CSR Guidelines & Activity Reports

Product Safety and Quality

Social Initiatives

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



Basic Approach

To live up to its "customer first" and "quality first" commitments, Toray Group has established policies on product safety and quality assurance, respectively, and an organizational framework to pursue both in an integrated manner. Specifically, the Quality Assurance Committee deliberates on basic policies and other matters, while the Quality Assurance Planning & Administration Department and the Product Safety Planning & Administration Department of the Quality Assurance Division plan and propose measures.

The medium-term management program, Project AP-G 2019, directs Toray Group to pursue innovation and proactive management to achieve growth, and this hinges on securing product safety and quality. The Group continued to address individual areas for improvement and execute product safety measures in fiscal 2018.

Related Policies

Quality Policy Revised June 2007

We give top priority to the product quality offered to our customers as well as to safety and to the environment in our corporate activities. We work on quality assurance with the stance of "Customer First."

1. We make our best efforts to meet our customers' expectations with products and services of high satisfaction.
2. We commit ourselves to abide by the "Quality First" principle, and to improve the quality and reliability of our products, in all our divisions, including sales, manufacturing and research and development.

3. We meet quality requirements at the stage of design and development, and ensure and enhance these in the manufacturing process.
4. We continuously strive to organize, maintain and improve our quality management system.

Product Safety Management Basic Policy Established January 1992

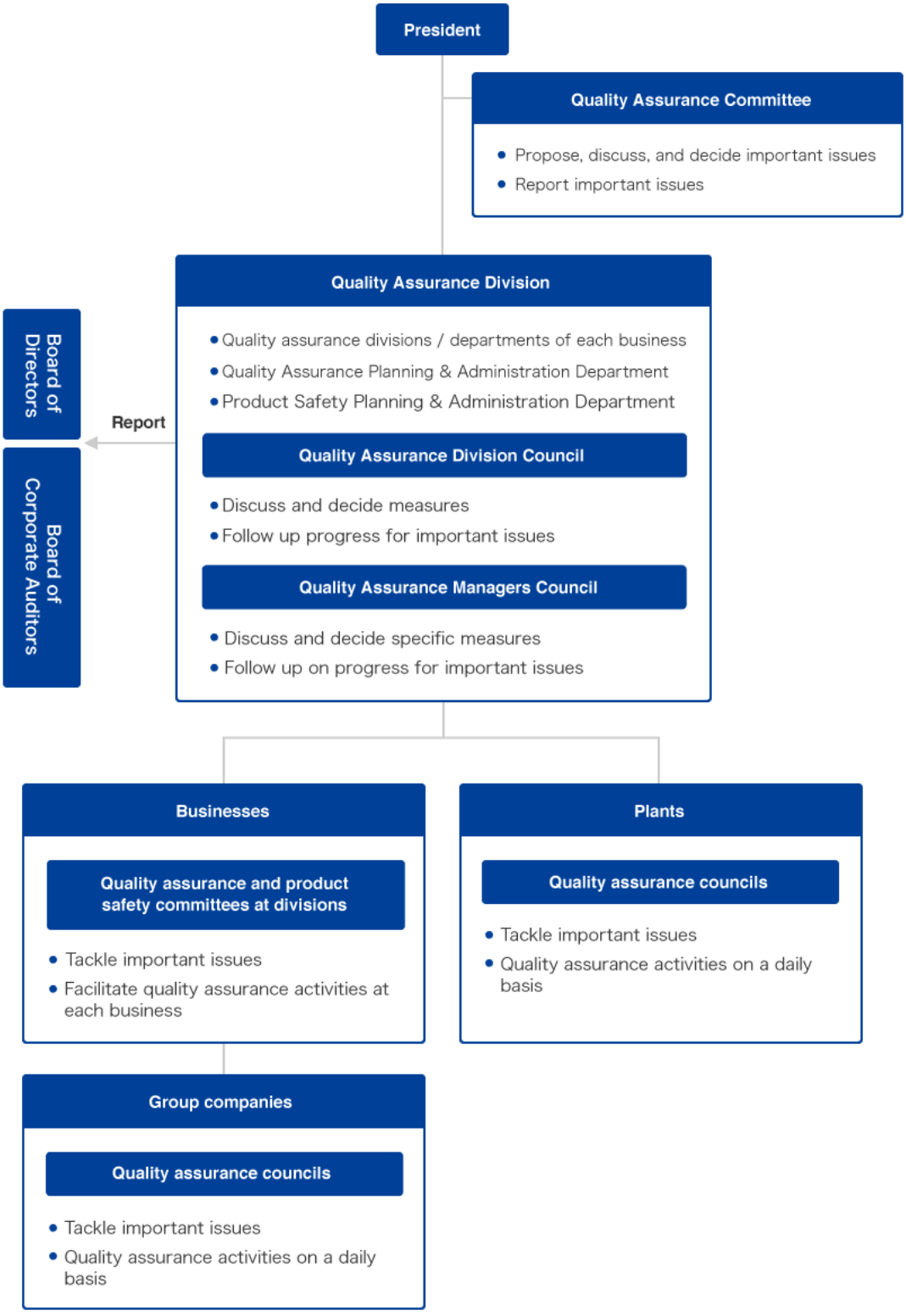
1. We shall place priority on the various measures required to ensure product safety.
2. We shall conduct adequate safety evaluations prior to marketing a new product.
3. For products already on the market, we shall take note of feedback from customers and the general public and always remain attentive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

Structure

Framework for Quality Assurance

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

Framework for Quality Assurance



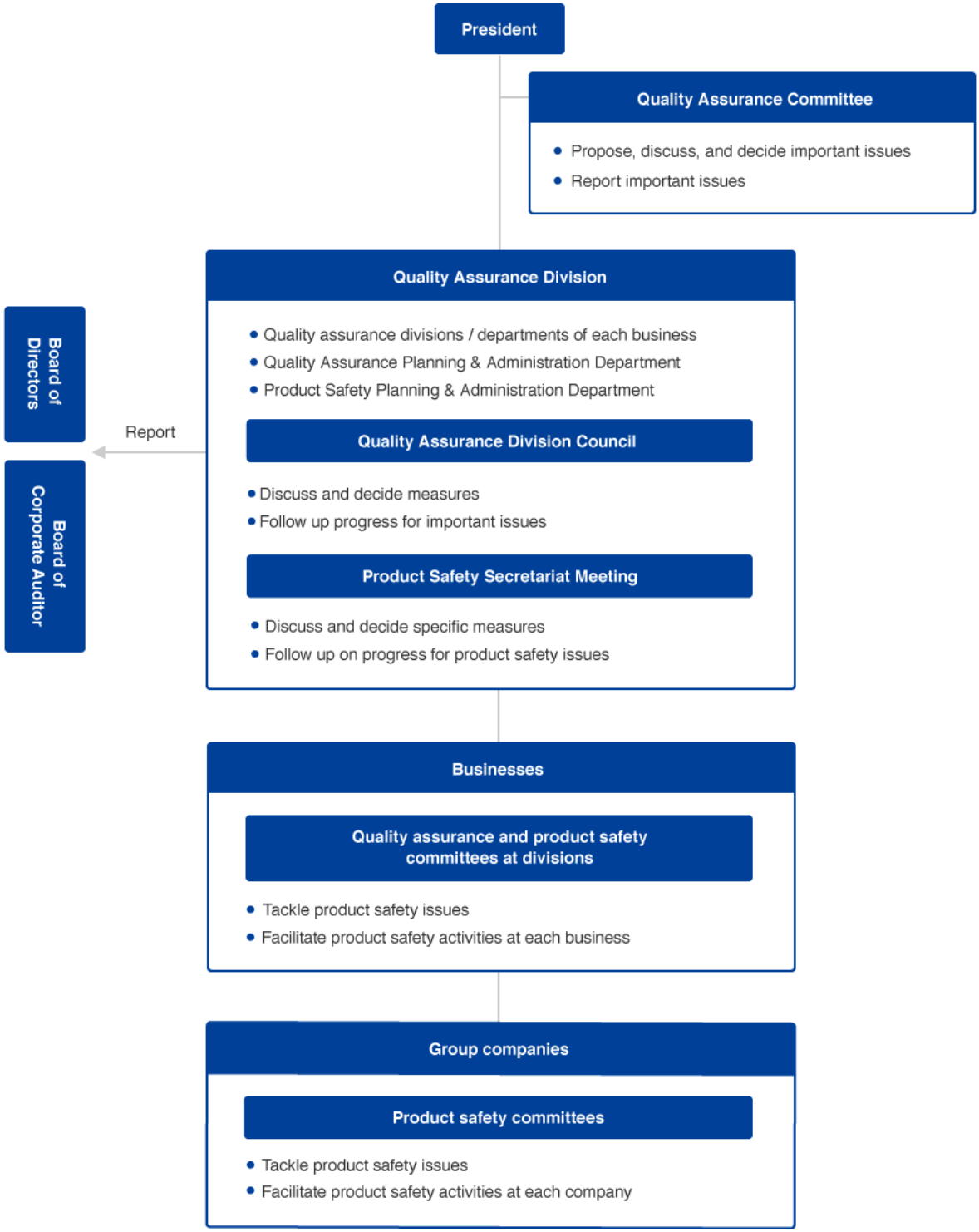
Framework for Product Safety

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

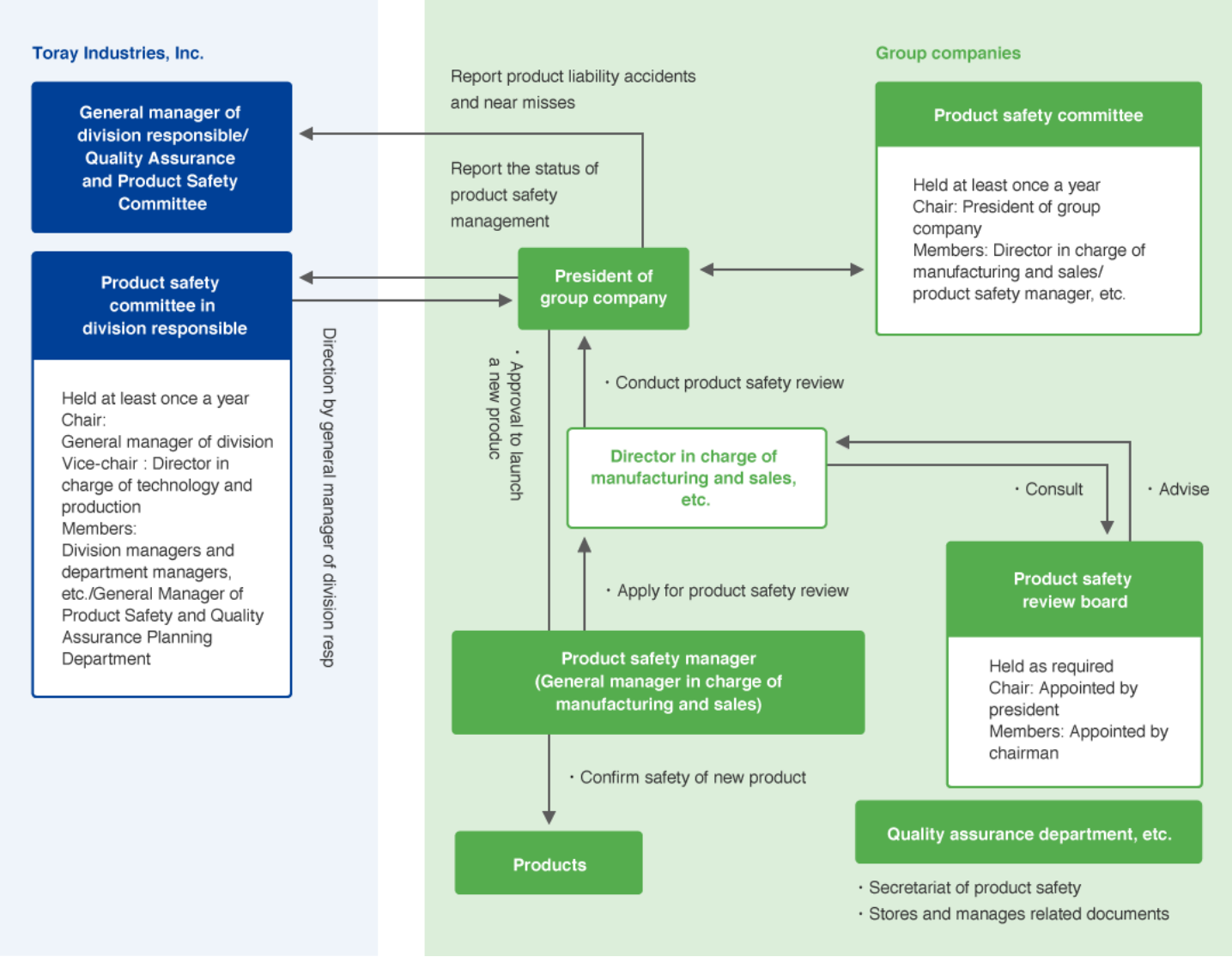
the level of management.

Toray Group has been centrally tracking statistics on product accidents and the execution of product safety reviews since fiscal 2011.

Framework for Product Safety



Framework for Product Safety at Group Companies



Self-Inspections to Ensure Quality Assurance and Product Safety

Since fiscal 2016, Toray Group companies have been implementing self-inspections for quality assurance and product safety using the C-MOS internal control monitoring online system. Any issues that are identified through the self-inspections are corrected to ensure that improvements are made. The self-inspections are conducted on a three-year cycle to ensure that the basic frameworks for quality assurance and product safety are in place: Toray was inspected in fiscal 2016, followed by group companies in Japan in fiscal 2017, and group companies outside Japan in fiscal 2018.

CSR Road Map Targets and Results

01

Achieve zero product accidents

[Related material issue for CSR]

- Ensuring product safety and quality

■KPI
Number of product accidents

■Reporting scope
Toray Group

■Target in fiscal 2018
0

Result in fiscal 2018

1

02

Enhance the group-wide framework for product safety and quality assurance

■KPI
Group companies implementing product safety and quality assurance education (%)

■Reporting scope
Toray Group

■Target in fiscal 2018
100%

Result in fiscal 2018

100%

Looking to the Future

In fiscal 2019 and beyond, Toray Group will address individual issues related to improving quality assurance and product safety, while continuing to enhance its group-wide management systems for both product safety and quality assurance.

Initiatives for Product Safety and Quality Assurance

Reinforcing Compliance in Product Quality Assurance

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

1. Reinforcement of structures related to quality assurance systems of the entire Toray Group
   The Group provides guidance to business divisions and group companies regarding their quality assurance frameworks, and audits the effectiveness of these frameworks and the work done under them. The organizations clarify their vision for quality assurance and design initiatives to close the gap between the vision and actual performance.
2. Development of human resources and creation of workplace culture not allowing any misconduct
   The Group implements education on compliance as part of its quality assurance compliance. It has already been completed at Toray Industries, Inc., and it is underway at group companies in and outside Japan in fiscal 2019.
3. Understanding of actual state of agreements with customers and establishment of guidelines related to quality (assurance)
   The Group is preparing guidelines for quality assurance agreements and will use them to assess agreements and review their provisions as necessary.
4. Appropriate maintenance or control and modernization or fulfillment of measuring devices
   Toray Industries prepared risk assessment sheets for judging the necessity of upgrading or conducting maintenance on measuring devices, and used them to identify devices in need of an upgrade. In fiscal 2019, risk assessments will be implemented at group companies in and outside Japan.
5. Improvement of quality data management system to not allow any misconduct
   The Group is developing data management systems that minimize human involvement, such as by automating measurement, transfer of measurement data, and issuance of inspection reports.

Education and Training for Product Safety and for Quality Assurance

Group companies implementing product safety and quality assurance education

■Reporting scope
Toray Group

■Target in fiscal 2018
100%

Result in fiscal 2018

100%

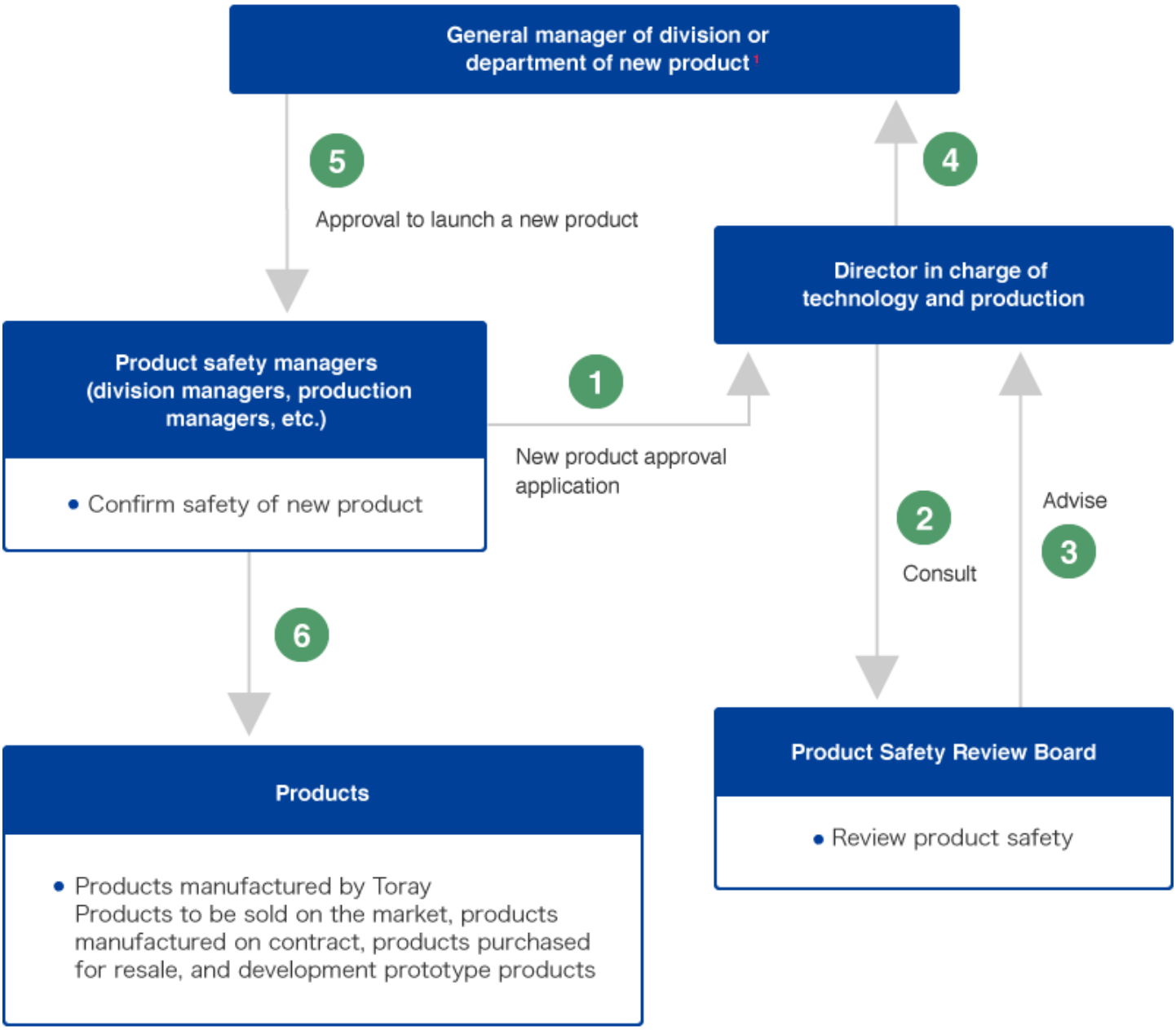
Toray Industries provides training every year for newly appointed department and section managers at the Company and its group companies in Japan. The training is designed to educate managers about quality assurance compliance and Toray Group's quality assurance and product safety initiatives. Since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

Enhancing Product Safety Reviews

Toray Industries and its group companies implement product safety reviews for all products. In addition to addressing product safety, the reviews examine the adequacy of information provided to customers via, for instance, safety data sheets (SDS), labeling, and instructions. Products are also assessed for impact on the global environment.
Special precautions are taken for new products that are highly original, as well as for products for which the safety considerations have changed significantly from previous products. For these products, a Product Safety Review Board comprised of neutral assessors with specialized knowledge is assembled to review the safety of the product.
The Group also ensures that newly established group companies rapidly establish a framework for product safety and implement product safety reviews.

Implementing product safety reviews for all products

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



1 At group companies in and outside Japan, this position is held by the president or a director

Preventing Product Accidents

Number of product accidents

■Reporting scope
Toray Group

■Target in fiscal 2018
0

Result in fiscal 2018

1

Golf shirts made from nylon spun knit fabric were found to bleed color onto pants and undergarments. However, there were no negative health impacts from the color bleeding.

Providing Product Safety Information

Toray Group provides customers with product safety information specifically tailored to the product or service.

1. Customer support lines
   In its efforts to create a convenient environment for customers, Toray Industries makes available toll-free numbers for customers to call and inquire about its mainstay consumer products such as home water purifiers and contact lenses.
2. Safety data sheets (SDS)
   Toray Group designates the duties, management framework, and procedures for SDS on products that are manufactured or sold by the Group, and provides customers with adequate information on the safe handling of Group products. SDS are disclosed online so that they are readily accessible to customers.
3. Product labeling and instructions
   Toray Group creates labels and instruction manuals (including catalogs) and provides them to customers only after clarifying the duties and management framework for product labels and instruction manuals, the procedures from creation to distribution, and other key processes.

Respecting the Eight Basic Consumer Rights

In providing products and services, Toray Group is fundamentally committed to respecting the Eight Basic Consumer Rights and strives to secure safety and quality of its products throughout the Group's business activities.

The Eight Basic Consumer Rights Excerpted from the Consumers International website

- The right to satisfaction of basic needs
- The right to safety
- The right to be informed
- The right to choose
- The right to be heard
- The right to redress
- The right to consumer education
- The right to a healthy environment

Sites with ISO 9001 Certification

Sites with ISO 9001 Certification (as of June 2019)

Toray Industries, Inc.: All 13 plants

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

Group companies in Japan: 21 companies

So-Wa Textile Co., Ltd., Toray Construction Co., Ltd., Toray Amenity and Civil Engineering Co., Ltd., Toray Engineering Co., Ltd., Toray Precision Co., Ltd., Du Pont-Toray Co., Ltd., Toray Opelontex Co., Ltd., Dow Corning Toray Co., Ltd., Toray Textiles, Inc., Toray Coatex Co., Ltd., Toray Amtecs Inc., Toray Monofilament Co., Ltd., Toray Hybrid Cord, Inc., Toray Plastics Precision Co., Ltd., Toray PEF Products Inc., Toray Fine Chemicals Co., Ltd., Soda Aromatic Co., Ltd., Toray Advanced Film Co., Ltd., Toray KP Films Inc., Toray Carbon Magic Co., Ltd., Suido Kiko Kaisha, Ltd.

Group companies outside Japan: 36 companies

USA

Toray Plastics (America), Inc., Toray Fluorofibers (America), Inc., Toray Membrane USA, Inc., Zoltek Companies,Inc., TCAC

UK

Toray Textiles Europe Ltd.

France

Toray Films Europe S.A.S., Toray Carbon Fibers Europe S.A.

Germany

Euro Advanced Carbon Fiber Composites GmbH, Greenerity GmbH

Italy

Alcantara S.p.A., Composite Materials (Italy) s.r.l., Delta-Tech S.p.A / Delta-Preg S.p.A

Czech Republic

Toray Textiles Central Europe s.r.o.

Indonesia

P.T. Century Textile Industry Tbk, P.T. Easterntex, P.T. Indonesia Toray Synthetics, P.T. Acryl Textile Mills, P.T. Indonesia Synthetic Textile Mills, P.T. Toray Polytech Jakarta

Thailand

Thai Toray Synthetics Co., Ltd., Luckytex (Thailand) Public Company Limited

Malaysia

Penfibre Sdn. Berhad, Penfabric Sdn. Berhad, Toray Plastics (Malaysia) Sdn. Berhad

China

Toray Sakai Weaving & Dyeing (Nantong) Co., Ltd., Toray Fibers (Nantong) Co., Ltd., Toray Polytech (Nantong) Co., Ltd., Toray BlueStar Membrane Co., Ltd., Toray Plastics (Suzhou) Co.,Ltd., Toray Plastics (Chengdu) Co., Ltd., Toray Plastics Precision (Zhongshan) Ltd., Toray Film Products (Zhongshan) Ltd.

Republic of Korea

Toray Advanced Materials Korea Inc., STEMCO, Ltd., Toray Battery Separator Film Korea Limited

Taiwan

Toray Advanced Film Kaohsiung Co., Ltd.

CSR Guidelines & Activity Reports

Facilitating CSR Initiatives Throughout the Supply Chain

Social Initiatives

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



Basic Approach

Toray Group operates a wide range of businesses in countries and regions around the world. As a result, its procurement of raw materials and supplies and the locations and industries of its contractors and suppliers are diverse.

At the same time, CSR initiatives in today's global society are increasingly important. They have become more diverse and advanced in the effort to address climate change, environmental protection, respect for human rights and improvements to the labor environment. These initiatives can no longer focus solely on a single company, and are being extended to encompass its entire supply chain.

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

Related Policies

CSR Procurement Guidelines Revised December 2004

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

Policies on Purchasing and Distribution

As a manufacturer of advanced materials that supplies a wide range of materials and products, Toray Group must engage in upstream management that reflects the needs of end users, including production facilities and the procurement of raw materials and products. Accordingly, the Group has established its Basic Purchasing Policies to emphasize this approach and ensure fair purchasing practices.
The Group also operates under Basic Distribution Policies that require fair and equitable transactions and take environmental considerations into account. The Group is committed to continually improving the quality of distribution and reducing its environmental impact.

Related Policies

Basic Purchasing Policies Revised December 2004

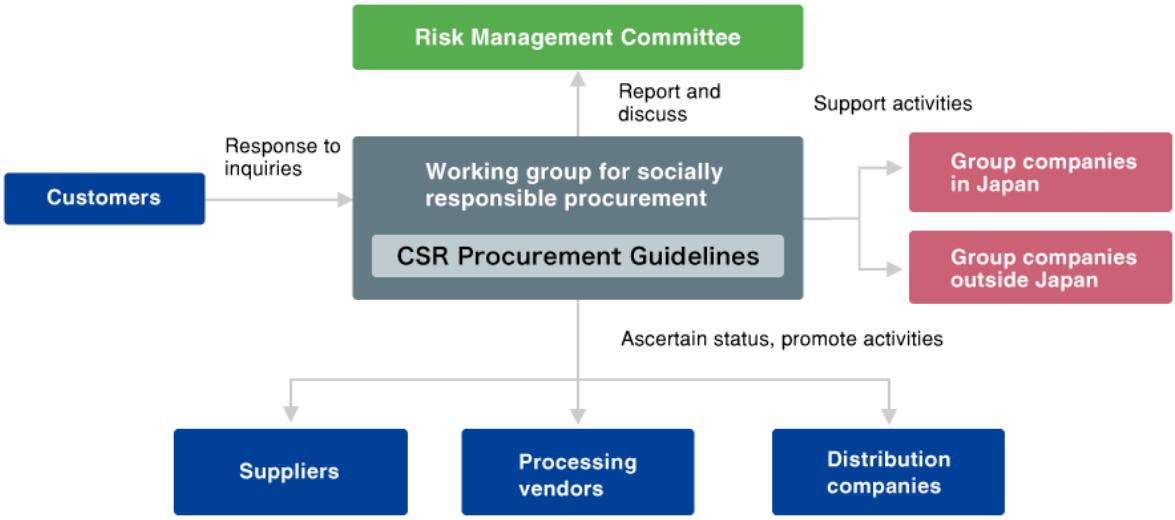
1. Toray does its utmost to select suppliers and determine actual purchases fairly and on the basis of economic rationality, with consideration for price, quality, capability to provide stable supplies, technological capabilities, reliability, and other factors.
2. In selecting suppliers, Toray opens its doors to a wide range of companies inside and outside Japan. Toray does not rely solely on vendors it has existing or past relationships with, or on members of its corporate group.
3. In making purchases, Toray complies with relevant laws and regulations while taking environmental preservation and fulfilling corporate social responsibility (CSR) issues into account. Toray actively pursues green procurement and purchasing as part of its environmental efforts.
4. Toray works to maintain and improve the quality of purchased products through cooperation with its suppliers.
5. Toray works to uphold its corporate social responsibilities on a company-wide basis.

Basic Distribution Policies Revised December 2004

1. We shall select our transport and warehousing providers and determine individual agreements impartially and based on factors such as economic rationality with consideration given to price, quality, supply stability, technological capabilities, reliability, and efforts to reduce environmental impact.
2. We shall be open in selecting our transport and warehousing providers, rather than relying exclusively on companies with which we have done business in the past or companies affiliated with Toray Group.
3. We shall comply with relevant laws and regulations, consider environmental preservation, and fulfil our corporate social responsibilities in outsourcing our transport and warehousing operations.
4. We shall cooperate with our transport and warehousing providers in gauging and reducing the environmental impact of our transport and warehousing operations.

Structure

To ensure socially responsible procurement across the Group and address today's increasingly globalized procurement risks, Toray Industries, Inc. has established a working group to lead a group-wide risk management initiative. The working group strives to ascertain the status of CSR practices at suppliers, responds to customer inquiries about Toray Industries' CSR practices, and supports group companies in this area. The working group also regularly reports on the progress of socially responsible procurement and related risk mitigation initiatives across the Group to the Risk Management Committee, which oversees overall risks. The issues reported are discussed by the committee members.



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

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

CSR Road Map Targets and Results

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

[Related material issue for CSR]

- Managing social and environmental impact of suppliers

01

■KPI
Number of group companies that have requested their suppliers to practice CSR

■Reporting scope
Toray Group

■Target in fiscal 2019
40 or more

Result through end of fiscal 2018

150

02

■KPI
Number of business partners that Toray Group companies have requested to practice CSR (cumulative)

■Reporting scope
Toray Group

Result (Cumulative fiscal 2013-2018)

5,294

03

■KPI
Reduction in CO_2 emissions per unit of sales from distribution activities (year-on-year)

■Reporting scope
Toray Group (Only specified consigners in Japan)

■Target in fiscal 2018
1.0%

Result in fiscal 2018

1.5%

04

■KPI
Modal shift to sea or rail for transport across distances for 500 km or more (%)

■Reporting scope
Toray Industries, Inc.

■Target in fiscal 2019
40%

Result in fiscal 2018

29%

Looking to the Future

Toray Group believes that socially responsible procurement must be pursued together with suppliers. It will continue to identify and evaluate progress on CSR practices in all processes, including the procurement of raw materials and supplies across the entire Group worldwide, as well as production activities by contractors and processing vendors. Toray Group will promote greater awareness of human rights, social, environmental, and other CSR issues while mitigating risks across the supply chain.

Socially Responsible Procurement Initiatives at Toray Group

Materiality Focus

Social Initiatives

Toray Group's Socially Responsible Procurement

Number of group companies that have requested their suppliers to practice CSR

■Reporting scope
Toray Group

■Target in fiscal 2019
40 or more

Result through end of fiscal 2018

150

(Head Office:1, Japan:55, Outside Japan:94)
(Result in fiscal 2018: Japan: 17, Outside Japan: 6)

Number of business partners that Toray Group companies have requested to practice CSR (cumulative)

■Reporting scope
Toray Group

Result (Cumulative fiscal 2013-2018)

5,294

(Result in fiscal 2018: 2,124)

Toray Group is facilitating CSR initiatives across its supply chains, including at group companies around the world. These efforts include developing a socially responsible procurement system, responding to customers' requests for CSR practices, ascertaining the CSR practices of suppliers and educating them, and requesting that they take action on CSR.
In addition, Toray Industries, Inc. has built a plan-do-check-action (PDCA) cycle using its own survey system. By regularly monitoring the status of CSR compliance at suppliers, assessing the overall Group using consistent standards, giving

feedback on the results to suppliers, and following up on poor-performing suppliers, the Company endeavors to raise suppliers' awareness and efficiently and effectively lower CSR risks across the supply chain.
In fiscal 2018, Toray Industries carried out CSR surveys of suppliers at 475 major business partners. Also, given that risks related to socially responsible procurement have heightened outside Japan, as have human rights issues along the supply chain, the Company checked the status of social responsible procurement at group companies outside Japan. In this check, the Company confirmed 1,384 out of 2,569 suppliers from which group companies outside Japan procure and purchase products have been requested to practice CSR (via a survey on CSR, audit, signing of commitment, etc.) by Toray Group companies. The Company also checked this status at group companies in Japan for their 291 business partners.

PDCA Cycle for Supply Chain Management



Main Items of CSR Surveys of Suppliers

Ⅰ. CSR promotion system

- ☐ Establishment of and familiarity with policies and guidelines
- ☐ Establishment of internal system and selection of responsible parties
- ☐ Establishment of goals and plans, review of activity results

Ⅱ. Corporate ethics and compliance

- ☐ Prevention of bribery, corruption, etc.
- ☐ Prevention of misuse of advantageous position and bid-rigging
- ☐ Compliance with changes in laws and regulations and educating employees about changes
- ☐ Protection of confidential information and personal information
- ☐ Protection of and respect for intellectual property
- ☐ Avoidance of all involvement with organized criminal groups
- ☐ Prevention of use of technology barred under regulations and illegal exports
- ☐ Identification of use of conflict minerals and cobalt and country of origin

Ⅲ. Occupational safety and health

- ☐ Safety measures in workplace and improvements to working environment
- ☐ Prevention of occupational accidents
- ☐ Prevention of accidents and health risks
- ☐ Adoption of management system related to occupational safety

Ⅳ. Disaster prevention and risk management

- ☐ Development of education, training and manuals for disasters
- ☐ Establishment of business continuity plan (BCP) for large-scale disasters
- ☐ Establishment of BCP for pandemic
- ☐ Defense against threats on computer network

Ⅴ. Environmental conservation

- ☐ Obtaining and maintaining authorizations and registrations
- ☐ Prevention of pollutants and waste, promotion of resource use (3Rs: reduce, reuse, recycle)
- ☐ Appropriate management of chemical substances and pollutants in line with laws and regulations
- ☐ Reduction of the emission of greenhouse gases
- ☐ Green procurement, green purchasing, energy conservation activities
- ☐ Consideration for water resources and biodiversity and implementation of assessments
- ☐ Introduction of environmental conservation management system

Ⅵ. Interaction with stakeholders

- ☐ Disclosure of financial information and non-financial information
- ☐ Setting up hotlines for consultation and reporting, protection of whistleblowers
- ☐ Support for community activities and activities contributing to society, and encouragement of participation in such activities

Ⅶ. Product safety and quality assurance activities

- ☐ Assessment of product safety, management of substances contained in products
- ☐ Provision of information on specifications, quality and handling

Ⅷ. Human rights and labor

- ☐ Ban on illegal and inhuman labor practices, such as forced labor and child labor
- ☐ Provision of appropriate information to foreign workers and employment
- ☐ Prevention of undue low wages and wage reductions, as well as labor that exceeds statutory limits
- ☐ Ban on harassment, physical punishment, abuse, etc.
- ☐ Protection for freedom of association and collective bargaining, etc.

Ⅸ. CSR initiatives in supplier's own supply chain

- ☐ Requests for promotion of CSR along supply chain

Socially Responsible Procurement Initiatives at Toray Industries

In principle, Toray Industries carries out a biannual CSR survey of major suppliers, business partners and distribution companies which together are responsible for 90% of the Company's total procurement value. In addition to questions based on Toray Group's CSR Procurement Guidelines, the surveys exhaustively confirm the extent to which suppliers are addressing CSR, including their actions on human rights and environmental conservation—areas that have received greater social attention in recent years.

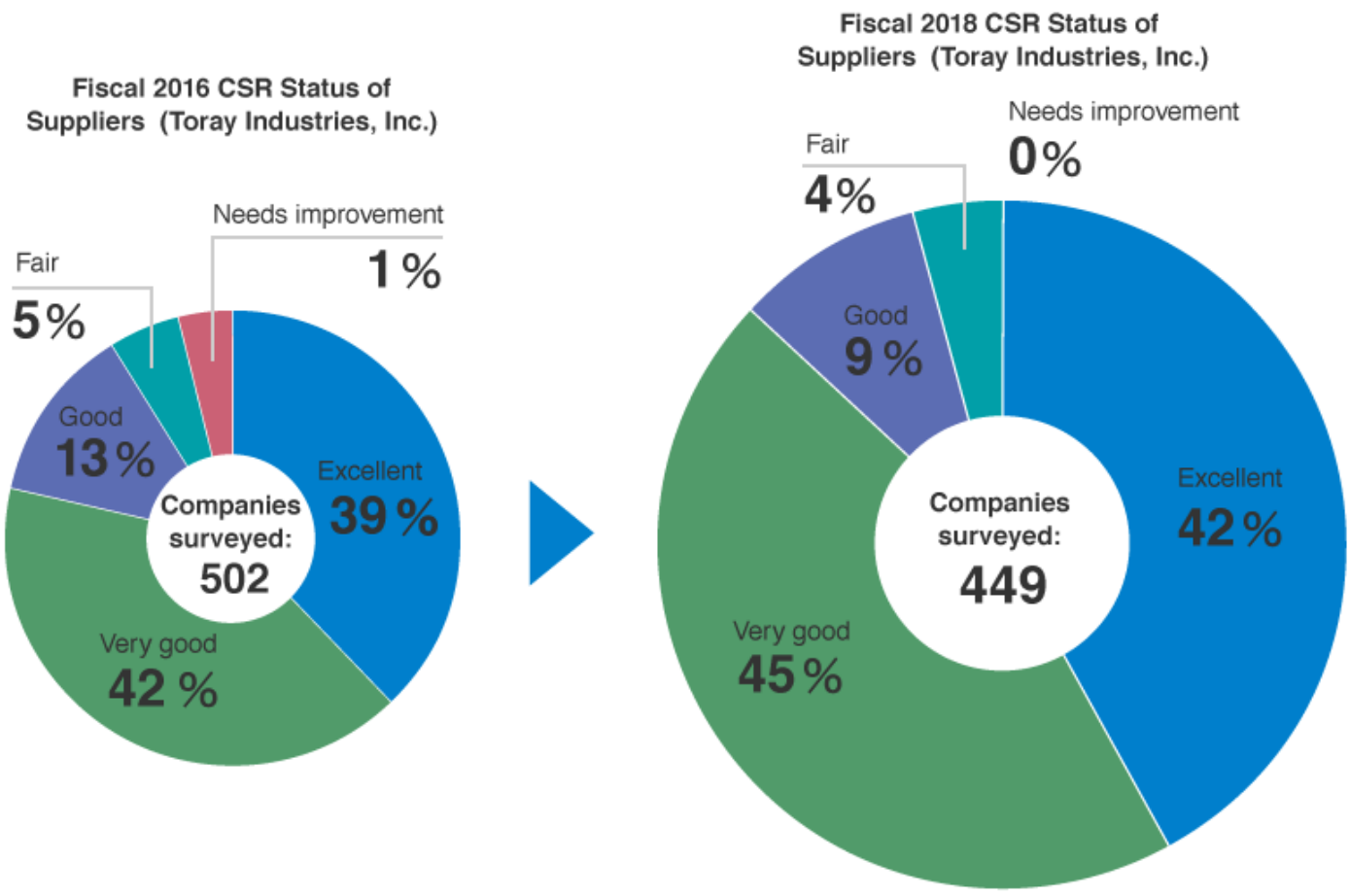
In fiscal 2018, Toray Industries carried out CSR surveys of suppliers at 475 companies and received responses from 449. The results indicated that about 96% of companies surveyed were rated "excellent," "very good" or "good" for CSR practices, thus meeting the Company's standards for business partners. Four percent of the companies surveyed rated only "fair" or "needs improvement," requiring further investigation of their CSR practices. Compared to the previous survey year (fiscal 2016), the percentage of companies rated "excellent," "very good" or "good" increased by two percentage points, demonstrating that suppliers are increasingly addressing CSR. The level of progress was high in the three items of "ethics and compliance," "human rights," and "quality," which are currently risks that must be addressed in the supply chain. This indicated that risk has been mitigated overall. In addition, 79% of the suppliers that had received "fair" or "needs improvement" assessments in the previous survey and had been visited, interviewed and asked to make improvements were rated "good" or better this year, confirming that they are addressing problem areas.

All companies were given feedback on these survey results, together with the analysis. In fiscal 2019, the Company will verify the conditions at suppliers who were rated "fair" or "needs improvement" in the fiscal 2018 survey and discuss the steps they need to take to improve. The Company will continue to facilitate awareness of CSR throughout the supply chain and to promote CSR activities.

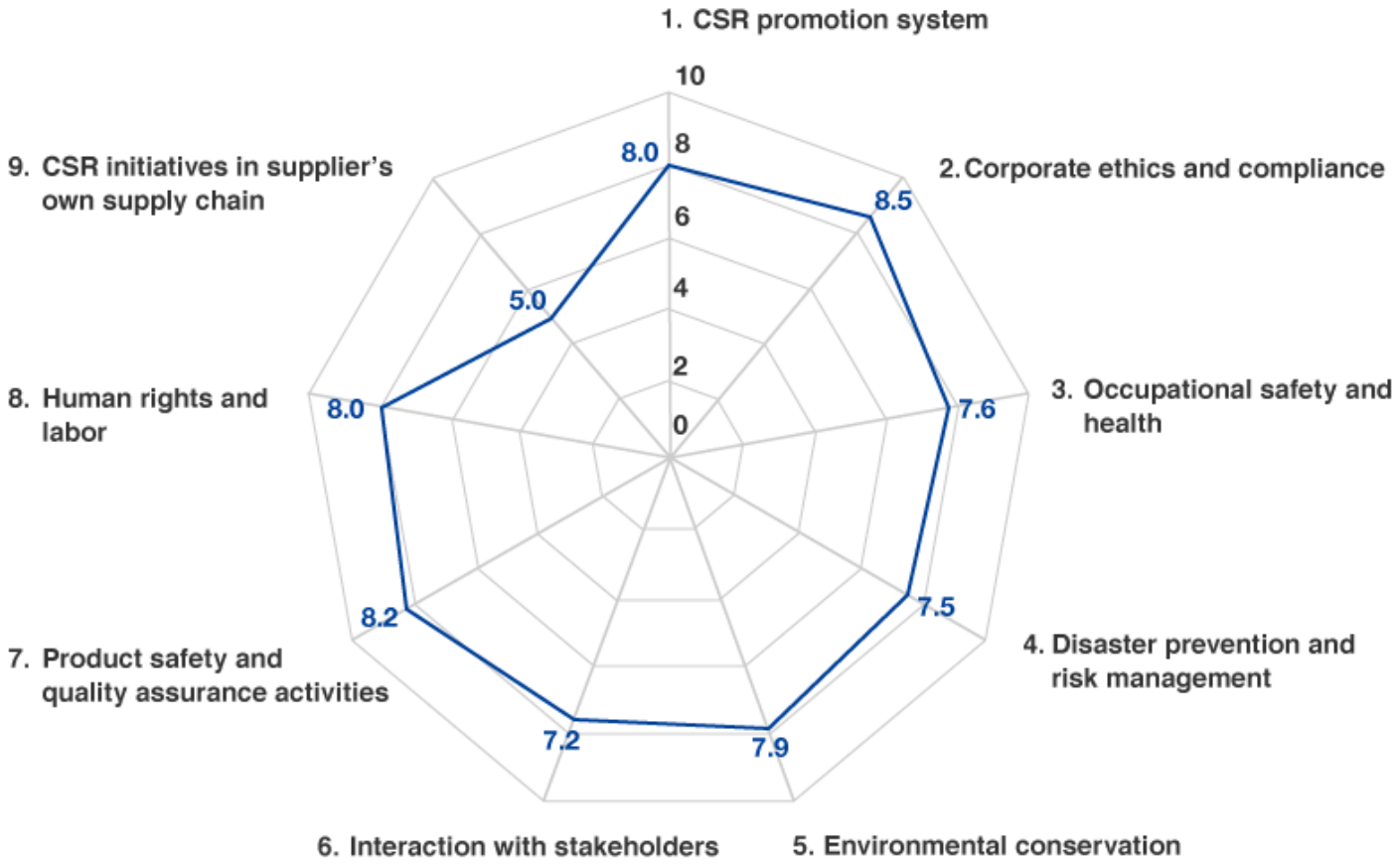
In parallel with those efforts, Toray Industries has been adding a CSR clause into basic supplier agreements. The clause stipulates that both the Company and the supplier will pursue CSR initiatives in areas such as legal compliance, environmental conservation, respect for human rights and product safety.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

Percentage of suppliers with the level of efforts required by the Company (Rated as S, A or B)	**96%**

Fiscal 2018 CSR Status of Suppliers (Toray Industries, Inc.)



Fiscal 2018 Analysis of CSR Survey of Suppliers (Toray Industries, Inc.)



Socially Responsible Procurement Initiatives at Toray Group Companies

Assessing socially responsible procurement conditions across Toray Group is a key issue for the Group as it builds a global supply chain. Determining the extent to which suppliers outside Japan are addressing CSR issues is a priority issue for the Group.

In fiscal 2017, Toray Group companies carried out surveys of 88 processing suppliers outside Japan that had not previously been requested to practice CSR. The survey questions are based on the Group's CSR Procurement Guidelines, thereby confirming the status of CSR practice. Suppliers who received ratings of "fair" or "needs improvement" were visited and interviewed to assess conditions and request improvements.

In fiscal 2018, Toray Group companies carried out a similar survey of suppliers other than the processing suppliers from which group companies outside Japan purchase and procure products. Prior to this, Toray Industries checked how many of those suppliers (accounting for 90% of the total procurement value of the 77 directly managed companies outside Japan and their subsidiaries) had been requested to practice CSR by Toray Group companies. The results showed that of the 2,569 major suppliers, 886 had not been yet requested to introduce CSR measures by Toray Group companies. Following this, the Group companies carried out a CSR survey of those 886 suppliers. Currently, responses from the suppliers are being collected and compiled. Once the results are in, Toray Industries and the Group companies will confirm and analyze the response of each supplier and provide feedback on the results. Suppliers who need an on-site assessment (suppliers who received ratings of "fair" or "needs improvement") will be visited and interviewed to assess conditions and request improvements.

To date, Toray Group companies in Japan have set up internal systems and rules and carried out CSR surveys on an ongoing basis, but to reduce risks for the Group overall, Toray Industries will now identify conditions at group companies and regularly monitor companies as well as provide feedback on ratings to suppliers in order to reduce CSR risk across the supply chain.

Human Rights in the Supply Chain

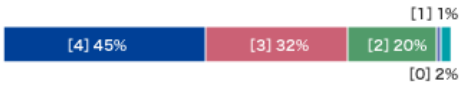
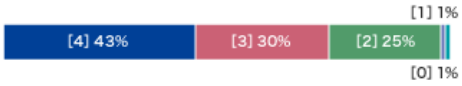
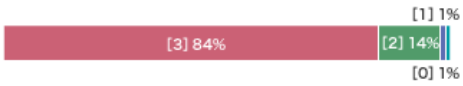
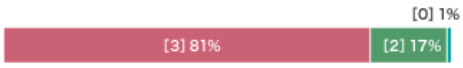
Toray Group believes that respect for human rights is a crucial element in ensuring that the supply chain is stable and sustainable. Toray Group's CSR Procurement Guidelines state that the Company is dedicated to respecting human rights, eliminating discrimination, and improving workplace environments,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

In the CSR survey of suppliers that Toray Industries carries out regularly, the Company identifies and assesses the extent to which suppliers are addressing issues related to human rights and labor practices.

The survey carried out in fiscal 2018 confirmed that the implementation rate was high for nine of the ten survey questions, other than the question asking whether the Company's suppliers request their suppliers to address human rights issues.

In addition to continuing to provide suppliers with feedback on results, the Company will encourage the promotion of respect for human rights and higher awareness across the supply chain by distributing guidebooks and visiting and interviewing companies that have not yet addressed human right issues.

Results of Fiscal 2018 CSR Survey of Suppliers

Survey Questions	Survey results (The results are ranked from 0 to 4.0 and 1 mean that the company has not addressed the issues.)	Implementation rate
1. Have policies and guidelines been set and employees educated about respect for human rights, eliminating discrimination and improving the work environment?		97.8%
2. Has an internal system been set up and people responsible for its promotion been designated in regards to respect for human rights, eliminating discrimination and improving the work environment?		98.1%
3. Have goals and plans been set, activity results reviewed and mechanisms for making improvements and corrections devised in regards to respect for human rights, eliminating discrimination and improving the work environment?		97.4%
4. Is forced labor, labor for debt repayment, slave labor, involuntary or exploitative labor, and/or child labor completely avoided?		99.3%
5. Are foreign workers given employment contracts and employment regulations in a language that they can understand? Are ID, passports, and work permits managed to ensure that there is no confiscation, concealment, destruction or misuse?		88.1%
6. Are conditions appropriately managed and operated in line with applicable laws, including welfare, to prevent wages that are below the minimum wage, inappropriate reductions and labor that exceeds the legal limit?		99.6%
7. Are conditions appropriately managed and operated to ensure that sexual harassment, power harassment, physical punishment, emotion or physical abuse, pressure and other inhuman treatment and actions do not occur?		99.6%
8. Are conditions appropriately managed and operated to ensure that the rights to freedom of association, assembly and collective bargaining are not illegally or inappropriately impeded or denied and that no retaliation is taken?		98.2%
9. Are conditions appropriately managed and operated to ensure that in recruiting, hiring and employing people, race, the color of one' s skin, age, gender, sexual orientation, nationality, religion and other factors do not result in discriminatory action?		98.5%
10. Do you ask your suppliers to make improvements in regard to respect for human rights, the eradication of discrimination and improvement of the labor environment?		63.3%

Supplemental information:

[4] Addressed well

[3] Addressed

[2] Addressed at minimum level

[1] Will address in one year

[0] Not addressed

For questions 4 to 9, a scale from [0] to [3] is used; no value has been set for [4]. In question 5, suppliers that do not employ foreign workers are included under [0].

Addressing Conflict Minerals

In recent years, the public has become more concerned about responsible procurement of minerals. In particular, the four minerals of gold, tin, tantalum and tungsten often mined in the Democratic Republic of Congo and surrounding countries have sometimes been a source of funding for armed groups. For this reason, under Section 1502 of the Dodd Frank Act in the United States, publicly traded companies have obligations for reporting and disclosing use of these minerals.
To comply with the rules, Toray Industries investigates whether conflict minerals are used in any of the raw materials and production equipment used for its products. If conflict minerals are used, the Company investigates the suppliers to determine the locations of smelters and mines.
Toray Industries has also set up an internal system for surveys and responses so that it can respond promptly and appropriately to requests from customers in regard to surveys on conflict minerals.

International Cooperation in the Textiles and Apparel Industry

Toray Group is a member of the Sustainable Apparel Coalition, together with other apparel manufacturers and retailers from around the globe. The coalition is dedicated to reducing the environmental impact of apparel and footwear products, and improving human rights for workers.

Participating in the Sustainable Apparel Coalition

CSR Guidelines & Activity Reports - Facilitating CSR Initiatives Throughout the Supply Chain

Toray Group Distribution Initiatives

Social Initiatives

Toray Industries, Inc. holds annual Basic Distribution Policy Briefings as part of its ongoing effort to improve quality and reduce the environmental impact of its distribution process. In 2018, distribution managers from 54 distribution partner companies and 21 Toray Group companies in Japan participated in briefings to promote understanding of Toray Group's distribution policies and improve distribution performance.



Basic Distribution Policy Briefing

Reducing the Environmental Impact of Distribution

Reduction in CO_2 emissions per unit of sales from distribution activities (year-on-year)

■Reporting scope
Toray Group (Only specified consigners in Japan)

■Target in fiscal 2018
1.0%

Result in fiscal 2018

1.5%

Toray Group is working hard to reduce CO_2 emissions in transport. These initiatives include reducing transport distances, shifting modes of transport to those which have less environmental impact such as sea and rail (modal shift), and raising transportation efficiency.

In fiscal 2018, at Toray Group (only specified consigners[1] in Japan), CO_2 emissions from distribution activities were 38,300 tons, down 1,500 tons (3.8%) year-on-year, due primarily to a decrease in transport volume. At the same time, the average energy consumption per unit of sales[2] decreased by 1.5 points from the previous fiscal year (using fiscal 2014 as the standard). This is equivalent to an approximately 3,000-ton reduction in CO_2 emissions.

In fiscal 2018, Toray Industries' CO_2 emissions from distribution activities totaled 28,900 tons, down 1,200 tons (4.1%) from the previous fiscal year. This decline from the previous year was primarily due to the implementation of modal shift, increased loading rates and reductions of inefficient transport, which resulted in a 326-ton reduction, and a decrease in the transport volume for film products. Energy consumption per unit of net sales[2] decreased by 8.7% year-on-year and an average of 3.0%

over the past five years, due to the abovementioned reasons and higher net sales. As a result, Toray Industries is meeting its legal mandate as a specified consigner to reduce energy consumption intensity by an average of at least 1% every year over the medium- and long-term.

Toray Group will continue to seek CO_2 emissions reductions by pursuing environmentally responsible distribution.

1 Toray Industries, Inc., Dow Corning Toray Co., Ltd., Toray Advanced Film Co., Ltd., and Toray Amenity and Civil Engineering Co., Ltd., which have annual cargo transport totaling 30 million ton-kilometers or more, are “specified consigners” under Japanese law.

2 Energy consumption per unit of net sales refers to CO_2 emissions in transport divided by a transport-related index, as shown below:

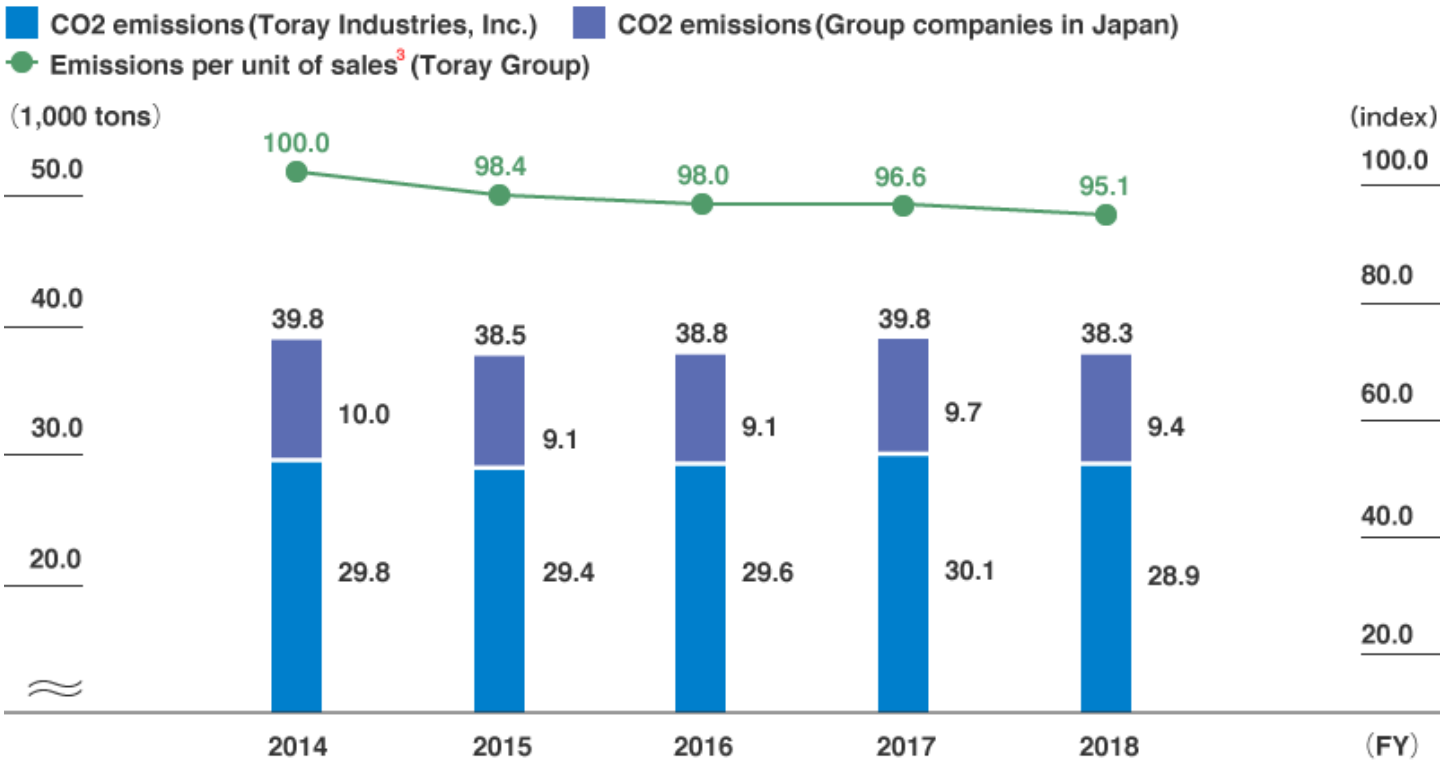
Toray Industries, Inc., Dow Corning Toray Co., Ltd. = Net sales

Toray Advanced Film Co., Ltd. = Shipping volume

Toray Amenity and Civil Engineering Co., Ltd. = Shipping volume x distance (per ton-kilometer)

Specified consigners are required to endeavor to meet the legal mandate to reduce energy consumption intensity by an average of at least 1% every year over the medium- and long-term.

CO_2 Emissions Resulting from Distribution Activities (Toray Group’s Specified Consigners in Japan)



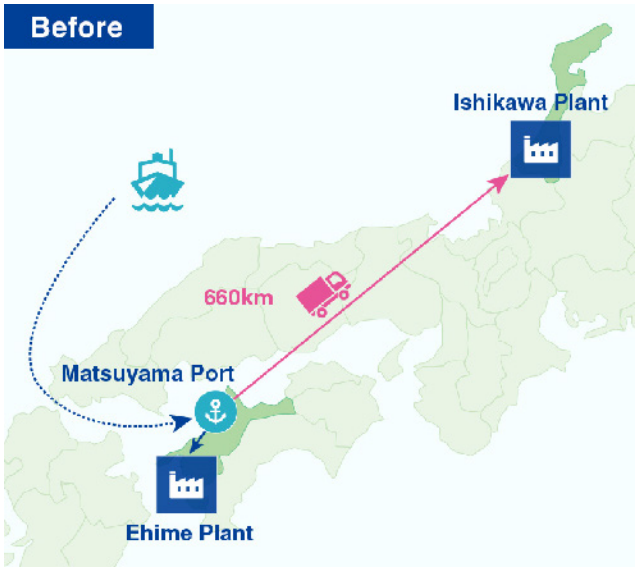
3. CO2 emissions at the transport stage divided by sales on per unit basis

CO_2 Emissions Reduction in Distribution Activities (Toray Industries, Inc.)

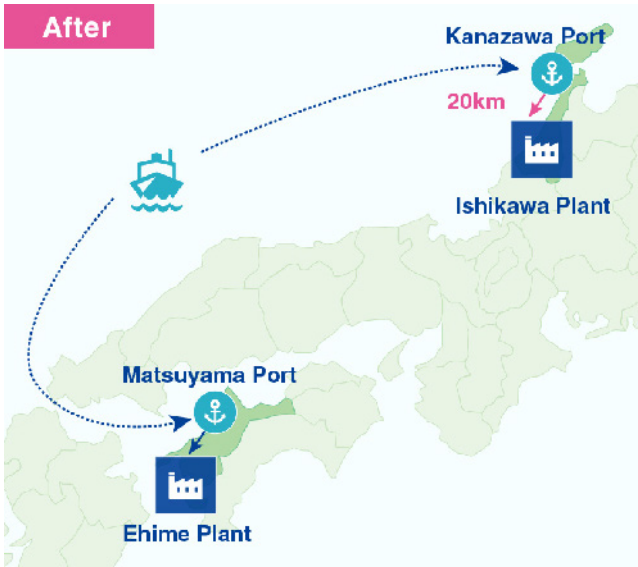
Details of initiatives	CO_2 Reduction (1,000 tons)
Recognized actual reductions more precisely due to improved calculation accuracy for maximum loading capacities, average loading rates, and other values	0.24
Modal shift	0.01
Full-load transport (strategic positioning of warehouses, etc.)	0.04
Shortened transport distances (loading at the nearest port, etc.)	0.04
Total	0.33

Shortening Transport Distances by Using Regional Ports

Toray Industries is proactively working to reduce transport distances by inventory sites and actively utilizing regional ports and to shift modes of transport to those which have less environmental impact.
Up until now, the imported TORAYCA carbon fiber used at Toray Industries' Ehime Plant and Toray Industries' Ishikawa Plant has been unloaded at the Matsuyama Port. This is the closest port to the Ehime Plant, where a large volume of this carbon fiber is used. For that reason, fiber used at the Ishikawa Plant was transported from Ehime by truck after unloading. However, Toray Industries has been able to significantly reduce the transport distance in Japan by confirming the types and volume of imported TORAYCA carbon fiber to be used at the Ishikawa Plant before import, and using the Kanazawa Port, which is closest to the Ishikawa Plant. As a result, CO_2 emissions were reduced by 36 tons annually.



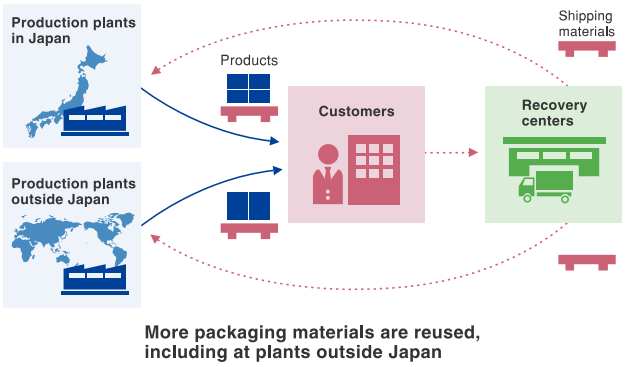
Before



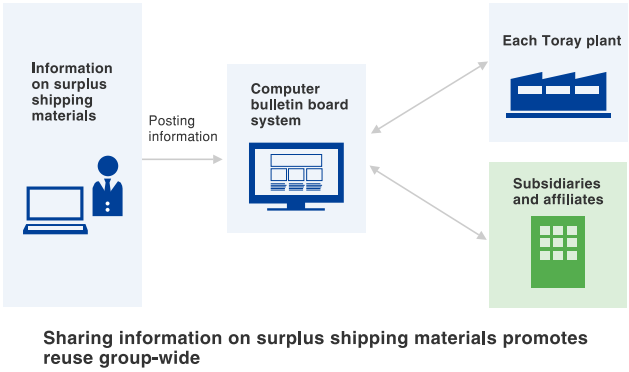
After

Expanding Collection and Reuse of Packaging Materials

Toray Group is establishing a global framework to collect and recycle packaging and shipping materials that are included with products used by customers. Group companies in Japan use an internal bulletin board to inform other companies if they have surplus packaging and shipping materials available for reuse.



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

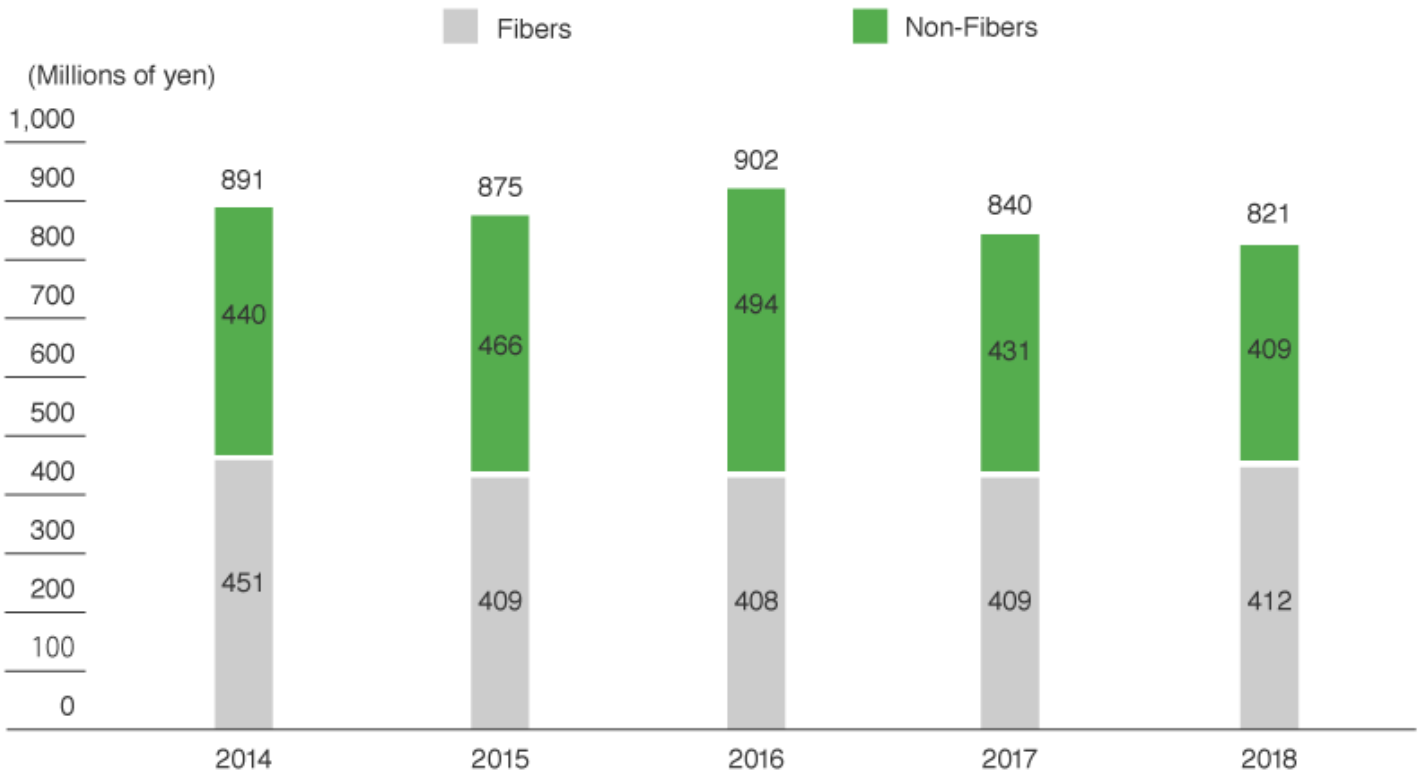


Toray Group's Bulletin Board System for Sharing Surplus Shipping Materials

Monetary Amounts Recovered for Packaging Materials (Toray Industries)

Toray Industries recovered 820 million yen for packaging materials in fiscal 2018, down 20 million yen (2.3%) from the previous fiscal year.

The company endeavored to improve the return rate and the reuse rate by prioritizing the recovery of its main packaging materials, but the monetary amount declined due to a drop in the recovery volume resulting from a decline in the shipment volume for fibers and film.



Promoting a Modal Shift

Modal shift to sea or rail for transport across distances for 500 km or more (%)

■Reporting scope
Toray Industries, Inc.

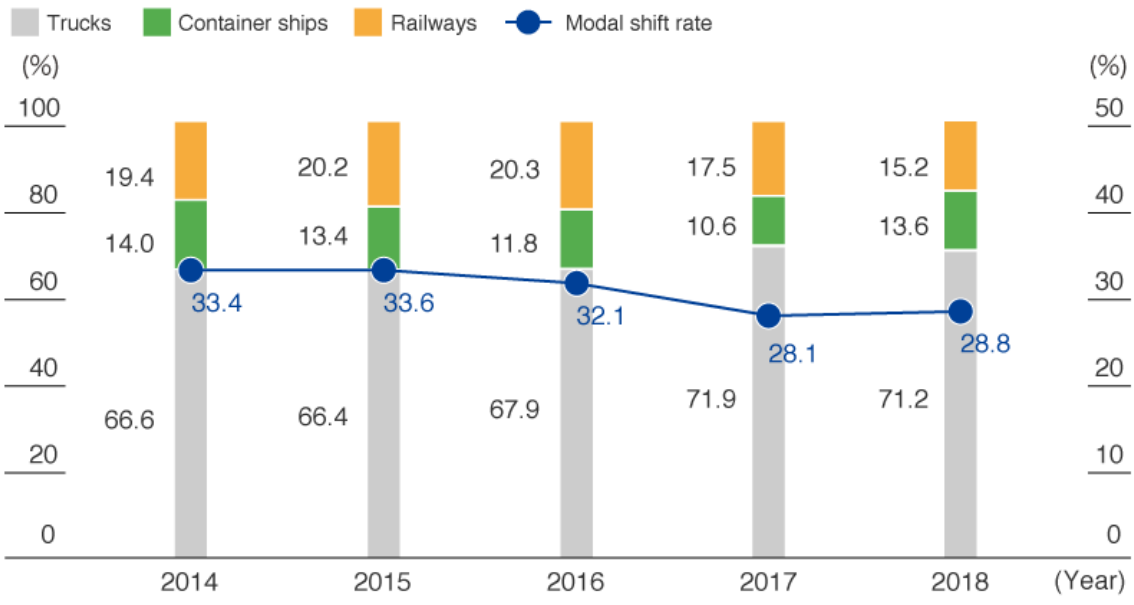
■Target in fiscal 2019
40%

Result in fiscal 2018

29%

Toray Industries laid out its commitment to environmentally friendly distribution in its Basic Distribution Policies (established in December 2004), in which it aimed to balance consideration for the environment in the distribution process with better competition achieved by cost-cutting. Toward this end, The Company has pursued modal shift. In addition, the Company augmented its initiatives to address the recent vulnerabilities in truck transport caused by a shortage of drivers, by using ships for products that cannot be easily transported by rail.
Toray Industries is striving to switch to rail and sea transport to achieve a modal shift target of 40% by fiscal 2019. The modal shift rate to sea or rail for transport in 2018 (January-December) was 28.8%, up 0.7 percentage points year-on-year because, despite a reduction in the transport volume by rail resulting from the prolonged suspension of rail operations due to water damage last summer, the transport of film products by ship increased and the overall transport volume decreased.
Toray Group will continue pursuing modal shift in diverse product and materials transport and will work more closely with distribution partners. Through these efforts, The Group will promote environmentally responsible distribution while taking into consideration the environmental impact of the distribution process.

Modal Shift to Sea or Rail for Transport (Toray Industries, Inc.)



Acquisition of Eco Rail Mark and Eco Ship Mark

Toray Industries has certified as an Eco Rail Mark Company by Japan's Ministry of Land, Infrastructure, Transport and Tourism and the Railway Freight Association. This recognizes Toray's active efforts to use rail freight transport, a relatively environmentally friendly means of transportation. The Company also obtained Eco Rail Mark Product certifications for its TORAY TETORON™ fiber and TORAYCON™ polybutylene terephthalate (PBT) resin. Moreover, in fiscal 2017 Toray Industries achieved the Eco Ship Mark certification related to its film products, which are difficult to ship by rail. This program recognizes companies that are switching to ship transport and use maritime transport, which has a low environmental impact, to a certain extent.

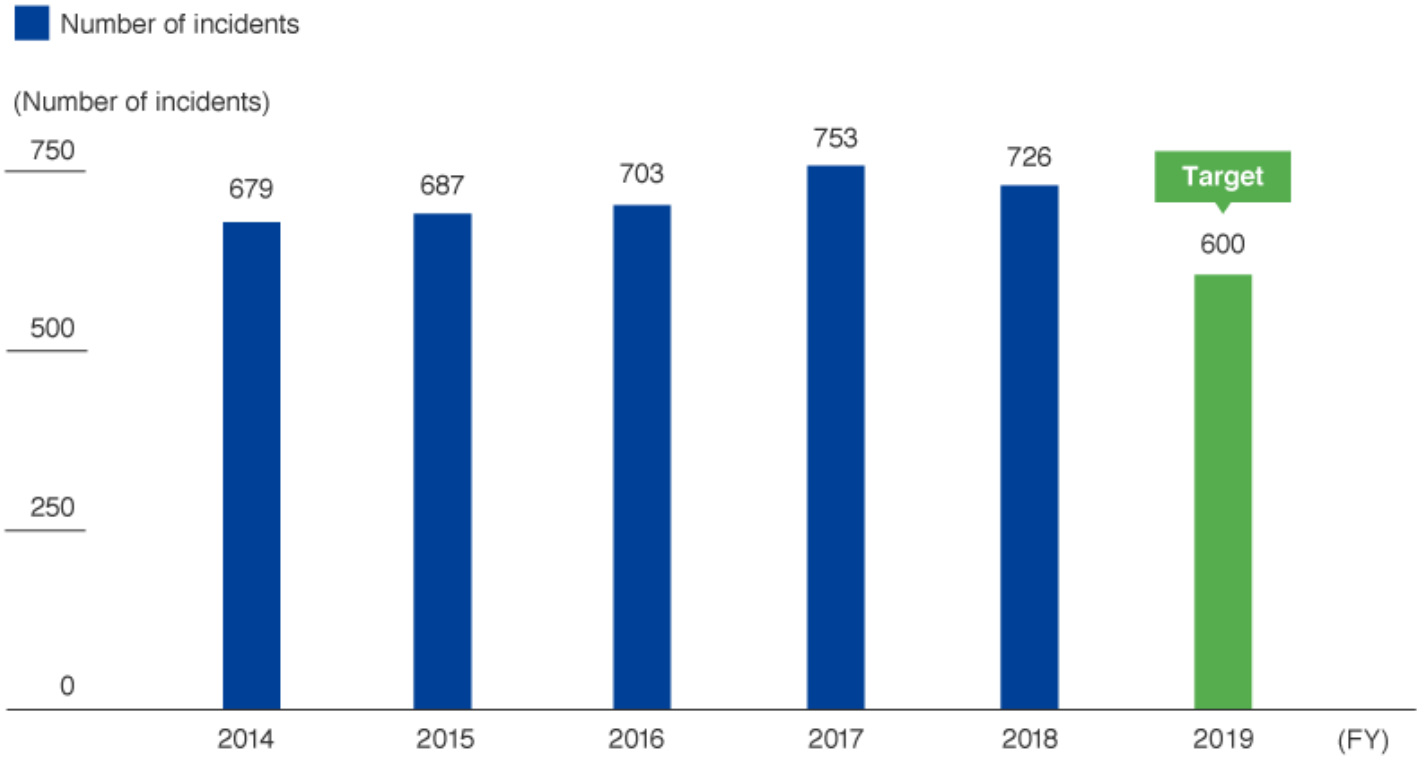


Initiatives to Improve Safety and Quality in Distribution

Toray Industries is working on a project to improve transport quality. The project involves sharing accident analysis data, and distribution quality enhancement reports. Partners that make outstanding contributions to improving quality are recognized through annual awards[4] These initiatives are aimed at reducing the number of problems such as those involving breakage, and reducing transport delays and incorrect shipments of Toray products. Toray Industries works with distribution partners to improve distribution quality and safety and to reduce the incidence of problems by conducting on-site inspections and holding quality control meetings with partners.

4 Distribution-partner companies receiving awards in fiscal 2018 (alphabetical order): Daiichi Storehouse & Refrigeration Co., Ltd., Daisei Warehousing & Transportation Co., Ltd., Fuji Logitech Hamamatsu, Inc., Ichimiya Logistics Co., Ltd., Iyoshoun Co., Ltd., Masuda Transportation Co., Ltd., Meitetsu Transportation Co., Ltd., Shikoku Meitetsu Transportation Co., Ltd., Toyo Logistic Service Co., Ltd., Yamada Unso Co., Ltd.

Distribution Incidents



Toray Industries worked to reduce the number of incidents in fiscal 2018. Not only did the number of shipments decline; the Company also set incident reduction targets and reinforced on-site inspections, particularly at the distribution companies where incidents had been high in the previous fiscal year. As a result, incidents in route transport and area transportation, which account for about 90% of incidents, fell by 8%, and the overall number of incidents fell by 4% (27 incidents) from the previous year. Toray Group will continue working with partner companies to improve distribution quality.

Recommending that Distribution Partners Acquire Third Party Certification

Toray Industries recommends that its distribution partner acquire external certifications such as ISO 9001, ISO 14001, Green Management Certification[5] and G Mark.[6] These certifications require companies to achieve legal compliance, improve quality, and practice environmental conservation in distribution processes. Toray Industries also pursues CSR initiatives in collaboration with distribution partners.

5 Green Management Certification is awarded to companies that demonstrate a certain level of environmental improvement activities based on a manual for implementing green management (business management with a low environmental impact).

6 The G Mark is awarded to companies that meet certain criteria and demonstrate excellent safety, based on an assessment of proactive initiatives for legal compliance and safety.

Yellow Card Emergency Response Measures

Drivers of shipping vehicles carry a yellow card[7] detailing emergency measures to be taken to minimize damage in the event of an accident. Toray Industries has also established an emergency communication system and carries out emergency training. In the unlikely event of such an accident, the Company has procedures in place enabling the necessary staff to be dispatched as swiftly as possible to the accident site for assistance.

7 Cards summarizing the names of any hazardous substances, applicable laws and regulations, hazardous properties, emergency accident procedures, emergency reporting and contact information, methods for minimizing the spread of damage, and other accident response information.

Initiatives to Prevent Overloading

The overloading of trucks causes vibration, noise, damage to roads and facilities, and also creates driving hazards. Consequently, Toray Industries is putting considerable effort into the prevention of overloading.

Compliance and Security Measures for Importing and Exporting

As a measure to ensure the legality and safety of imports and exports as part of Toray Group's expanding global operations, a US subsidiary of Toray International, Inc. enrolled in the Customs-Trade Partnership Against Terrorism (C-TPAT)[8] with the aim of strengthening global supply chain compliance. In order to realize more efficient imports and exports of materials and to strengthen supply chain compliance and security measures, Toray Group is also encouraging its worldwide distribution partners to obtain Authorized Economic Operator (AEO)[9] status.

8 A voluntary program introduced by United States Customs and Border Protection in November 2004. The aim of the program is ensure and strengthen security through the global supply chain, based on international cooperation with private operators importing goods into the US.

9 A status implemented by the EU in December 2006 that gives priority in customs procedures to importers and exporters with a high level of compliance for cargo security. The Japanese Customs Act was also revised in 2007, and a similar qualification system was established to provide priority in customs procedures to highly compliant operators.