

# ESG Management

## ESG Management as a Support for Business Activities

TOYOBO Group’s philosophy of *Jun-Ri-Soku-Yu* is the starting point for our CSR activities. With this philosophy as the foundation of our operations, we strive to provide products and services that are beneficial for society, and to enhance both our corporate and social value.

We have established the CSR Committee, chaired by the President, as the structure for promoting CSR activities. This committee handles the integrated understanding and oversight of our CSR initiatives in relation to all stakeholders.

TOYOBO Group will continue to actively fulfill its social responsibility and remain a company that people trust, while helping to build a sound and sustainable society.

### TOYOBO Group’s Corporate Philosophy System

● Principle

*Jun-Ri-Soku-Yu* (realizing prosperity by acting rationally)

● Vision

We will continue to be a Group that creates the solutions demanded by people and the global environment, through **Materials + Science**

● Values

We do not fear **change**; rather, we relish and create **change**

**Challenge Reliability Collaboration**

● Commitment to ourselves (TOYOBO Spirit)

**Challenge** : Act Swiftly, Create, Execute

**Reliability** : Safety First, Customer Satisfaction, Factual Basis

**Collaboration** : Mutual Communication, Diversity, Providing Opportunities

### The TOYOBO Group’s Charter of Corporate Behavior

The TOYOBO Group announced to the public our code of conduct in the form of the TOYOBO Group’s Charter of Corporate Behavior, which aims to help achieve the UN’s SDGs.

At the TOYOBO Group, we contribute to the realization of a sustainable society through the provision of products and services that will create an affluent future.

And to continue being a corporation that people trust, we will act with high ethical standards and social common sense based on ten principles.

- |   |  |
|---|--|
| 1. Contribution to a sustainable society  | 6. Active employee participation       |
| 2. Fair business practices                | 7. Engagement in environmental issues  |
| 3. Communication with stakeholders        | 8. Social contribution                 |
| 4. Respect for human rights               | 9. Thorough crisis management          |
| 5. Earn customers’ trust and satisfaction | 10. Responsibilities of the management |

## Identifying Material Topics

Companies need to tackle a great number of social issues, including environmental problems such as climate change and resource recycling, as well as labor and human rights issues. In the past, TOYOBO Group has examined these social issues from the perspectives of “opportunity” (how they contribute to

our business growth) and “risk” (how they affect the continuity of our business).

In future, we will identify the priority issues based on a systematic appraisal of these social issues, opportunities and risks (materiality), and incorporate this in our business planning.

### Step 1

Consideration of opportunities and risks

### Step 2

Verification by experts and stakeholders

### Step 3

Incorporation in business plans (KPIs, etc.)

**Establish ESG management underpinning the basis for long-term value creation**

**E**nvironmental Policy & Activities

# Preventing Global Warming

## Basic Approach

The impact of climate change associated with global warming has become apparent with an increase of natural disasters such as typhoons and localized torrential rainfall, as well as changes in the ecosystem due to “subtropicalization” of the climate.

TOYOBO Group recognizes the serious risk posed by climate change to the continuation of business activities, and we are endeavoring to cut greenhouse gases. As activities aimed at saving energy during production have a significant benefit, we are promoting measures from a medium-to-long term perspective.

## Activities to cut greenhouse gases during production

We are aiming for a 17% reduction in emissions of greenhouse gases during production by fiscal 2031 compared with fiscal 2014.

We are promoting energy saving by switching to highly efficient equipment and introducing energy recovery systems, and aim to reduce emissions of greenhouse gases. We also continue to install gas cogeneration facilities\*, with Group companies Toyoshina Film Co., Ltd. and Japan Exlan Co., Ltd. introducing these facilities in fiscal 2019.

As a result of these initiatives, we have already achieved

our fiscal 2031 targets, but we are setting new targets to make further reductions.

\* Using clean city gas as the fuel, a system that generates steam and hot water with the waste heat produced during electricity generation, and uses this for manufacturing processes, hot water supply and heating/cooling, etc.



Gas cogeneration facilities at Japan Exlan Co., Ltd.

## Activities to cut greenhouse gases during logistics

We are aiming for a 1% year-on-year reduction in emissions of greenhouse gases during logistics each year.

To achieve this, we are taking measures such as shortening the transportation distance by using the ports closest to our business sites and factories, and reducing the number of running vehicles through efficient loading of cargo and bulk transportation. For materials shipped from overseas, in fiscal 2019 our Inuyama plant in Aichi Prefecture switched from using Kobe port to Nagoya port, the closest port to the plant.

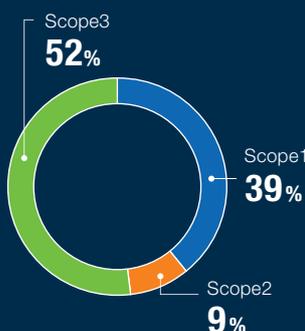
## Important initiatives and results

### 27% reduction in greenhouse gas emissions during production activities

Fiscal 2019 emissions of greenhouse gases during production activities were about 900,000 tonnes, 27% lower than the reference fiscal year (fiscal 2014). As well as day-to-day energy-saving activities, there has been a significant contribution from upgrading to high energy efficiency equipment and installing gas cogeneration facilities.

In fiscal 2019, we completed calculation of the emissions volume in the supply chain (Scope3 emissions), with the support of the Ministry of the Environment.

### Supply chain emissions volume and ratio (Scope1-3)



Scope1: Direct greenhouse gas emissions by the reporting company itself  
Scope2: Indirect emissions from the use of electricity, heat, or steam supplied by others  
Scope3: All other indirect emissions

### Emissions ratio (Scope3 categories 1-15)

| Category   | Emissions ratio (%) |
|--|---------------------|
| 1 Purchased products and services                                | 55                  |
| 2 Capital goods  | 7                   |
| 3 Fuel and energy-related activities not included in Scope1 or 2 | 3                   |
| 4 Transportation, shipping (upstream)                            | 4                   |
| 5 Waste generated from operations                                | 1                   |
| 6 Business trips   | 0                   |
| 7 Employee commuting   | 0                   |
| 11 Use of sold products  | 30                  |

# Management of Chemical Substances

## Basic approach

TOYBO Group endeavors to manage chemical substances appropriately throughout the product lifecycle (research, development, design, manufacturing, sale, use, disposal), in order to protect the global environment, prevent accidents, ensure workers' health and safety, and ensure product safety.

## Chemical substance management structure

For appropriate management of chemical substances, TOYBO Group has established a management system at each business site. Each division supervises the activities of the business sites and group companies under their jurisdiction.

In addition, we have established a "TOYBO Chemical Substance Management Classification" based on legal regulations inside and outside Japan as well as our customers' requests. This classifies the chemical substances we handle into five levels, and the management procedures are specified for each level or "rank".

Substances in rank A and B are examined based on a risk assessment, risk avoidance measures are enacted, and if the risk is deemed tolerable, the substance can be handled. We continue to implement efficient use and replacement of the rank A and B substances we are currently using, and are working to reduce the overall usage volumes of the relevant chemical substances.

### TOYBO Chemical Substance Management Classification

| Rank | Management Category                                      | Governing Legislation, etc.  |
|------|--|--|
| A    | Substances requiring particularly strict management      | Chemical Substances Control Act*1, Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, Act on the Protection of the Ozone Layer, Act on the Prohibition of Chemical Weapons, POPs*2, PIC*3, etc. |
| B    | Substances requiring strict management                   | Chemical Substances Control Act, PRTR*4, Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, etc.  |
| C    | Substances requiring strict exposure prevention measures | Chemical Substances Control Act, PRTR, Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, Fire Service Act, etc.  |
| D    | Substances requiring exposure prevention measures        | PRTR, Industrial Safety and Health Act, etc.   |
| E    | Others   | Other than A-D   |

\*1 Chemical Substances Control Act: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

\*2 POPs (treaty): Prevention and reduction of Persistent Organic Pollutants (POPs)

\*3 PIC (treaty): The Prior Informed Consent Regulation (trade)

\*4 PRTR: Pollutant Release and Transfer Register

## Chemical substance management activities

Supply chain management, which started with the European Union's legislation on chemical substances, has also come to be required in Japan following the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Chemical Substances Control Act), as well as other regulations relating to the management of chemical substances. Additionally, the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) has been created by the United Nations.

In view of this situation, TOYBO has introduced a chemical substance management system covering procurement through to product manufacture and sale, in order to realize green procurement while providing accurate and rapid support to our customers. We employ this system to investigate the usage status of regulated substances and survey the chemical substances contained in products. The system also supports the creation of safety data sheets (SDS) for chemical substances.

Given the global nature of TOYBO Group's operations, we have created a database of chemical substance-related legislation in Asia, Europe, North and South America. Furthermore, in order to identify and mitigate chemical substance risk, we have established rules concerning matters including the replacement/reduction of hazardous chemical substances, maintenance of the work and surrounding environments, and the management of chemical substances in products. In this way, we are striving to ensure proper management.

## Reducing emissions of substances covered by the Pollutant Release and Transfer Register (PRTR)

TOYBO calculates and reports the release and transfer volumes of the applicable chemical substances for each business site, and analyzes the overall results published each year. We use this information to reduce our own release and transfer volumes.

We are reducing our release volumes through measures including the following: improving and updating manufacturing facilities and systems, improving operating conditions, installing equipment to remove the applicable substances, replacing raw materials and auxiliary raw materials. We will continue to implement activities aimed at reducing release volumes.

# Resource Circulation

## Reducing the industrial waste landfill rate

TOYOBO Group defines zero emissions as “a volume of landfill waste that is less than 1% of the total waste volume”, and we continue working to realize effective use and circulation of resources.

The three R's (Reduce, Reuse, Recycle) are the basis for the effective use of resources. TOYOBO Group is engaged in initiatives such as melting down film scrap at the site of production for re-use as raw material (depending on the brand of film). Even if “3R” processing is not possible and material is incinerated, we select and appoint a contractor to recover the incineration heat and realize its effective use.

Through such initiatives, TOYOBO Group continues to achieve zero emissions. However, the landfill rate at Group companies has worsened over the past 2–3 years. This is because it is becoming difficult to use certain industrial waste products effectively at some Group companies. Therefore, we are working to make improvements by learning from other Group companies where similar waste products arise and are used effectively.

# Green Products

## Mechanism for certification of green products

As clearly stated in our Charter of Corporate Behavior, TOYOBO Group strives to save energy as well as reduce and re-use resources, and to develop products and technologies that help mitigate our environmental impact. The mechanism for defining and evaluating these “products and technologies that help mitigate our environmental impact” is the ECO-PARTNER SYSTEM™. Under this system, assessments are made based on an Eco-Review System in relation to our products and technologies, for every stage from raw material through to disposal. Areas covered by the assessments are “prevention of global warming,” “reduction in harmful chemical substances,” “conservation of materials,” “reduction in waste,” and “other environmental contribution”. Those products certified as having an assessment above a certain level are designated as ECO-PARTNER SYSTEM™ green products.

As the Eco-Review is carried out at each stage from R&D through to commercialization, issues identified at the R&D stage as requiring improvement from an environmental protection perspective are improved at the subsequent Eco-Review implementation stage. Consequently, this system allows for environmentally friendly improvements to be made while developing products and technologies.

## Important initiatives and results

### Ratio of ECO-PARTNER SYSTEM™ product sales increases to 27.7%

Since fiscal 2007, TOYOBO CO., LTD has implemented an Eco-Review System. As of March 31, 2019, there were 428 products and technologies certified and registered as ECO-PARTNER SYSTEM™ products under this system (including products subject to non-disclosure agreements).

Our goal is to increase the ratio of ECO-PARTNER SYSTEM™ product sales to 30% of total sales by fiscal 2031. In fiscal 2019, the ratio was 27.7%.

Going forward, we will roll out this system to our Group companies as well.

ECO-PARTNER SYSTEM™ product sales



# Human Resource Management

## Basic approach to developing human resources

TOYOBO Group considers human resources to be our most important asset. We support the growth of each and every one of our employees, who have a diversity of characteristics and opinions. We believe that the continuation and development of the Group as a whole can be achieved by building an environment in which they can flourish within the company and realize their own potential.

## Nurturing candidates for executive management

To nurture the next generation of managers, TOYOBO strives to ensure that our employees acquire a broad knowledge and enhance their skill set through rotation, including overseas assignments, from an early stage. During that process, we single out candidates for executive management and hone their managerial skills. In accordance with a succession plan, they assume positions as managers in the business units and in the planning and development departments as well.

In this way, we aim to continually develop our business by nurturing human resources with a long-term view to the future.

## Developing global human resources

TOYOBO Group implements “Short-term Overseas Business Training” in which around 10 employees in Japan – mainly in the 30-39 age group – are sent overseas for training each year, split into two separate groups (first and second half of the year). This motivates younger and mid-career employees to participate in TOYOBO’s global business, and represents a major opportunity for them to further their careers.

In addition, local candidates for management of overseas business from overseas offices are selected to undergo training in Japan twice each year. This aims to enhance their understanding of TOYOBO and deepen interaction with Japanese employees.



Training for local employees from overseas offices

## Message from HR Development Officer

**People are our most important asset.  
We develop personnel who can practice  
“Creating Shared Value” (CSV).**

TOYOBO develops human resources based on a training system categorized by job level, job type and objective, from new hires through to executives. Over our long history, we have fostered an approach of valuing “people” – our most important asset – and this is an approach that is now shared throughout the Group.

Now, we are putting our maximum effort into nurturing the next generation of managers, who will help to realize our growth strategy. Selected personnel from throughout the company are sent to business schools or undergo internal training programs. At the same time, we are actively engaged in initiatives to train mid-career hires and promote the participation of women in the workforce, focused on encouraging diversity. Extensive educational and training activities are also carried out at domestic Group companies, and Japan-based training for local employees is held for select personnel from overseas business sites. Through these initiatives, we develop personnel who can put into practice TOYOBO’s corporate philosophy of *Jun-Ri-Soku-Yu* (realizing prosperity by acting rationally); or to use a more contemporary expression, people who can create shared value.



**Masakatsu Shirai**  
General Manager, Supervisor of Human Resources Department

## Basic approach to diversity

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.

## Promotion of work-life balance

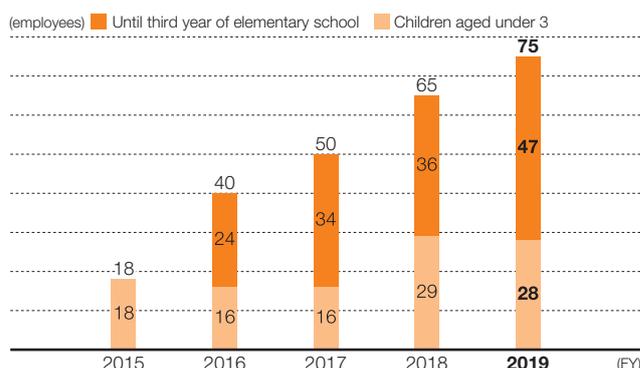
TOYOBO has introduced schemes that go above and beyond the legal requirements, including the Childcare Shortened Work Hour Program and Nursing Care Leave, and we also provide a Flextime system. From fiscal 2020, Childcare Leave offers five days of paid leave, and we are also encouraging male employees to take childcare leave.

We are also engaged in work style reform, so that our employees can work with renewed efficiency and achieve a good balance between work and personal life (synergistic effect). Initially, we introduced a 15-Minute Shortened Work Hour Program at head and branch offices in fiscal 2018, and at the Research Center in fiscal 2019, and at other offices we

have implemented a program to increase the number of days of leave. In addition, we hold a No Overtime Day at least once a month, so that employees can spend quality personal time together with family and friends, and we also view this as an opportunity to enhance creativity.

In fiscal 2020, we introduced a Teleworking scheme at head and branch offices, which provides for a more flexible work style according to each employee's life stage.

### Employees Taking Childcare Shortened Work Hour Program



## Initiatives to promote women in the workforce, and results

As the first step to employing a greater diversity of human resources, TOYOBO established the Female Empowerment Promotion Group within the Human Resources Department in 2015. The Group has been promoting the employment of women and their career development. We have held seminars for managers, vision creation seminars, female leader development seminars, etc., on a continuous basis, in order to realize a change of mentality among our employees. In April 2019, we launched a trial Mentor Program for women, which further supports them in developing their career concept.

### Proportion of Female Employees with Manager-Level Qualifications



TOYOBO has introduced a babysitter support system to assist with childcare, which provides the full cost of babysitting when an employee is on a business trip. The number of users has steadily increased.

In April 2018, we established a nursery inside the Research Center (Otsu City, Shiga Pref.) for employees with children. The nursery not only enables employees to return to work early from childcare leave and make their return to work easier, but also lays the platform for women to feel more comfortable with planning a family.



TOYOBO Nursery School

# Quality Management

## Basic approach

TOYOBO Group conducts all of its business activities based on our corporate philosophy of *Jun-Ri-Soku-Yu* (realizing prosperity by acting rationally), and we approach quality management in the same way.

We implement quality management activities under the motto “TOYOBO’s way of manufacturing,” based on always taking the customer’s standpoint, accurately identifying the customer’s needs, and providing satisfaction to the customer.

## Quality assurance activities

The basis of “TOYOBO’s way of manufacturing” is to consistently put ourselves in the customer’s position and supply only what they really want. Besides products, this includes the provision of incidental services and solutions, and we aim to help customers resolve difficulties and issues, and realize their wishes.

To achieve this, all staff have shared access to the Quality Assurance Manual, which describes the basic approach and code of conduct for all employees when implementing TOYOBO Group development, production and sales activities. In addition, the Quality Assurance Guidelines describe activities with the aim of developing a system that guarantees quality. A Quality Assurance (QA) system is established for each product and service, so that quality and product safety can always be guaranteed at each stage. Additionally, checks are repeatedly carried out by business supervisors, related internal and external parties, and experts, from their individual perspectives, to ensure that no incidents occur in the market.

## Product safety promotion activities

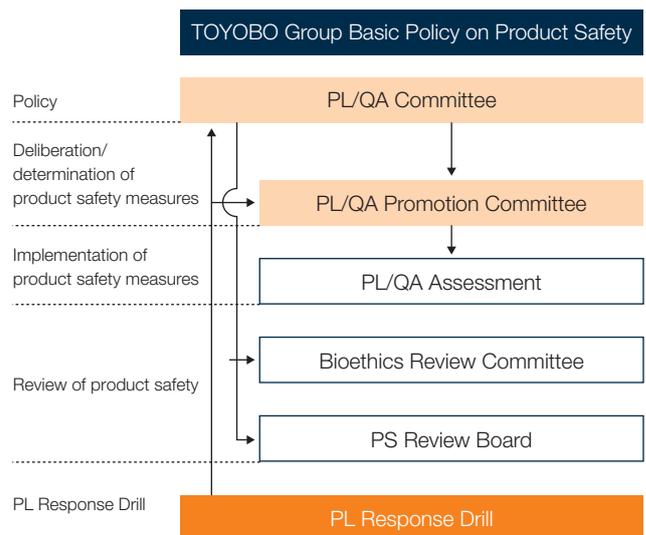
TOYOBO Group has established a “PL/QA Committee” as a standing committee with overall responsibility for product liability (PL) and QA. This committee puts in place systems to ensure product safety in relation to products and technology, and to facilitate appropriate responses to PL or other quality-related incidents. As well as efficient corporate activity and maintaining/enhancing the Group’s standing in society, the committee strives to increase customers’ trust and confidence in the TOYOBO Group, while making sure that its activities are in keeping with the times. It also conducts PL/QA assessments to verify and improve Product Safety (PS) activities in each department and group company. Moreover, the committee establishes criteria for assessing PS and PL risk, and based on these criteria, it carries out

inspections at each stage, from product development through to sale. By addressing risk in advance, the committee works to mitigate risks pertaining to customers and employees.

All possible measures are taken to ensure product safety, and training drills are also performed based on PL incident scenarios.

Product safety remains a crucial theme throughout the whole of TOYOBO Group, and we will continue to mitigate risk as much as possible and fulfill our social responsibility.

## TOYOBO Group PL Response System



# Supply Chain Management

## Basic approach

TOYOBO Group has established an appropriate trading policy and conducts procurement/logistics responsibly, so as to support the development of a sustainable society.

In October 2018, we revised our CSR Procurement Guidelines in order to achieve the SDGs within the supply chain, including legal compliance, fair trading, respect for human rights, and consideration for the environment.

### CSR Procurement Guidelines

1. Promote CSR and engage proactively in social contribution
2. Maintain and strengthen compliance (including with laws and regulations), fair trading, corporate ethics
3. Maintain and strengthen environmental activities
4. Guarantee quality and safety in the supply of products
5. Respect human rights
6. Disclose information to stakeholders and engage with them in a timely and appropriate manner, and maintain and strengthen information security measures

## CSR questionnaire

We conduct a questionnaire among our key business partners, based on the CSR Procurement Guidelines. This allows us to verify the status of their CSR activities, while enabling them to deepen their understanding of CSR activities.

## Trading fairness and transparency

We take a rigorous approach to ensuring fairness and transparency, based on sound trading. We do not give or accept gifts or hospitality in order to secure unjust profit or preferential treatment from our business partners, and have strengthened our checking system to ensure that actions that raise suspicion do not occur.

## Response to natural disasters

In recent years, various areas of Japan 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 are working to identify and manage risk 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.

## 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. At the same time, we are promoting green procurement to help build a sustainable society. We ask our business partners to provide information about the chemical substances contained in products, as follows.

- (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 2019, we revised our “Chemical Content Information Sheet” based on the information sharing scheme “chemSHERPA”, developed by Japan’s Ministry of Economy, Trade and Industry (METI), and asked our business partners to carry out a survey. For general purchased goods, we are promoting green purchasing with the use of environmental labels.

## Resolving social issues in logistics

To resolve social issues in logistics, we are pushing forward with initiatives to reduce our environmental impact and reform the logistics work style.

To reduce our environmental impact, we are shortening the transportation distance by using the ports closest to our business sites, actively using sea and rail transport due to their lower CO<sub>2</sub> emissions (modal shift), and improving loading efficiency. We are also working to share logistics and storage with other companies (including joint shipment, making use of returning trucks, securing joint storage space), and are encouraging the introduction of systems that enable visualization of the logistics situation.

Concerning work style reform, we conducted a survey of the state of unloading for each delivery destination, in order to improve the working environment of truck drivers and cargo handlers. This revealed issues including long waiting times and manual handling of heavy cargo loads. We are currently working to make improvements here, by shortening waiting times and eliminating manual cargo handling (lightening the burden of unloading by switching from bulk loading to use of pallets).

# Disaster Prevention & Safety

## Basic approach

TOYOBO Group is striving to achieve zero accidents based on the principles and activities set out in the “TOYOBO Group Basic Policy on Health & Safety.”

### Health & Safety Philosophy

Based on the principle that ensuring health and safety is an important prerequisite of corporate activities, we are working hard to ensure the safety of our employees and improve hygiene, in accordance with a spirit of respect for human dignity, while also actively promoting better health. In this way, we aim to create a bright and happy workplace and a prosperous society.

### Basic Policy on Health & Safety

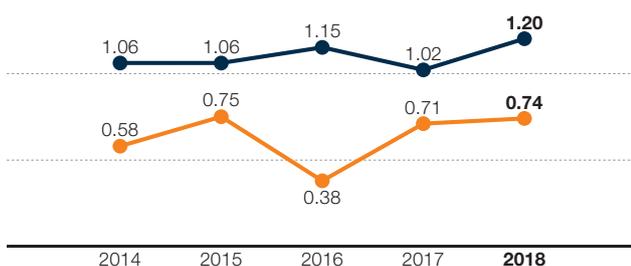
- We will work to achieve zero accidents by improving safety and security in the workplace
- We will work to realize a comfortable, employee-friendly workplace by enhancing hygiene and promoting the health of our employees
- We will work to realize a prosperous community and society with which we can coexist, by observing social rules and norms

## Safety management system

TOYOBO has established a Safety Promotion Committee under the Global Environment and Safety Committee to promote safety and disaster prevention activities. The committee members conduct safety and environment assessment of our business sites and plants as well as Group companies, in order to check the status of local activities. In addition, affiliated businesses at the same business site are promoting safety and disaster prevention activities together with our employees.

### Frequency Rate of Injuries

Frequency rate of lost workday injuries — TOYOBO Group — Manufacturing industry average



This refers to the number of accidents resulting in lost workday injuries per one million hours worked. It includes employees of affiliated companies at the same business site. The frequency rate of lost workday injuries is calculated annually on a calendar year basis (Jan-Dec).



Disaster Prevention Lecture

## Disaster prevention initiatives

Following the fire at TOYOBO’s Tsuruga Research and Production Center, which broke out on September 6, 2018, we reviewed our security and disaster prevention activities, and the whole Group is making concerted efforts to regain the trust of society.

Our main plants have undergone an assessment of disaster prevention equipment by a third-party expert, and we received advice concerning early discovery of fires and firefighting equipment aimed at more effective initial-stage firefighting. Based on this advice, we have enacted the “Firefighting Equipment Guidelines.”

Going forward, we aim to enhance the functionality of firefighting equipment at our main plants based on these Guidelines. We will also revise the content of our training drills so that they are more practical and enable us to protect our workplaces in the event of a fire.

We have designated September 6 each year as TOYOBO Group Disaster Preparedness Day so that the lessons learned from this fire are not forgotten, and we will hold disaster prevention rallies at each plant to educate our staff about disaster prevention.



Third party assessment of disaster prevention equipment

## About the fire at the Tsuruga Research and Production Center

On September 6, 2018, a large fire broke out at TOYOBO's Tsuruga Research and Production Center, in which production facilities for airbag yarns, the three-dimensional cushion material BREATHAIR™ and nylon for clothing were damaged. We apologize sincerely for the inconvenience and worry caused to all related parties.

Learning the lessons of this disaster, we will promote further disaster prevention activities and make concerted efforts as a Group to ensure early restoration of the facilities.

### Overview of the fire

Around 1:10 p.m. on September 6, 2018, a fire broke out on airbag yarn production facilities at the TOYOBO's Tsuruga Research and Production Center in Fukui Prefecture. Following discovery of the fire, a call for firefighting was immediately put out and initial-stage firefighting was undertaken. However, all personnel were evacuated due to dangerous levels of smoke. Firefighting by the public fire service then commenced, but the flames were fierce and it was not until 1:53 p.m. on September 7, the following day, that they were finally brought under control. The fire was extinguished at 5:30 p.m. the same day.

Although the fire caused no injuries to local residents, employees or related parties, black smoke and an unpleasant odor spread throughout the local area, causing much concern and inconvenience. In addition, production facilities for airbag yarns, BREATHAIR™ and nylon for clothing were damaged. The area destroyed by the fire totaled around 19,000m<sup>2</sup>.

The cause of the fire is believed to be as follows: a spark resulting from a short-circuit in wiring at the airbag yarn production facilities caused nearby combustible material to catch fire, and the fire then spread through exhaust ducts.



Aerial view of Tsuruga Research and Production Center  
(Source: Geospatial Information Authority of Japan; compiled by TOYOBO)

### Recovery and reconstruction

TOYOBO provided explanations about the disaster to the authorities and the local community, and also worked to restore operation of those facilities that escaped the fire. Since the fire was triggered by a short-circuit in wiring, we have installed wiring that prevents sparks in the event of a short-circuit, as well as fire alarms in exhaust ducts and a fire extinguishing system for duct.

In November 2018, we held a briefing for the local communities, and in December restored operation at the polymerization plant. In January 2019, we were able to resume production of the PBO fiber ZYLON™. In February, we held a briefing for local residents, at which we explained the circumstances of the fire and the countermeasures we have taken. At the briefing, we gained residents' understanding regarding the resumption of all remaining facilities, and resumed operation in April.

We are currently removing the damaged facilities. We will learn the lessons of this fire and work hard to reconstruct a safe plant.



Enhanced disaster prevention training drill

# Management



## Directors

### Ryuzo Sakamoto ①

Director\* and Chairman

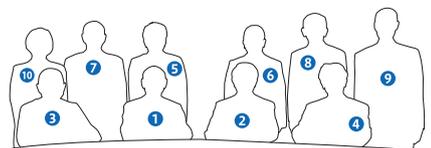
- Apr. 1972 Joined TOYOBO
- Apr. 2002 Deputy Director and General Manager, Textile No. 2 Department, and Textiles Technology and Procurement Department
- Jun. 2002 Director
- Jun. 2005 Director, President and Chief Operating Officer
- Apr. 2014 Director and Chairman (to present)

### Seiji Narahara ②

Director\*, President and Chief Operating Officer  
Controlling Supervisor of Internal Audit Department and KAERU Project

- Jan. 1988 Joined TOYOBO
- Apr. 2009 Deputy Director and General Manager, Finance Department
- Apr. 2010 Corporate Officer
- Jun. 2011 Director and Corporate Officer
- Apr. 2014 Director, President and Chief Operating Officer (to present)

\*Representative Director



### Masaru Watanabe ③

Director\* and Corporate Senior Executive Officer  
Controlling Supervisor of Environment & Safety, Quality Assurance Operating Department, Finance Department, Accounting and Control Department, Procurement & Logistics Department, and Human Resources Department; Supervisor of KAERU Project

- Apr. 1979 Joined TOYOBO
- Oct. 2009 Deputy Director, General Manager of Plastics Operation Planning Office, and General Manager of Plastics Management Office
- Apr. 2014 Corporate Officer
- Jun. 2016 Director and Corporate Officer
- Apr. 2017 Director and Corporate Executive Officer
- Apr. 2018 Director and Corporate Senior Executive Officer (to present)

### Shigeo Takenaka ④

Director and Corporate Executive Officer  
Head of Plastics Division; Head of Specialty Chemical Division; Controlling Supervisor of Tsuruga Research and Production Center

- Apr. 1981 Joined TOYOBO
- Apr. 2012 Deputy Director, General Manager of Functional Polymers Operating Department, and General Manager of Functional Polymers Technology & Development Department
- Apr. 2013 Corporate Officer
- Apr. 2017 Corporate Executive Officer
- Jun. 2017 Director and Corporate Executive Officer (to present)

### Hitoshi Ueno ⑤

Director and Corporate Executive Officer  
Head of Healthcare Division, Head of Bio-Science & Medical Division

- Jun. 1989 Joined TOYOBO
- Oct. 2009 Deputy Director, Head of Corporate Research Center, and Deputy General Manager of Business Development Planning Office
- Apr. 2013 Corporate Officer
- Apr. 2017 Corporate Executive Officer
- Jun. 2018 Director and Corporate Executive Officer (to present)

### Shigeo Nishiyama ⑥

Director and Corporate Executive Officer  
Head of Fibers, Textiles & Functional Products Division; Controlling Supervisor of Iwakuni Production Center

- Apr. 1983 Joined TOYOBO
- Apr. 2014 Deputy Director, General Manager of Textile Production & Development Operating Department, General Manager of Textile Production Technology and Development Department, and seconded to TOYOBO STC CO., LTD.
- Apr. 2017 Corporate Officer
- Jun. 2018 Director and Corporate Officer
- Apr. 2019 Director and Corporate Executive Officer (to present)

**Taketoshi Oka** 7

Outside Director

Apr. 1974 Registered as an attorney at law  
 Apr. 1996 Vice Chairman of Osaka Bar Association  
 Jul. 2003 Established Kinki Chuou Law Office;  
 Representative Partner (to present)  
 Jun. 2015 Director of the Company (to present)

**Masaru Nakamura** 8

Outside Director

Apr. 1977 Joined Sumitomo Corporation  
 Apr. 2006 Corporate Officer  
 Apr. 2008 Executive Officer  
 Apr. 2010 Managing Executive Officer  
 Apr. 2012 Senior Managing Executive Officer  
 Apr. 2016 Adviser  
 Jun. 2017 Director of the Company (to present)

**Takafumi Isogai** 9

Outside Director

Jan. 1987 Assistant Professor of Faculty of Liberal Arts,  
 Osaka University  
 Apr. 1996 Assistant Professor of Graduate School of  
 Engineering Science, Osaka University  
 Apr. 2002 Professor of Faculty of Mercantile Marine, Kobe  
 University of Mercantile Marine  
 Oct. 2003 Professor of Faculty of Maritime Sciences, Kobe  
 University  
 Apr. 2013 Professor of School of Commerce, University of  
 Marketing and Distribution Sciences  
 Apr. 2018 Part Time Lecturer at University of Marketing  
 and Distribution Sciences (to present)  
 Jun. 2018 Director of the Company (to present)

**Kimie Sakuragi** 10

Outside Director

Mar. 1981 Joined Fukutake Publishing Co., Ltd. (current  
 Benesse Holdings, Inc.)  
 Apr. 1995 Supervisor of Book Businesses in Publishing  
 Division  
 Nov. 1998 Chief of Business Ethics and Compliance Office  
 Jan. 2003 Manager of Business Ethics and Compliance  
 Office  
 Jun. 2003 Standing Audit & Supervisory Board Member of  
 Benesse Corporation (current Benesse Holdings,  
 Inc.)  
 Apr. 2007 Adjunct Professor of the University of Aizu  
 Graduate School (to present)  
 Oct. 2009 Audit & Supervisory Board Member of Benesse  
 Corporation  
 Jun. 2019 Director of the Company (to present)

**Corporate Auditors**

Corporate Auditors

**Taneaki Nagata**

Corporate Auditors

**Yasuhiro Iizuka**

Outside Corporate Auditors

**Shiro Takenaka**

Outside Corporate Auditors

**Hiroyuki Sugimoto****Corporate Executive Officers****Yasuo Ota****Chikao Morishige****Corporate Officers****Takayuki Tabo****Hiroshi Otsuki****Takeo Kashima****Yoshio Araki****Ichiro Takai****Kenjiro Ogami****Ikuyo Takeuchi****Masakatsu Shirai****Nobuya Fujiwara****Kazuhiko Katayama****Seiji Yamazoe****Atsuhiko Otsuka**



concurrently as Corporate Officers to support rapid, accurate decision-making. Regular Board of Directors meetings are held once a month, with extraordinary meetings being held as necessary.

In order to further optimize the functions of outside officers (both directors and auditors), prior explanations are made regarding important issues. In addition, TOYOBO periodically holds outside officer liaison meetings that consist solely of outside officers, who share their viewpoints and exchange information.

### Business execution

There are 19 corporate officers, including some who serve concurrently as directors. The President and Chief Operating Officer, as the head of business execution, acts as Chair of the Board of Corporate Executive Officers and Controlling Supervisors, and convenes the Board of Corporate Officers. The Board of Corporate 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, which it has been entrusted by the Board of Directors. The Board of Corporate Officers communicates management policy and reports on the progress of cross-organizational, companywide issues.

The Corporate Planning Committee and the Financial Control Committee are established under the Board of Corporate Officers. They deliberate on important investments and new projects, important investment and lending projects, etc. from their respective expert standpoints, thereby managing business risk.

### Corporate auditor system

The Board of Corporate Auditors has four members, two of whom are outside corporate auditors. Their responsibilities include attending meetings of the Board of Directors and other important meetings, stating their opinions when necessary, and auditing the performance of duties by directors based on audits of operations in the various divisions.

KPMG AZSA LLC has been appointed to conduct the independent audits required under Japan's Companies Act. The Board of Corporate Auditors receives plans for auditing and audit reports from the independent auditor and meets with the independent auditor periodically to exchange information.

The Internal Audit Department monitors the effectiveness of internal governance. The staff of this department report the results of internal audits to the President and exchange information with corporate auditors.

### Initiatives to Strengthen Corporate Governance

| (Year) | Initiative & Objective   |
|--------|--|
| 1998   | <ul style="list-style-type: none"> <li>Established the Ethics Committee (the current CSR Committee) To promote companywide 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 Advisory Board on Compensation) 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, 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 To hold regular information exchange meetings to optimize the functions of outside officers</li> <li>Established the Nomination 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 To continue to identify issues and make improvements, will carry out once a year in future</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</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>  |

## Procedures for Nominating Directors and Determining Compensation

In order to ensure transparency and fairness when determining the nomination of directors and their compensation, deliberations are conducted by the Nomination Committee (whose members include outside officers) and the Advisory Board on Compensation (whose members include outside directors and outside committee members), and reports are made to the Board of Directors and President.

## Officer Compensation

TOYOBO's system of officer compensation is designed in line with the following basic policy, within the monetary amount of officer compensation resolved at the General Shareholders' Meeting: (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.

In order to ensure transparency in determining officer compensation, a Advisory Board on Compensation has been established as an advisory body to the President, in which at least half of the committee members are outside directors and outside experts. The Advisory Board on Compensation conducts objective and fair deliberation/verification with regard to matters including the system, level, and calculation method of officer compensation, while also incorporating surveys by external organizations. The President makes a proposal to the Board of Directors based on the report submitted by the Advisory Board on Compensation, and a decision is then made.

### Details of Officer Compensation (Fiscal 2019)

| Classification  | Total compensation, etc. (millions of yen) | Total compensation, etc. by type (millions of yen) |                    | Number of officers |
|---|--|--|--------------------|--------------------|
|   |  | Regular compensation                               | Stock compensation |                    |
| Directors (excluding outside directors)                   | 322  | 322  | -                  | 9                  |
| Corporate auditors (excluding outside corporate auditors) | 51   | 51   | -                  | 3                  |
| Outside officers  | 44   | 44   | -                  | 3                  |

Note 1: The above includes three directors and one corporate auditor who retired as of the close of the 160th Ordinary General Shareholders' Meeting held on June 27, 2018.

Note 2: From July 2019, compensation includes non-performance-based restricted stock units.

## Evaluating the Effectiveness of the Board of Directors

From January to March 2019, in order to further enhance the functions of the Board of Directors, an overall analysis and evaluation of the effectiveness of the Board in fiscal 2019 was carried out with the support of an external organization.

### Method of Analysis and Evaluation of Effectiveness

A survey of directors and corporate auditors was conducted. The responses to this survey were made directly to the external organization. Analysis and evaluation were carried out by the Board of Directors and outside officer liaison meeting based on the aggregate results reported by the external organization.

### Summary of Evaluation Results

- (1) The survey results gave a broadly positive assessment regarding matters including the number of Board members, the ratio of internal and outside officers, and management of the proceedings of meetings, and confirmed the overall effectiveness of the Board of Directors.
- (2) The Board of Directors is comprised of appropriate members equipped with the qualities, knowledge and experience required to fulfill their roles and functions. At the same time, ongoing efforts will be made to achieve greater diversity of members in line with the business environment surrounding the Company.
- (3) As well as continuing last fiscal year's initiatives, we aim to further enhance discussion concerning business strategy over the medium-to-long term.

## Training of Officers

As well as giving explanations to newly appointed directors and corporate auditors concerning their roles and duties, they undergo an external training program upon their appointment, in order to acquire the necessary knowledge.

In addition, newly appointed outside directors and outside corporate auditors are given explanations concerning the Company's operations, finances and organization, etc. They are also encouraged to continue participating in external training programs after assuming office, lectures are given by external speakers, and each individual strives to continually improve their management literacy.

# Message from an Outside Director



**Takafumi Isogai**  
Outside Director

## Initial thoughts upon my appointment of outside director

When I was appointed outside director about one year ago, a major theme in the corporate world in Japan at the time was the view that a company would not survive if it were solely focused on making profits. TOYOBO's *Jun-Ri-Soku-Yu* (realizing prosperity by acting rationally) corporate philosophy centered the Company squarely on the idea that its fundamental purpose was for the mutual benefit of itself and others. I thought this was a company that was a leading proponent of that philosophy.

In our modern era, we now have the wealth and technology to help people around the world, yet civilization has lost its balance and is facing serious issues, not the least of which is poverty. I saw TOYOBO as a marvelous company for conducting its business with a mission to help all of society, and I wanted to help TOYOBO succeed.

## The Status of Quality Control and Quality Assurance

Over its long history, TOYOBO has evolved and developed a wide variety of operations. I believe that, over time, the Company's organization has become compartmentalized. My area of expertise is quality control, and I am very conscious of issues that arise from the flow of information related to quality control and assurance.

TOYOBO's manufacturing divisions try to deal with their quality control and assurance issues solely within their own division. While this enables quick response, the countermeasures they apply are not fully communicated throughout the company, so there are times when the company's overall response is inadequate. I submitted to the Board of Directors that the Company could truly benefit from creating an organizational structure that facilitated information flow from the manufacturing divisions to the quality assurance departments of every other division. I believe the manufacturing

quality control and assurance departments now have seamless connections to the Company's central Environment & Safety, Quality Assurance Operating Department.

## Harnessing Artificial Intelligence

A database is essential for quality control, but it is just as important in other areas. A growing database can be used for AI-generated predictions that can make operations more efficient. Of course, AI will almost certainly raise some issues.

TOYOBO can use AI rooted in a database of information on rival companies and customers to predict the best way to market its numerous products. AI can improve research and development efficiency by replacing the conventional hypothesize and test method with virtual models where you input parameters and AI predicts the outcome.

The company should mobilize to move ahead of its competitors by exploring a wide variety of ideas and using the predictive capabilities of AI to find the most efficient way to execute its business.

## Formulate a Long-term Vision

TOYOBO has revamped its business portfolio and made clear progress establishing its specialty businesses. From this point, management will seek to further strengthen the business portfolio. In doing so, clear and thorough medium- and long-term objectives will be key, and a long-term vision especially critical. Management has assembled a two-dimensional portfolio, but I have recommended it consider adding another axis to form a three-dimensional long-term plan. I recommend this because the ability to easily replace a portfolio's axis will make it easier to orient the portfolio toward fulfilling a future vision and the way the axes are increased and weaved together will project a long-term vision.

In our times, management decisions are measured in global terms. With eyes currently cast on the accumulating plastic pollution in our oceans, TOYOBO management must be prepared to show it should offer environmentally friendly products and will construct production systems that do not burden future generations. I believe this also warrants deep consideration as management forms its long-term vision for the Company.

# Compliance/Risk Management

## Basic approach to compliance

Our Group's corporate philosophy, *Jun-Ri-Soku-Yu* (realizing prosperity by acting rationally), forms the basis of our compliance activities, in particular the idea of "thinking rationally and logically, as well as respecting ethics and morals, the fundamental nature of being human."

## Compliance promotion structure

A Compliance Committee has been established, comprising members of the Board of Corporate Executive Officers and Controlling Supervisors. This promotes Group-wide compliance from a management perspective. A Compliance Promotion Committee has also been established as a sub-body to this committee, which considers and promotes specific initiatives.

In fiscal 2019, the Compliance Committee convened twice, and the Compliance Promotion Committee convened four times. Under the motto "instilling an awareness of compliance and sharing compliance values", the committees clarified policy and standards, and worked to enhance the effectiveness of education, training and preventive measures.

## Initiatives to enhance awareness of compliance

In fiscal 2019, we significantly revised the TOYOBO Group's Charter of Corporate Behavior and the TOYOBO Group Employees' Code of Conduct, in order to realize a sustainable society and raise awareness of compliance. As well as incorporating these in the TOYOBO Group Compliance Manual and distributing it to Group employees, staff read through the texts together in each workplace to ensure thorough familiarization with the rules.

Members of the Compliance Department held compliance briefings on 38 occasions for TOYOBO and Group company management personnel, covering quality breaches and information security. In addition, case studies detailing cases of legal violation were issued monthly, as well as heads-up reports (occasional publication), to enhance awareness.

In the November Compliance Enforcement Month, a compliance survey was carried out to identify issues related to the status of compliance and promotion activities, and initiatives were undertaken to make improvements.



TOYOBO Group Compliance Manual

## Main compliance activities in fiscal 2019

### Clarification of policy and standards

Revision of TOYOBO Group's Charter of Corporate Behavior and the TOYOBO Group Employees' Code of Conduct  
Improvement of the internal rules system

### Enhancing the effectiveness of education, training and preventive measures

Holding of compliance briefings, training by job level, etc.  
Compliance Enforcement Month initiatives  
Issuing of compliance mini-study, heads-up reports  
Training in individual topics such as the Subcontract Act, bribery/gifts/hospitality, and improvement

### Responding to incidents

Strengthening ability to respond to incidents

## Compliance consultation centers

TOYOBO has established an internal reporting service for all Group employees and compliance consultation centers both inside and outside the Company. This enables legal violations and other wrongdoing in the workplace to be addressed as Company issues, taking swift, appropriate action and preventing any recurrences.

## Number of consultation cases

| FY2015 | FY2016 | FY2017 | FY2018 | FY2019 |
|--------|--------|--------|--------|--------|
| 20     | 12     | 20     | 15     | 32     |

## Compliance education

As well as training by job level, such as for new employees and staff who have been promoted, seminars are held on specific key topics such as information security and bribery/gifts/hospitality.



Seminar on bribery/gifts/hospitality

## Basic approach to risk management

We envisage the various types of risk that could pose a threat across the entire range of our business activities, and manage risk appropriately according to the characteristics of each risk.

In an emergency situation, 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 aforementioned initiatives, we work hard to earn the trust of our customers, the local community, and our shareholders and other stakeholders.

## Business risk

With regard to specific risks in our business activities, we have established the CSR Committee as the body for overseeing Group-wide risk, headed by the President as chair of the Committee. Under the auspices of this Committee, there are eight further committees including global environment and safety committee, which manage the various types of business risk at the Group level. We have also established the Corporate Planning Committee and Financial Control Committee under the Board of Corporate Executive Officers and Controlling Supervisors. Specialist committee members selected from each department deliberate on proposals for new projects or important investment and lending projects, and control business risk from a multi-faceted perspective.

## Business continuity planning (BCP)

TOYOBO Group has drawn up a BCP focused on combining both “fulfillment of our responsibility to supply products as a manufacturer” and “coexistence with the global environment and society,” and we make continual improvements.

The BCP clarifies the chronological sequence of the roles and functions of each department when a crisis occurs, through to its resolution. It also contains specific details of preparations during normal times.

## Cyber security

TOYOBO Group is working to strengthen cyber security as one element of our digital strategy. In April 2018, we set up a Cyber Security Committee as a sub-body of the Information Committee. The President of TOYOBO System Create Co., Ltd., a Group company that develops, operates and maintains

information systems, serves as the committee chair, and TOYOBO’s Corporate Planning Department serves as the secretariat. Cyber security measures are implemented by four teams: Maintenance/Operation/Surveillance Team, Education/Training Team, Policy/Rules Team, and Incident Response Team.

In fiscal 2019, the committee drew up the TOYOBO Group Information Security Policy, strengthened the security of networks and information equipment, and drew up the training curriculum.

TOYOBO Group has established a Cyber Security Committee as a sub-body of the Information Committee to promote information security measures. This committee monitors conditions pertaining to the Group’s information security, formulates basic policy, maintains the management structure, implements and supervises measures.

### TOYOBO Group Information Security Management Structure

| Person in Charge / Title of Organization         | Role  |
|--|---|
| Chief Information Security Officer (CISO)        | <ul style="list-style-type: none"> <li>• The person with ultimate responsibility for information security management and for maintaining the structure</li> <li>• Formulating basic policy and plans, establishing and maintaining the management structure</li> <li>• Providing the necessary management resources</li> <li>• Making activity reports to management</li> </ul> |
| Information Security Officer                     | <ul style="list-style-type: none"> <li>• Maintaining information security management within their area of responsibility</li> <li>• Familiarization of personnel with basic policy, education/training, enforcement</li> <li>• Appointing responsible personnel and giving instructions on implementing measures</li> </ul>   |
| Legal Compliance & Internal Rules Officer        | <ul style="list-style-type: none"> <li>• Developing and maintaining the system of rules based on information security policy</li> </ul>   |
| Personal Information Management Officer          | <ul style="list-style-type: none"> <li>• Developing and maintaining policy and rules, etc. concerning personal information protection</li> </ul>  |
| Education & Training Officer                     | <ul style="list-style-type: none"> <li>• Education and training for persons who use TOYOBO Group’s information assets</li> </ul>  |
| Information Systems Operation Officer            | <ul style="list-style-type: none"> <li>• Implementing all technical matters pertaining to information systems operation</li> </ul>  |
| Incident External Response Officer               | <ul style="list-style-type: none"> <li>• Public relations contact point (internal and external) in the event of a major incident, incident response training</li> </ul>   |
| Cyber Security Committee                         | <ul style="list-style-type: none"> <li>• Coordinating with the relevant departments to provide support for rules, education/training, security measures, and incident response</li> <li>• Making activity reports to the Information Committee</li> </ul>   |
| Computer Security Incident Response Team (CSIRT) | <ul style="list-style-type: none"> <li>• Receipt of information security incident reports and initial response</li> <li>• Convening of related parties, recovery response and reporting of results</li> </ul>   |