



Sustainability Report
English edition
2017

 **Toyo Seikan Co.,Ltd.**

100 Years' Contribution, Challenge to the Future.



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Editorial Policy

Scope of the Report

Activities of Toyo Seikan Co., Ltd. and Toyo Seikan Business Group companies, plus some activities of the Toyo Seikan Group.

Period Covered

April 1, 2016, to March 31, 2017 (also contains some information up to July 2017)

Publication

October 2017 (English edition: January 2018)

Publication Guidelines

"Environmental Reporting Guidelines 2012" (Ministry of the Environment, Government of Japan)

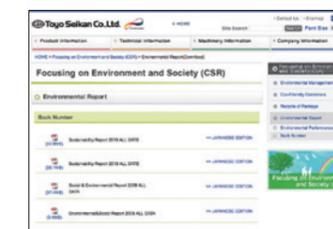
Reporting Content

We have decided the matters to be included in this report mainly from the items listed in the *Environmental Reporting Guidelines 2012*, taking into account the large amount of internal and external feedback through, for example, questionnaire survey on our past reports. The report primarily summarizes non-financial (social and environmental) information of Toyo Seikan.

Sustainability Report
(printed edition)



Sustainability Report
(PDF file for download)



<http://www.toyo-seikan.co.jp/e/report/report.html>

Explanatory Notes for the Report

Organization names used throughout this report are defined below.

Toyo Seikan Group

Toyo Seikan Group Holdings, Ltd. and its subsidiaries and associates

Toyo Seikan Business Group

Toyo Seikan Co., Ltd. and its Group companies

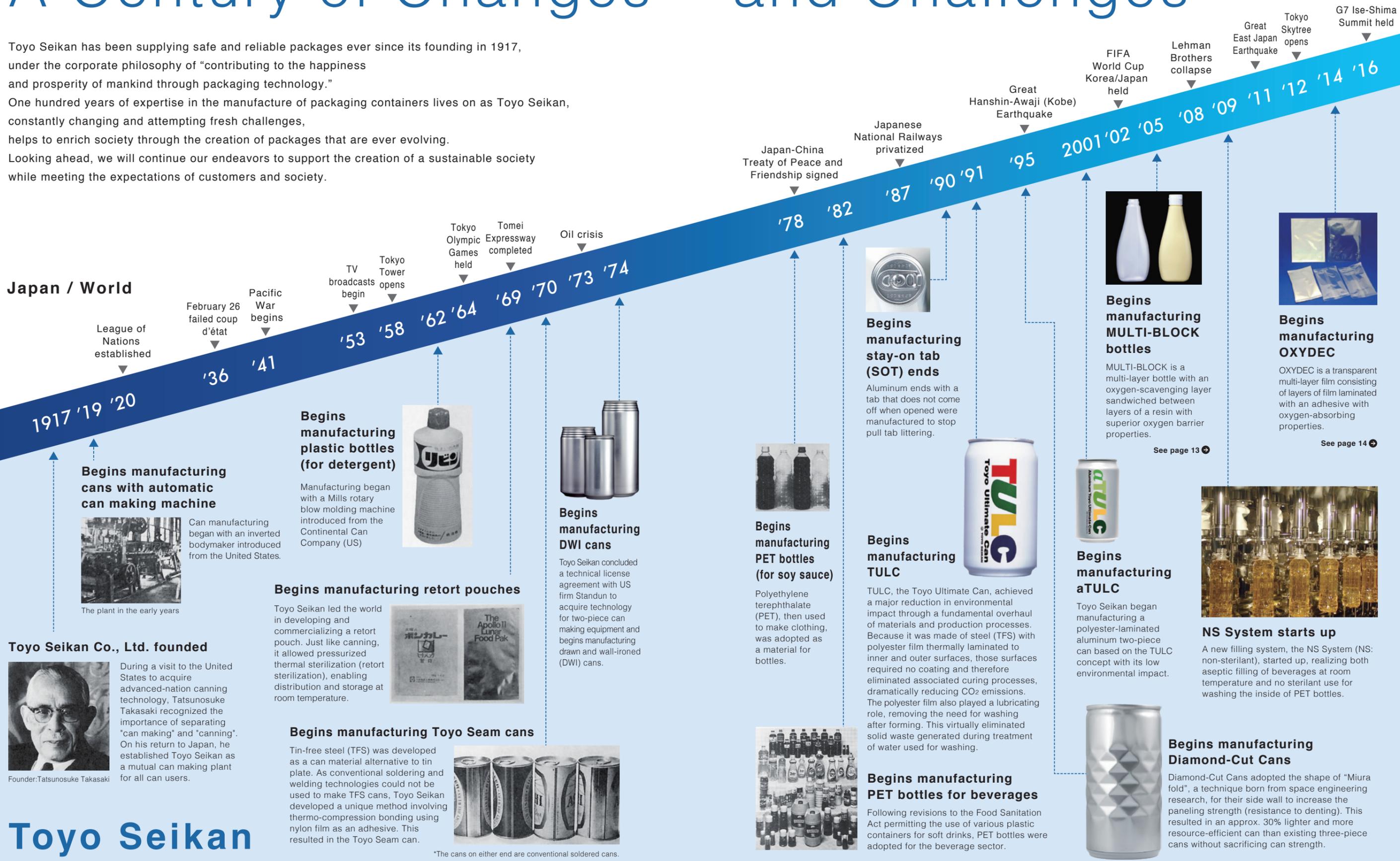
Toyo Seikan

Toyo Seikan Co., Ltd. (non-consolidated basis)

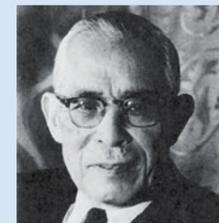
A Century of Changes and Challenges

Toyo Seikan has been supplying safe and reliable packages ever since its founding in 1917, under the corporate philosophy of “contributing to the happiness and prosperity of mankind through packaging technology.” One hundred years of expertise in the manufacture of packaging containers lives on as Toyo Seikan, constantly changing and attempting fresh challenges, helps to enrich society through the creation of packages that are ever evolving. Looking ahead, we will continue our endeavors to support the creation of a sustainable society while meeting the expectations of customers and society.

Japan / World



Toyo Seikan



Founder: Tatsunosuke Takasaki

During a visit to the United States to acquire advanced-nation canning technology, Tatsunosuke Takasaki recognized the importance of separating "can making" and "canning". On his return to Japan, he established Toyo Seikan as a mutual can making plant for all can users.



The plant in the early years



Begins manufacturing plastic bottles (for detergent)

Manufacturing began with a Mills rotary blow molding machine introduced from the Continental Can Company (US)



Begins manufacturing retort pouches

Toyo Seikan led the world in developing and commercializing a retort pouch. Just like canning, it allowed pressurized thermal sterilization (retort sterilization), enabling distribution and storage at room temperature.



Begins manufacturing Toyo Seam cans

Tin-free steel (TFS) was developed as a can material alternative to tin plate. As conventional soldering and welding technologies could not be used to make TFS cans, Toyo Seikan developed a unique method involving thermo-compression bonding using nylon film as an adhesive. This resulted in the Toyo Seam can.

*The cans on either end are conventional soldered cans.



Begins manufacturing PET bottles (for soy sauce)

Polyethylene terephthalate (PET), then used to make clothing, was adopted as a material for bottles.



Begins manufacturing PET bottles for beverages

Following revisions to the Food Sanitation Act permitting the use of various plastic containers for soft drinks, PET bottles were adopted for the beverage sector.



Begins manufacturing stay-on tab (SOT) ends

Aluminum ends with a tab that does not come off when opened were manufactured to stop pull tab littering.



Begins manufacturing TULC

TULC, the Toyo Ultimate Can, achieved a major reduction in environmental impact through a fundamental overhaul of materials and production processes. Because it was made of steel (TFS) with polyester film thermally laminated to inner and outer surfaces, those surfaces required no coating and therefore eliminated associated curing processes, dramatically reducing CO₂ emissions. The polyester film also played a lubricating role, removing the need for washing after forming. This virtually eliminated solid waste generated during treatment of water used for washing.



Begins manufacturing aTULC

Toyo Seikan began manufacturing a polyester-laminated aluminum two-piece can based on the TULC concept with its low environmental impact.



Begins manufacturing Diamond-Cut Cans

Diamond-Cut Cans adopted the shape of "Miura fold", a technique born from space engineering research, for their side wall to increase the paneling strength (resistance to denting). This resulted in an approx. 30% lighter and more resource-efficient can than existing three-piece cans without sacrificing can strength.



Begins manufacturing MULTI-BLOCK bottles

MULTI-BLOCK is a multi-layer bottle with an oxygen-scavenging layer sandwiched between layers of a resin with superior oxygen barrier properties.



Begins manufacturing OXYDEC

OXYDEC is a transparent multi-layer film consisting of layers of film laminated with an adhesive with oxygen-absorbing properties.



NS System starts up

A new filling system, the NS System (NS: non-sterilant), started up, realizing both aseptic filling of beverages at room temperature and no sterilant use for washing the inside of PET bottles.

100 Years' Contribution and Challenge to the Future

Looking back on FY2016, it was very much a turbulent year with various changes in the environment surrounding us. During the year, a wide range of social issues, not limited to economic ones, were highlighted, including slowdowns in China and other emerging economies, the United Kingdom's decision to leave the European Union, policy shifts in the United States under a new president, and political instability particularly in the Middle East that resulted in rising number of refugees.

FY2017 is a milestone year for Toyo Seikan to celebrate the centennial anniversary of the founding. Ever since the founder, Tatsunosuke Takasaki, founded Toyo Seikan in 1917, the company has upheld a fundamental philosophy of perpetually contributing to society in keeping with the Founding Spirit. With our repeated reformations and challenges under this philosophy, we have continuously evolved our packages in line with the times and delivered them to the market. To keep growing as an enterprise by constantly sending out innovative technologies and products for the next 100 years, we declared in the Toyo Seikan Business Group's vision for the 4th Mid-Term Management Plan that we would "transform successfully into a 'resilient company' that is competitive and able to generate profit sustainably, and take the first steps into the next 100 years." While we are surrounded by increasingly difficult business environment, we intend to persistently follow a growth path with sights set on stepping up to the next stage.

❑ Social issues that Toyo Seikan must address looking ahead to the future

Drawn up in December 2015, the Paris Agreement on initiatives for combating global warming came into effect in 2016, and global efforts to mitigate climate change will

commence in 2020. Despite the US's withdrawal from the Paris Agreement that have raised significant concerns about the effective reduction of CO₂ emissions, global companies in Europe and the US are viewing the fight against global warming as a business opportunity. Regardless of the policies the US Government chooses to take, they see a close link between their own corporate activities and CO₂ reductions and are making an appeal to their stakeholders.

Aiding those efforts are a set of UN-driven Sustainable Development Goals (SDGs). There are 17 goals and a number of them are closely tied to social issues that Toyo Seikan needs to address. Take Goal 12, for example: "Ensure sustainable consumption and production patterns." Possible measures to accomplish this goal will include achieving sustainable management and efficient utilization of natural resources, as well as minimizing food losses in production and supply chain.

These goals and measures have reminded us that there are issues we ought to address at each stage—production, consumption and post-consumption—in relation to packaging containers for food and beverage, which are core products of Toyo Seikan. Moreover, as an upshot of resolving such social issues, we believe we can also contribute to ensuring access to safe water (Goal 6) and the conservation and effective use of marine and forest resources (Goals 14 and 15).

❑ Environmental management centered on the Green Challenge 2050

In 2016, the Toyo Seikan Business Group formulated Green Challenge 2050, an environmental vision prescribing a specific goal of halving the impact on the three key environmental dimensions that are subject to significant

impacts from Toyo Seikan's business activities—global warming, exhaustible resources and water. Alongside fulfillment of our mission as a packaging manufacturer to ensure the safe delivery of contents to consumers, Toyo Seikan has long been undertaking initiatives to lessen our environmental impact, such as through implementation of the 3Rs (reduce, reuse and recycle) of packaging.

To further broaden our perspective toward such initiatives, Green Challenge 2050 will present the connection between our day-to-day operations and their environmental impact in an easy-to-understand manner, so that not only each employee but also each stakeholder can see the results of those initiatives. For the very reason that the issue is closely tied to our actual business, a 50% reduction in the environmental impact is indeed a challenge, a huge goal. This activity is not only a significant management strategy, but also a growth strategy enabling Toyo Seikan to evolve globally.

By developing and providing products and services of a high value that only we can deliver, Toyo Seikan is intent on pushing toward the realization of a sustainable society while contributing to social advancement and the happiness of humankind.

We look forward to your continued support and guidance.



Ichio Otsuka

President and Representative Director
Toyo Seikan Co., Ltd.

Overview of Toyo Seikan

Toyo Seikan Co., Ltd.

Established

June 25, 2012 (Founded : 1917)

President

Ichio Otsuka

Capital

1,000 million yen

Head Office

Osaki Forest Bldg., 2-18-1
Higashi-Gotanda, Shinagawa-ku,
Tokyo 141-8640, Japan

Businesses

- Design, development, manufacturing and sales of packaging containers made of metals, plastics and their composite materials
- Sales and technical service of food machinery and packaging systems

Plants / offices

Head Office, Technical Headquarters, Chitose Plant, Sendai Plant, Ishioka Plant, Kuki Plant, Saitama Plant, Kawasaki Plant, Yokohama Plant, Shizuoka Plant, Toyohashi Plant, Shiga Plant, Ibaraki Plant, Osaka Plant, Hiroshima Plant, Kiyama Plant

Toyo Seikan Business Group

(23 Group Companies of Toyo Seikan)

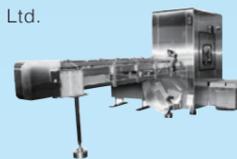
Packaging Business

Toyo Seikan Co., Ltd.
Honshu Seikan Co., Ltd.
Ryukyu Seikan Kaisha, Ltd.
Nippon National Seikan Co., Ltd.
Toyo Seihan Co., Ltd.
Fukuoka Packing Co., Ltd.
PET Refine Technology Co., Ltd.
Japan Bottled Water Co., Ltd.
TM Pack Co., Ltd.
T&T Enertechno Co., Ltd.
Bangkok Can Manufacturing Co., Ltd. (Thailand)
Next Can Innovation Co., Ltd. (Thailand)
Toyo Seikan (Thailand) Co., Ltd.
Global Eco-can Stock (Thailand) Co., Ltd.
Toyo Seikan Guangzhou Co., Ltd. (China)
Toyo Pack (Changshu) Co., Ltd. (China)
Asia Packaging Industries (Vietnam) Co., Ltd.
Asia Packaging Industries (Vietnam) Trading Co., Ltd.
Yangon Can Manufacturing Co., Ltd. (Myanmar)



Machinery & Equipment Business

Toyo Seikan Group Engineering Co., Ltd.
Kanagata (Thailand) Co., Ltd.

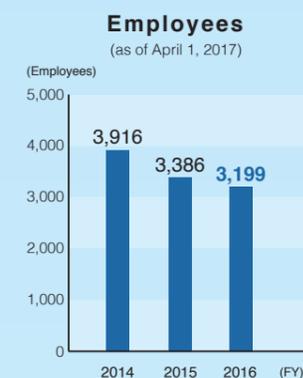
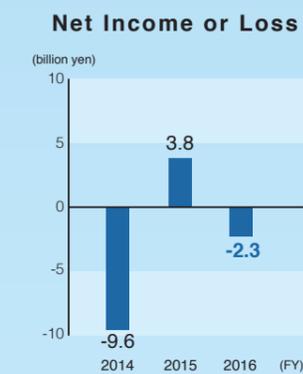
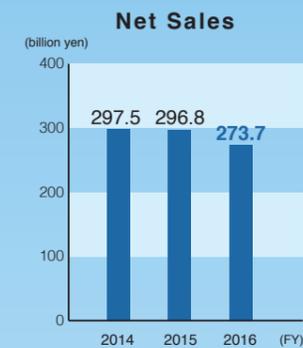


Logistics Business

Toyo Mebius Co., Ltd.
Toyo Mebius Logistics (Thailand) Co., Ltd.

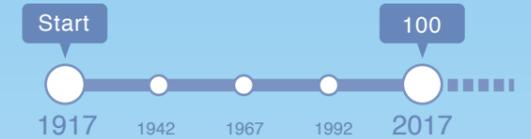


(As of April 1, 2017)

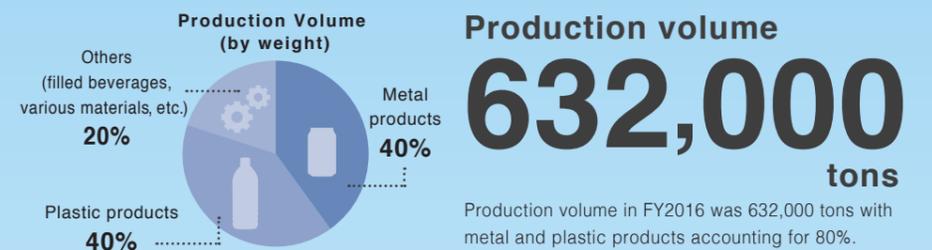


Toyo Seikan in Numbers

100
years in business



In 2017, Toyo Seikan celebrated the centenary of its founding. The Company was founded in 1917 as the Japan's first manufacturer specializing in packaging products. The company has been providing safe and reliable packaging over the last 100 years.



All 3,199 employees with different personalities pursue locally-oriented businesses.

CO2 emissions from manufacturing operations



ISO 14001-certified plants / offices



Toyo Seikan's Saitama Plant first acquired ISO 14001 certification in 1999. Currently a total of 57 plants/offices in Japan, including group companies, are certified, and engage in business activities with due consideration to the environment.

Realizing Toyo Seikan Group Vision

In April 2013, Toyo Seikan Group shifted to a holding company structure to enhance group collaboration. Under this new structure, the Group established "Growing 2022," its mid- to long-term vision to "grow into a global company with core packaging operations expanding into peripheral businesses," and has formulated and implemented Toyo Seikan Group 4th Mid-Term Management Plan for FY2016–FY2018.

FY2017, the second year of the 4th Mid-Term

Management Plan, is historic for Toyo Seikan as we commemorate the centennial anniversary of our founding. The company is committed to work together to make FY2017 worthy of representing our first step toward the next 100 years by generating profit exceeding the plan through the successful transformation into a "resilient company" and taking full advantages of business restructuring.

■ Toyo Seikan Group 10-Year Vision for Growth



■ Toyo Seikan Business Group Mid-Term Management Plan (FY2016–FY2018)

Toyo Seikan has established a new three-year mid-term plan for Toyo Seikan Co., Ltd. and its Group companies, to achieve Toyo Seikan Group's 4th Mid-Term Management Plan.



Promoting Environmental Management

Toyo Seikan Group established its environmental policies in 2002, and formulated the Toyo Seikan Group Environmental Vision in 2004 to specify environmental management activities; the latter was revised in 2016.

Toyo Seikan Group Environmental Philosophy

All Toyo Seikan Group companies are keenly aware that preservation and qualitative improvement of the global environment are the top priority issue common to all humanity. We strive to contribute to the improvement of lifestyle of human beings, while taking an environmentally-friendly stance in every aspect of our corporate activities.

Toyo Seikan Group Environmental Vision

Toyo Seikan Group will contribute to the realization of a sustainable society from the three dimensions in the value chain-products, services and systems we provide, by mobilizing our engineering technologies and making use of global technologies.



■ Environmental Targets: Eco Action Plan 2022

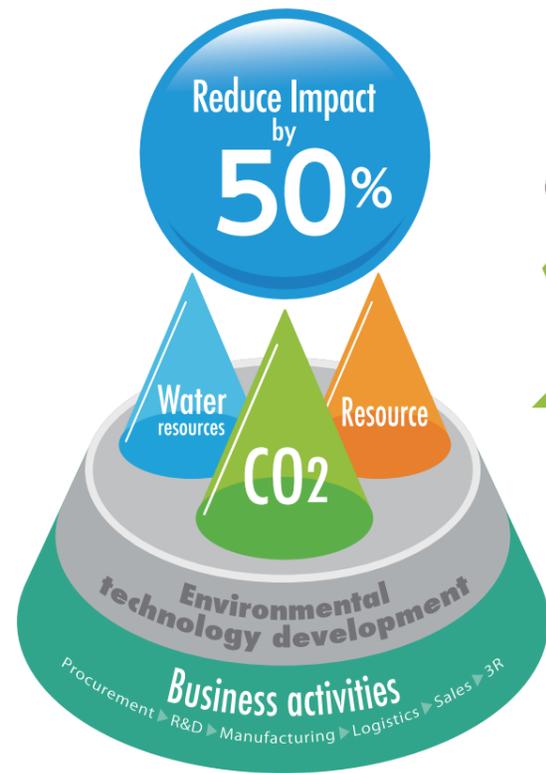
Toyo Seikan has been working for the achievement of its Environmental Vision by setting new long-term targets toward 2050 together with specific mid-term targets toward 2022 (Eco Action Plan 2022).

■ Long-Term and Mid-Term Targets in the Three Dimensions

Base year: FY2013



Toyo Seikan Green Challenge 2050



GREEN CHALLENGE 2050

Toyo Seikan aims to halve its environmental impact by 2050

In line with the Paris Agreement, the Sustainable Development Goals (SDGs) and the Toyo Seikan Group's Eco Action Plan 2022, Toyo Seikan formulated an environmental vision, Green Challenge 2050, in FY2016 and commenced efforts to achieve the targets. We approach this with enthusiasm as a company that can make a difference to the society and gain trust by tackling social issues through business activities.

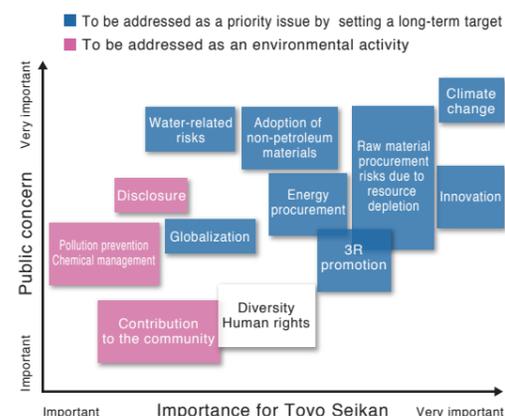
Identifying Materiality (Important Issues) Common to Society and the Company

We have established the vision and targets of Green Challenge 2050 after cross-checking international social issues and the Company's issues with the SDGs. We will contribute to the sustainable development of the society by implementing Green Challenge 2050 action items.

Eight goals of SDGs that Toyo Seikan can contribute to through Green Challenge 2050 activities



Determination of Action Items



Determination of Action Item for Reducing Environmental Impact

Toyo Seikan's packaging products consist of raw materials such as metals, plastics, coatings and inks. To curb the effects of climate change, we need to reduce CO₂ emissions not only from the packaging production process, but also throughout the entire value chain. For this reason, we will advance efforts from a variety of perspectives, as listed below:

- (1) Increase the recycled material ratio
- (2) Reduce the package weight while ensuring usability and safety
- (3) Apply biomass-derived materials
- (4) Improve productivity
- (5) Utilize renewable energy
- (6) Increase the ratio of materials using low-carbon energy

These initiatives benefit not only the reduction of CO₂ emissions, but also the reduction of use of non-renewable resources and the production using sustainable resources.

We regard reduction in water-related risks as another important social issue, as the risks are increasing for water resources that are essential to our daily lives with notable signs of climate change and industrial development.

Toyo Seikan aims to realize a sustainable society by reducing CO₂ emissions along with reducing the use of non-renewable resources and water through our technical innovation.



Green Challenge 2050 Initiatives

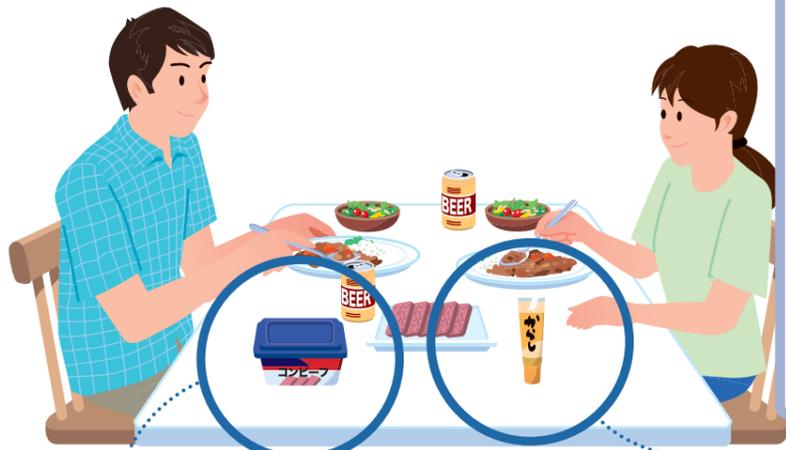
Base year: FY2013

	Realizing a low-carbon society	Using sustainable resources	Effectively using water resources
Target	Halve CO₂ emissions (including the value chain) *2030 : CO ₂ reduction by 20% *2022 : CO ₂ reduction by 14%	Halve non-renewable resource use (apply recycled and bio-based materials) *2030: Achieve more advanced resource circulation	Halve the water use under a quantitative index reflecting the water balance *2030: Minimize the net water loss, including the loss in the value chain
2050	<ul style="list-style-type: none"> Pursue further advancement of resource circulation through innovation in production technology and 3R's system Build on eco-friendly design (attempt zero-impact packaging; switch to new, low-impact packaging) 	<ul style="list-style-type: none"> Expand application of bioplastics Enforce use of recycled materials and further raise the usage ratio 	<ul style="list-style-type: none"> Commercialize processes and products that do not use water (or dramatically reduce the water use)
2030	<ul style="list-style-type: none"> Achieve increased efficiency in productive energy 	<ul style="list-style-type: none"> Expand the use of renewable energy Improve the productivity through AI and IoT Ensure application of eco-friendly design (reduce package weight considering the value chain; switch to new, low-impact packaging) Expand the use of materials using low-carbon energy 	<ul style="list-style-type: none"> Commercialize processes and products that do not use water (or dramatically reduce the water use)
2020	<ul style="list-style-type: none"> Develop packaging with a higher ratio of recycled material Adopt renewable energy and upgrade to energy-saving equipment Switch to fuel-efficient vehicles Improve productivity (reduce spoilage rate) and further streamline production planning and management Consider increasing the ratio of materials that make use of low-carbon energy 	<ul style="list-style-type: none"> Introduce eco-friendly design (package weight reduction and material selection using LCA) 	<ul style="list-style-type: none"> Track water risks and develop processes to reduce water usage (package manufacturing and filling)

Communication for Green Challenge 2050

To communicate Green Challenge 2050, panels were displayed at all plants/offices of Toyo Seikan and Toyo Seikan Business Group, and business card-size portable cards were distributed to all employees. The entire workforce will come together to advance activities toward achieving the targets.





For Wasabi and Mustard

Lamicon Tube

Lamicon Tubes are a multi-layer tube with an oxygen barrier resin that is coextruded into the tube shape. They are mainly used for condiments like wasabi and mustard.



For Oils

SiBARD

SiBARD containers are PET bottles having a silicon oxide (SiOx) film with high gas barrier properties coated on the bottle internal surface. They are used for cooking oil.



For Corned Beef

Oxyguard

Oxyguard containers are made with an iron-based oxygen-scavenging material. They are used for corned beef and cooked rice.



| Feature 2 |

Gas Barrier Packaging in Our Lives

In contrast to cans and glass bottles, plastic packaging allows gases such as oxygen and water vapor to pass through, albeit in small amounts. Gas barrier packaging—plastic with added gas barrier functionality—makes it possible to minimize permeation of food-degrading oxygen. This allows for extended shelf life, leading to reduced food waste. Toyo Seikan has developed many types of gas barrier packaging, which we encounter frequently in our daily lives.

For Mochi Rice Cakes

OXYDEC

OXYDEC is a transparent multi-layer film consisting of layers of film laminated with an adhesive with oxygen-absorbing properties. As the packaging film itself absorbs oxygen, oxygen-scavenging sachets are not required, reducing waste. It is used for individually packaged mochi rice cakes.



For Mayonnaise

MULTI-BLOCK

MULTI-BLOCK is a multi-layer bottle with an oxygen-scavenging layer sandwiched between layers of a resin with superior oxygen barrier properties. They are used as a container for mayonnaise.



For Jelly and Miso

Lamicon Cup

Lamicon Cup containers are cups or trays formed from laminated sheet with a middle layer of resin with oxygen barrier properties. They are used for food items such as fruit jelly (small containers) and miso (large containers).



Commendations

"OXYDEC" Transparent Oxygen-Absorbing Packaging Material



40th Kinoshita Prize (R&D Category)

Awarded jointly to Toyo Seikan Group Holdings, Ltd. and Toyo Seikan Co., Ltd.

Kinoshita Prize: Sponsored by the Japan Packaging Institute. Awards are presented for notable achievements in packaging-related R&D, improvements and rationalization, and creation of new domains.



Japan Packaging Contest 2016 Technical Packaging Award

Awarded jointly to Sato Foods Co., Ltd., Toyo Seikan Group Holdings, Ltd. and Toyo Seikan Co., Ltd.



Voice

Keizo Kanzaki

Operating Officer
Deputy Head of
Technical Headquarters
General Manager of
Fundamental
technologies
Department



Toyo Seikan and Barrier Packaging

Toyo Seikan's involvement with barrier packaging originates from the development of plastic packaging products such as Lamicon Bottle and Oxyguard. One drawback of plastic containers, when compared with cans and glass bottles, is that they are permeable to oxygen. To overcome this disadvantage and contribute to enriching people's lives, Toyo Seikan's development team has developed various types of barrier packaging making use of, for example, resins with superior oxygen barrier properties and oxygen-absorbing materials. Through technological development, we will continue to put forth innovative technologies and products in order to meet the expectations of customers and society.



ENVIRONMENT

Relations with the Environment

Toyo Seikan will contribute to the preservation of the global environment through Green Challenge 2050 initiatives.



Management System

Integrated Management System for Quality, Environment and Food Safety Toyo Seikan

Toyo Seikan has introduced an environmental management system (ISO 14001) to each plant/office on a gradual basis since 1999, and obtained a certification covering all the plants/offices in 2007.

Moreover, Toyo Seikan built an "integrated management system" that combines the environmental management system with the quality management (ISO 9001) and food safety management (FSSC 22000) systems for enhanced

efficiency of operations. The integrated system was certified in 2013.

This has allowed integrated operations of items that are common to the three systems.

The integrated management system has been deployed not only at Toyo Seikan but also at Toyo Seikan Business Group companies: Honshu Seikan, Nippon National Seikan and Ryukyu Seikan. This has contributed to the efficient introduction and implementation of quality, environmental and food safety measures from top management down to individual departments at each plant/office.

Quality, Environment and Food Safety Policy

Integrated Management System Policy (Quality, Environment and Food Safety)

1. Basic principles

Toyo Seikan Co., Ltd. will contribute to the happiness and prosperity of mankind by delivering safe, secure and eco-friendly products, systems and services with attractive quality that can be trusted by our customers.

2. Basic policies

- (1) Each and every employee working for Toyo Seikan will deliver safe, secure and eco-friendly products, systems and services with attractive quality that satisfy our customers.
- (2) Each and every employee working for Toyo Seikan will strive to prevent environmental pollution and reduce environmental impact in every activity of our business.
- (3) We will have sincere dialogue (communication) with stakeholders to continuously pursue better systems that improve the quality, environment and food safety.
- (4) We will comply with relevant laws and regulations as well as contracts.



Toward the Realization of a Low-Carbon Society

CO₂ Emissions Across the Entire Value Chain Toyo Seikan Business Group

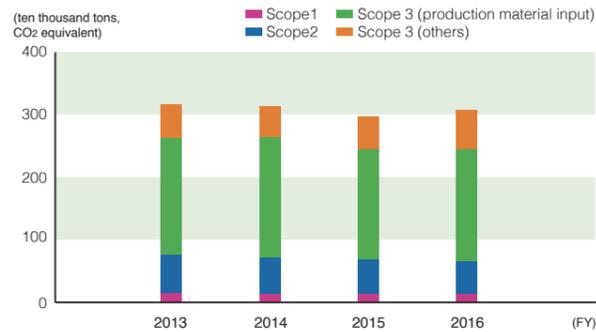
At Toyo Seikan Business Group, a large percentage of CO₂ emissions across the entire value chain come from materials and energy.

In its environmental vision, Green Challenge 2050, Toyo Seikan Business Group aims to reduce CO₂ emissions

by 50% compared to the 2013 level by 2050. However, emissions grew year-on-year in FY2016 due to an increase in the number of units sold. A large proportion of those CO₂ emissions were derived from materials and energy. Therefore, in addition to upgrading to energy-saving facilities and lightweighting containers and packaging, we will work to reduce material-derived emissions and develop new technologies.

Environment

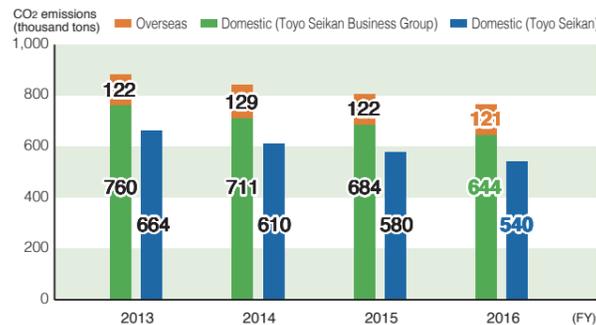
Greenhouse Gas Emissions from Business Activities of Toyo Seikan Business Group



CO2 Emissions from Business Activities

In order to reduce energy-derived CO2 emissions, Toyo Seikan Business Group has made progress in upgrading to energy-saving facilities and improving the productivity. As a result, CO2 emissions from domestic operations amounted to 644,000 tons in FY2016.

CO2 Emissions from Toyo Seikan Business Group



CO2 Emissions from Logistics

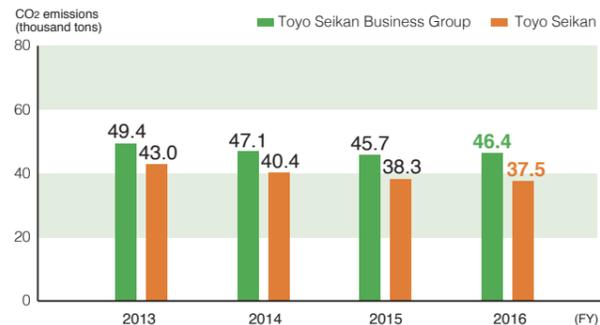
Logistic-related CO2 emissions from Toyo Seikan Business Group in FY2016 amounted to 46,375 tons, up from the previous year. At Toyo Seikan, which accounts for a large portion of those emissions, CO2 emissions grew due to an increase in long-distance transportation for reasons such as consolidation of production lines.

We will continue to strive to reduce CO2 emissions through the introduction of new truck models.



New truck model introduced by Toyo Mebius Co., Ltd.

CO2 Emissions from Logistics of Toyo Seikan Business Group



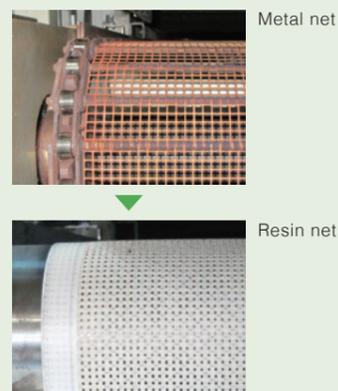
TOPICS Toyo Seikan Co., Ltd.

Energy Saving Activities in Can Manufacturing Lines

Toyo Seikan is switching the material of oven conveyor nets on its can manufacturing lines from metal to high heat-resistant resin.

Metal net previously used would cool down at the exit of the drying oven and therefore draw away the heat from the oven when entering the oven again. Less heat is drawn away by using resin net, reducing gas consumption. Electricity used to move the net has also been reduced due to weight reduction of the net following the switch to the resin.

All plants equipped with drying oven are subject to the above-mentioned switch and we expect CO2 reduction of around 9,000 tons. As this measure has had significant impact, we will deploy it to other Toyo Seikan Business Group companies.



TOPICS Toyo Seikan Co., Ltd.

Transportation Using Rail Containers

Toyo Seikan is currently consolidating production sites as part of a major realignment of production facilities associated with business structural reform. Total transport distance and CO2 emissions are expected to stay the same or slightly increase; however, we will further pursue reducing inventories, effective utilization of the company's warehouses, reducing inventory transfers and improving the ratio of direct delivery to customers.

Rail freight transport, which has been discussed since last year as an alternative means of transportation of can ends between Kanto and Kansai regions, is scheduled to start on a trial basis from December 2017. The full-scale employment will lead to an annual reduction of transportation equivalent to around 470 trucks.



Container design

Eco-friendly Products

Recognition of Eco-friendly Products

All products of Toyo Seikan Group are considerate to the environment as they comply with environmental laws and regulations. We also recognize certain products as "eco-friendly products." They include products that achieve major reductions of, for example, required raw materials or manufacturing energy, as well as products containing fewer substances designated by the PRTR

Law. In FY2016, we recognized 34 eco-friendly products. Six of them were recognized by Toyo Seikan and its business group companies.

We have also established a new standard for recognizing "excellent eco-friendly products"—eco-friendly products with significant reduction of environmental impact that employ technologies unique to Toyo Seikan Group.

The process of recognizing eco-friendly and excellent eco-friendly products continues.



3Rs of Packaging

Weight Reduction of Beverage Packaging in FY2016

Steel cans 11% reduction
(compared to FY2004)

Aluminum cans 6% reduction
(compared to FY2004)

PET bottles 9% reduction
(compared to FY2004)

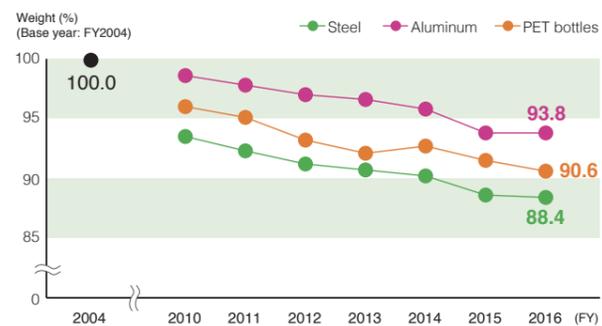
Weight Reduction of Packaging (Reduce)

Toyo Seikan Business Group

Toyo Seikan Business Group is working to reduce the weight of containers and packaging to ensure effective use of limited resources.

In regard to beverage packaging, we achieved an 11.6% reduction for steel cans in FY2016 compared to FY2014 by using thinner steel sheet for the eco-friendly product TULC than when it was first developed. Also, aluminum cans became 6.2% lighter than they were in FY2014 in the same way, using thinner aluminum sheet than before. PET bottles were made 9.4% lighter by cutting down on resin use, for example through improvements in bottle configuration and forming conditions.

Weight Reduction in Beverage Packaging



TOPICS

Honshu Seikan Co., Ltd.

Weight Reduction Example

Using thinner sheet to make cans reduces the amount of metal resources required. Honshu Seikan has made progress on reducing the weight of metal cans.

For example, the company has successfully reduced the weight of 18-liter steel cans, used for a wide range of applications including coatings, liquid soap and food, by 15%. This was achieved by employing thinner steel sheet with innovative modification to the can shape so that the cans retain the same strength.

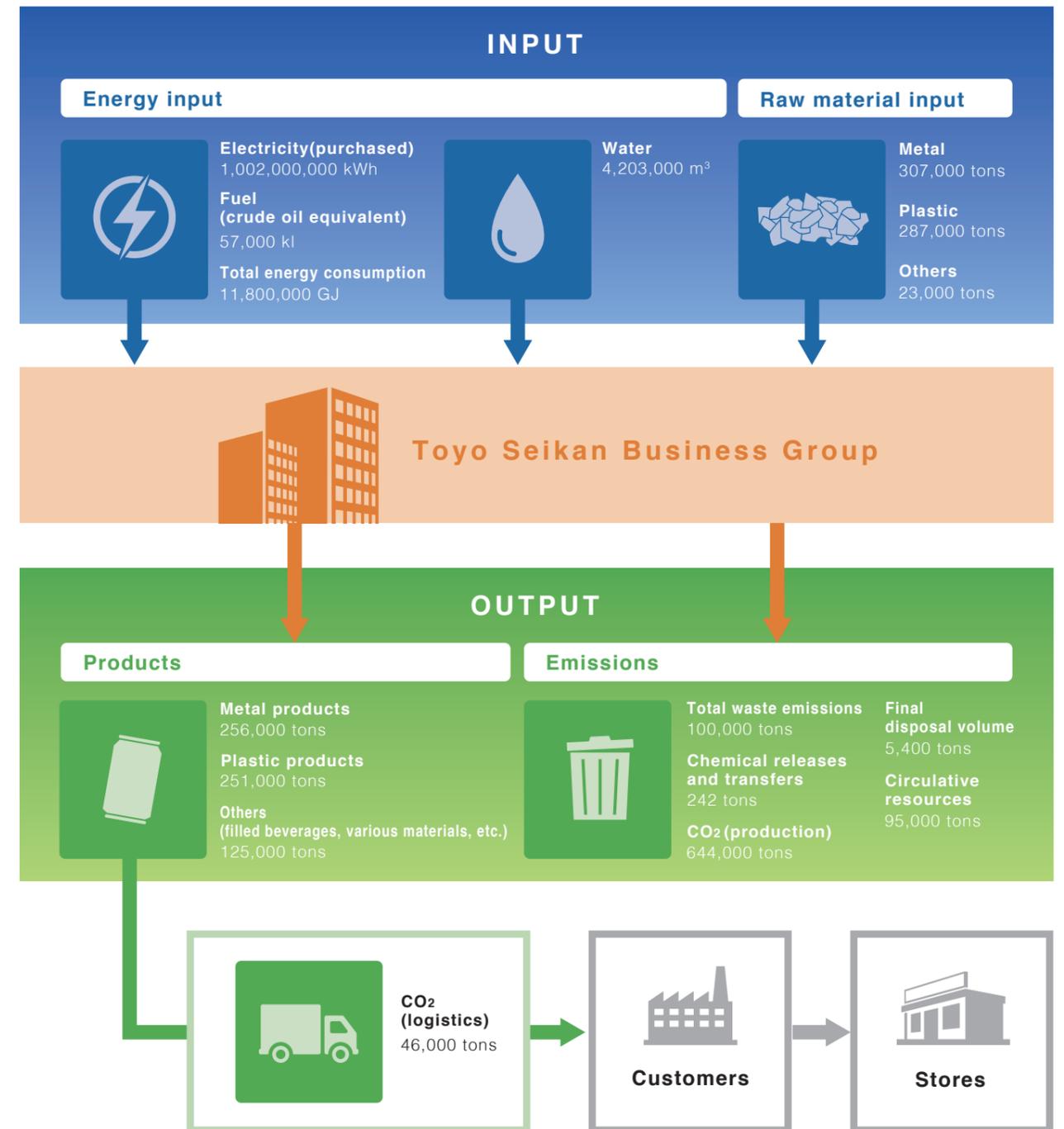
Honshu Seikan looks to continue weight reductions through its own eco-friendly product design and manufacturing process improvements.



Material Flow

Toyo Seikan Business Group makes every effort to track its material flow (i.e. the overall environmental impact of business activities) to enable efficient action for reducing environmental impact.

[Toyo Seikan Business Group FY2016 Material Flow] Toyo Seikan Business Group



FY2016 Environmental Activity Report

Production Activities Toyo Seikan

Category	Item name	Targets and results	Assessment	Achievements	
Production activities	Reduce energy consumption per unit (per unit of output)	<p>(%) 100 98 96 97 96 95 2009 2013 2014 2015 2016 (FY) (Base year)</p>	★★★	The target was achieved as a result of productivity improvements and realignment of production lines, etc.	
	Reduce CO ₂ emissions	CO ₂ emissions from business activities	<p>(%) 100 99 103 100 90 93 2009 2013 2014 2015 2016 (FY)</p>	★★☆	Despite achieving the target for energy consumption per unit, the target for CO ₂ emissions was missed due to production volume increase. *Calculated using FY2014's CO ₂ emission factor for electricity
		CO ₂ emissions from logistics	<p>(%) 100 84 79 75 69 76 2009 2013 2014 2015 2016 (FY)</p>	★★☆	Despite expansion of in-house warehouses resulting in less transportation to external warehouses, the target was missed as long-distance transportation increased in response to a growing demand.
	Reduce material usage per unit (per unit of output)	<p>(%) 100 94 90 89 89 92 2009 2013 2014 2015 2016 (FY)</p>	★★☆	Productivity improved, but the target was missed due to higher production volume of welded cans than originally planned.	
	Reduce total waste emissions	<p>(%) 100 81 90 89 86 116 2009 2013 2014 2015 2016 (FY)</p>	★★☆	The target was missed by a significant margin as changes to recycling market conditions resulted in the conversion of valuable resources into wastes.	
	Reduce PRTR substance release and transfer volume (compared to FY2010)	<p>(%) 100 125 104 107 101 95 2010 2013 2014 2015 2016 (FY)</p>	★★★	The target was achieved due to a progress in switching to toluene-free ink. *For materials with annual transaction volume of 10kg or more	
	Reduce VOC emissions	<p>(%) 100 139 141 138 132 141 2009 2013 2014 2015 2016 (FY)</p>	★★☆	The target was missed despite the progress on reducing emissions generated at locations with high solvent usage.	

Toyo Seikan has established environmental targets from environmental management priority items and material flow, and is promoting to improve environmental performance.

Assessment: (vs. FY2016 target) ★★★ = Achieved, ★★ = Slightly missed, ★ = Not achieved

Product Development and Sales, Environmental Management, and Environmental Communications Toyo Seikan

Category	Item name	FY2016 target	Assessment	Achievements
Product development and sales	Develop eco-friendly products	<ul style="list-style-type: none"> Use LCA data in product development Develop products taking into account materials, manufacturing processes and recyclability while maintaining packaging functions 	★★★	<ul style="list-style-type: none"> Provided LCA data and support for calculation to development departments Introduced aluminum cans with lighter tabs Developed high speed co-injection molding system
	Promote sales of eco-friendly products	<ul style="list-style-type: none"> Make progress on switching to lightweight packaging Communicate and raise awareness about eco-friendly products internally 	★★★	<ul style="list-style-type: none"> Switched to lightweight packaging Held meeting to explain eco-friendliness standards for packaging
	Promote container recycling activities	<ul style="list-style-type: none"> Participate in committees within, and support activities of, packaging recycling organizations 	★★★	<ul style="list-style-type: none"> Participated in committee activities within, and actively supported public relations, awareness-raising and survey activities of, packaging recycling organizations
Environmental management	Promote environment risk management	<ul style="list-style-type: none"> Reduce the number of chemical spill accidents on company premises Assess environmental risks for business locations 	★★★	<ul style="list-style-type: none"> No environmental accidents with serious consequences occurred. The number of chemical spills declined to three from the previous year's five. Implemented and reviewed accident countermeasures Shared information on environmental accidents that occurred at group companies with business locations and implemented recurrence prevention measures
	Promote chemical substance management	<ul style="list-style-type: none"> Look into integrated implementation of chemical substance management related to occupational safety and chemical substance management related to environmental and other legislation 	★★★	<ul style="list-style-type: none"> Established rules for chemical substance risk assessments Organized data for unified management of chemical substances pertaining to environment-related legislation and chemical substances covered by working environment measurement
	Utilize LCA	<ul style="list-style-type: none"> Disclose environmental superiority data of products and raise awareness for such products Utilize LCA data for development activities Establish functional value assessment methodology for eco-efficiency 	★★★	<ul style="list-style-type: none"> Promoted LCA data utilization at sales and development departments Tentatively determined eco-efficiency functional value Made improvements in issues identified in functional value assessment case studies, and made further improvements to assessment methods
	Promote biodiversity activities	<ul style="list-style-type: none"> Gather information on biodiversity 	★★★	<ul style="list-style-type: none"> Exchanged information with Japan Business Initiative for Biodiversity (JBIB) participants and partook in activities
	Support environmental activities of business group companies	<ul style="list-style-type: none"> Share information on environmental matters with business group companies Provide support primarily through environmental risk management 	★★★	<ul style="list-style-type: none"> Communicated information on revisions to environmental laws and regulations to business group companies Shared information on environmental accidents that occurred at group companies with business group companies and implemented recurrence prevention measures
Environmental communications	Promote environmental communications	<ul style="list-style-type: none"> Disclose environmental information Create environmental lecture programs for classrooms Highlight environmental activities at environmental events and raise external awareness for such activities Implement in-house education 	★★★	<ul style="list-style-type: none"> Published <i>Sustainability Report 2016</i> Created and implemented new program for classrooms Exhibited at environment-related events Implemented in-house education for employees' families using the Toyo Seikan Environmental Posters by Children



Waste Reduction Activities

Reduction of Total Waste Emissions

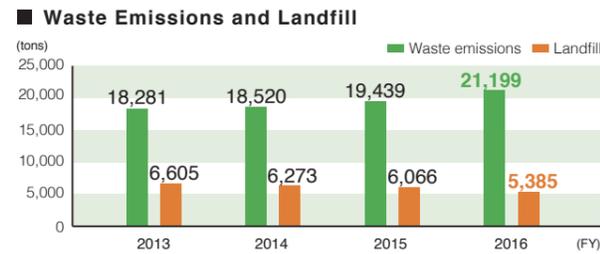
Toyo Seikan Business Group

Toyo Seikan Business Group strives to reduce and recycle the waste that each plant/office generates.

Total waste emissions in FY2016 increased by 9% from the previous year as the adverse market conditions resulted in a drop in sales of waste plastic.

Landfill was reduced by 11% from the previous year as a result of active recycling of dewatered sludge into materials.

We will continue efforts to reduce waste, seeking to further minimize our environmental impact.



TOPICS TM Pack Co., Ltd.

Promoting Sale of Tea Dregs (Green Tea Leaves/Barley) Using In-house Transportation

In June 2013, TM Pack began the production of tea beverages with green and barley teas as its main products. The total volume of tea dregs generated during the manufacturing and brewing process amounts to around 3,200 tons per year. In November 2016, TM Pack changed how these tea dregs are disposed of in order to reduce associated costs. Under the new disposal system, tea dregs are sold to horticultural farms as soil conditioner instead of being collected by industrial waste contractors. The tea dregs no longer need to be dried, and are transported using company dump trucks. This has reduced three kinds of costs, namely transportation, energy, and industrial waste disposal costs.

In FY2017, TM Pack will carry out this activity with an aim of selling around 1,800 tons of tea dregs, setting a target of reducing annual costs by around ¥40 million.



Transportation of tea dregs using company trucks



Horticultural farm where tea dregs were scattered



Addressing Environmental Risks

Reducing Environmental Risks

Toyo Seikan Business Group

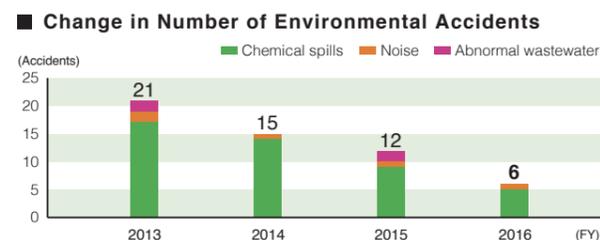
Environmental risks exist in various situations such as production facilities as well as production management, storage and transportation phases.

Toyo Seikan Business Group makes efforts to prevent chemical spills and other environmental accidents by upgrading and routinely examining facilities. We also carry out regular drills assuming emergency situations to prevent the expansion of the damages of accidents.

No accidents with serious consequences for the environment occurred during FY2016. The number of accidents halved to six from the previous year's twelve.

Five accidents were chemical-related spills, involving substances like oils and chemical agents, but quick action prevented outflows from company premises.

Continued efforts involving corrective action and reviews of its effectiveness will be made to prevent recurrence of environmental accidents.



Compliance with Laws and Regulations

Toyo Seikan Business Group

Toyo Seikan Business Group was not involved in any legal violations during FY2016. Efforts were made

to gather information on law revisions, including changes to local ordinances applicable to individual business locations, and modify areas of compliance accordingly. We also endeavor to comply with strict voluntary standards we have put in place ourselves.



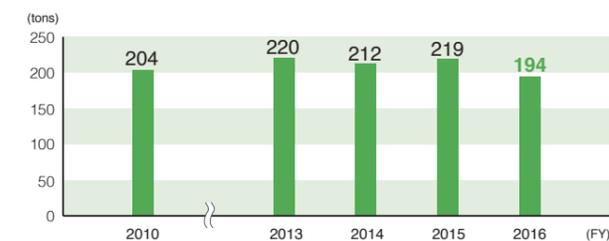
Appropriate Management of Chemical Substances

Reduction of PRTR Substance Releases and Transfers

Toyo Seikan

Toluene contained in inks and solvents used for film products accounts for half of all PRTR substance releases and transfers by Toyo Seikan. With production of film products increasing, we had already been working to convert to toluene-free materials, but in FY2016 progress was made in converting even more types of materials, dramatically reducing releases and transfers.

PRTR Substance Releases and Transfers

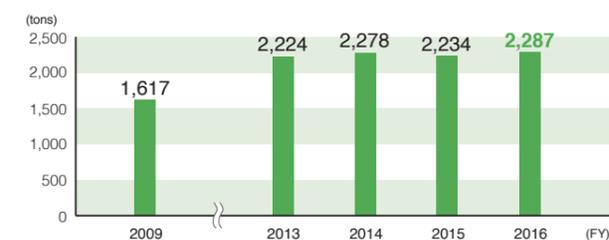


Reduction of VOC Emissions

Toyo Seikan

Volatile organic compounds (VOCs) are found in materials like solvents. At Toyo Seikan, this applies to materials such as coatings, inks and adhesives. A large amount of solvent is used in the production of film products, which has increased and thereby increasing VOC emissions. However, we are making efforts to reduce VOC emissions, for example through switching to solvent-free adhesives and solvent recovery.

VOC Emissions



TOPICS Toyo Seikan Co., Ltd.

Use of Toluene-free Inks and Solvents

Toyohashi Plant in the past mainly used inks and solvents containing a large amount of the harmful substance toluene in its printing processes, but switched to toluene-free materials in order to help the environment. It was a complete switch, a feat of a kind that Toyohashi Plant had never attempted before, but manufacturing, SCM and quality sections, with the support of Technical Headquarters, worked together to achieve it. Toyohashi Plant aims to be an environmentally considerate plant by continuously using toluene-free materials and with efforts to reduce ink usage and releases.



Left to right: Fukabori of Technical Headquarters, and Yokota (quality), Maeda (manufacturing) and assistant manager Inaishi (SCM) of Toyohashi Plant

TOPICS Honshu Seikan Co., Ltd.

Prevention of Chemical Substance Outflows

In anticipation of the possibility of a chemical spill occurring inside its liquid waste storeroom, Honshu Seikan Hyogo Plant has installed underground pits in the storeroom to prevent outflows from company premises. As part of more robust safety measures, work was carried out in FY2016 to increase the space inside the underground pits after confirming the storage condition and other aspects.



Underground pits After the work

Reduction of Water Consumption

Water Management at Plants

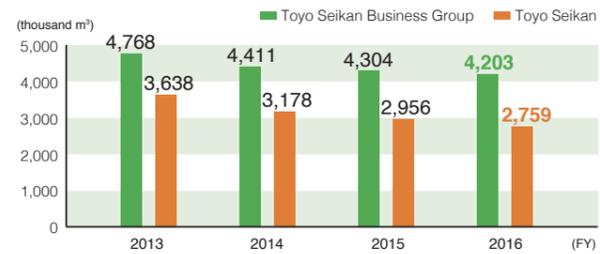
Toyo Seikan Business Group

The plants of Toyo Seikan Business Group use water resources for processes like product washing and cooling. Water usage in FY2016 was 4.203 million m³, resulting in a further reduction from the previous year achieved through efforts such as ensuring efficient use of water resources, efficient production and reusing wastewater.

Plants manage wastewater in accordance with self-imposed wastewater standards, which are stricter than the regulated criteria. After treatment, the water is returned to the environment, for example into the sea, rivers or streams. We will continue efforts to improve

treatment efficiency and ensure thorough management of chemical substances in wastewater as we strive to prevent water pollution and conserve water resources.

Water Consumption



TOPICS Nippon National Seikan Co., Ltd.

Reduction of Water Usage by Utilizing Water Treatment Outflow

Nippon National Seikan reduced annual water usage by around 14,000m³ by making use of outflow from the water treatment facility. Wastewater generated during washing processes for aluminum beverage cans is purified by the water treatment facility before discharging into a stream. Water treatment used to require a large volume of municipal water for preparation of bentonite (clay that adsorbs oil, fat and impurities) tanks. Recent facility improvements have made it possible to pump up and reuse purified water that was previously discharged into the stream. Eliminating the need for municipal water in tank preparation led to a cost reduction of ¥3.56 million. To enable ongoing, considerate use of water resources, Nippon National Seikan will also strive to maintain facilities while continue working to reduce water usage.



Left to right: Assistant manager Takatsuka, Hasegawa, Doi and Shimizu



Outflow tank Bentonite preparation tank

Green Procurement

Procurement Framework

Toyo Seikan Group

Toyo Seikan Group has established the Toyo Seikan Group Basic Procurement Policy and the Toyo Seikan Group Procurement Action Policy, and makes sure to remain humble and engage at all times in proper transactions with suppliers as important partners who help sustain our business activities.

Toyo Seikan carries out procurement in line with these

policies and in accordance with its own Procurement Management Regulations.

Green Procurement

Toyo Seikan

Toyo Seikan has set up a central chemical substance management working group to promote appropriate management of chemical substances used by plants and minimize their environmental impact.

To promote procurement of eco-friendly materials, Toyo Seikan has established the Toyo Seikan Green Procurement Guidelines (for Chemical Substances). In FY2014, we reviewed chemical substances covered by the guidelines and conducted a survey of suppliers to examine substance content in supplied items.

In FY2016, risk assessments for chemical substances had to be carried out in line with "Legislation for Partial Revisions to the Industrial Safety and Health Act". Accordingly, changes were made to allow integrated management of chemical substances pertaining to environment-related legislation and chemical substances related to occupational safety.

Toyo Seikan Basic Procurement Policy

Procurement departments shall procure required materials with the right quality, price and delivery times from the global market in line with the Toyo Seikan Corporate Code of Conduct and in-house regulations, in compliance with relevant laws and regulations, and based on fair transactions. Departments shall carry out procurement activities in a way that assists the creation of an enriched and fulfilling, sustainable society by contributing to safety and peace of mind, minimizing environmental impact and providing ease of use and enjoyment through business activities revolving around manufacturing of containers and packaging.

Communicating with the Community

As an activity supporting the education of children who represent future generations, Toyo Seikan Business Group provides lectures in classrooms at elementary, junior high and high schools to teach children about environmental issues through packaging. Other activities include participation in environmental events.

issues. In 2017, four companies—Toyo Seikan Group Holdings, Toyo Seikan, Toyo Glass and Tokan Kogyo—set up a stall for introducing eco-friendly products, empty can fishing and glass bottle workshops among other activities. It was an ideal opportunity for visitors to become more familiar with packaging.

Lectures in Classrooms

Toyo Seikan

Toyo Seikan commenced lectures in classrooms in 2011. In FY2016, we held lectures on the packaging 3Rs at six schools.

We create programs incorporating the requests of each school by meeting with teachers prior to the lectures.



SAITAMA Environment Fair

Toyo Seikan

Toyo Seikan participated in the SAITAMA Environment Fair, an environmental event organized by Saitama Prefecture. The company ran a packaging eco-quiz and can handicraft workshop.



Participation in Environmental Events Shinagawa ECO Festival

[Toyo Seikan Group Holdings, Toyo Seikan, Toyo Glass, Tokan Kogyo]

Toyo Seikan Group

The Shinagawa ECO Festival, held in May each year, aims to call attention to environmental activities of community organizations and other parties and to broaden networks for intergenerational exchange through environmental



SOCIETY

Relations with Society

Toyo Seikan considers it a corporate mission to contribute to society through its business activities, and will therefore contribute to the realization of an affluent society, placing value on its relations with stakeholders.



Corporate Governance

Toyo Seikan has put in place organizational foundations for the improvement of corporate value, and appropriate decision-making.

Corporate Governance System Toyo Seikan

The Board of Directors of Toyo Seikan is comprised of seven (7) Directors. The term of office for Directors is set at one year to clarify the management responsibility of the Directors and to flexibly build a management system that can quickly respond to changes in the business environment. In addition, Toyo Seikan has adopted an Audit and Supervisory Board system, and two (2) Audit and Supervisory Board Members audit the execution of duties by Directors and financial status of the company.

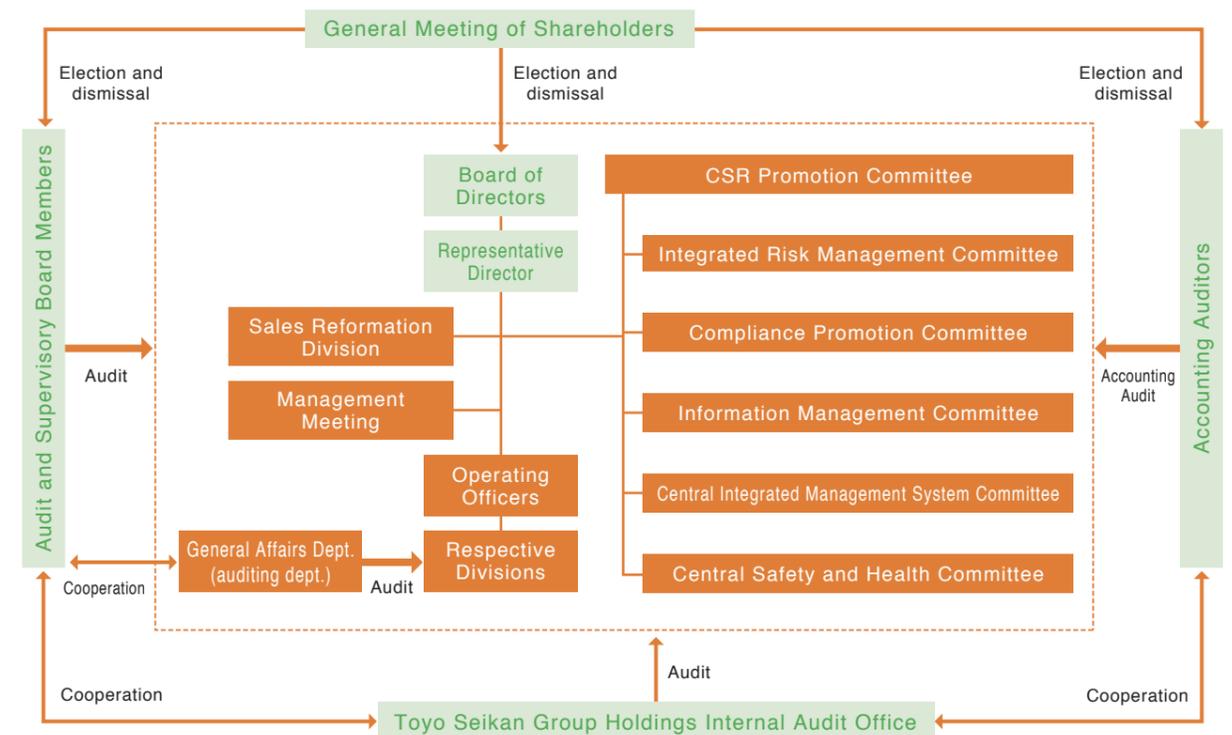
Strategic Planning and Execution through Management Meetings Toyo Seikan

The Company has adopted an Operating Officer System for a clear separation of management's decision-making/supervisory functions and the business execution function. We have also established the "Management Meeting" comprising President, Senior Executive Officers and Executive Officers for more speedy decision-making on corporate strategy.

Implementation of Corporate Governance Toyo Seikan

In FY2016, the Board of Directors met 17 times to discuss and make decisions on matters stipulated by laws and regulations and important business matters, and supervised the execution of business. The Company also held other meetings, including 35 Management Meetings and those of important committees such as the Integrated Risk Management Committee, in an effort to ensure implementation of sound corporate governance.

Corporate Governance System



CSR Management

Toyo Seikan

To gain the trust of all stakeholders, it is important for us to contribute to society by creating products and services that possess new value, through ongoing transformation and challenges in line with the basic

philosophy represented in our Founding Spirit. Using the basic CSR Policy of Toyo Seikan Group as a model, Toyo Seikan will work constantly to build trust with stakeholders, tying those efforts into the company's CSR management.

Basic CSR policy of the Group

The Toyo Seikan Group defines CSR as "a commitment to contribute to the happiness and prosperity of mankind through sincere and fair business activities." All employees of the Group understand its CSR initiatives and respond to all stakeholders.

All stakeholders	We will respect basic human rights and diversity of all people, communicate faithfully and act with such awareness.
Customers	We will provide safe and secure products, system and services to ensure customer satisfaction.
Suppliers	We will conduct impartial, fair and transparent business activities always with good ethics.
Shareholders and investors	We will strive to enhance corporate value, and manage and disclose information appropriately.
Employees	We will create a safe, hygiene and vibrant workplace.
Local communities	We will co-exist harmoniously with local societies and promote interaction with local communities.
Global environment	We will actively strive to preserve the global environment and improve environmental quality.

Risk Management

We manage risks by dealing with a wide range of risks that may adversely affect Toyo Seikan's business operations, to secure stable operating foundations.

Risk Management

Toyo Seikan

For risk prevention and emergency response, Toyo Seikan has established the Basic Risk Management Rules and the Basic Crisis Management Rules, and

systematically manages risks to respond to normal and emergency situations.

In FY2016, we reviewed which risks to be covered, which meeting to be responsible for each risk, and which department to be in charge of each risk. Business and management risks, and financial and accounting risks have been added as new risk categories. The above-mentioned meetings and risks are listed below.

Management Meeting		
(1) Business and management risk	(2) Financial and accounting risk	(3) Debt collection risk
Integrated Risk Management Committee		
(4) Risk of natural disasters and accidents	(5) Compliance risk	(6) Information security risk
(7) Manufacturing and quality risk	(8) Environmental risk	(9) Country risk

Compliance

Under the corporate philosophy of "contributing to the happiness and prosperity of mankind through packaging technology" and the Toyo Seikan Group management philosophy established in April 2016, Toyo Seikan is engaged in corporate activities with all employees being aware that they must constantly create new value while respecting dignity and always striving to be fair and unbiased in every way.

Compliance Promotion Organization

Toyo Seikan

The Compliance Promotion Committee, chaired by an officer appointed by the President and comprising heads of divisions or persons designated by them, has been established to promote activities to instill and entrench compliance awareness, ensure prevention and early detection of violations, identify causes, and make corrections and prevent recurrence across the organization in a flexible manner.

In addition, the committee chairperson appoints one person at each plant/office to advance compliance education activities at the site.

Compliance Education

Toyo Seikan Group

Toyo Seikan Group provides various compliance training for employees, managers, senior management and others as part of efforts to raise and enhance awareness about compliance.

- Training for new hires (held in Apr. 2016)
- Legal training for newly appointed group company officers (held in Jul. 2016)
- Group compliance training (held in Oct. 2016)
- Online compliance course for newly appointed managers

Compliance Promotion Month

Toyo Seikan

Since 2007, the Toyo Seikan Group has designated every October as "Compliance Promotion Month". In FY2016, we undertook compliance activities, featuring "respect for human rights and individuality" and "proper management and disclosure of information".

Compliance promotion activities conducted by Toyo Seikan include publication of the fifth edition of the Corporate Code of Conduct, collation and checking of departmental compliance guidelines, and display of educational posters, as well as holding compliance quiz event for employees and a compliance slogan competition.



Global Compliance Activities

Toyo Seikan Group

Toyo Seikan Group has been conducting Group compliance promotion activities since 2005, and has made progress in instilling and entrenching compliance awareness at domestic group companies. Meanwhile, at overseas group companies, the compliance system has been inadequate, even though we now have more than 40 group companies overseas as a result of proactive global expansion. As the significance of overseas business is expected to be further emphasized, we have decided to implement global compliance activities assuming risks inherent in overseas markets. We began at our group companies in Thailand in account of the number of companies we have there, sales scale, etc. Besides identifying the risks in Thailand and ascertaining what was being done to address those risks, training sessions were held locally for Thai managers and Japanese personnel.

Having judged that bribery would become a major risk for overseas operations, we commenced related activities in FY2016, including gathering information on bribery risk and examining possible approaches.

Accepting Fair Trade Inspection with Seriousness, Aiming to Strengthen Compliance

Toyo Seikan

In April 2017, Toyo Seikan was subject to an on-site inspection by the Japan Fair Trade Commission in relation to Antimonopoly Act. The company is readily cooperating with the investigation, which is still in progress. We will make efforts to strengthen compliance as we strive to prevent a recurrence and regain trust.

Together with Employees

To be able to “contribute to the happiness and prosperity of mankind” in line with the fundamental principles behind Toyo Seikan’s founding, we seek people who will grow and develop through ongoing changes and new challenges. Our aim is to create workplaces where people with diverse and unique talent—such as those who come up with innovative technologies and ideas, or who eagerly look to try new things—can play an active role, utilizing the full extent of their abilities.

Toward the Development of Human Resources Sought by Toyo Seikan Toyo Seikan

“Motivation” and “pride” are essential elements for human growth. The company defines the type of human resources it seeks and sets out specific guidelines for the conduct expected of people in each job rank or role. Further growth will be achieved by each and every employee’s making efforts in their daily work based on the full understanding and awareness of the guidelines. Supervisors, too, evaluate employees fairly based on these guidelines and convey the results of such evaluations through “feedback meetings” including their strengths and weaknesses and what are expected of them. Having employees set their own tasks and review their own performance helps to develop independent-minded human resources.

Pursuing a Corporate Culture that Embraces and Benefits from Diversity Toyo Seikan Group

In the rapidly changing business environment now, the company has enhanced the collective strength of the Group and advanced into new fields, such as new and overseas businesses. We must have diverse abilities, values and ideas in order to survive in the future, and to constantly contribute to society. Toyo Seikan is expanding recruitment of mid-career and foreign workers with the aim of securing personnel who can flexibly respond to changes.

We also support the work-life balance of employees, for instance through post-retirement employment as special employees after mandatory retirement age of 60, if they so desire, and extensive childcare support programs for female employees. In response to the Japanese Act for Promoting Women’s Active Participation in the Workforce, effective from April 2016, Toyo Seikan Group has presented an activity plan, while group companies individually formulate action plans that incorporate quantitative targets.

Human Resources Development Toyo Seikan

In order to pursue management centered on “people” and “technology”, the company supports the development of employees with a desire to better themselves by providing not just classroom lectures but also on-the-job training.

Nurturing Engineers Who Will Support the Next Generation

To ensure the transfer of skills, we have established the Technical Education Center equipped with training machines. Through hands-on experience with machines in addition to lectures, the next generation of engineers are being developed. In FY2016, 235 employees underwent this training.

For new hires in production departments, basic systematic on-the-job training is supplemented by extensive off-the-job training at the Technical Education Center, which allows them to thoroughly master the basic principles of manufacturing in their first three years of employment.

We anticipate there will be a growing need to furnish overseas with production equipment, packaging containers and associated manufacturing technologies. As part of efforts to develop human resources able to work at the frontline of our global operations, we are sending employees to overseas universities with packaging studies departments so they can develop a global perspective and gain firsthand experience of packaging trends. Living and studying within a foreign culture, employees acquire broader vision and different perspectives from which to make sense of new trends, allowing them to develop into human resources who can make a difference at the forefront of our global expansion.



Human Development Initiatives and Career-Path Support Tailored to Various Needs

The company offers 447 distance learning courses to motivate employees to acquire new knowledge and partake in a wide range of roles.

- Distance learning courses: Full reimbursement of program fees to those who complete courses (A total 2,014 courses were taken in FY2016)



We also have an incentive system in place to encourage employees to obtain official qualifications and licenses relating to their jobs and improve the standard of their work. Successful employees are paid a monetary award corresponding to the qualification. Efforts are made to enhance the system by reviewing applicable qualifications as our business evolves.

To help employees naturally familiarize themselves with foreign cultures and thereby contribute to further expansion and development of our overseas business, we provide support for foreign language learning as well as pre-departure training prior to an overseas posting to teach them about culture, religion, customs, public safety and other aspects of the destination. We have introduced language training for new employees, and sessions for junior employees promoting cross-cultural understanding, in order to encourage them to turn their attention to overseas business at an early stage.

Internship Program Toyo Seikan

Toyo Seikan provides opportunities for work experience to students with an interest in manufacturing. Experiencing an actual job and coming into contact with manufacturing equipment, they get a feel for the work environment. We accepted seven students for the FY2016 summer internship, giving them a chance to envision their own views on employment and career options.

Voice

Selected Comments from Students Participated in the Internship Program

“I realized the joy of making things through hands-on experience in development work at a packaging manufacturer.”

“I was able to envisage what it is like to work. It was a truly valuable experience.”

Safe, Hygienic and Energetic Workplace Toyo Seikan

We pursue safety and health activities throughout the company so that employees can work comfortably in a safe and hygienic work environment.

In the area of safety, we endeavor to lower the risk of danger by raising employees’ sensitivities to dangers, reviewing work methods and making improvements to facilities in relation to operations that could potentially lead to a serious occupational accident.

Information about accidents at other plants is promptly shared to improve sensitivities and enable full cross-organizational implementation of measures through “disaster case studies,” thereby preventing recurrence of similar accidents. To lower the risk of accidents caused by younger employees, those with limited experience, and part-time or temporary personnel, we establish on-the-job training work manuals indicating specific dangers for use in actual on-site training and provide education using case studies of actual accidents caused as training materials.

In the area of health, we view the health of employees as one of our top management priorities and strive to prevent illness and injury. We also put in place structures and provide education relating to health management so that employees will take responsibility for managing their own health. Specifically, we implement activities that aim to promote mental and physical health maintenance of our employees. They include provision of health guidance and support based on the results of routine health examinations; stress checks and seminars encouraging self-care and care by the organization as ways to promote mental health; measurement of work environments and chemical substance risk assessments for the purpose of preventing occupational illness; and support for giving up smoking in collaboration with our health insurance association.

Quality Assurance

Delivering Safety and Reliability Toyo Seikan

Many products made by Toyo Seikan are containers for food, beverage, household commodities and other products closely tied to our daily lives. We make sure never to stray from the philosophy of the company founder, Tatsunosuke Takasaki—"humans need food to live and therefore people who work with food in their jobs must be sound of mind."

Toyo Seikan has also obtained ISO 9001 (quality management system) and FSSC 22000 (food safety management system) certifications for its quality-related management systems and makes ongoing improvements to product quality and quality assurance mechanisms to enable delivery of "safer, more reliable packaging products."

Ensuring Appropriate Quality Assurance Toyo Seikan

Our packaging products are used in various ways in diverse situations, such as for items, like canned food, consumed after long periods of storage; beverages, like soft drinks in PET bottles, sipped directly from the container; and substances in spray cans containing flammable gas. To prevent defects and problems, we are building quality assurance structures for carrying out appropriate examination, taking into account all processes covering materials and customers right up to consumption by end users.

In regard to new products and products with revised specifications, we perform proper quality assurance activities involving appropriate reviews for each stage.

If a problem were to occur, we would promptly take suitable action, thoroughly investigating the cause, implementing temporary and permanent measures as appropriate to prevent a recurrence, and standardizing.

Sound Quality Management Toyo Seikan

Packaging production processes and packaging products themselves undergo a variety of inspections according to criteria determined under parameters including dimensions, appearance and functionality. We also incorporate in-line inspection devices into production lines and look to improve accuracy through system upgrades and other methods. In this way, we continue

efforts to enhance safety and reliability.

In addition, we liaise with material suppliers, outsourcing partners and other related companies, which are vital to building quality into products, about activities aimed to improve quality.

Initiatives for Realizing Suitable Production Environments Toyo Seikan

To ensure that our manufacturing operations can earn the trust of customers, we are strengthening security measures prior to entry to production plants as a food defense against intentional contamination of packaging containers by suspicious persons.

And by implementing the 6Ss—seiri (tidiness), seiton (orderliness), seiso (cleaning), seiketsu (cleanliness), shitsuke (discipline) and saho (courtesy)—, and paying attention to the hygiene of products, we will make it possible to deliver even higher levels of safety and reliability.

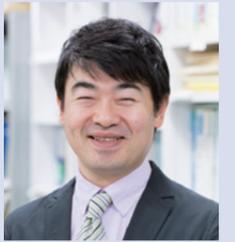


Third-Party Opinion

on Toyo Seikan Sustainability Report 2017

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Congratulations on your centennial anniversary. With features that look back on the past 100 years and outline a future vision looking ahead to 2050, this report offers a self-evaluation of current activities from both past and future perspectives with extensive coverage worthy of a commemorative issue.

Above all, I was very intrigued by the development of containers and packaging manufactured by Toyo Seikan over the last 100 years. Explanations about topics such as launch of can manufacturing with automatic can making machine as well as manufacturing of retort pouches and PET bottles, and Toyo Seikan's original technologies like the TULC and NS System are presented alongside historical social events in a compact format.

Green Challenge 2050 sets a numerical target of reducing CO₂ emissions, including those from the value chain, by 50% by 2050. Conveying the intention to comprehensively tackle water and resource issues with specific targets adds to a favorable impression. With a road map for achieving targets also presented, the management team has a clearly defined vision, based on which we can sense their desire for sustainable business management.

Contributions to environmental protection through business activities are also innovative. Over the last 12 years, weight of steel/aluminum can and PET bottle has been reduced by 10%. One of the success stories is the redesigning of 18-liter can, achieving a 15% weight reduction. These facts show that innovation has been made constantly at Toyo Seikan. A good organizational framework is in place where targets are introduced from the top down, while innovation is pursued from the bottom up.

I would like to make the following suggestions to assist further improvements.

Cooperating with other companies through supply chains and life cycles

Activities up to procurement of raw materials create the greater part of the environmental impact of packaging, regardless of the type of package. Therefore, reducing the weight of packaging and increasing the recycling rate go hand in hand. Packaging weight has been drastically reduced thanks to efforts by the industry, including Toyo Seikan Group. The recycling rate is approximately 90% for PET bottles, and exceeds 90% for both steel and aluminum cans. The Circular Economy

Package promoted by the European Commission is drawing keen attention right now. It aims to raise the recycling rate for packaging to 75%. Japan, where European targets are well outperformed, is set to be a benchmark for those efforts. In Europe, measures are driven by the private sector, creating anticipation of substantial business opportunities for the Japanese industry. Japanese packaging manufacturers are expected to collaborate with waste collectors and recyclers to transfer their business model that reduces raw materials and increases the recycling rate to Europe and the rest of the world.

Clarifying the relationship with SDGs

Many corporations have already stated the connection between the SDGs and their main business. The SDGs are valid as basic information for determining materiality, and they are expected to be effective as a tool for communication within and outside the group. As packaging can help reduce food losses, Toyo Seikan can contribute to the achievement of Goal 2 (achieve food security and improved nutrition). Reducing raw materials and increasing the recovery rate are strongly related to Goal 12 (ensure sustainable consumption and production patterns). Targets specified in Green Challenge 2050 will link to solutions for Goal 6 (water), Goal 13 (climate change), Goal 14 (marine ecosystems) and Goal 15 (terrestrial ecosystems). I believe that clearly defining the connection between international goals and the company's main business will add impetus to the overseas expansion of its business.

Enhancing the social dimension

The report provides information on activities relating to governance, compliance and quality assurance. On the other hand, there is a strong expectation that Toyo Seikan will contribute to solutions for hunger and poverty as a packaging manufacturer with a mission to secure stable supply of food. These issues demand an even higher level of materiality determination, and I believe this will uncover a way to achieve sustainable management looking ahead to the next 100 years.

Having reached the centennial milestone, I look forward to further evolution of Toyo Seikan as a company that drives the creation of a sustainable society through Green Challenge 2050.



 **Toyo Seikan Co., Ltd.**



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