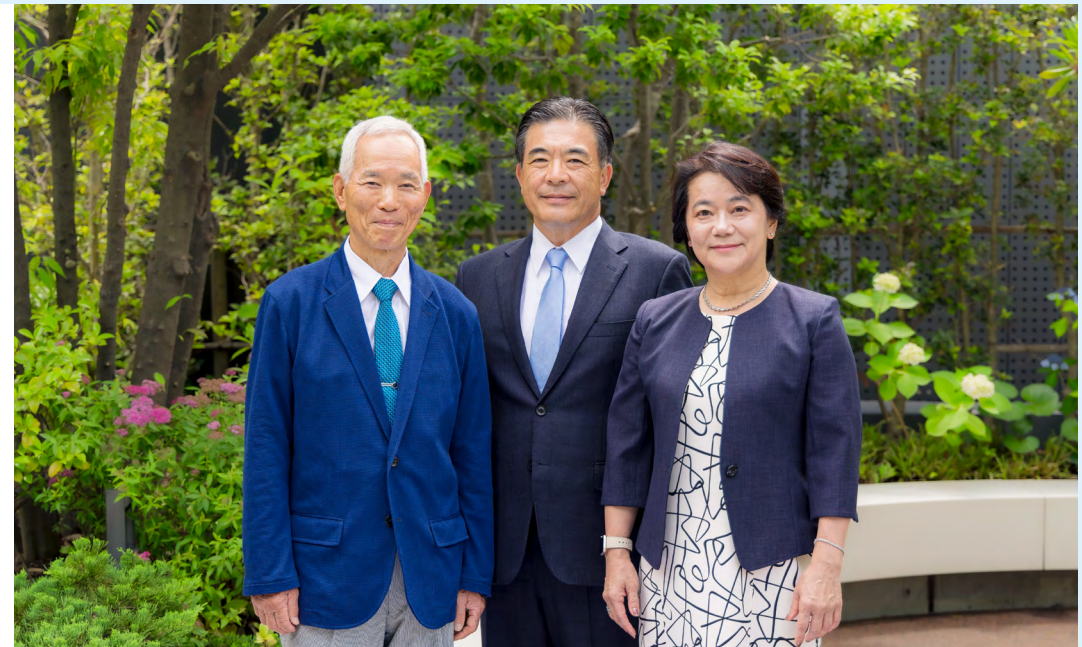
**Takase** To achieve sustainable growth and continue pursuing challenges, we need to better understand Toyobo's position

globally, within Japan, and within the industry, and to increase discussions about Toyobo's desired future direction.

## Evaluation of Toyobo and challenges for sustainable growth

**Fukushi** Toyobo possesses a strong corporate DNA. The corporate philosophy "*Jun-Ri-Soku-Yu*" is deeply ingrained in the company, and the approach to solving social issues feels like a foundational element of Toyobo's DNA.

**Takase** There is reassurance in the serious and sincere discussions about what Toyobo can do based on the idea of enriching society and customers. Essential topics for building trust, such as compliance, human rights, and diversity, are frequently addressed, and the results are gradually taking



**Masaaki  
Harima**  
Outside Director

**Hiroshi  
Fukushi**  
Outside Director

**Shoko  
Takase**  
Outside Director

shape. In addition, while Toyobo's commitment to safety, disaster prevention, and mobilizing all resources in case of issues is very strong, there is a sense of inadequacy regarding the pursuit of new challenges and a strong commitment to growth.

**Harima** I also share the sentiment that the commitment to growth is somewhat lacking.

**Takase** I hope that Toyobo will utilize its strengths—technical expertise, seriousness, integrity, and the ability to collaborate effectively in challenging situations—not just to recover earning power, a goal stated in the management policy for this fiscal year, but also to develop new strategic initiatives.

**Fukushi** "Challenge" is one aspect of the TOYOBO Spirit, and the corporate philosophy framework, TOYOBO PVVs, reflects the president's belief that change should be embraced and even enjoyed. However, there appears to be a lack of initiative to break

out of traditional silos of business and functions. At this stage, it is crucial to focus on generating profits by embracing various challenges. The old methods are no longer sufficient. When these limitations are overcome, new strengths are likely to emerge.

**Takase** In daily communications, there are many discussions about what is good or what will definitely sell. While having numerous growth opportunities is essential for a commitment to growth, it seems that there is still some weakness in Toyobo's dedication to achieving goals and taking on challenges. Thinking about what can be done as "One Toyobo," beyond the boundaries of business divisions, could further strengthen the company. It seems a waste not to fully utilize the existing technical expertise and enthusiasm.

**Fukushi** At TOYOBORO MC Corporation, there are bold initiatives that could lay the groundwork for future success. I hope that similar challenges will spread throughout the entire group.

**Harima** Indeed, a focus on numbers is essential for growth, but it seems to be lacking at Toyobo. Also, I believe that one of the measures in the 2025 Medium-Term Management Plan, "thorough safety, disaster prevention, and quality assurance," is also crucial for building a solid foundation and driving growth. Last year, there were numerous discussions about quality assurance. While the management team has been diligently investigating and fostering the right culture, efforts are ongoing and there are challenges to address.

**Takase** It is clear that a transformation in the internal atmosphere and culture is necessary.

**Fukushi** The key to rapidly transforming the corporate culture lies in human resources. The current human resource rotation system, which primarily focuses on transfers within business units, tends to reinforce a monocultural mindset and does not encourage breaking through the silos of each

division. Without breaking through these silos, the corporate culture will not change.

**Harima** You are absolutely right. Often, operations become more personalized and difficult to replace, but I believe that implementing a three- to five-year human resource rotation system could significantly improve the quality management system as well.

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## Expectations for the future of Toyobo

**Takase** My foremost wish is for each employee to focus on growth and results that are true to Toyobo's values. I hope that a culture of excitement and willingness to embrace various challenges will become established. I also aim to leverage my own experience not only to track progress toward goals but also to discuss how to navigate current situations and what actions can be taken to achieve results, thereby fostering as much growth as possible.

**Harima** In addition to recovering earning power from existing resources, I hope to see the creation of new ideas from different perspectives that contribute to Toyobo's development. I am committed to supporting such forward-looking management. Furthermore, I will provide robust support from a legal standpoint for efforts related to the "reestablishment of foundation" and "thorough safety, disaster prevention, and quality assurance."

**Fukushi** Under the strong leadership of the president and the management team, I hope to see Toyobo unite and break through its limitations to transform into a sustainable company. Drawing on my own experience with corporate reform, I am wholly committed to supporting Toyobo's challenge toward transformation.



# Compliance

## Materiality

Related ESG : **S** **G**

**Compliance**



- ↓ Management approach    ↓ Structure    ↓ Targets and KPIs    ↓ Initiatives    ↓ Education and awareness-raising activities
- ↓ Compliance and risk assessment    ↓ Anti-corruption initiatives

## Management approach

### Policy and approach

Based upon our corporate philosophy of *Jun-Ri-Soku-Yu* (adhering to reason leads to prosperity), at the core of Toyobo group's compliance activities is the idea of "Do what should be done" and "Don't do what should not be done."

Furthermore, based on the fundamental principles stated in the TOYOBO Group Charter of Corporate Behavior, the group has summarized the rules that employees must follow in the TOYOBO Group Compliance Manual in a specific and easy-to-understand manner and works to promote understanding and widespread awareness of the rules among group employees.

### TOYOBO Group Compliance Manual / TOYOBO Group Employee Conduct Standards (theme excerpts only) (22th edition, October 1, 2023)

	<ol style="list-style-type: none"> <li>1. Contribution to a sustainable society</li> <li>2. Handling of company secrets</li> <li>3. Handling of personal information</li> <li>4. Engaging in fair transactions</li> <li>5. Appropriate transactions with subcontractors</li> <li>6. Responsible procurement and logistics</li> <li>7. Management of export/import cargo and prevention of undeclared exports and imports</li> <li>8. Rules on security trade control (export management)</li> <li>9. Handling of gifts and entertainment (prevention of bribery)</li> <li>10. Handling of political donations, etc.</li> <li>11. Intellectual property</li> <li>12. Proper accounting</li> <li>13. Conclusion of contracts</li> <li>14. Rules on credit management</li> <li>15. Timely and appropriate information disclosure</li> <li>16. Prohibition of insider trading</li> <li>17. Respect for human rights</li> <li>18. Ensuring quality and safety</li> <li>19. Provision of information on products and services</li> <li>20. Appropriate handling of quality data, etc.</li> <li>21. Rules on research and development activities</li> <li>22. Customer service</li> <li>23. Respect for diversity in the workplace</li> <li>24. Prevention of harassment</li> <li>25. Safety and health</li> <li>26. Appropriate working hours management</li> <li>27. Business activities taking the global environment into consideration</li> <li>28. Promotion of social contribution</li> <li>29. Process safety and disaster prevention</li> <li>30. Crisis management overseas</li> <li>31. Response to anti-social forces, etc.</li> <li>32. Ensuring cybersecurity</li> <li>33. Social rules</li> </ol>
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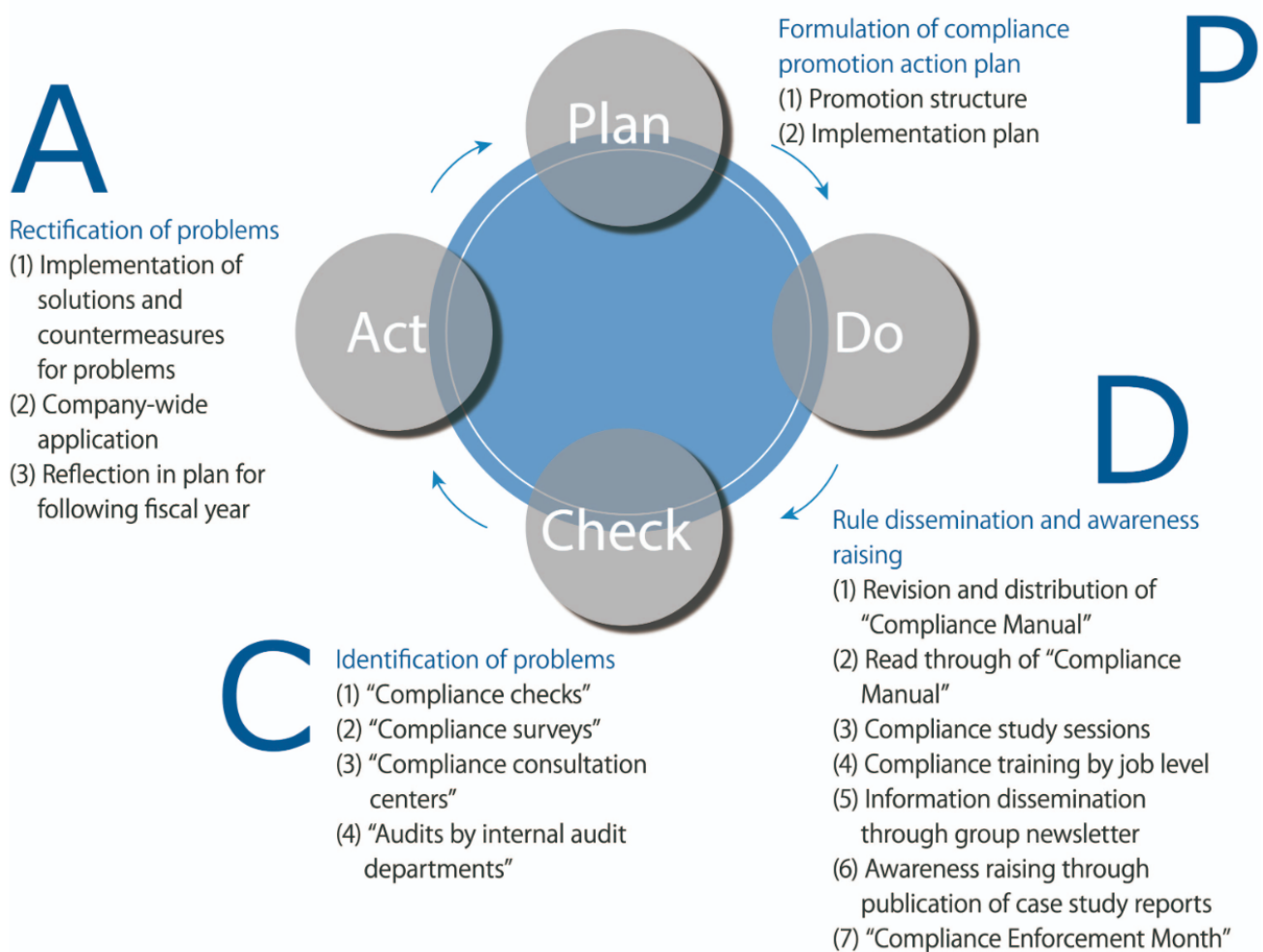
### Relevant policies and guidelines, etc.

- [TOYOBO Group Human Rights Policy](#)
- [Toyobo Group Personal Information Protection Policy](#)
- [Method of Requesting Disclosure etc.](#)
- [Our Anti-Bribery Policy](#)
- [Operation and management of public research funds and efforts to address research misconduct](#)

## Structure

A Board of Management is comprised of members from the Board of Managing Executive Officers and Controlling Supervisors. The goal is to promote group-wide compliance from a management perspective. A Compliance Promotion Committee has also been established as a sub-committee, which considers specific initiatives, and the Legal and Compliance Department promotes compliance throughout the group as a whole.

### Compliance promotion cycle





## Targets and KPIs

### Targets

Each and every employee complies with laws, regulations, and rules and acts transparently and appropriately, fostering an ethical corporate environment and culture.

### KPIs and results

Initiatives	Targets	Results (FY2024)
Increase in awareness of compliance	Improvement in compliance questionnaire responses	<ul style="list-style-type: none"><li>- Does the company emphasize compliance? I feel that it does, or by and large I feel that it does: 78% (down 2% YoY)</li><li>- Awareness of "Compliance Mini Study" I read every issue, or I sometimes read it, or I read those articles that are of interest to me: 77% (roughly the same as in the previous year)</li></ul>
	Expansion of compliance study sessions (Managers) and various other trainings	<ul style="list-style-type: none"><li>- Compliance study sessions: Held 22 times + video delivered to all employees</li><li>- Various other trainings: Held 40 times</li></ul>
Awareness and use of compliance consultation desks	Improvement in compliance questionnaire responses	<ul style="list-style-type: none"><li>- Awareness of compliance consultation desks: 89%(roughly the same as in the previous year)</li><li>- Ease of use of compliance consultation desks: 83%</li></ul>
	Disclosure of no. of cases handled	102 cases handled
No. of serious legal violations	0 violations per year	0 violations

### Initiatives

In fiscal 2024, the Compliance Committee convened twice, and the Compliance Promotion Committee convened four times. Working with the theme of "acting with integrity," efforts were made to enhance the effectiveness of preventive measures with education and training.

### Compliance consultation desks

Our group has established various compliance consultation desks (internal reporting desks) for all employees. These desks receive reports and requests for consultation regarding legal violations and misconduct, corruption, bribery, embezzlement and other corrupt practices, and violations of competition law such as bid-rigging and cartels, as well as bullying, harassment, and other issues occurring in the workplace. We strive for early detection, correction, and prevention of these issues. To ensure worry-free use of these consultation desks, we guarantee protection of privacy, including the names of people who seek consultations, ensure that there will be no disadvantage for employees who consult or report, and accept anonymous requests for consultation.

We are making efforts to raise awareness of these consultation desks through means including the distribution of stickers with information on the desks' usage and the publication of a monthly Compliance Mini Study for learning about compliance through case studies.

### Topics for consultation

1. Legal violations and violations of internal regulations and rules
2. Acts that violate the Compliance Manual "Corporate Code of Conduct"
3. Workplace harassment
4. Consultation on other compliance issues that are difficult to judge, etc.

## Types of compliance consultation desks

1. Internal consultation desk
2. External professional service company consultation desk (corporate ethics hotline)
3. External legal counsel desk
4. Corporate auditor's consultation desk

In fiscal 2024, there were a total of 102 consultations, 13 of which were made through the external compliance consultation desk. The most frequent breakdown was communication, personal relationships, harassment, followed by labor relations (attendance, treatment, etc.). Depending on the contents of the consultation, we implemented corrective measures, recommended disciplinary action, provided advice to the consulting parties, and answered their questions.

## Number of consultations for compliance consultation desks (including internal reporting service)

FY2020	FY2021	FY2022	FY2023	FY2024
35	37	62	78	102

## Details of consultations (FY2024)

Details of consultations	Incidents
Communication, personal relations, harassment	39
Personnel, labor relations (attendance, treatment, etc.)	20
Misconduct, violations, and breaches of work rules, etc.	11
Workplace issues concerning the company as a whole (systems, policies, etc.)	10
Work attitude	3
Others	19
<b>Total</b>	<b>102</b>

• [Our establishment of complaint handling and internal reporting systems](#)

• [Our initiatives for preventing harassment](#)

## Education and awareness-raising activities

### Formulation, revision and dissemination of compliance manual

We established the TOYOBO Group Employee Conduct Standards, which outline the rules that all employees of Toyobo group must adhere to, in accordance with the corporate ethics provisions outlined in the TOYOBO Group Charter of Corporate Behavior.

In 2000, we issued the TOYOBO Group Compliance Manual, which provides a clear and understandable explanation of the Employee Conduct Standards, and distributed it to all employees. Subsequently, we have been revising the Manual gradually, creating localized versions tailored to the laws and customs of the countries and regions where our overseas bases operate, in addition to an English version.

We promote awareness of the Employee Conduct Standards and Charter of Corporate Behavior through readings of the Manual at workplaces, among other efforts.

The Manual includes measures to prevent corruption, bribery, and other corrupt practices, bid-rigging, cartels, unfair competition, improper accounting, along with provisions for health and safety and proper management of working hours.



## Awareness-raising activities during Compliance Enforcement Month

Every October is designated as Compliance Enforcement Month within Toyobo group. During this time, various initiatives are undertaken collectively throughout the group, including the dissemination of a message from the president, readings of the Compliance Manual, hosting of compliance study sessions, and conducting compliance questionnaires. We also use posters and digital signage to communicate information about the consultation desk for compliance.

### Holding compliance study sessions (training)

In fiscal 2024, we held 22 compliance study sessions (training) targeting management-level personnel (general managers, managers, section chiefs, etc.) from all Toyobo business sites including headquarters, branches, production centers, and at affiliate companies. We also held them remotely to make participation easier. With members of the Compliance Department, HR and Labor Department, and IT Department serving as instructors, a total of 1,172 employees participated in these sessions, which covered topics such as general compliance, business and human rights, information security, and legal systems. We have also created a video of the study sessions (training) edited for regular employees, and distributed this to group companies.

### Various other trainings

As part of level-specific and occupation-specific training for managers, new employees, sales staff, and personnel being sent on overseas assignments, compliance education is provided. In fiscal 2024, a total of 40 various training sessions were held.

We also implement discussion-type training for managers, focusing on topics that are of particular importance to the company, such as safety, quality, and compliance.



Seminar on gift giving and entertaining

### Issuing case study reports

A “Compliance Mini Study,” which educates employees about cases of violation that may arise in the workplace in a case study format, is issued monthly, and “Compliance Reports” are issued irregularly based on compliance violation cases that occurred within Toyobo group.

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## Compliance and risk assessment

During Compliance Enforcement Month held each year, we conduct an anonymous questionnaire. This includes a survey on employee awareness of compliance including of ethics, safety, quality, confidential corporate information, harassment, the organizational culture, and use of the consultation desks. Through this, we confirm the status of compliance risks in the workplace.

In fiscal 2024, we received 7,564 responses from employees, with the aggregated and analyzed results of the questionnaire disclosed to all employees. Details on individual problems and issues are shared with related departments in a form that does not identify the respondent —this proves useful in improving the situation and preventing problems.

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## Anti-corruption initiatives

Our group positions the prevention of corruption, bribery and other corrupt practices, bid-rigging, cartels, unfair competition, and improper accounting, as priority issues in compliance. Regarding bribery in particular, along with policies and regulations we have also set guidelines that detail specific rules covering matters such as judgments and monetary standards when giving gifts and entertainment. We work to make these known through inclusion in the Compliance Manual and explanations given during meetings and training.

To build fair and sound business relationships with partners, we have put in place rules for the receipt of gifts or entertainment. These include a requirement to refuse money or the equivalent, or gifts and entertainment that exceed socially accepted norms, and we have introduced a reporting system for the receipt of gifts and entertainment.

In fiscal 2022, as part of our company-wide risk management activities, we implemented a legal compliance risk assessment. Based on a variety of risk scenarios, we performed assessment in terms of the two axes of the severity of impact and the likelihood of a risk occurring. The results obtained confirmed that the level of corruption risk, including bribery, was relatively low across all Sales and Marketing Divisions.

In fiscal 2024, there were no legal violations, administrative dispositions, employee dismissals, fines, surcharges, or other outcomes related to acts of corruption.

## Supervision by Directors

Every year, we report to the Board of Directors on the status of our corruption prevention initiatives and other compliance activities to enable for effective supervision including oversight from external perspective by outside both directors and corporate auditors.

### Related Pages

- [Toyobo Group Anti-Bribery Policy](#)

# Risk Management

## Materiality

Related ESG : **E S G**

**Risk Management**



↓ Management approach   ↓ Data security, privacy   ↓ Business continuity management(BCM)

## Management approach

### Policy and approach

As well as establishing a “Risk Management Basic Policy” that outlines our fundamental stance on risk management activities, Toyobo group is identifying various types of risk that could pose a threat across the entire range of our business activities, and are managing risk appropriately according to the characteristics of each risk. In an emergency, we immediately set up a task force under the instruction of the relevant corporate officer, and bring the crisis under control through a swift response. By putting these systems in place and conducting the initiatives, we work hard to earn the trust of our customers, the local community, and our shareholders and other stakeholders.

#### < Basic policy on business risk >

1. Toyobo group has a system for identifying the location of risks and the size of their impact (visualization)
2. Allocate resources appropriately to avoid or reduce identified risks
3. We will deepen and upgrade our activities by continuing to run PDCA
4. Enhance sensitivity and responsiveness to risks by each individual through information sharing, training, etc (eliminate ignorance)
5. All employees participate in risk management activities by personalizing them

### Business risks

The main risks recognized that could have a material impact on Toyobo group's operating results and financial position are as listed below. The list does not include all the risks related to Toyobo group.

Forward-looking statements were determined by the group as of fiscal 2024-end.

#### < Incurred or highly probable risks >

- (1) Occurrence of disasters, accidents, and infections
- (2) Further worsening of political and economic situations
- (3) Inappropriate behavior or similar in details of third-party certification registration

## < Medium- to long-term risks >

- (4) Purchase of raw materials
- (5) Product defects
- (6) Securing of human resources
- (7) Climate change
- (8) Environmental burden
- (9) Information security
- (10) Laws, regulations and compliance
- (11) Overseas business activities
- (12) Litigation

## < Financial risks >

- (13) Large forex movement
- (14) Large rise in interest rates
- (15) Sharp drop in share prices
- (16) Impairment loss of fixed assets

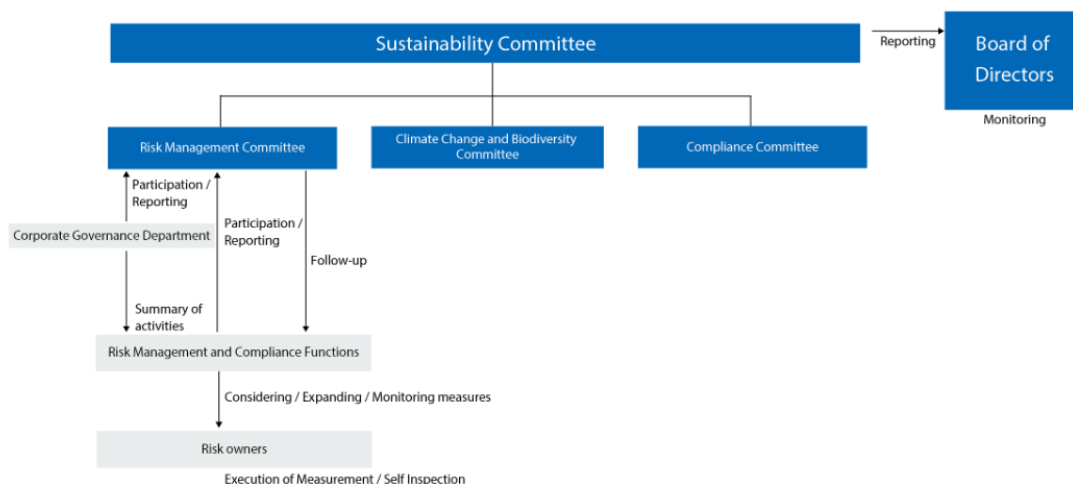
- [Annual Financial Report and the Business risks](#)

## Structure

On April 1, 2021, Toyobo group established a Risk Management Committee headed by the President for centralized management of risks throughout the group. The committee comprises members of the Board of Management and Controlling Supervisors as well as members nominated by the chair, and in fiscal 2024, it convened twice.

This Risk Management Committee brings together risk management activities (identification, analysis, evaluation, and response), as well as formulating risk management policies for the group as a whole. It is working to strengthen our risk management structure by aiming to build effective and sustainable organizations and approaches.

## Management structures and processes



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# Initiatives

As part of our management policy, we seek to be a company that is able to grow sustainably by shifting from the survival-based thinking of the past to a sustainable growth orientation. We establish self-directed management activities appropriate to business areas and roles, assess company-wide risks and work toward their prevention and early detection, and, united as a group, will build a system to advance measures for preventing recurrence of risks.

As a starting point for these activities, we conducted an assessment of company-wide risks. We identified serious risks from the results of evaluations in terms of the two axes of severity of impact and likelihood of occurrence, and monitor these risks regularly.


In fiscal 2024, we initiated the assessment of risk responses implemented by each group company, including overseas sites, through dialogue, based on the results of evaluations of serious risks at group companies conducted in fiscal 2023.

For risk items that require measures based on common frameworks, such as cybersecurity response and virus infection prevention, we collaborated with departments managing risk management to implement uniform risk measures, regardless of domestic or overseas locations. However, for risk items requiring regulatory compliance measures, we have recognized that each group company is taking independent risk measures in their operating regions.

Any detected items that are common across the group and that require attention are reported to the Risk Management Committee. Group-wide risk reduction activities are undertaken in collaboration with the departments managing risk management, business divisions, and group companies.

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# Data security, privacy

Materiality	
Related ESG : <b>S</b> <b>G</b>	
Digital transformation	

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# Policy and approach

Today, as significance of information increasingly grows, how a company utilizes necessary information, advances development of products and technologies, and develops businesses in line with the times is a crucial factor in the company's survival.

The improper management of information can also have severe repercussions to a company from legal and social standpoints. As stated in our TOYOBO Group Charter of Corporate Behavior, our group must properly manage information and prevent problems involving information security from occurring if we are to contribute to society and remain a company that earns people's trust.

Restated, it is necessary that every one of our officers and employees recognizes the importance of information security and the information assets that are the key to corporate survival, and, while effectively utilizing our information assets throughout the organization, maintains and secures the confidentiality, integrity, and availability of those information assets. Based on this thinking, our group has declared our basic policies as follows:



## < Information security policy (theme excerpts only) >

- 1. Management system  
We will establish an information security management system with responsible executives placed at top, and will strive for proper management in line with the importance of and risks to information.
- 2. Legal compliance and internal regulations  
We will establish internal rules in accordance with information security-related laws and ordinances, countries' national guidelines, and other social norms, and will take strict action against violators of these rules.
- 3. Education and training  
We will conduct education and training for our employees on an ongoing basis to ensure that information assets are used properly, and will work to enforce compliance with rules.
- 4. Operation of information systems  
We will enact appropriate measures and endeavor to operate information systems stably to prevent unauthorized intrusion and the leak, falsification, loss, theft, destruction, obstruction of use, etc. of information assets.
- 5. Handling of incidents  
In the event of a problem involving information security, we will enact measures to minimize the damage, promptly investigate the cause, and strive to prevent recurrence.

## Structure

Our group has established the TOYOBO-CSIRT, led by a CISO appointed by top management, as an organization to promote information security measures and activities. TOYOBO-CSIRT assesses the status of information security across the company, formulates basic policies, maintains management systems, and implements and supervises specific measures.

To advance measures based on the decisions of TOYOBO-CSIRT, we have established a front-line operations team. We also convene TOYOBO-CSIRT on a regular basis to evaluate risk countermeasures, each time also reporting on activities related to information security.

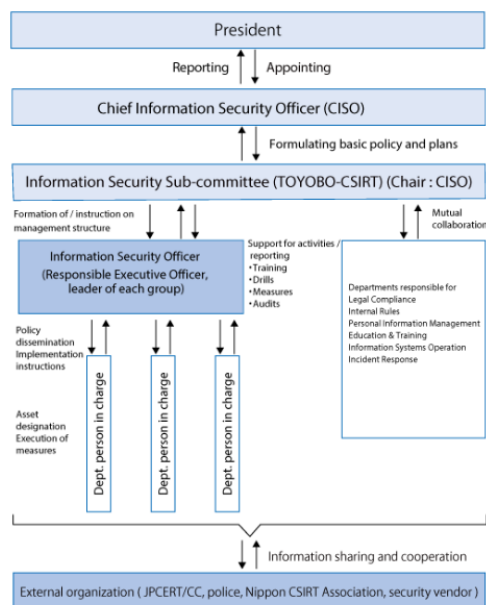
By expanding the activities of TOYOBO-CSIRT throughout our entire group, we will work to instill understanding of information security and enforce the protection of information assets, creating a state across the group in which data, security, and privacy are secured and trusted.

Our IT and DX Planning Department, which has acquired ISO 27001\* certification, undergoes a yearly external audit based on ISO 27001 to confirm proper operation of information security management. The Department conducts on-duty management at five business sites of the company (the head office, Research Center, Tsuruga Research and Production Center, Iwakuni Production Center, Inuyama Plant: 50% of all business sites), and also performs comprehensive management of other business sites through the Department's management system.

\* An international standard for information security management systems

### Toyobo group information security management structure

We assign a person responsible for information security to each department and built a company-wide information management system to ensure the required information security level.



## Targets and KPIs

### < Targets >

Toyobo group establishes a structure to ensure cyber security as well as deepening employee understanding of information security and thoroughly ensuring protection of information.

### < KPIs and results >

Initiatives	KPIs	Targets (FY2024)	Results (FY2024)
<ul style="list-style-type: none"> <li>• Ensure cyber security</li> <li>• Protect confidential corporate information, personal information, and customer information</li> </ul>	1. No. of times information security education provided	1. 60 times per year	1. 97 times
	2. No. of incidents (information leaks, service outages, etc.)	2. 0 incidents per year	2. 0 incidents
	3. Implementation of information security measures	3. Disclosure of promotion contents	3. Activities being promoted, with the Information Security Sub-committee (TOYOBO-CSIRT) playing a central role <a href="#">(Share on the company website)</a>

The scope covers TOYOBO CO., LTD., its subsidiaries, as well as affiliates accounted for by the equity method and over which Toyobo has significant influence.

\*Specific measures aimed at consolidated subsidiaries

- Application of Information Security Policy
- Roll out of measures to strengthen IT/OT

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## Initiatives

### Protection of personal information

Awareness of the protection of personal information is increasing worldwide. Toyobo group is revising our internal regulations to ensure handling of personal information in compliance with Japan's Act on the Protection of Personal Information and China's Personal Information Protection Law.

We will continue to strengthen our systems for protection of the personal information of customers, our business associates, shareholders, and employees.

- [Personal Information Protection Policy](#)

### Promotion of digitalization

Digitalization is advancing rapidly with the development of IT. Amid this change, Toyobo group is advancing the construction of an IT system infrastructure that encompasses the entire value chain and is tackling the transformation of our business style and the creation of new solutions, making full use of digital technologies. By doing so, we seek to not only improve the efficiency of work but also strengthen our provision of value to society and to customers.

We have promoted the digitalization of business by actively incorporating IT in our operations, including streamlining sales activities through IT tools, using IT to enhance manufacturing control, and enhancing the efficiency of intellectual property management through AI.

In April 2020, we established a Digital Strategy Department as a dedicated department to advance such activities on a company-wide basis. In April 2023, we integrated systems subsidiary Toyobo Information System Create Co., Ltd. with this department to create the IT and DX Planning Department. This established a system that is capable of quickly responding to changes in the business environment, wielding digital technology as a competitive advantage.

In fiscal 2024, our initiatives were evaluated to meet the certification criteria set by the Ministry of Economy, Trade and Industry (METI), and we were recognized as a DX Certified Business Operator\*.

In accordance with our reorganized road map to achieve our vision for 2030, we will strengthen the group's internal IT system infrastructure and advance digital transformation.

The IT and DX Planning Department has become a "bridge" connecting digital and business, and has begun initiatives to implement organizational and business transformation across the entire company and across its businesses. All of our group companies will cooperate to increase the scope and degree of utilization of digitalization.

\* This system is certified by the government under the Digital Governance Code compiled by METI. It recognizes companies that promote initiatives such as formulating visions and establishing systems for achieving DX, based on the Act on Facilitation of Information Processing.

### Education and awareness-raising activities

As a part of our education and awareness-raising activities, we deliver the "Cyber Security Communication" newsletter every month to all employees of Toyobo group in Japan and overseas. We also conduct testing of security comprehension twice a year to let employees self-check and reflect on their understanding of our education and awareness-raising activities.

In conjunction with Compliance Enhancement Month in fiscal 2024, we conducted training for managers and disseminated information at all workplaces on the theme of information security, and conducted video-based education for all employees. In addition, we conducted information security education for all employees of overseas group companies in an effort to enhance awareness across the group.

### Information security measures

Cyber attacks are intensifying year by year, often targeting overseas sites and group companies. In response, we are working to raise the information security measures of our domestic and overseas affiliates to the same level as that of our headquarters, and to strengthen information security across the group. Specific measures include communication of policies and regulations and support for their improvement, support for the introduction of education for employees and managers, implementation of targeted email attack drills, deployment and inspection of IT reinforcement measures, and continuous strengthening of our contact system for security and incident response.

We conduct biannual targeted email attack drills, varying the level of difficulty and subject matter each time, for all employees of Toyobo group in Japan and overseas. To ensure the safety of customer information and our internal information, including confidential information, we continually assess new threats and take appropriate countermeasures, including strengthened monitoring of both IT and OT\*, patching of vulnerabilities, and prevention of unauthorized intrusions.

\* IT (Information Technology), OT (Operational Technology)

## Protection of information in outsourcing

When outsourcing information assets containing confidential information, the company has established outsourcing management rules for the following procedures: (1) evaluation and contracting of outsourcing partners; (2) monitoring of operations after the contract has been concluded; and (3) handling of information assets after the contract has been terminated.

When newly implementing operations to be outsourced (hereinafter referred to as "specified operations"), the department outsourcing the specified operations evaluates whether or not the candidate companies conform to the "outsourcer evaluation criteria" in accordance with these rules. After the selection, the department submits the 'outsourcer evaluation results' to the head of the information security department for approval. In addition, it is also stipulated that the implementation status of specified operations is to be regularly evaluated by the head of the information security department.

The "outsourcer evaluation criteria" are clearly stated in the "Information Security Policy".

## Initiative participation

Under the idea that we must address cyber attacks not only in our group companies and supply chains but across society as a whole, we engage in active information sharing in cooperation with the JPCERT Coordination Center and the Nippon CSIRT Association.

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## Business continuity management (BCM)

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### Policy and approach

Our group aims to establish Business Continuity Management (BCM) to prepare for various risks such as natural disasters, accidents, and pandemics, which could disrupt business continuity. We prioritize the preservation of human life, aim to promptly restore operations, and fulfill our supply responsibilities. In fiscal 2025, as part of the Sustainability Committee's activities, the President will oversee the establishment of BCM and work to enhance the Business Continuity Plan (BCP).

# Tax Affairs Policy

## Toyobo Group's Tax Policy

The Toyobo Group (hereafter the Group) is committed to contributing to society by providing solutions needed by people and the earth while trying to improve corporate values of the Group in a sustainable manner, based on the corporate philosophy of Jun-Ri-Soku-Yu (adhering to reason leads to prosperity).

The Group is engaged in business activities in various countries and regions around the world. Therefore, the Group has a basic policy to respect the taxation laws of all the international tax jurisdictions it operates in, as well as international taxation rules, and to pay taxes properly. At the same time, it will contribute to the development of those countries and regions to fulfill its social responsibilities.

## Compliance

The Group properly files corporate tax returns and pays taxes due, observing taxation laws applied in the countries/regions where it is engaged in business, and international taxation rules. Moreover, the Group uses its Toyobo Group Compliance Manual to maintain and enhance tax compliance by heightening awareness of compliance among its employees.

## Governance

The Group is committed to establishing an effective tax governance system by appointing the CFO of Toyobo Co. Ltd., as the leader of the task, with Toyobo's Accounting and Control Department sharing information with the accounting division of each Group company. If any tax issue arises, the accounting division is required to report it to the Accounting and Control Department of Toyobo and if necessary, the department will report it to the Board of Directors. When improvement is required, Toyobo's Accounting and Control Department will monitor such efforts and report the result to the President, the CFO, Corporate Auditors and other parties concerned.

## Tax Planning

The Group undertakes legitimate and proper tax planning to improve cash flow in its business operations, but it is implemented in compliance with related laws and regulations and not for the purpose of avoiding tax excessively.

## Managing Tax Risk

If its tax position is uncertain, the Group endeavors to minimize tax risks by seeking the advice of qualified external experts and consulting with the tax authorities in advance.



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## Transfer Pricing

In transactions with foreign affiliated parties, the Group observes the OECD Transfer Pricing Guidelines; establishes prices in accordance with the arm's length principle and transfer pricing taxation in each country; and distributes income appropriately among the concerned parties. The Group also prepares proper transfer pricing documentation based on transfer pricing taxation in each country.

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## Relationship with Taxation Authorities

The Group endeavors to build and maintain healthy and amicable relationships with the taxation authorities by responding to requests from them in good faith.

# [ESG Related Data]

## ESG Performance Data

### Environment

(FY) \*\*

Greenhouse gas (GHG) emissions from business activities			Scope*	Unit	2020	2021	2022	2023	2024		
Scope1、Scope2			TOYOBO CO., LTD.	Thousand tonnes-CO <sub>2</sub>	689	767	752	750	536		
					Group companies in Japan	131	77	81	74	215	
					Japan	820	844	833	824	751	
					Overseas	54	58	67	69	80	
					Global	873	902	900	894	831	
			Scope1* <sup>2</sup>		TOYOBO CO., LTD.	588	646	641	638	463	
						Group companies in Japan	90	55	59	54	172
						Japan	678	702	700	692	635
						Overseas	21	16	19	20	24
						Global	699	718	720	712	<input checked="" type="checkbox"/> 659
			Scope2* <sup>2</sup>		TOYOBO CO., LTD.	101	120	113	112	74	
						Group companies in Japan	40	22	22	20	42
						Japan	141	142	135	132	116
						Overseas	33	41	49	49	56
						Global	174	183	183	182	<input checked="" type="checkbox"/> 172
GHG emissions reduction rate (base: FY2014) <b>KPI</b>			Global	%	28.1	25.7	25.9	26.4	31.6		
GHG emissions reduction rate (base: FY2021)			Global		<div></div>	—	0.2	0.9	7.9		
GHG emissions intensity per unit of sales* <sup>3</sup>			Global	Tonnes-CO <sub>2</sub> /millions of yen	2.57	2.67	2.40	2.23	<input checked="" type="checkbox"/> 2.01		
Energy consumption			Global	GWh	<div></div>	<div></div>	<div></div>	2,937	<input checked="" type="checkbox"/> 2,810		
Renewable energy consumption			Global		<div></div>	<div></div>	<div></div>	0	0.9		

\*1 Year Ended March 31.

\*2 Calculation methods(fiscal2024)

In reference to the GHG Protocol, we include GHG emissions, calculated by converting the quantity of energy required to produce electricity or steam sold to other companies.

GHG emissions with non-energy origins are calculated for Toyobo (non-consolidated) only.

The factors shown below are used in the respective calculations.

■ CO2 emission factors for purchased gas:

(Domestic) Emission factors by gas supplier as listed in the Ministry of the Environment's "Emission Factors by Gas Supplier (for Calculating Greenhouse Gas Emissions of Specified Emitters) - FY2023 Supply Data" (In cases where the emission factor of a given gas supplier was unknown, the "national average factor" was used.)

■ CO2 emission factors for purchased electricity:

(Domestic) Adjusted emission factor for each electric power service provider listed in "Emission Factors by Electric Utility (for Use in Calculating Greenhouse Gas Emissions of Specified Emitters), FY2023 Results," Ministry of the Environment.

In cases where the emission factor of a given utility was unknown, the "national average factor" was used.)

(Overseas) Factors for 2020 listed by country "Emission Factors 2022" (2022), IEA

■ CO2 emission factors other than for purchased electricity:

"Greenhouse Gas Emissions Calculation and Reporting Manual (v5.0)" (2024),

Ministry of the Environment and Ministry of Economy, Trade and Industry (used for both domestic and overseas subjects)

\*3 (Scope1 Global+Scope2 Global)/Consolidated Net sales

(FY)

Scope1		Scope*	Unit	2020	2021	2022	2023	2024
Energy-related GHG emissions	CO <sub>2</sub>	Global	Thousand tonnes-CO <sub>2</sub>	692.5	710.3	712.5	706.9	655.4
Non energy-related GHG emissions	CO <sub>2</sub>	Japan		5.8	6.3	6.1	3.2	0.7
	N <sub>2</sub> O			1.0	1.1	1.2	1.2	2.2
	HFC			0.1	0.4	0.7	0.5	0.5
	PFC			0.0	0.0	0.0	0.0	0.0
	CH <sub>4</sub>			0.1	0.2	0.2	0.2	0.3
	SF <sub>6</sub>			0.0	0.0	0.0	0.0	0.0
	NF <sub>3</sub>			0.0	0.0	0.0	0.0	0.0

(FY)

GHG emissions throughout the value chain		Scope*	Unit	2020	2021	2022	2023	2024
Scope3* <sup>4</sup>		Global	Thousand tonnes-CO <sub>2</sub>	—	2,714	3,415	5,290	5,499
	1. Purchased goods and services				1,028	1,707	2,055	1,894
	2. Capital goods				104	115	55	126
	3. Fuel- and energy-related activities(not included in Scope 1 or Scope 2)				54	115	113	108
	4. Upstream transportation and distribution				55	52	50	50
	5. Waste generated in operations				35	49	53	45
	6. Business travel				1	2	7	9
	7. Employee commuting				5	5	6	5
	8. Upstream leased assets				—	—	—	—
	9. Downstream transportation and distribution				—	—	—	—
	10. Processing of sold products				—	—	—	—
	11. Use of sold products				1,288	1,209	2,745	2,944
	12. End-of-life treatment of sold products				143	161	207	318
	13. Downstream leased assets				—	—	—	—
	14. Franchises				—	—	—	—
	15. Investments				—	—	—	—
Ratio of reduction in CO <sub>2</sub> emissions per unit of transportation in relation to logistics (year on year)		TOYOB0 CO., LTD.	%	△ 0.6	△ 0.6	△ 0.5	△ 5.3	△ 0.5

\*4 Data fiscal 2020 are not publicly available due to a revision of the calculation method since fiscal 2021.

3 changed the calculation method from FY2021 (see IEAV2.3 information).

8, 13, 14 are not applicable to the company.

9, the emissions up to the shipping destination are included in 4. Due to the varying processing conditions of the products at the destination, the transportation after the destination is excluded from the calculation as it is not possible to make a reasonable calculation.

10The downstream of the product destination has a large number of potential uses and it is not possible to determine all GHG profiles, so a reasonable calculation is not possible. Therefore, a reasonable calculation is not possible and is not disclosed.

12, the calculation method has been established and the calculation is carried out retrospectively to 2020.

15 is not disclosed due to very low emissions.

(FY)

Waste	Scope*	Unit	2020	2021	2022	2023	2024
Amount of waste generation	Japan	Thousand tonnes	99	110	109	106	98
	Overseas		6	6	11	16	15
	Global		105	116	120	122	113
Amount of recovered and reused waste	Global		—	—	—	4	3
Amount of waste emission	Japan		93	104	103	102	96
	Overseas		6	6	11	16	14
	Global*5		99	109	114	118	111
Amount recycled externally	Japan		85	99	98	97	90
	Overseas		5	6	11	16	7
	Global		90	104	109	112	97
Landfill	Japan	%	0.5	0.3	0.2	0.4	0.5
	Overseas		0.9	0.2	0.2	0.2	1.8
	Global		1.4	0.5	0.5	0.6	2.3
Landfill rate	Japan		0.52	0.23	0.22	0.38	0.52
	Overseas		14.57	3.42	2.21	1.53	12.59
	Global		1.31	0.39	0.40	0.53	2.08

\*5 Excluding the amount of construction waste from affiliated companies

(FY)

Water intake		Scope*	Unit	2020	2021	2022	2023	2024	
Total water intake		Japan	Thousand m <sup>3</sup>	89,139	83,411	84,494	84,714	84,994	
		Overseas		1,410	1,061	1,430	1,482	1,821	
		Global		90,549	84,472	85,924	86,197	86,815	
		Tap water		Japan	422	439	452	442	452
				Overseas	141	120	170	509	599
				Global	563	559	622	951	1,051
		Groundwater		Japan	32,504	28,783	29,708	28,841	29,040
				Overseas	669	450	565	684	662
				Global	33,173	29,233	30,273	29,526	29,702
		Industrial water		Japan	2,564	2,551	2,700	2,894	2,550
				Overseas	546	452	639	289	560
				Global	3,110	3,003	3,339	3,183	3,110
		Seawater		Japan	0	0	0	0	0
				Overseas	6	0	0	0	0
				Global	6	0	0	0	0
		River water		Japan	53,650	51,638	51,634	52,537	52,952
				Overseas	45	45	0	0	0
				Global	53,695	51,683	51,634	52,537	52,952
		Other		Japan	0	0	0	0	0
				Overseas	46	38	56	0	0
				Global	46	38	56	0	0
Recycled water		Japan	66,268	59,182	57,527	53,440	52,646		
		Overseas	0	0	0	46	121		
		Global	66,268	59,182	57,527	53,486	52,768		

(FY)

water consumption	Scope*	Unit	2020	2021	2022	2023	2024
Total water consumption	Japan	Thousand m <sup>3</sup>	4,281	3,143	1,883	2,829	1,519
	Overseas		518	424	470	458	628
	Global		4,799	3,568	2,353	3,287	2,147

(FY)

Water discharge	Scope*	Unit	2020	2021	2022	2023	2024
Total water discharge	Japan	Thousand m <sup>3</sup>	84,858	80,267	82,611	81,885	83,474
	Overseas		892	636	960	1,024	1,193
	Global		85,750	80,904	83,571	82,909	84,667
Sewage system	Japan		296	324	377	164	139
	Overseas		67	76	167	580	764
	Global		363	400	544	744	903
Freshwater	Japan		36,452	35,473	35,968	34,132	35,067
	Overseas		773	519	734	440	353
	Global		37,225	35,992	36,702	34,572	35,420
Seawater	Japan		45,216	44,020	46,064	47,384	48,084
	Overseas		6	4	3	4	5
	Global		45,222	44,024	46,067	47,388	48,089
Groundwater	Japan		—	0	0	0	0
	Overseas		—	0	0	0	0
	Global		—	0	0	0	0
Other	Japan		2,894	450	202	205	184
	Overseas		46	38	56	0	71
	Global		2,940	488	258	205	255

(FY)

PRTR Substances	Scope*	Unit	2020	2021	2022	2023	2024*6
Emissions	Japan	Tonnes	151	221	197	108	771
Emissions to atmosphere			136	200	166	94	53
Emissions to rivers and other waterways			18	21	32	14	718
Emissions to soil			0	0	0	0	0
Transfer volume			1,179	1,237	2,302	2,668	2,196
			0	0	0	1	1
			1,179	1,237	2,302	2,667	2,195

\*6 Based on the revision of the Cabinet Order in 2021, the chemical substances subject to calculation have been changed since FY2024.

(FY)

Air emissions	Scope*	Unit	2020	2021	2022	2023	2024
VOC emissions	Japan	Tonnes	136	200	166	94	53
VOC emissions reduction rate (base: FY2015)		%	42	15	29	60	78
NOx emissions		Tonnes	922	1,251	1,077	1,361	1,147
SOx emissions		Tonnes	959	968	907	1,033	755

(FY)

Effluents	Scope*	Unit	2020	2021	2022	2023	2024
CODemissions	Japan	Tonnes	1,009	860	1,022	1,031	854
Total nitrogen emissions			161	156	200	187	203
Total phosphorus emissions			25	37	35	35	72

(FY)

Visualization of Environmental Contribution	Scope*	Unit	2020	2021	2022	2023	2024*7
ECO-PARTNER SYSTEM® products sales	TOYOBO CO., LTD.	Billion yen	60.6	59.0	81.8	89.2	84.3
ECO-PARTNER SYSTEM® products sales ratio		%	30.4	29.9	33.8	35.2	31.2

\*7 FY2024 totals include TOYOBO CO., LTD., and TOYOBO MC Corporation.

(FY)

Environmental Accounting	Scope*	Unit	2020	2021	2022	2023	2024
Environmental preservation costs (investment)	TOYOBO CO., LTD.	Billion yen	1.6	0.6	1.5	0.4	3.9
Environmental preservation costs (expenditure)			2.3	2.5	2.9	2.9	5.8
Economic benefits of environmental preservation			2.0	2.0	3.0	1.7	2.0

(FY)

Compliance with Environmental Laws and Regulations	Scope*	Unit	2020	2021	2022	2023	2024
Serious environment-related accidents	Japan	Cases	0	0	0	0	0
Serious violations to environmental laws and regulations			0	0	0	0	0

\* Scope

TOYOBO CO., LTD.: TOYOBO CO., LTD. only  
Group companies in Japan: domestic consolidated subsidiaries  
Japan: TOYOBO CO., LTD. and Group companies in Japan  
Overseas: Overseas consolidated subsidiaries  
Global: Whole Group in Japan and overseas

☑ Indicators for fiscal 2024 with this icon are externally assured by KPMG AZSA Sustainability Co., Ltd.

—: No data

# ESG Performance Data

## Social

July 2024  
(FY)

Employees		Scope*	Unit	2020	2021	2022	2023	2024
Number of employees by region		TOYOB0 CO., LTD.	people	3,181	3,365	3,831	4,015	3,063
		Global		10,073	10,149	10,503	10,885	10,668
Number of employees by gender	Male	TOYOB0 CO., LTD.	people	2,349	2,479	2,868	3,006	2,254
	Female			832	886	963	1,009	809
	Total			3,181	3,365	3,831	4,015	3,063
	Female ratio			26.2	26.3	25.1	25.1	26.4
Number of employees by age	10s (Ages 18 or over)	TOYOB0 CO., LTD.	people	40	62	82	79	64
	20s			516	559	684	787	672
	30s			771	775	841	874	700
	40s			973	994	1,096	1,084	793
	Over 50s			881	975	1,128	1,191	834
Ratio of employees with disabilities	KPI	TOYOB0 CO., LTD.	%	2.2	2.2	2.2	2.3	2.3
Number of Management personnel	Male	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	572	589	648	626	589
	Female			14	19	25	31	34
	Total			586	608	673	657	623
	KPI Female ratio		%	2.4	3.1	3.7	4.7	5.5
Number of Management personnel (manager-class)	Male	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	481	498	546	527	504
	Female			14	18	23	28	32
	Total			495	516	569	555	536
	Female ratio		%	2.8	3.5	4.0	5.0	5.9
Number of Management personnel (general manager-class)	Male	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	91	91	102	99	85
	Female			0	1	2	3	2
	Total			91	92	104	102	87
	Female ratio		%	0.0	1.1	1.9	2.9	2.2



(FY)

Comfortable Working Environment		Scope*	Unit	2020	2021	2022	2023	2024
Average years of service	Male	TOYOBO CO., LTD.	Years	17.5	17.1	15.1	14.9	13.3
	Female			17.1	16.7	15.3	14.4	13.6
	Total			17.4	17.0	15.2	14.7	13.4
Number of Employee turnover	Male	TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD..	people	92	106	124	204	215
	Female			34	28	35	63	88
	Total			126	134	159	267	303
Number of Voluntary turnover	Male	TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD..	people	69	70	87	118	114
	Female			27	21	14	18	43
	Total			96	91	101	136	157
Number of employees whose overtime hours exceeded 80 hours a month	Non-management employees	TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD.	people	0	0	0	0	0
	Management personnel			106	95	68	10	51
	Total			106	95	68	10	51
	Ratio		%	3.3	2.8	1.8	0.2	1.7
Overtime work hours(Ratio of employees working more than 360 hours of overtime / total number of employees)		TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD.	%	2.6	3.0	3.8	4.2	4.3
Monthly average overtime hours			Hours	10.1	9.4	10.4	10.7	10.1
Ratio of taking paid leave	KPI		%	72.5	64.0	72.3	80.2	83.2
Number of employees taking childcare leave	Male	TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD.	people	50	69	58	98	85
	Female			27	30	32	39	33
	Total			77	99	90	137	118
Ratio of taking childcare leave	Male	TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD.	%	46.3	80.0	64.4	104.3	97.7
	Female			100	100	100	100	100
	Total			57.0	85.0	73.8	103.0	98.3
Return rate of employees from childcare leave	Male	TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD.	%	100	100	100	100	100
	Female			100	100	100	100	97
	Total			100	100	100	100	99.2

●In April 2023, we established TOYOBO MC Corporation, and approximately 1,000 employees were transferred to the company.

(FY)

Comfortable Working Environment		Scope*	Unit	2020	2021	2022	2023	2024
Number of employees taking short working hour program for childcare	Male	TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD.	people	1	2	2	4	4
	Female			63	68	65	79	93
	Total			64	70	67	83	97
Number of employees taking telecommuting systems	Male	TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD.	people	135	1,415	1,688	1,750	1,585
	Female			71	630	725	770	772
	Total			206	2,045	2,413	2,520	2,357
Number of employees taking family care leave		TOYOBO CO., LTD., TOYOBO MC Corporation,TOYOBO STC CO., LTD.	people	0	0	1	2	1
Number of employees taking short working hour program for family care				0	0	2	2	2
Number of employees taking telecommuting systems for family care				0	0	0	0	0
Union membership rate			%	86.2	84.3	79.0	85.1	84.9

(FY)

Recruitment		Scope*	Unit	2020	2021	2022	2023	2024
Number of new hires	Male	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	172	277	507	323	230
	Female			62	102	130	123	81
	Total			234	379	637	446	311
	Female ratio			26.5	26.9	20.4	27.6	26.0
Number of mid-career hires	Male	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	108	183	371	198	98
	Female			19	43	76	65	29
	Total			127	226	447	263	127
	Female ratio			15.0	19.0	17.0	24.7	29.6
Number of new university graduates (technical positions)	Male	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	24	31	43	37	47
	Female			15	13	13	20	22
	Total			39	44	56	57	69
	Female ratio			38.5	29.5	23.2	35.1	31.9
Number of new university graduates (administrative positions)	Male	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	11	10	12	14	17
	Female			10	10	13	7	11
	Total			21	20	25	21	28
	Female ratio			47.6	50.0	52.0	33.3	39.3
Number of new junior college /high school graduates	Male	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	29	68	81	74	68
	Female			18	27	28	31	19
	Total			47	95	109	105	87
	Female ratio			38.3	28.4	25.7	29.5	21.8

(FY)

HR Development & Evaluation, Human Rights		Scope*	Unit	2020	2021	2022	2023	2024
Education hours per employee	KPI	TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	Hours	14.9	12.8	17.67	17.97	18.22
Education investment per employee	KPI		Ten thousand yen	3.7	2.4	5.0	5.0	5
Number of overseas core personnel trained in Japan	KPI	Global	people	20	※Canceled because of COVID-19			7
Education & Training-Related Total training attendees		TOYOB0 CO., LTD., TOYOB0 MC Corporation, TOYOB0 STC CO., LTD.	people	1,564	1,558	2,269*	2,410*	2,709*
Education & training Total training hours			Hours	36,248	25,120	38,936*	39,816*	43,340*
Implementation status of human rights education and training	KPI		%	—	24.1	27.6	48.0	58.1

\*Includes trainings related to women empowerment promotion from FY2022

●In April 2023, we established TOYOB0 MC Corporation, and approximately 1,000 employees were transferred to the company.

(Year)

Safety/Prevention		Scope*	Unit	2019	2020	2021	2023	2024
Number of major accidents	KPI	Japan	Cases	0	1	0	0	0
		Global		—	—	—	0	0
Number of abnormal events, accidents (fire & explosion accidents)	KPI	Japan		2	1	1	0	0
Number of spill accidents	KPI			0	0	2	0	1

(Year)

Safety/Prevention		Scope*	Unit	2019	2020	2021	2023	2024
Occupational accident frequency rate (lost time) (including accidents at affiliated companies)	KPI	Japan	Lost workday injuries per million hours worked	0.31	0.70	0.42	0.55	1.15
Number of fatalities due to work-related accidents (employees)		Japan	people	0	2	0	0	0
Number of fatalities due to occupational accidents (cooperative companies(contractors))				0	0	0	0	0
Number of employees trained on safety		Japan	people	—	—	7,152	4,331	5,192
ISO45001 Number of certified sites **		TOYOB0 CO., LTD.	site	—	—	1	2	3
Number of sites in denominator			—	—	—	7	7	7
Ratio of certified sites			%	—	—	14.3	28.6	42.9

\*\* is the fiscal year

(FY)

Quality		Scope*	Unit	2020	2021	2022	2023	2024
Number of incidents related to products	KPI	Japan	Cases	0	0	0	0	0
Implementation status of product safety and quality assurance training	KPI		%	100	80	100	100	100

(FY)

(FY)

Occupational Health	Scope*	Unit	2020	2021	2022	2023	2024
Average rate of lifestyle-related diseases	TOYOBO CO., LTD., TOYOBO MC Corporation, TOYOBO STC CO., LTD.	%	36.2	36.7	35.0	35.4	38.7
Severity rate of sick leave		Total number of sick leave days / total number of actual working hours x 1,000	0.44	0.45	0.55	0.86	0.79
Smoking rate		%	25.0	24.6	23.2	22.9	23.0
Injury and illness allowance		Yen	26,724,497	30,843,349	27,360,253	55,101,222	89,925,026
Legal benefit cost			544,275,419	502,477,649	620,239,062	758,820,258	874,635,984

(FY)

Supply Chain	Scope*	Unit	2020	2021	2022	2023	2024
CSR Procurement Survey(conducted every other year) response ratio <b>KPI</b>	TOYOBO CO., LTD.	%	—	—	93	Follow-up on survey results	93

(FY)

Data Security & Privacy	Scope*	Unit	2020	2021	2022	2023	2024
Number of instances of information security education implementations <b>KPI</b>	TOYOBO CO., LTD., TOYOBO MC Corporation, TOYOBO STC CO., LTD.	Cases	17	19	23	51***	97****
Number of incidents (information leaks, service outages, etc.) <b>KPI</b>		Cases	2	0	0	0	0

\*\*\* The aggregation method was changed in FY2023.

\*\*\*\*Scope : TOYOBO CO., LTD. its subsidiaries, and affiliated companies accounted for using the equity method and over which Toyobo has influence.

(FY)

Communication with stakeholders	Scope*	Unit	2020	2021	2022	2023	2024
Number of press releases <b>KPI</b>	TOYOBO CO., LTD.	Cases	74	90	93	103	84
Number of interviews with investors <b>KPI</b>		Cases	130	144	148	124	113
Number of meetings with employees and labor unions <b>KPI</b>		Cases	30	14	47	77	60
Number of engagement with stakeholders <b>KPI</b>		Cases	—	2	1	3	3

(FY)

Social Contributions	Scope*	Unit	2020	2021	2022	2023	2024
Social contribution expenditure	Japan	Million yen	34	28	123	119	128

● TOYOBO CO., LTD. merged with TOYOBO INFORMATION SYSTEM CREATE CO., LTD. in April 2023

\* Scope

TOYOBO CO., LTD. : TOYOBO CO., LTD. Only

Japan : TOYOBO CO., LTD. and domestic consolidated subsidiaries

Overseas : Overseas consolidated subsidiaries

Global : Whole Group in Japan and overseas

☒ Indicators for fiscal 2024 with this icon are externally assured by KPMG AZSA Sustainability Co., Ltd.

# ESG Performance Data

## Governance

July 2024

(FY)

Board of Directors		Scope*	Unit	2020	2021	2022	2023	2024
Number of Directors	Male	TOYOBO CO., LTD.	people	9	9	10	9	8
	Female			1	1	1	1	2
	Total			10	10	11	10	10
	Outside directors			(4)	(4)	(4)	(5)	(5)
	Independent directors			(4)	(4)	(4)	(5)	(5)
	Ratio of outside directors		%	40	40	36	50	50
	Female ratio			10	10	9	10	20
Number of Corporate Auditors	Male	TOYOBO CO., LTD.	people	4	4	4	4	4
	Female			0	0	0	0	0
	Total			4	4	4	4	4
	Outside corporate auditors			(2)	(2)	(2)	(2)	(2)
	Independent corporate auditors			(2)	(2)	(2)	(2)	(2)
	Ratio of outside corporate auditors		%	50	50	50	50	50
	Female ratio			0	0	0	0	0
Number of meetings of the Board of Directors / committees** KPI		TOYOBO CO., LTD.	cases	22	25	24	23	22

\*\* Nomination and Compensation Advisory Committee

Research & Development	Scope*	Unit	2020	2021	2022	2023	2024
R&D expenses	Global	Billion yen	11.7	12.7	13.8	14.1	153.0
Ratio of R&D expenses to net sales		%	3.5	3.8	3.7	3.5	3.6

Compliance		Scope*	Unit	2020	2021	2022	2023	2024
Serious legal and regulatory violations	KPI	Global	cases	0	2	0	0	0
Number of consultations for compliance consultation desks (including internal report contact office)				35	37	62	78	102
Recommendations for exclusion by relevant authorities (including the Japan Fair Trade Commission)	Japan	0		0	0	0	0	
Operational suspension due to misconduct		0		0	0	0	0	
Criminal prosecution for compliance-related incidents and accidents		0		0	0	0	0	
Exposure of price cartels	Overseas	0		0	0	0	0	
Exposure of bribery		0		0	0	0	0	
Exposure of other violations		0		0	0	0	0	
Violations and administrative disciplines relating to corrupt activities	Global	0		0	0	0	0	
Dismissal of employees relating to corrupt activities		0		0	0	0	0	
Fines and penalties relating to corrupt activities		0		0	0	0	0	
Number of Compliance study sessions for managers and various other trainings	KPI	Global		41	24 + video distribution for all employees	31 + video distribution for all employees	58 + video distribution for all employees	62 + video distribution for all employees

Other		Scope*	Unit	2020	2021	2022	2023	2024
Political donations		TOYOBO CO., LTD.	Million yen	0.05	0.05	0.05	0.05	0.03

\* Scope

TOYOBO CO., LTD.: TOYOBO CO., LTD. only

Japan: TOYOBO CO., LTD. and domestic consolidated subsidiaries

Overseas: Overseas consolidated subsidiaries

Global: Whole Group in Japan and overseas

# Policies and Guidelines

Policies and guidelines related to Toyobo group are listed below.

Category	Policies and guidelines
Management	<ul style="list-style-type: none"> <li>• <a href="#">TOYOBO Group Charter of Corporate Behavior</a></li> <li>• <a href="#">Policy and approach regarding on sustainability management</a></li> </ul>
Governance	<ul style="list-style-type: none"> <li>• <a href="#">Policy and approach regarding on corporate governance</a></li> <li>• <a href="#">Basic policy on business risk</a></li> <li>• <a href="#">Information security policy (theme excerpts only)</a></li> </ul>
Human rights and human resources	<ul style="list-style-type: none"> <li>• <a href="#">TOYOBO Group Human Rights Policy</a></li> <li>• <a href="#">TOYOBO Group Diversity Promotion Policy</a></li> <li>• <a href="#">Policy and approach regarding on human resource management</a></li> <li>• <a href="#">TOYOBO Health &amp; Productivity Management Declaration</a></li> </ul>
Compliance	<ul style="list-style-type: none"> <li>• <a href="#">Policy and approach regarding on compliance</a></li> <li>• <a href="#">Privacy Policy (Personal Information Protection Policy)</a></li> <li>• <a href="#">Toyobo Group Anti-Bribery policy</a></li> <li>• <a href="#">Toyobo Group's Tax Policy</a></li> </ul>
Safety, disaster prevention, and quality	<ul style="list-style-type: none"> <li>• <a href="#">TOYOBO Group Basic Policy on Health &amp; Safety</a></li> <li>• <a href="#">The Toyobo Group's Basic Policy on Product Safety and Quality Assurance</a></li> </ul>
Environment	<ul style="list-style-type: none"> <li>• <a href="#">TOYOBO Group Fundamental Policy on the Global Environment</a></li> <li>• <a href="#">Action Guidelines for Biodiversity Conservation</a></li> </ul>
Purchasing and procurement	<ul style="list-style-type: none"> <li>• <a href="#">Basic Policy on Transactions in Procurement and Logistics</a></li> <li>• <a href="#">CSR Procurement Guidelines</a></li> <li>• <a href="#">Green Procurement Guidelines</a></li> </ul>
Others	<ul style="list-style-type: none"> <li>• <a href="#">TOYOBO Group Social Contribution Policy</a></li> <li>• <a href="#">Policy and approach regarding on dialogue with stakeholders</a></li> <li>• <a href="#">Editorial Policy</a></li> </ul>

# GRI Content Index

This content index shows the GRI Guideline references on our website and other communication channels.

[↓ General Disclosures](#)
[↓ Economic](#)
[↓ Environmental](#)
[↓ Social](#)

GRI Standards	Disclosures	References
<b>GRI2 : General Disclosures 2021</b>		
<b>1. The organization and its reporting practices</b>		
2-1	Organizational details	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Data</a></li> </ul>
2-2	Entities included in the organization's sustainability reporting	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Data</a></li> </ul>
2-3	Reporting period, frequency and contact point	<ul style="list-style-type: none"> <li>• <a href="#">Editorial Policy</a></li> </ul>
2-4	Restatements of information	Not applicable
2-5	External Assurance	<ul style="list-style-type: none"> <li>• <a href="#">External Assurance</a></li> </ul>
<b>2. Activities and workers</b>		
2-6	Activities, value chain and other business relationships	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Data</a></li> <li>• <a href="#">Products</a></li> <li>• <a href="#">Annual Securities Reports</a></li> <li>• <a href="#">Supply Chain Management</a></li> </ul>
2-7	Employees	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data &gt; Social</a></li> </ul>
2-8	Workers who are not employees	—
<b>3. Governance</b>		
2-9	Governance structure and composition	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> <li>• <a href="#">Corporate Governance Report</a></li> </ul>
2-10	Nomination and selection of the highest governance body	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> <li>• <a href="#">Corporate Governance Report</a></li> </ul>
2-11	Chair of the highest governance body	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> <li>• <a href="#">Corporate Governance Report</a></li> </ul>
2-12	Role of the highest governance body in overseeing the management of impacts	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> <li>• <a href="#">Corporate Governance Report</a></li> </ul>
2-13	Delegation of responsibility for managing impacts	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> <li>• <a href="#">Corporate Governance Report</a></li> <li>• <a href="#">Sustainability Management &gt; Policy and approach &gt; Sustainability management structure</a></li> </ul>



2-14	Role of the highest governance body in sustainability reporting	<ul style="list-style-type: none"> <li>• <a href="#">Sustainability Management&gt;Policy and approach&gt;Sustainability management structure</a></li> </ul>
2-15	Conflicts of interest	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance Report</a></li> </ul>
2-16	Communication of critical concerns	<ul style="list-style-type: none"> <li>• <a href="#">Sustainability Management&gt;Policy and approach&gt;Sustainability management structure</a></li> <li>• <a href="#">Risk Management</a></li> </ul>
2-17	Collective knowledge of the highest governance body	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> </ul>
2-18	Evaluation of the performance of the highest governance body	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> </ul>
2-19	Remuneration policies	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> <li>• <a href="#">Corporate Governance Report</a></li> </ul>
2-20	Process to determine remuneration	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> <li>• <a href="#">Corporate Governance Report</a></li> </ul>
2-21	Annual total compensation ratio	—
<b>4. Strategy, policies and practices</b>		
2-22	Statement on sustainable development strategy	<ul style="list-style-type: none"> <li>• <a href="#">Message from the President</a></li> <li>• <a href="#">Sustainable Vision 2030</a></li> </ul>
2-23	Policy commitments	<ul style="list-style-type: none"> <li>• <a href="#">TOYOBO Group Charter of Corporate Behavior</a></li> <li>• <a href="#">Respect for Human Rights</a></li> </ul>
2-24	Embedding policy commitments	<ul style="list-style-type: none"> <li>• <a href="#">Respect for Human Rights</a></li> <li>• <a href="#">Supply Chain Management</a></li> <li>• <a href="#">Compliance</a></li> </ul>
2-25	Processes to remediate negative impacts	<ul style="list-style-type: none"> <li>• <a href="#">Respect for Human Rights&gt;Initiatives&gt;Establishment of complaint handling and internal reporting systems</a></li> <li>• <a href="#">Compliance&gt;Initiatives&gt;Compliance consultation desks</a></li> </ul>
2-26	Mechanisms for seeking advice and raising concerns	<ul style="list-style-type: none"> <li>• <a href="#">Compliance&gt;Initiatives&gt;Compliance consultation desks</a></li> </ul>
2-27	Compliance with laws and regulations	<ul style="list-style-type: none"> <li>• <a href="#">Respect for Human Rights&gt;Initiatives&gt;Reducing excessive working hours</a></li> <li>• <a href="#">Compliance&gt;Anti-corruption initiatives</a></li> <li>• <a href="#">ESG Performance Data&gt;Governance</a></li> </ul>
2-28	Membership associations	<ul style="list-style-type: none"> <li>• Japan Business Federation (Keidanren)</li> <li>• Kansai Economic Federation (Kankeiren)</li> <li>• Japan Chemical Industry Association</li> <li>• Japan BioPlastics Association (JBPA)</li> <li>• Japan Chemical Fibers Association (JCFA)</li> <li>• Japan Spinners' Association</li> <li>• <a href="#">Sustainability Management&gt;Participation in initiatives</a></li> <li>• <a href="#">Plastic Resource Circulation&gt;Participating in initiatives</a></li> <li>• <a href="#">External Evaluation (ESG Factors)</a></li> </ul>

5. Stakeholder engagement		
2-29	Approach to stakeholder engagement	<ul style="list-style-type: none"> <li>• <a href="#">Dialogue with Stakeholders</a></li> <li>• <a href="#">Social Contribution</a></li> </ul>
2-30	Collective bargaining agreements	<ul style="list-style-type: none"> <li>• <a href="#">Dialogue with Stakeholders</a>&gt;<a href="#">Dialogue with stakeholders and investors</a>&gt;<a href="#">Employees</a>&gt;<a href="#">Dialogue between management and labor</a></li> <li>• <a href="#">Respect for Human Rights</a>&gt;<a href="#">Initiatives</a>&gt;<a href="#">Respecting workers' rights</a></li> </ul>
GRI3 : Material Topics 2021		
3-1	Process to determine material topics	<ul style="list-style-type: none"> <li>• <a href="#">Materiality</a></li> </ul>
3-2	List of material topics	<ul style="list-style-type: none"> <li>• <a href="#">Materiality</a></li> </ul>
3-3	Management of material topics	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Safety, Disaster Prevention</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Quality</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Respect for Human Rights</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Materiality</a></li> <li>• <a href="#">Environment</a>&gt;<a href="#">Management Approach</a></li> <li>• <a href="#">Supply Chain Management</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Human Resource Management</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Diversity, Equity, &amp; Inclusion (DE&amp;I)</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Health and Productivity Management</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Social Contribution</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Compliance</a>&gt;<a href="#">Management approach</a></li> <li>• <a href="#">Risk Management</a>&gt;<a href="#">Management approach</a></li> </ul>

[↓ General Disclosures](#)
[↓ Economic](#)
[↓ Environmental](#)
[↓ Social](#)

GRI 201: Economic Performance 2016		
201-1	Direct economic value generated and distributed	<ul style="list-style-type: none"> <li>• <a href="#">Annual Securities Reports</a></li> <li>• <a href="#">Financial Results</a></li> <li>• <a href="#">ESG Performance Data &gt; Social &gt; Social contribution expenditure</a></li> </ul>
201-2	Financial implications and other risks and opportunities due to climate change	<ul style="list-style-type: none"> <li>• <a href="#">Annual Securities Reports</a></li> <li>• <a href="#">Sustainability Management &gt; Participation in initiatives &gt; Task Force on Climate-related Financial Disclosures (TCFD)</a></li> </ul>
201-3	Defined benefit plan obligations and other retirement plans	<ul style="list-style-type: none"> <li>• <a href="#">Annual Securities Reports</a></li> </ul>
201-4	Financial assistance received from government	—
GRI 202: Market Presence 2016		
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	—
202-2	Proportion of senior management hired from the local community	—

GRI 203: Indirect Economic Impacts 2016		
203-1	Infrastructure investments and services supported	—
203-2	Significant indirect economic impacts	—
GRI 204: Procurement Practices 2016		
204-1	Proportion of spending on local suppliers	—
GRI 205: Anti-corruption 2016		
205-1	Operations assessed for risks related to corruption	—
205-2	Communication and training about anti-corruption policies and procedures	• <a href="#">Compliance</a>
205-3	Confirmed incidents of corruption and actions taken	—
GRI 206: Anti-competitive Behavior 2016		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	—
GRI 207: Tax 2019		
207-1	Approach to tax	• <a href="#">Tax Affairs Policy</a>
207-2	Tax governance, control, and risk management	—
207-3	Stakeholder engagement and management of concerns related to tax	—
207-4	Country-by-country reporting	—


[↓ General Disclosures](#)
[↓ Economic](#)
[↓ Environmental](#)
[↓ Social](#)

GRI 301: Materials 2016		
301-1	Materials used by weight or volume	—
301-2	Recycled input materials used	—
301-3	Reclaimed products and their packaging materials	—
GRI 302: Energy 2016		
302-1	Energy consumption within the organization	• <a href="#">ESG Performance Data &gt; Environment</a>
302-2	Energy consumption outside of the organization	—
302-3	Energy intensity	—
302-4	Reduction of energy consumption	<ul style="list-style-type: none"> <li>• <a href="#">Management Approach &gt; Environmental management system &gt; Safety and environment assessment</a></li> <li>• <a href="#">Climate Change</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>

302-5	Reductions in energy requirements of products and services	<ul style="list-style-type: none"> <li>• <a href="#">Eco-Conscious Products &gt; Initiatives &gt; LCA Calculation Initiatives</a></li> <li>• <a href="#">Climate Change &gt; Initiatives related to the entire value chain &gt; Expanding our avoided emissions</a></li> </ul>
<b>GRI 303: Water and Effluents 2018</b>		
303-1	Interactions with water as a shared resource	<ul style="list-style-type: none"> <li>• <a href="#">Water Resources</a></li> </ul>
303-2	Management of water discharge-related impacts	<ul style="list-style-type: none"> <li>• <a href="#">Chemical Substance Management and Reducing Environmental Impact &gt; Reducing Environmental Impact &gt; Initiatives</a></li> <li>• <a href="#">Water Resources &gt; Initiative &gt; Risk reduction</a></li> </ul>
303-3	Water withdrawal	<ul style="list-style-type: none"> <li>• <a href="#">Water Resources</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
303-4	Water discharge	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
303-5	Water consumption	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
<b>GRI 304: Biodiversity 2016</b>		
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<ul style="list-style-type: none"> <li>• <a href="#">Biodiversity &gt; Identifying risks</a></li> </ul>
304-2	Significant impacts of activities, products, and services on biodiversity	<ul style="list-style-type: none"> <li>• <a href="#">Biodiversity &gt; Initiatives</a></li> </ul>
304-3	Habitats protected or restored	<ul style="list-style-type: none"> <li>• <a href="#">Biodiversity &gt; Initiatives</a></li> </ul>
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	—
<b>GRI 305: Emissions 2016</b>		
305-1	Direct (Scope 1) GHG emissions	<ul style="list-style-type: none"> <li>• <a href="#">Climate Change</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
305-2	Energy indirect (Scope 2) GHG emissions	<ul style="list-style-type: none"> <li>• <a href="#">Climate Change</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
305-3	Other indirect (Scope 3) GHG emissions	<ul style="list-style-type: none"> <li>• <a href="#">Climate Change</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
305-4	GHG emissions intensity	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
305-5	Reduction of GHG emissions	<ul style="list-style-type: none"> <li>• <a href="#">Climate Change</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
305-6	Emissions of ozone-depleting substances (ODS)	—
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
<b>GRI 306: Waste 2020</b>		
306-1	Waste generation and significant waste-related impacts	<ul style="list-style-type: none"> <li>• <a href="#">Waste Reduction</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>

306-2	Management of significant waste-related impacts	<ul style="list-style-type: none"> <li>• <a href="#">Waste Reduction</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
306-3	Waste generated	<ul style="list-style-type: none"> <li>• <a href="#">Waste Reduction</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
306-4	Waste diverted from disposal	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
306-5	Waste directed to disposal	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
<b>GRI 307: Environmental Compliance 2016</b>		
307-1	Non-compliance with environmental laws and regulations	<ul style="list-style-type: none"> <li>• <a href="#">Management Approach &gt; Environmental management system &gt; Environmental compliance</a></li> <li>• <a href="#">Chemical Substance Management and Reducing Environmental Impact &gt; Reducing Environmental Impact &gt; Environmental compliance</a></li> <li>• <a href="#">Water Resources &gt; Environmental compliance</a></li> <li>• <a href="#">ESG Performance Data &gt; Environment</a></li> </ul>
<b>GRI 308: Supplier Environmental Assessment 2016</b>		
308-1	New suppliers that were screened using environmental criteria	<ul style="list-style-type: none"> <li>• <a href="#">Supply Chain Management</a></li> <li>• <a href="#">CSR Procurement Guidelines</a></li> <li>• <a href="#">Green Procurement Guidelines</a></li> </ul>
308-2	Negative environmental impacts in the supply chain and actions taken	<ul style="list-style-type: none"> <li>• <a href="#">Supply Chain Management&gt;Initiatives</a></li> </ul>

[↓ General Disclosures](#)
[↓ Economic](#)
[↓ Environmental](#)
[↓ Social](#)

<b>GRI 401: Employment 2016</b>		
401-1	New employee hires and employee turnover	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data &gt; Social</a></li> </ul>
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	—
401-3	Parental leave	<ul style="list-style-type: none"> <li>• <a href="#">Human Resource Management &gt; Initiatives &gt; Work-life balance</a></li> <li>• <a href="#">ESG Performance Data &gt; Social</a></li> </ul>
<b>GRI 402: Labor/Management Relations 2016</b>		
402-1	Minimum notice periods regarding operational changes	—
<b>GRI 403: Occupational Health and Safety 2018</b>		
403-1	Occupational health and safety management system	<ul style="list-style-type: none"> <li>• <a href="#">Safety, Disaster Prevention</a></li> </ul>
403-2	Hazard identification, risk assessment, and incident investigation	<ul style="list-style-type: none"> <li>• <a href="#">Safety, Disaster Prevention</a></li> <li>• <a href="#">TOYOTO's Way of Manufacturing &gt; Security and Disaster prevention Initiatives(1.1MB)</a> </li> </ul>
403-3	Occupational health services	<ul style="list-style-type: none"> <li>• <a href="#">Safety, Disaster Prevention</a></li> </ul>

403-4	Worker participation, consultation, and communication on occupational health and safety	<ul style="list-style-type: none"> <li>• <a href="#">Safety, Disaster Prevention</a></li> </ul>
403-5	Worker training on occupational health and safety	<ul style="list-style-type: none"> <li>• <a href="#">Safety, Disaster Prevention</a></li> </ul>
403-6	Promotion of worker health	<ul style="list-style-type: none"> <li>• <a href="#">Health and Productivity Management</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>• <a href="#">Safety, Disaster Prevention</a></li> </ul>
403-8	Workers covered by an occupational health and safety management system	<ul style="list-style-type: none"> <li>• <a href="#">Safety, Disaster Prevention</a></li> </ul>
403-9	Work-related injuries	<ul style="list-style-type: none"> <li>• <a href="#">Safety, Disaster Prevention</a></li> <li>• <a href="#">ESG Performance Data &gt; Social</a></li> </ul>
403-10	Work-related injuries	<ul style="list-style-type: none"> <li>• <a href="#">Safety, Disaster Prevention</a></li> <li>• <a href="#">ESG Performance Data &gt; Social</a></li> </ul>
<b>GRI 404: Training and Education 2016</b>		
404-1	Average hours of training per year per employee	<ul style="list-style-type: none"> <li>• <a href="#">Human Resource Management &gt; Initiatives &gt; Human resources development</a></li> <li>• <a href="#">ESG Performance Data &gt; Social</a></li> </ul>
404-2	Programs for upgrading employee skills and transition assistance programs	<ul style="list-style-type: none"> <li>• <a href="#">Human Resource Management &gt; Initiatives &gt; Human resources development</a></li> </ul>
404-3	Percentage of employees receiving regular performance and career development reviews	<ul style="list-style-type: none"> <li>• <a href="#">Human Resource Management</a></li> </ul>
<b>GRI 405: Diversity and Equal Opportunity 2016</b>		
405-1	Diversity of governance bodies and employees	<ul style="list-style-type: none"> <li>• <a href="#">Corporate Governance</a></li> <li>• <a href="#">ESG Performance Data &gt; Governance</a></li> <li>• <a href="#">Human Resource Management</a></li> <li>• <a href="#">Diversity &amp; Inclusion</a></li> <li>• <a href="#">ESG Performance Data &gt; Social</a></li> </ul>
405-2	Ratio of basic salary and remuneration of women to men	<ul style="list-style-type: none"> <li>• <a href="#">Annual Securities Reports</a></li> </ul>
<b>GRI406: Non-discrimination 2016</b>		
406-1	Incidents of discrimination and corrective actions taken	<ul style="list-style-type: none"> <li>• <a href="#">Compliance &gt; Initiatives &gt; Compliance consultation desks</a></li> </ul>
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>		
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<ul style="list-style-type: none"> <li>• <a href="#">Respect for Human Rights &gt; Initiatives &gt; Respecting workers' right</a></li> </ul>
<b>GRI408 : Child Labor 2016</b>		
408-1	Operations and suppliers at significant risk for incidents of child labor	<ul style="list-style-type: none"> <li>• <a href="#">Respect for Human Rights</a></li> <li>• <a href="#">Supply Chain Management</a></li> </ul>
<b>GRI 409: Forced or Compulsory Labor 2016</b>		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	<ul style="list-style-type: none"> <li>• <a href="#">Respect for Human Rights</a></li> <li>• <a href="#">Supply Chain Management</a></li> </ul>



<b>GRI 410: Security Practices 2016</b>		
410-1	Security personnel trained in human rights policies or procedures	—
<b>GRI 411: Rights of Indigenous Peoples 2016</b>		
411-1	Incidents of violations involving rights of indigenous peoples	—
<b>GRI 413: Local Communities 2016</b>		
413-1	Operations with local community engagement, impact assessments, and development programs	—
413-2	Operations with significant actual and potential negative impacts on local communities	—
<b>GRI 414: Supplier Social Assessment 2016</b>		
414-1	New suppliers that were screened using social criteria	<ul style="list-style-type: none"> <li>• <a href="#">Supply Chain Management</a></li> <li>• <a href="#">CSR Procurement Guidelines</a></li> </ul>
414-2	Negative social impacts in the supply chain and actions taken	—
<b>GRI 415: Public Policy 2016</b>		
415-1	Political contributions	• <a href="#">ESG Performance Data &gt; Governance</a>
<b>GRI 416: Customer Health and Safety 2016</b>		
416-1	Assessment of the health and safety impacts of product and service categories	—
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	• <a href="#">ESG Performance Data &gt; Governance</a>
<b>GRI 417: Marketing and Labeling 2016</b>		
417-1	Requirements for product and service information and labeling	• <a href="#">Quality</a>
417-2	Incidents of non-compliance concerning product and service information and labeling	• <a href="#">Quality</a>
417-3	Incidents of non-compliance concerning marketing communications	—
<b>GRI418 : Customer Privacy 2016</b>		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	• <a href="#">Risk Management &gt; Data security, privacy</a>

# TCFD Index

Disclosure based on TCFD recommendations in the Integrated Report 2024 (157KB)



[↓ Governance](#)
[↓ Strategy](#)
[↓ Risk management](#)
[↓ Metrics and targets](#)

## Governance

Disclose the organization's governance around climate-related risks and opportunities.

Recommended disclosure content	Relevant sections
a)The board's oversight of climate-related risks and opportunities	<ul style="list-style-type: none"> <li>• <a href="#">Environment&gt;Management Approach&gt;Structure</a></li> <li>• <a href="#">Environment&gt;Climate Change&gt;Structure(Governance)</a></li> </ul>
b)Management's role in assessing and managing climate-related risks and opportunities	<ul style="list-style-type: none"> <li>• <a href="#">Sustainability&gt;Governance&gt;Corporate Governance&gt;Officer compensation system</a></li> <li>• <a href="#">Annual Securities Reports</a></li> <li>• <a href="#">Integrated Report</a></li> </ul>

[↓ Governance](#)
[↓ Strategy](#)
[↓ Risk management](#)
[↓ Metrics and targets](#)

## Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

Recommended disclosure content	Relevant sections
a)The climate-related risks and opportunities the organization has identified over the short,medium, and long term.	<ul style="list-style-type: none"> <li>• <a href="#">Sustainability&gt;TOYOBO Group's Sustainability&gt;Materiality</a></li> <li>• <a href="#">Environment&gt;Climate Change&gt;Initiatives related to our manufacturing business</a></li> </ul>
b)The impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	<ul style="list-style-type: none"> <li>• <a href="#">Environment&gt;Climate Change&gt;Initiatives related to the entire value chain</a></li> <li>• <a href="#">Environment&gt;Climate Change&gt;Strengthening climate change measures&gt;Development of technologies that contribute to the realization of a decarbonized society</a></li> </ul>
c)The resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	<ul style="list-style-type: none"> <li>• <a href="#">Investor Relations&gt;IR Library&gt;Medium-Term Management Plan&gt;2025 Medium-Term Management Plan (FY3/23-FY3/26)</a></li> <li>• <a href="#">Annual Securities Reports</a></li> <li>• <a href="#">Integrated Report</a></li> </ul>

## Risk management

Disclose how the organization identifies, assesses, and manages climate-related risks.

Recommended disclosure content	Relevant sections
a)The organization's processes for identifying and assessing climate-related risks	<ul style="list-style-type: none"> <li>• <a href="#">Governance&gt;Risk Management</a></li> <li>• <a href="#">Environment&gt;Climate Change&gt;Structure(Governance)&gt;Risk Management</a></li> </ul>
b)The organization's processes for managing climate-related risks	<ul style="list-style-type: none"> <li>• <a href="#">Annual Securities Reports</a></li> <li>• <a href="#">Integrated Report</a></li> </ul>
c)How processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	

## Metrics and targets

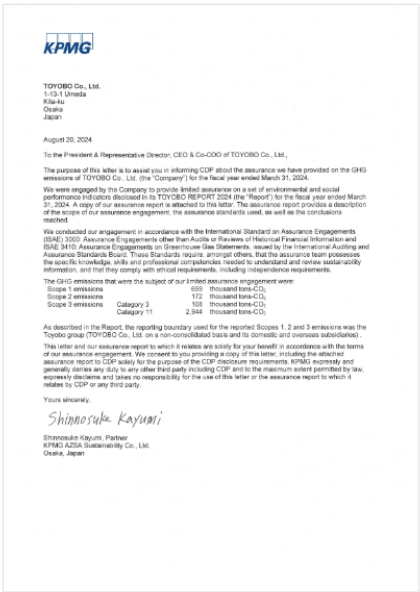
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Recommended disclosure content	Relevant sections
a)The metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	<ul style="list-style-type: none"> <li>• <a href="#">Environment&gt;Climate Change&gt;Indicators, Targets, and Results</a></li> <li>• <a href="#">Environment&gt;Climate Change&gt;Strengthening climate change measures&gt;Introduction of internal carbon pricing system</a></li> <li>• <a href="#">Plastic Resource Circulation&gt;Targets and results</a></li> </ul>
b)Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	<ul style="list-style-type: none"> <li>• <a href="#">Sustainability&gt;TOYOTO Group's Sustainability&gt;Sustainable Vision 2030</a></li> <li>• <a href="#">Investor Relations&gt;IR Library&gt;Medium-Term Management Plan&gt;2025 Medium-Term Management Plan (FY3/23-FY3/26)</a></li> </ul>
c)The targets used by the organization to manage climate-related risks and opportunities and performance against targets	<ul style="list-style-type: none"> <li>• <a href="#">ESG Performance Data&gt;Environment</a></li> <li>• <a href="#">Annual Securities Reports</a></li> <li>• <a href="#">Integrated Report</a></li> </ul>

# External Assurance

## Independent assurance report

To enhance the reliability of the data disclosed, selected environmental and social data have obtained independent assurance by KPMG AZSA Sustainability Co., Ltd.. In the information given below, the ☒ mark indicates fiscal year 2024 data that has obtained independent assurance.



Independent assurance report



- [Data including items of independent assurance](#)
- [ESG Performance Data](#)



**TOYOBO Co., Ltd.**

1-13-1 Umeda  
Kita-ku  
Osaka  
Japan

August 20, 2024

To the President & Representative Director, CEO & Co-COO of TOYOBO Co., Ltd.,

The purpose of this letter is to assist you in informing CDP about the assurance we have provided on the GHG emissions of TOYOBO Co., Ltd. (the "Company") for the fiscal year ended March 31, 2024.

We were engaged by the Company to provide limited assurance on a set of environmental and social performance indicators disclosed in its TOYOBO REPORT 2024 (the "Report") for the fiscal year ended March 31, 2024. A copy of our assurance report is attached to this letter. The assurance report provides a description of the scope of our assurance engagement, the assurance standards used, as well as the conclusions reached.

We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information and ISAE 3410: Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board. These Standards require, amongst others, that the assurance team possesses the specific knowledge, skills and professional competencies needed to understand and review sustainability information, and that they comply with ethical requirements, including independence requirements.

The GHG emissions that were the subject of our limited assurance engagement were:

Scope 1 emissions		659	thousand tons-CO <sub>2</sub>
Scope 2 emissions		172	thousand tons-CO <sub>2</sub>
Scope 3 emissions	Category 3	108	thousand tons-CO <sub>2</sub>
	Category 11	2,944	thousand tons-CO <sub>2</sub>

As described in the Report, the reporting boundary used for the reported Scopes 1, 2 and 3 emissions was the Toyobo group (TOYOBO Co., Ltd. on a non-consolidated basis and its domestic and overseas subsidiaries) .

This letter and our assurance report to which it relates are solely for your benefit in accordance with the terms of our assurance engagement. We consent to you providing a copy of this letter, including the attached assurance report to CDP solely for the purpose of the CDP disclosure requirements. KPMG expressly and generally denies any duty to any other third party including CDP and to the maximum extent permitted by law, expressly disclaims and takes no responsibility for the use of this letter or the assurance report to which it relates by CDP or any third party.

Yours sincerely,

*Shinnosuke Kayumi*

Shinnosuke Kayumi, Partner  
KPMG AZSA Sustainability Co., Ltd.  
Osaka, Japan

# Key sustainability data

## FY2024 results

### Planet

Data aggregation period: (Domestic) April 1, 2023, to March 31, 2024 (Overseas) January 1, 2023, to December 31, 2023

Boundary: Toyobo group (TOYOBO CO., LTD., and domestic and overseas group companies)

		FY2024 results	Calculation methods
Scope 1	<input checked="" type="checkbox"/>	659 thousand t-CO <sub>2</sub>	In reference to the GHG Protocol, we include GHG emissions, calculated by converting the energy required to produce electricity or steam sold to other companies. GHG emissions with non-energy origins are calculated for Toyobo (non-consolidated) and domestic group companies. The factors shown below are used in the respective calculations. ■ CO <sub>2</sub> emission factors for purchased gas: (Domestic) Basic emission factors by gas supplier as listed in the Ministry of the Environment's "Emission Factors by Gas Supplier (for Calculating Greenhouse Gas Emissions of Specified Emitters)—FY2023 Supply Data" (In cases where the emission factor of a given gas supplier was unknown, the "alternative factor" was used.) ■ CO <sub>2</sub> emission factors for purchased electricity: (Domestic) Adjusted emission factors by electricity supplier as listed in the Ministry of the Environment's "Emission Factors by Electricity Supplier (for Calculating Greenhouse Gas Emissions of Specified Emitters)—FY2023 Results" (In cases where the emission factor of a given utility was unknown, the "national average factor" was used.) (Overseas) Factors for 2020 listed by country "Emission Factors 2022" (2022), International Energy Agency (IEA) ■ CO <sub>2</sub> emission factors other than for purchased electricity: "Greenhouse Gas Emissions Calculation and Reporting Manual (v5.0)" (2024) issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry (used for both domestic and overseas subjects).
Scope 2	<input checked="" type="checkbox"/>	172 thousand t-CO <sub>2</sub>	
GHG emissions per unit of sales	<input checked="" type="checkbox"/>	2.01 t-CO <sub>2</sub> per million yen	Total Scope 1 and Scope 2 emissions ÷ consolidated net sales
Energy consumption	<input checked="" type="checkbox"/>	2,810 GWh	In reference to the GHG Protocol, the energy required to produce electricity or steam sold to other companies is not deducted. The unit calorific values of fuels are based on the Energy Conservation Act and are expressed as higher heating values.
Scope 3	Category 3 Fuel and energy-related activities not included in Scope 1 or Scope 2	108 thousand t-CO <sub>2</sub>	The total value obtained by multiplying the amount of fuel and electricity purchased over one year (activity data) by the emission intensity per unit for each type of fuel and electricity, as provided by the Ministry of the Environment database and the Inventory Database for Environmental Analysis (IDEA).
	Category 11 Use of sold products	2,944 thousand t-CO <sub>2</sub>	The total value is calculated by multiplying the amount of utilities consumed during the use of final products sold over one year (activity data), such as electricity, steam, and chilled water, by the emission factors, useful life, and operating rate. Emission intensity per unit is based on proprietary data derived from the Ministry of the Environment database, IDEA, IEA, and equipment specifications used in the generation of each utility. The calculation focuses on VOC recovery equipment, urine sediment testing equipment, and fully automated gene analysis systems.
	Total	5,499 thousand t-CO <sub>2</sub>	Calculations are made using weighted averages for some subsidiaries and affiliated companies, according to ratios of sales, sales volume, and number of employees.

### People

	FY2024 results
Ratio of women managerial staff <sup>*1 *2</sup>	<input checked="" type="checkbox"/> 5.5%
Ratio of women directors <sup>*3</sup>	20%
Training investment per employee (and training time) <sup>*1</sup>	¥50,000 (18.22 hours)
Ratio of annual paid leave taken <sup>*1</sup>	83.2%
Ratio of men employees taking childcare leave <sup>*1</sup>	97.7%
Employment ratio of people with disabilities <sup>*3</sup>	2.29%
Frequency rate of workplace accidents resulting in lost workdays <sup>*4</sup>	1.15
Frequency of meetings with employees and labor unions <sup>*3</sup>	60
Implementation of human rights education and training <sup>*1</sup>	58.1%
Number of internal transfers through the internal recruitment system (cumulative) <sup>*5</sup>	17

#### Referenced guidelines

- In making the calculations, we referred to the "Corporate Value Chain (Scope 3) Accounting and Reporting Standard" and its evaluation guidelines from the GHG Protocol; the "Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain" from the World Business Council for Sustainable Development (WBCSD); and various sources of information on the Green Value Chain Platform.
- With regard to emission intensity per unit, we referred to the following databases as of March 2024.
  - "Emissions Intensity Database for Accounting for Greenhouse Gas Emissions from Organization Supply Chains ver. 3.4" (2024), Ministry of the Environment. Cited as "Ministry of the Environment DB."
  - "IDEA (Inventory Database for Environmental Analysis) ver2.3" (2019), National Institute of Advanced Industrial Science and Technology/Sustainable Management Promotion Organization. Cited as "IDEA."
  - "Emission Factors 2022" (2022), International Energy Agency (IEA). Cited as "IEA."

<sup>\*1</sup> Boundary: TOYOBO CO., LTD., TOYOBO MC Corporation, and TOYOBO STC CO., LTD.  
<sup>\*2</sup> Calculation method: Calculated based on the provisions of the Act on Promotion of Women's Participation and Advancement in the Workplace (including those on secondment who are primarily employed by the three companies mentioned above).  
<sup>\*3</sup> Boundary: TOYOBO CO., LTD.  
<sup>\*4</sup> Boundary: TOYOBO CO., LTD., and domestic consolidated subsidiaries. Aggregation period: January 1, 2023, to December 31, 2023.  
<sup>\*5</sup> Cumulative number of transfers since the start of the system in FY2023.

### Innovation

	FY2024 results
R&D expenses	¥15.3 billion
Number of patents held <sup>*3</sup>	4,624

☒ Indicators for fiscal 2024 with this icon are externally assured by KPMG AZSA Sustainability Co., Ltd.  
See page 68 of this Integrated Report for the Independent Assurance Report. > p.68



# Editorial Policy

Toyobo group endeavors to provide comprehensive and easy-to-understand information disclosure, with a focus on sustainability information, to communicate initiatives for sustainable development of society and our group to our stakeholders on our sustainability website.

We also disclose basic company information on the About Toyobo website and information on financial results on the Investor Relations website. In addition, since fiscal 2020, we have issued the Integrated Report which summarizes financial and sustainability information in one publication as a tool for gaining understanding of our medium- to long-term growth strategy.

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## Period covered by the report

Fiscal 2024 (April 1, 2023 to March 31, 2024)

\* Results of some activities in fiscal 2025 are also included

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## Scope of the report

The scope of the report is TOYOBO CO., LTD. and its consolidated group companies. However, where it is difficult to gather information on the consolidated basis, the report discloses information on a non-consolidated basis or for group companies in Japan. In either of these cases, the scope of reporting is stated.

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## Updated

September 2024 (next update planned: September 2025)

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## Guidelines referenced

- GRI Standards (Japanese version)
- VRF "International Integrated Reporting Framework"
- Task Force on Climate-related Financial Disclosures (TCFD Recommendations)
- Ministry of the Environment "Environmental Reporting Guidelines" (2018 versions)
- Ministry of Economy Trade and Industry "Guidance for Collaborative Value Creation 2.0"

## Disclosure of information

### TOYOBO REPORT (Integrated Report)

This report outlines our company's value creation-oriented growth strategy, and presents an overview of our business operations. We actively utilize this report as a tool for dialogue with shareholders, investors and other stakeholders.

<https://www.toyobo-global.com/sustainability/report/>



#### Our website

##### Investor Relations

Here, we bring together investor relations (IR) materials such as financial results, annual financial reports and business results presentations for the benefit of shareholders and investors. We also present an overview of the company's current financial status and business performance, stock information, an IR calendar, and a FAQ, etc.

<https://ir.toyobo.co.jp/en/ir.html>

##### Annual Financial Report

Prepared in accordance with the requirements of Paragraph (1), Article 24 of the Financial Instruments and Exchange Act, the Annual Financial Report presents a summary of the company's current situation, details of its business areas, the current state of its facilities, its operational status, and its financial statements, etc.

<https://ir.toyobo.co.jp/en/ir/library/securities.html>

##### FACT BOOK

The FACT BOOK presents key financial data, for both the company as a whole and individual segments, covering a period of 11 years. It also presents non-financial data covering a period of five years.

<https://ir.toyobo.co.jp/en/ir/library/fact.html>

#### Our website

##### Sustainability

Here, we present information about Toyobo group's ESG-related initiatives, along with relevant data.

<https://www.toyobo-global.com/sustainability/>

<https://www.toyobo-global.com/sustainability/esgdata/>

##### Sustainability Report

PDF versions, compiled in November each year, of sustainability-related information posted on the company's website.

<https://www.toyobo-global.com/sustainability/report/>

##### Corporate Governance Report

This report presents information about Toyobo group's approaches and systems, in accordance with Japan's Corporate Governance Code.

<https://ir.toyobo.co.jp/en/ir/library/governance.html>

financial information

sustainability information