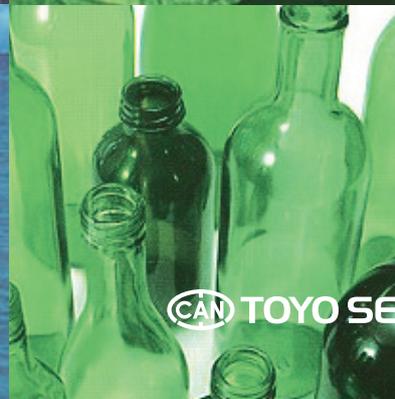


# Environmental and Social Reports 2008



# We create ideal packages every day.

We are committed to contributing to society through our packaging technology.

Toyo Seikan was founded in 1917.

In 1919, we started manufacturing cans using Japan's first automatic can making system.

Our basic policy, unchanged since the company's foundation, is to "contribute to society through our packaging technology."

Toyo Seikan keeps on growing as a leading manufacturer within the industry, specializing in metal cans for foods and drinks (our mainstay products) and plastic containers such as PET bottles.



## Company Profile

Established : June, 1917  
President : Hirofumi Miki  
Head Office : Saiwai Bldg., 1-3-1 Uchisaiwai-cho,  
Chiyoda-ku, Tokyo 100-8522 Japan  
C a p i t a l : ¥11,094,600,000  
S a l e s : ¥351,300,000,000 (FY2007)  
Employees : 4,958 (as of March 2008)  
Area of business : Manufacturing and sale of packages and containers  
made of metal, plastic and composite materials  
thereof, and sales and technical services for  
food-related machinery and packaging systems

## The eight principal companies of the Toyo Seikan Group

- ①Toyo Seikan Kaisha Ltd.  
(Metal cans, PET bottles, and plastic containers)
- ②Toyo Kohan Co., Ltd.  
(Tin, thin metal sheets, surface-treated steel sheets, and various functional materials)
- ③Toyo Glass Co., Ltd.  
(Glass bottles and glass-related products)
- ④Tokan Kogyo Co., Ltd.  
(Paper cups and plastic containers)
- ⑤Japan Crown Cork Co., Ltd.  
(Metal and plastic caps)
- ⑥Toyo Food Equipment Co., Ltd.  
(Container production and canning and bottling machines)
- ⑦Toyo Aerosol Industry Co., Ltd.  
(Filling of aerosol products)
- ⑧Tokan Material Technology Co., Ltd.  
(Enamel and various glazes, coating materials for FRP, and plastic pigments)

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## Requirements of this Report

- 1.Scope:This report details the activities of Toyo Seikan Kaisha, Ltd. and summarizes the activities of both the Toyo Seikan Group as a whole and its individual Group companies.
- 2.Period:April 1, 2007, to March 31, 2008 (including some information for the period up to June 2008)
- 3.Areas:Environment and society
- 4.Date of issue:July 2008
- 5.Next issue planned:July 2009
- 6.Relevant department and contact address:  
Environment Department, Material Purchase & Environment Division,  
Toyo Seikan Kaisha Ltd. Saiwai Bldg., 1-3-1 Uchisaiwai-cho,  
Chiyoda-ku, Tokyo 100-8522 Japan  
Tel: 03-3508-2158, Fax: 03-3503-5418  
Toyo Seikan Web site  
URL: <http://www.toyo-seikan.co.jp>

This report has been created based on the "Guideline for Environmental Reporting 2007" of the Ministry of Environment and the "Sustainability Reporting Guidelines 2002" of GRI.

To Readers of the "Environmental and Social Reports" of the Toyo Seikan Group. Toyo Seikan has been issuing an environmental report every year since 1999. This FY2008 issue is the tenth "Toyo Seikan Group Environmental and Social Report". To enhance reliability, this report has included the opinions of a third party every year since FY2004 and these opinions are used as a point of reference for the next year's issue. The problems highlighted in the FY2007 issue regarding "ease of understanding" and "readability" have been solved by significantly reducing the number of pages. Furthermore, the social content of the report has been enhanced in order to maintain a good balance between the environment- and society-related topics. Your comments and opinions on this report are most welcome. Please fill out and send back the questionnaire provided at the end of this report. These comments and opinions will be reflected in future issues, whenever possible.

## A Message from the President



In recent years, the “prevention of global warming” has become a common keyword around the world. Now that the Commitment Period of the Kyoto Protocol has started, the reduction of carbon dioxide emissions has become one of the most important issues in our corporate activities and the promotion of energy conservation activities is an urgent priority.

Toyo Seikan obtained ISO14001 certification for our company-wide integrated quality management system in 2007, and each of the Group companies has also obtained certification for its own system. The reduction of environmental impact is pursued through the operation of these systems.

Toyo Seikan Group, led by Toyo Seikan and consisting mainly of container and material manufacturers such as Toyo Kohan, Toyo Glass, Tokan Kogyo and Japan Crown Cork, has, ever since its foundation, actively promoted the reduction of industrial wastes, energy conservation and resource conservation in an effort to reduce the environmental impact that accompanies our corporate activities. Since the 1980’s, when global environmental problems first gained prominence, we have employed the Life Cycle Assessment (LCA) technique for the comprehensive evaluation of environmental impact for industrial products and systems, in order to develop eco-friendly products. Recently, a CDM project in Thailand has been undertaken. Furthermore, we are carrying out a comprehensive program of ongoing activities involving the enhancement of environmental management, for which we established the “Toyo Seikan Group Eco Action Plan 2010” consisting of three stages, namely “Environmental Vision, Environmental Targets and Action Plans,” and we have defined quantitative targets for products, production activities, purchases, logistics, sales activities, resource recycling, communications, and environmental management.

In this rapidly changing society of ours, the role to be played by the Toyo Seikan Group is continually changing, but our responsibilities to society and our missions as a corporation are always growing in importance. In order to protect the global environment and realize a society that can maintain sustainable growth, we at the Toyo Seikan Group are striving to maintain our position as an innovator and pioneer of new age, always asking ourselves

what we can do as a member of society.

Recently, a number of scandals and accidents relating to the violation of corporate compliance were reported in news, causing our society to take a more critical view of the way industry groups conduct their business and to question the attitudes of corporations that are devoted solely to the pursuit of profit.

Toyo Seikan Group considers that our compliance promotion activities are important management tasks on which its survival depends. We are taking measures to strengthen corporate governance in order to effect changes in the framework of management and promote activities to improve corporate ethics by revising the “Corporate Code of Conduct for Ethical and Legal Compliance”. Furthermore, the entire group is also working on compliance promotion activities related to overseas operations.

In order to disclose information on these environmental, social, and economic initiatives to the public, we have prepared this “Environmental and Social Report 2008” of Toyo Seikan Group, describing the conditions of environmental management throughout the entire group, along with improvement activities being undertaken in the area of corporate ethics, and the involvement of our employees in these efforts. We hope that everyone reading this report will gain a deeper understanding of our involvement in corporate activities and provide us with their support in the future.

President  
Toyo Seikan Kaisha, Ltd.

### Management Philosophy of Toyo Seikan

#### Our Fundamental Principles

1. Our objective is to bring happiness to mankind.
2. Purpose of our business is not just to gain profit. Profit is a result of our hard work and not our main aim.
3. Each of us must incorporate a sense of service in our work. Exercise this sense collaboratively and strive to ensure the prosperity of our business partners in the same way as we would for ourselves.

#### Work Rules for Our Employees

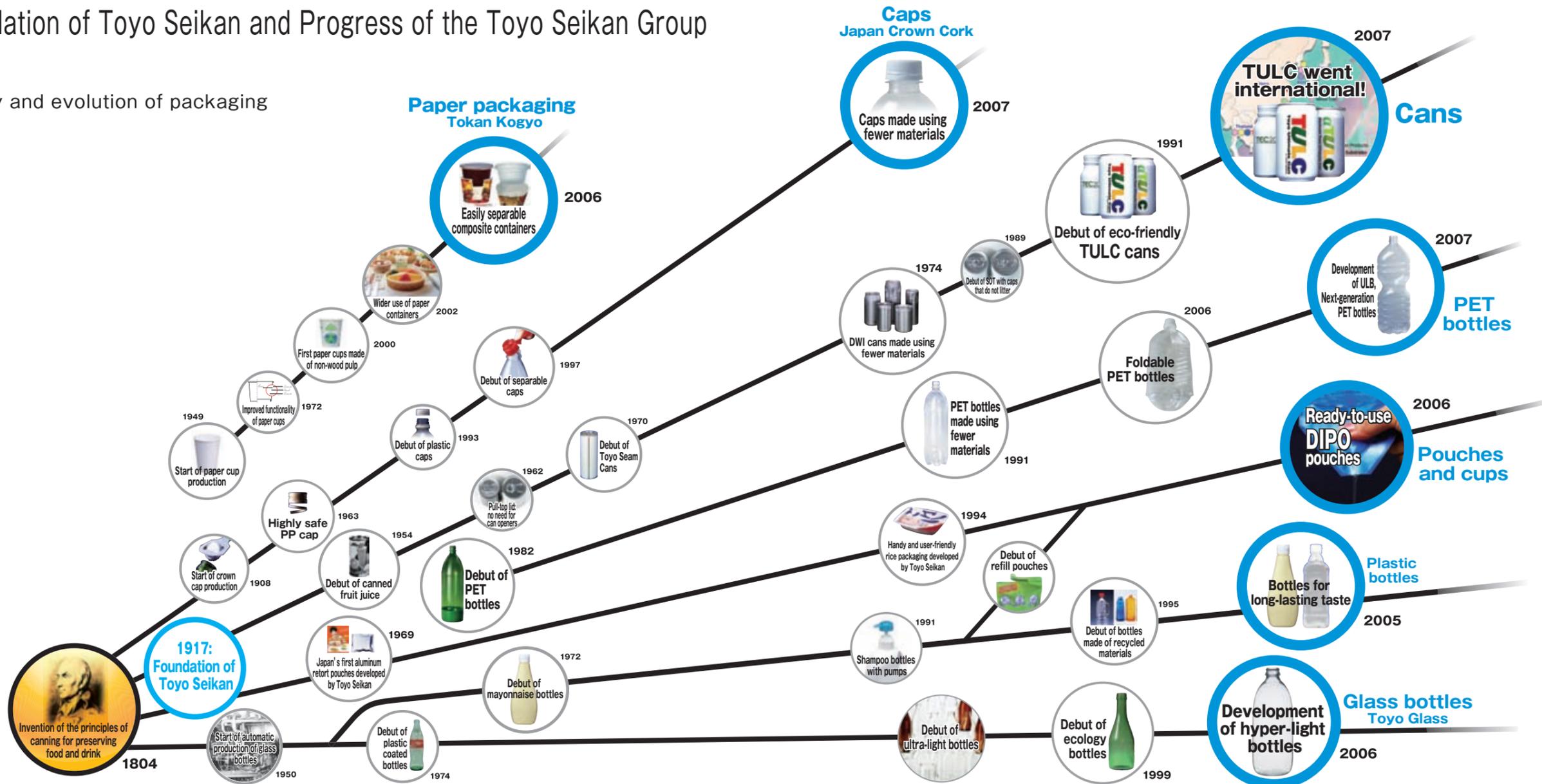
1. Toyo Seikan is a mutual packaging factory for all customers who require packaging. Our employees must be loyal to our customers we serve.
2. Our products must be better in quality, lower in price and must be supplied more quickly than those of other companies. We should not think that we are just selling our products, but we must rather think that we are sending off our beloved children we raised with utmost care.
3. To be satisfied with only a small success is to take a step backwards. Our first duty must be to work without losing our youthful vitality and courage.

### Five Action Guidelines

- (1) Our corporate management philosophy, ever since the company’s foundation in 1917, has remained a strong focal point of Toyo Seikan.
- (2) Concentrate on the core of our business: packaging.
- (3) Always place customers first.
- (4) Keep our internal organization simple.
- (5) Individual efforts must continue to further improve quality and productivity.

# Foundation of Toyo Seikan and Progress of the Toyo Seikan Group

History and evolution of packaging



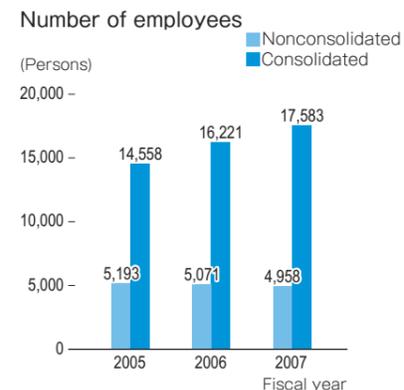
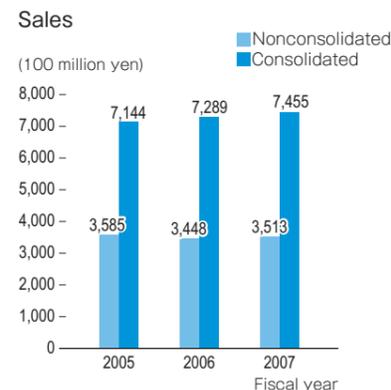
In France, Nicolas Appert invented the principle of canning, which initiated the evolution of the current generation of airtight containers.

Period devoted to the establishment of conservation stability

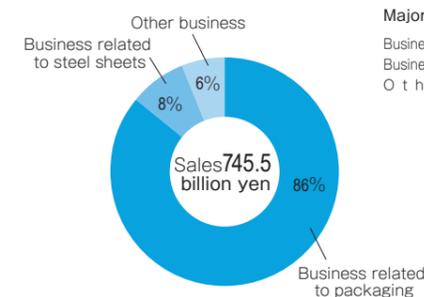
Period devoted to the pursuit of usability

Period devoted to the evolution of new techniques for global environment conservation

## FY2007 fiscal highlights



## Segments by business type (consolidated)



### Major products of the different business units

Businesses related to packaging : Can products, plastic products, glass products, paper products, etc.  
 Business related to steel sheets : Steel sheets, treated steel-sheet products, etc.  
 Other business : Glazes, pigments, substrates for magnetic disks, mechanical devices, petroleum products, etc.



The Toyo Seikan Group is pursuing expansion and the qualitative improvement of eco-friendly products.

We are striving for continuous quantitative expansion and the qualitative improvement of eco-friendly products.

In the development of eco-friendly products, attention is paid to the following three points:

First, measures are taken to ensure the thorough reduction of environmental impact throughout the lifecycle of each product, with regard to both energy and resource conservation.

Second, eco-friendly designs are pursued in order to minimize the environmental risks of products that may impact on safety and the global environment.

Third, the concepts of functional improvement and universal design are pursued in order to develop products with high added values that will improve the level of customer satisfaction.

The aim of "harmonization of the global environment" is pursued by means of our "packaging technology."

The Toyo Seikan Group, which began business with the production and sale of tin cans for canning in 1917, has continued to supply a wide range of packaging and containers for more than 90 years. Throughout this period, the Group has developed new forms of packaging and new technologies, while always bearing in mind "how the packaging can conserve its contents safely and efficiently."

We refer to the know-how developed through these efforts as our "packaging technology" and intend to bring this technology that the Toyo Seikan Group has developed to the world market, starting this process by meeting the demanding Japanese environmental standards.

# Packaging Technology to Help

The Toyo Seikan Group carries out business activities directed mainly at the production and sale of various forms of packaging, including metal cans, plastic containers, glass bottles, paper products and caps as well as the production and sale of thin metal sheets, various materials, machinery, and aerosol filling.

# Conserve Our Beautiful Earth

## List of Consolidated Subsidiaries and the Main Group Companies of Toyo Seikan Kaisha, Ltd.

- |  |  |
|--|--|
| <p><b>Toyo Seikan</b></p> <ul style="list-style-type: none"> <li>●Nippon National Seikan ●Honshu Seikan ●Shikoku Seikan</li> <li>●Ryukyu Seikan ●Daito Seikan ●Fukuoka Packing</li> <li>●Toyo Pack International ●Toyo Denkai ●Toyo Unso</li> <li>●Tokan Unso-Soko ●Tokan Unyu ●Saiwai Trading ●Tokan Kyoei</li> <li>●Bangkok Can Manufacturing Co., Ltd.</li> <li>●Well Pack Innovation Co., Ltd. ●Malaysia Packaging Industry Berhad</li> <li>●Toyo Pack International Co., Ltd.</li> <li>●Asia Packaging Industries (Vietnam) Co., Ltd.</li> <li>●Crown Seal Public Co., Ltd. ●Kanagata (Thailand) Co., Ltd.</li> </ul> | <p><b>Tokan Kogyo</b></p> <ul style="list-style-type: none"> <li>●Nippon Tokan Package ●Tokan Kosan ●Toyo Unicon</li> <li>●Ueda Paper Cup &amp; Lid ●Shosando ●Tokan Logitech</li> <li>●Sunnapp ●Taiyo Plastic Corp. of the Philippines</li> <li>●東罐(常熟)高科技容器有限公司</li> </ul> |
| <p><b>Toyo Kohan</b></p> <ul style="list-style-type: none"> <li>●Kohan Kogyo ●KY Technology ●Kohan Shoji ●Toyo Partner</li> <li>●TOYO PAX ●Kyodo Kaiun ●Kudamatsu Unyu</li> <li>●Toyo-Memory Technology Sdn. Bhd. ●East Cheer Investment Limited</li> <li>●Shenzhen KTM Glass Substrate Co., Ltd.</li> <li>●KTM Glass Substrate Hong Kong Co., Ltd.</li> </ul>   | <p><b>Japan Crown Cork</b></p> <ul style="list-style-type: none"> <li>●Honma Tekkojo</li> </ul>  |
| <p><b>Toyo Glass</b></p> <ul style="list-style-type: none"> <li>●Toyo-Sasaki Glass ●Toyo Glass Machinery ●Shimada Glass</li> <li>●Tohoku Keisha ●Shimada Special Glass ●Tosho</li> <li>●Toyo Glass Butsuryu ●Toyo Glass Machinery Singapore (Pte) Ltd.</li> </ul>  | <p><b>Toyo Food Equipment</b></p> <ul style="list-style-type: none"> <li>●Toyo Filling International Co., Ltd.</li> </ul>  |
|  | <p><b>Tokan Material Technology</b></p> <ul style="list-style-type: none"> <li>●Mikawa Ceramics ●多瑪得(上海)精細化工有限公司</li> <li>●多瑪得(廈門)精細化工有限公司 ●日龍發展有限公司</li> <li>●太星發展有限公司 ●TOMATEC America, Inc.</li> <li>●First Clarion Enterprise Inc.</li> </ul>                            |

\* Names enclosed in boxes represent the eight principal companies. Underlined names represent consolidated companies.



## The Role of Packaging in Benefiting the Environment and Society

### Role of packaging

The role of packaging is to act as a link between the production and consumption of all kinds of goods in society. These goods include all sorts of commodities, products and merchandise, very few of which are ever placed in circulation without packaging of some kind. Packaging conserves all goods "securely, properly, and beautifully" and ensures that they are delivered to consumers in their original form.

#### Secure conservation

First of all, packages and containers must protect their contents.

They must preserve, for a certain period of time, all their contents intact and without letting any of the desired properties deteriorate. Ensuring that the type of packaging used is suitable for its contents is an important consideration in this regard. "Secure conservation" refers to ensuring the security and safety of the product from the production stage through to consumption by protecting and conserving the contents.

#### Proper packaging

Second, packages and containers must be convenient for transport, conveyance and distribution.

Packages and containers must endure rather rough handling and, preferably, still be easy to open and dispose of afterwards.

The availability of "proper packaging" is essential to ensure both the economic distribution of goods over a wide area and their convenient consumption, anytime and anywhere.

#### Beautiful packaging

Third, all packages and containers must show what their contents are and convey all necessary information to consumers. Packages and containers are both media for information and powerful tools for sales promotion. "Beautiful packaging" is a messenger that expresses the merits of its contents.

### Packages and containers as a System for Reducing Environmental Impact

"In the end, packages and containers are thrown away as garbage. Aren't they wasteful and bad for the global environment?"

Do you think of packages and containers in this way?

Maybe they are too commonplace in our daily lives to be seen in their true colors but, in reality, packages and containers and packaging systems are actually functioning very effectively as an environmentally friendly "environmental impact reduction system".

Packages and containers prevent the loss of many resources. With regard to farm and marine products, in particular, only the most useful parts of these products are packaged and transported to the consuming regions in order to minimize garbage, and packaging prevents any damage and bruising of the products en route, thereby enhancing efficiency.

Without a packaging system, various foodstuffs sent from producing regions would deteriorate and many of them would be unfit for consumption before they reached the consumer.

Foodstuffs are packaged in producing regions and unnecessary foodstuff residues and components are kept out of consuming regions. Such an arrangement enhances the efficiency of transportation, significantly reducing the amount of fuel consumed by trucks, railroads and airplanes and minimizing the amount of energy involved in physical distribution. The amount of space needed for storage is also reduced.

#### Best way ahead for packaging manufacturers

Is there a truly eco-friendly system that can be realized while still ensuring security and safety? How can the amount of materials used in containers be reduced? What can be done to promote a recycling system for used packaging? How can packaging and containers be made more convenient and easier to use?

Those of us who are engaged in the production of packaging are committed to continuing our efforts to further reduce environmental impact in the pursuit of a sustainable society.

Bringing TULC, an environmentally friendly can, to the world



sTULC/aTULC production lines have started operation in Thailand

In 1991, Toyo Seikan developed TULC (the Toyo Ultimate Can), a can with polyester film laminated on both sides of a metal sheet. The TULC container was developed with an eye towards "harmonization with the environment." It does not require water for its manufacture, generates significantly less carbon dioxide and industrial waste than previous products, and features improved recyclability.

Development of sTULC

TULC is manufactured using Toyo Seikan's proprietary technology - a dry forming method in which no lubricant or coolant is used. In 2001, Toyo Seikan developed aTULC, comprising an aluminum substrate and formed by a new dry forming method involving a body maker (a globally used DI can manufacturing method). In 2007, the improvement of forming technologies allowed the body-maker-based forming of a steel substrate (which used to be more difficult to use due to its work-hardening property) leading to the debut of sTULC. Like aTULC, sTULC manufacture resulted in a significantly reduced environmental impact in the manufacturing process. In October 2007, production lines for both sTULC and aTULC started operation at BCM (Bangkok Can Manufacturing Co., Ltd.), a Toyo Seikan subsidiary in Thailand.

Approval as a small-scale CDM\* project

The use of these lines with low environmental impact enhances the energy efficiency of the production process for metal drink cans and reduces the overall environmental impact by the equivalent of 1,800 tons of carbon dioxide for each line per year. In January 2008, this project was approved and announced as a small-scale CDM project by the Japanese government. At present, activities are being carried out in order to obtain the approval of the government of Thailand.

\* CDM  
Stands for Clean Development Mechanism. The CDM is a scheme in which industrialized countries provide technical and financial assistance to developing countries and collaborate with them in order to carry out projects that can reduce greenhouse gas emissions, in return for which the industrialized countries can earn emissions credits equivalent to the reduced amount (all or in part).



Production facilities for both aTULC and sTULC at BCM

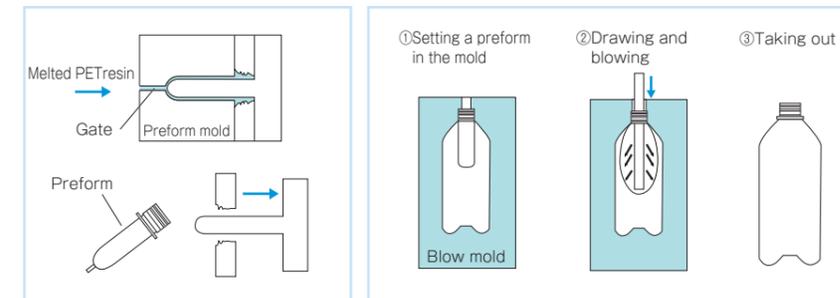


PCM production line starts operation

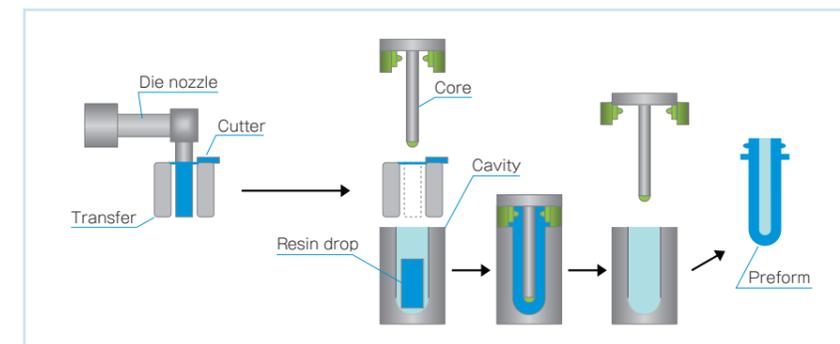
A PET bottle is made by molding a preform and then blow-molding it. Instead of the conventional preforming method of injection molding, Toyo Seikan developed Preform Compression Molding (PCM) technology and started using it for commercial production. PCM, which enables continuous molding to be carried out at lower temperatures than injection molding, can be positioned as the first step in the construction of energy-saving PET bottle production lines in the future.



Conventional preform molding    Manufacturing PET bottles via drawing and blow molding



New preform molding using PCM

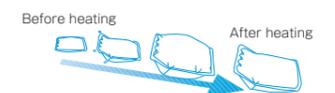


E-RP TRAVIS

Toyo Seikan has developed E-RP (a microwavable pouch incorporating a vapor self-release function) into a totally new flat-position design called TRAVIS which is safe, low-cost and easy to use.

E-RP comes in flat, standing, and branch types. TRAVIS was developed to make the best possible use of the advantages of these existing types.

E-RP TRAVIS, which can be heated in a microwave oven while placed flat, is transformed by heating and remains transformed after heating, offering improved ease of handling and safety. The use of materials has been reduced by about 15%, compared to the conventional branch type. This is a universal-design container and is very environmentally friendly, as the use of a microwave oven instead of hot water for heating contributes to a reduction in carbon dioxide emissions by about 90%. Toyo Seikan won a "Good Packaging - Technical Packaging Award" for E-RP TRAVIS at the Japan Packaging Contest in FY2007, as well as a "2007 World Star Award" from the World Packaging Organization (WPO).



## Participation in trial projects using the carbon footprint system

In pursuit of practical applications for the so-called carbon footprint system, whereby products carry an indication of their lifecycle carbon dioxide emissions, the Ministry of Economy, Trade and Industry established the "Study Group for Developing and Promoting the Carbon Footprint System" in June 2008.

The carbon footprint is an index printed on products, indicating the amount of carbon dioxide emitted during their entire lifecycle, from resource mining through to disposal, so that consumers can easily recognize the environmental impact of each product.

This Study Group will discuss basic concepts such as the methods available for calculating carbon dioxide emissions and displaying them on products. Furthermore, the Study Group will manufacture trial product samples that actually show carbon dioxide emissions and exhibit them at "Eco Products 2008," to be held in December 2008.

Toyo Seikan will participate as a member in this Study Group and will participate in the trial projects for product display, in collaboration with various contents manufacturers.

## ISO14001 integrated certification for the entire company

→ See P. 23 of this report.

Since 1999, the Toyo Seikan plants have each individually obtained external certification to ISO14001 standard for their environmental management systems. By 2005, the external certification process was completed for all plants, including the head office and development division. However, Toyo Seikan kept on constructing a common, integrated system for the entire company and this company-wide integrated system was certified to ISO14001 standard in July 2007.

The adoption of this integrated system has had various effects, e.g., streamlining the dissemination of activities from one plant to the others, improving communications between plants, and enhancing the overall level of environmental activities.

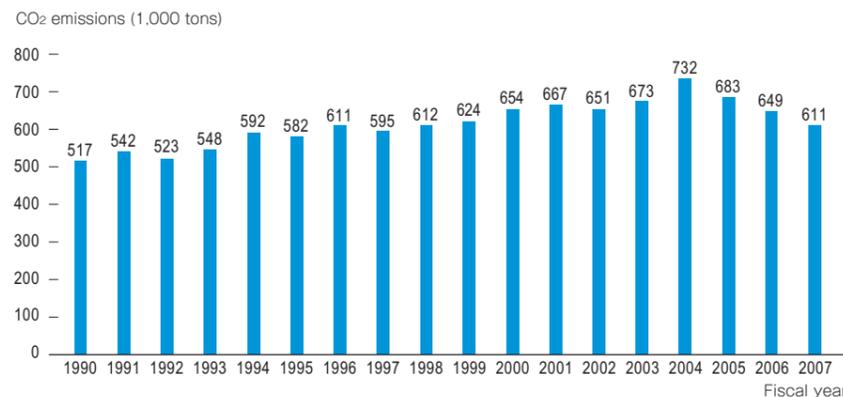
## 6% reduction in CO<sub>2</sub> emissions

→ See P. 29 to 30 of this report.

The amount of carbon dioxide emitted by the Toyo Seikan Group, overall, was reduced by 6%, compared to the FY2006 level, and Toyo Seikan, alone, also produced a reduction of 6%, marking a significant achievement.

The total reduction targets for the Group and the company in fiscal 2010 have been set at 13% and 6%, respectively, compared to the FY1990 level, which current estimates do not suggest will be easily achieved. However, the Group companies will make concerted efforts to further promote their energy conservation activities directed towards these targets.

### CO<sub>2</sub> emissions by Toyo Seikan, in comparison with its production activities



## Initiatives to enhance environmental communications

→ See P. 49 to 51 of this report.

Toyo Seikan places the utmost importance on the positive disclosure of environment-related information, in order to gain the confidence of the public.

The company is making positive efforts to ensure public disclosure of its environment-related information through environmental reports, site reports (environmental reports from plants), the Toyo Seikan Web site, exhibitions, and magazine advertisements.

Since 2006, the company has been directly consulting with consumers by holding Stakeholders' Meetings at regular intervals.

### Scene of the Stakeholders' Meeting in FY2008

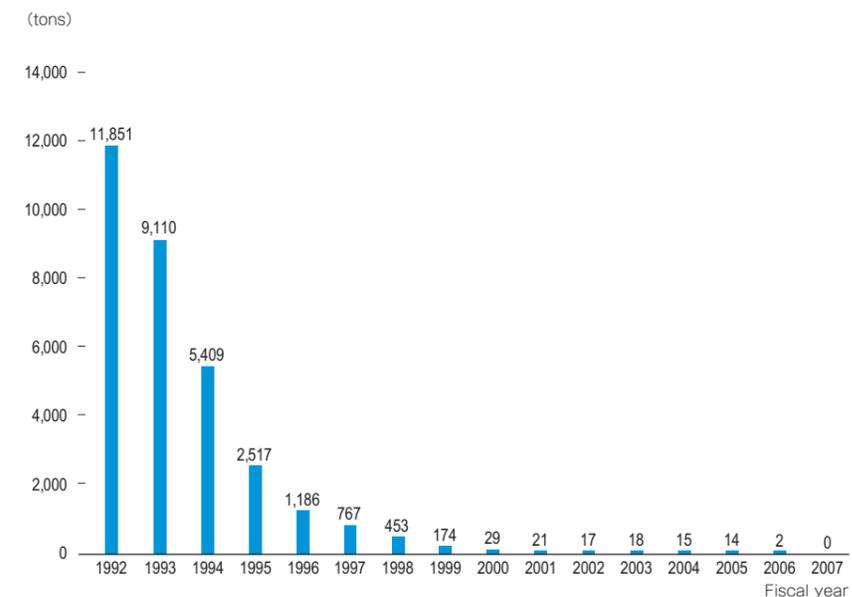


## Achievement of 100% recycling of waste and zero landfill emissions

→ See P. 32 of this report.

In FY2007, all industrial wastes discharged from Toyo Seikan plants were recycled and zero landfill emissions were achieved. Whereas the annual landfill amount used to be around 10 tons in recent years, the pursuit of separate waste discharge procedures has now resulted in the achievement of true zero emissions.

### Transition of landfill weight at Toyo Seikan



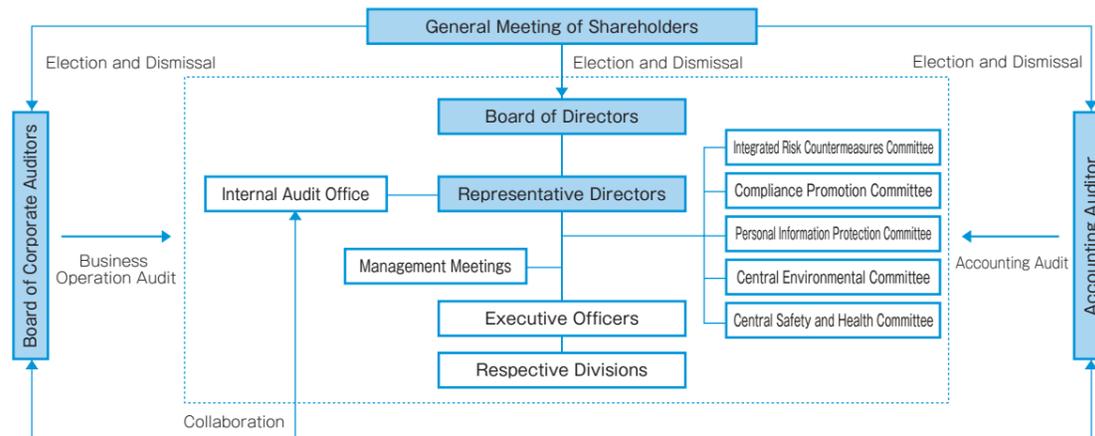
# Corporate Governance

The Toyo Seikan Group considers that the enhancement of corporate governance is the most important issue in its business management and is continuously working towards this goal in order to contribute to society through corporate activities while still maximizing corporate value and continuing new development and evolution based on the fundamental philosophy that it has adhered to since its foundation.

## Management system

Toyo Seikan has adopted a management system involving a Board of Corporate Auditors, and each auditor supervises the business duties executed by the directors and oversees the company's management. At present, the Board of Directors is composed of thirteen board members, including three external directors. The term of office for directors is fixed at one year to allow directors to take on definite management roles and to produce a flexible structure that can respond quickly to changes in the business environment. The Board of Corporate Auditors is composed of five auditors, including three external auditors.

Management System



## Strategy planning and business execution through management meetings

The company has adopted an Executive Officer system with the aim of clearly distinguishing the management's decision-making and supervisory functions from those of its business operations. "Management meetings" involve the president, executive vice president, senior executive officers, executive officers, heads of the respective divisions, and the director of Toyo Seikan Group Corporate R&D, and are held to promote swift strategic decisions at the executive level.

## Adoption of a "seven-division system"

The company has adopted a "seven-division system" that comprises a Corporate Planning Division, International Operations Division, Corporate Administration Division, Sales & Marketing Division, Materials Purchasing & Environment Division, Production & Operations Division, and a Technology & Packaging Development Division. In addition, at three of the divisions (Sales & Marketing, Production & Operations, and Technology & Packaging Development), a "Division Office" has been established to formulate operational strategies at the division level and to encourage communication between divisions.

## Internal audit system through the Internal Audit Office

The Internal Audit Office, under the direct control of the president, has been established to strengthen the internal auditing system in order to ensure maximum management efficiency and thorough oversight of all business activities, as well as compliance with all rules and regulations.

## Execution status of corporate governance

In FY2007, the Board of Directors met twelve times to discuss and make decisions on important agenda regarding statutory items and business administration, and to oversee the conditions of the business operations. The company also held other meetings, including 36 Management Meetings and those of other important committees, such as Integrated Risk Countermeasures, Compliance Promotion, Personal Information Protection, Central Environment, and Central Safety and Health, in an effort to ensure the sound execution of corporate governance.

## Group mid-term business planning



## Group Company Business Administration Regulations

The Group Company Business Administration Regulations were established in July 2007 to pursue the overall optimization of the Toyo Seikan Group and provide business administration and support to the Group companies, while still respecting their own individual administrative initiatives, in order to ensure efficiency, soundness and transparency in the business administration of the entire Toyo Seikan Group.

## Executing CSR-based management

The Toyo Seikan Group considers the "promotion of CSR-based management" throughout the entire Group to be at the heart of its business plans. In other words, the establishment and execution of all the business strategies is based on the concept of "CSR-based management."

## CSR-based management, from a global point of view

The Toyo Seikan Group, including 75 companies with wide-ranging business and management styles, has consistently focused on the packaging business throughout its history, directed towards the welfare of mankind. Recently, the Group has expanded its business into Thailand, China, Vietnam, the Philippines, Malaysia and Singapore and has established 27 overseas subsidiaries with a growing number of new stakeholders, including local employees.

The Toyo Seikan Group, in an effort to carry out fair business activities and contribute to the development of other countries and regions, is determined to observe all relevant laws and regulations, respect the cultures and customs, and foster relations based on mutual trust in these countries.

In the future, the Group will work towards the establishment of corporate codes of conduct that can serve as the basis of judgment criteria applicable throughout the world.

# Compliance

## Compliance promotion activities of the Toyo Seikan Group

With each passing day, there is increasing demand from society for compliance in corporate activities. The Toyo Seikan Group is consistently working to improve its compliance promotion activities so that all executives and employees will always take the "right course of action."

### Toyo Seikan Group Compliance Promotion Committee

#### Toyo Seikan Group Compliance Promotion Committee

Chairperson	President of Toyo Seikan
Members	Presidents of the group companies Toyo Kohan, Toyo Glass, Toyo-Sasaki Glass, Toyo Glass Machinery, Tokan Kogyo, Nippon Tokan Package, Japan Crown Cork, Toyo Aerosol Industry, Toyo Food Equipment, Tokan Material Technology, Honshu Seikan, Nippon National Seikan, Shikoku Seikan, Ryukyu Seikan, Tokan Unso-Soko, Toyo Unso, Tokan Unyu, Saiwai Trading, Tokan Kyoei, Fukuoka Packing, Toyo Seihan, Daito Seikan, Toyo Denkai
Observer	Standing statutory auditor of Toyo Seikan
Chief of secretariat	Chairman of the Toyo Seikan Compliance Promotion Committee

The Toyo Seikan Group Compliance Promotion Committee meets each February to determine policies, discuss problems and exchange information regarding compliance activities for the entire group. For FY2008, plans for the following activities have been agreed upon:

- Executing CSR (Corporate Social Responsibility)-based management
- Constructing an internal control system based on the Corporation Law
- Ensuring the "reliability of financial statements" based on the Financial Instruments and Exchange Law
- Working on risks in compliance
- Reinforcing hotlines for consultation on compliance

#### Establishment and revision of the Corporate Code of Conduct

The Corporate Code of Conduct is a set of guidelines for determining what the company should do, what each department should do, and what each executive and employee should do in order to carry out fair corporate activities at all times. Each of the Toyo Seikan Group companies has, based on Toyo Seikan's Corporate Code of Conduct, created a corporate Code of Conduct appropriate for its own business and management style, management concepts, and corporate culture. The Corporate Code of Conduct is reviewed and revised, as appropriate, when required. Toyo Seikan distributed a revised version to all employees in April 2008. Each of the Group companies is planning to revise their Code of Conduct in accordance with that of Toyo Seikan.

#### Shared use of external consultation hotlines by group companies

Two external consultation hotlines, the Sexual Harassment Hotline and the Toyo Seikan Group Corporate Ethics Hotline, have been set up to cope quickly and precisely with problems encountered in the company and are used jointly by all the Group companies.

In April 2008, the Sexual Harassment Hotline was changed to the Sexual Harassment and Human Relations Hotline so that consultation advice could be provided for all human relations problems in the workplace. At the same time, a revised Self Check Card was distributed to all employees of the Group companies.

## Group compliance training activities

### Workshop on the regulation of insider trading (August 22, 2007)

A workshop on the regulation of insider trading was held for group companies, addressed by a guest speaker from the trade investigation department of the Tokyo Stock Exchange.

### Hands-on training workshop on in-house consultation hotlines for persons in charge (November 22, 2007)

A workshop for consultants, providing hands-on training and education through role playing, was held for persons in charge of the consultation hotlines of group companies.

## Compliance promotion month

In 2007, in order to raise awareness of compliance as an immediate problem, the Group designated every October as "compliance promotion month," during which all staff at each workplace are encouraged to reassess their words and actions or operating procedures in light of the Corporate Code of Conduct for all the Group companies.

In FY2007, Toyo Seikan conducted the following activities during this month:

- Patrol of the plant by the chairperson of the Compliance Promotion Committee
- Submission to the president of a "written oath for ethical and legal compliance" from all the department managers, plant managers and section chiefs
- Activities in each department  
Department manager's briefing about promotion month, read-through of the Corporate Code of Conduct and its guidelines, an explanation on how to use the consultation hotlines, plus video-based compliance training, etc.

In the future, close collaboration among the plants and group companies will be pursued in an effort to further improve compliance activities.



# Initiatives on Risk Management

## Risk management policies

As a "company specializing in packaging" which must meet the needs of society, Toyo Seikan is determined to prevent any risks posing a threat to the safety and health of the public or to the continuation of its business, and is committed to minimizing the impact of any emergency that poses a similar threat to society or the management of the company.

## Organizations responsible for risk management and emergency response

Toyo Seikan has two risk management organizations, for both day-to-day operations and for emergencies, as shown in the figure below.

To deal with risks, the company established the Basic Rules for Risk Management and formed the Integrated Risk Countermeasures Committee to set up a risk management organization. In order to quickly and effectively respond to any emergency that could pose a threat to the continuation of its business activities, the company established the Basic Rules for Emergency Response which then formed the basis of its emergency response organization.

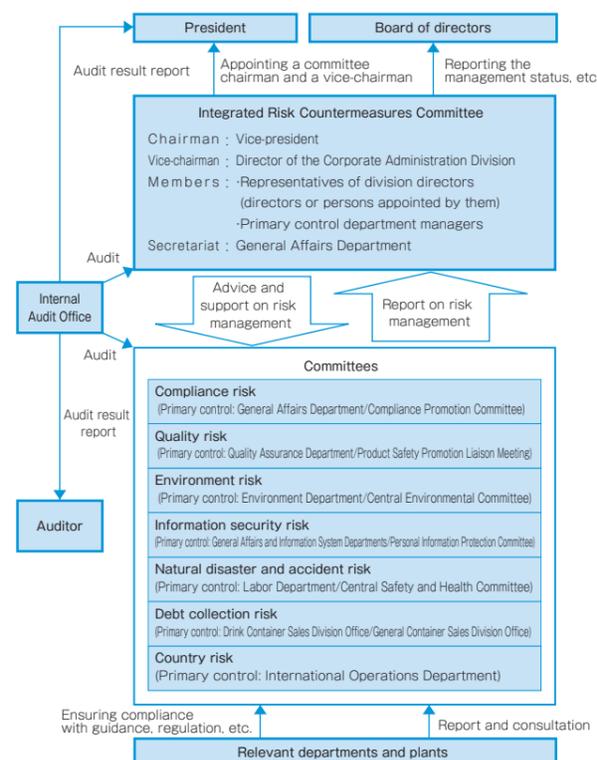
## Risk management activities

At Toyo Seikan, seven critical risks (compliance, quality, environment, information security, natural disasters and accidents, debt collection, and host country issues) have been identified in a corporate resolution related to internal control and, as specified in the Corporation Law, are addressed through the risk management activities conducted by each primary control department and committee, working in collaboration across organizational boundaries. Furthermore, the Integrated Risk Countermeasures Committee, in accordance with the Basic Rules for Risk Management, evaluates risks and promotes management activities throughout the entire company, supervising the risk management activities of the primary control departments and committees responsible for each target risk, and establishing a management organization to deal with any new risks that may arise.

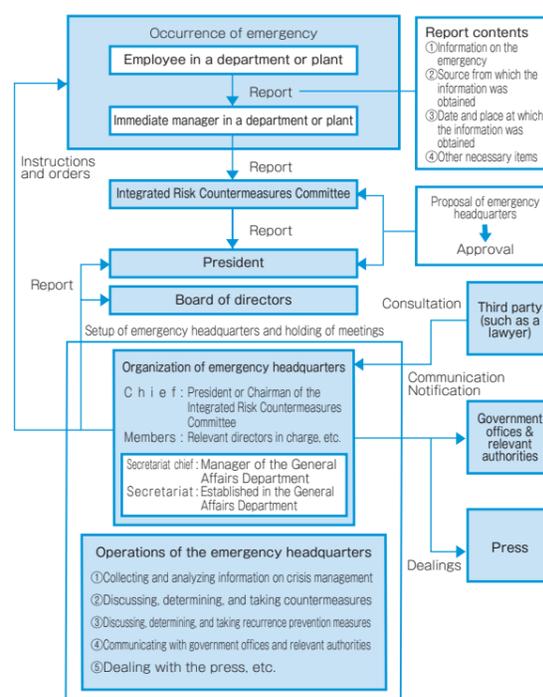
## Organization for emergency response

An organization that can respond appropriately and quickly to emergencies that pose a threat to the continuation of business has been formed, in accordance with the Basic Rules for Emergency Response, to establish an emergency headquarters, identify the nature of the emergency, establish countermeasures, discover causes, and establish measures for preventing any further recurrence.

### Day-to-day organization



### Emergency organization



## → Environmental Report

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# Environmental Policies

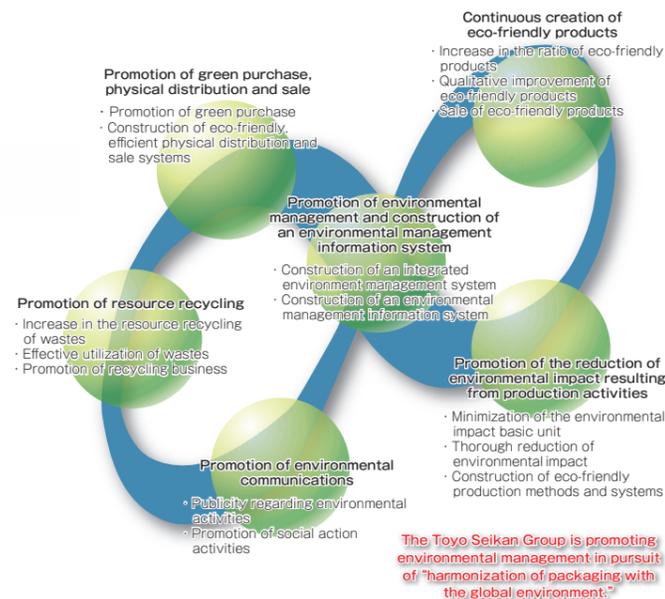
Contributing to the environment through our packaging technology

Each of the Toyo Seikan Group companies establishes environmental policies and conducts its corporate activities in accordance with the following basic philosophy.

## Toyo Seikan Group Environmental Policies (Established in August 2002)

The Toyo Seikan Group clearly recognizes that protection of the global environment and further qualitative improvement of the global environment are the most important shared tasks facing the human race and is committed to contributing to the betterment of human life and culture while continuing to give careful consideration to the environment in all aspects of its corporate activities

### Environmental Vision of the Toyo Seikan Group



### Environmental Policies of Toyo Seikan Kaisha, Ltd. (Established in January 2007)

**1. Basic Philosophy**  
Toyo Seikan clearly recognizes that protection of the global environment and further qualitative improvement of the global environment are the most important shared tasks facing the human race and, as a total packaging manufacturer, is committed to contributing to the betterment of human life and culture while continuing to give careful consideration to the environment in all aspects of its corporate activities.

**2. Basic Policies**  
Toyo Seikan, as a total packaging manufacturer, is committed to environmental vigilance at all times with regard to its corporate activities, products, and services in an effort to prevent environmental pollution and reduce environmental impact. We are also committed to establishing the organization required to construct an environment management system, lay down and achieve environmental objectives and targets, periodically review these targets and, if required, revise them in order to achieve continuous improvement of the environment management system.

- (1) With regard to the environmental aspects of the company, the company will observe all environment-related laws and regulations applicable to either the entire company or each individual plant, along with any other requirements that the entire company or each plant have agreed to meet, and we will continue our efforts to improve environmental management.
- (2) With regard to the environmental aspects related to the company's activities, products and services, the company will consider the following items as priority targets in the environmental management strategy for the entire company.
  - ① In consideration of the need to reduce environmental impact throughout the lifecycles of all packaging produced, the company will promote the development, sale and technical development of eco-friendly products.
  - ② Throughout its corporate activities, the company will work towards energy and resource conservation and promote the reduction of waste creation and the reuse of any waste that it generates.
  - ③ With regard to environmental pollutants, the company will promote the switchover to substitute substances and adopt substitute technologies wherever possible.
  - ④ The company will actively participate in social activities such as the recycling of used containers.
  - ⑤ The company will promote green purchasing in order to reduce environmental impact.
- (3) These environment management activities will be promoted by the employees of both the company and the affiliated companies included in this management system.
- (4) Education, training and PR activities will be conducted for all staff who participate in these management activities in order to raise their environmental awareness.
- (5) These environmental policies will be notified to all staff who participate in the environment management activities. Furthermore, these environmental policies will also be disclosed to the public.

April 1, 2008  
Hirofumi Miki, President  
Toyo Seikan Kaisha, Ltd.  
Nobuyuki Hayashi, Executive Officer,  
Director of the Material Purchase & Environment Division

# Environmental Policies

Contributing to the environment through our packaging technology

## Promotion of group environmental management

In July 2002, the Toyo Seikan Group Environmental Committee was organized to promote group environmental management. Since its foundation, the committee has been meeting twice a year to discuss issues related to environmental management and manage the progress of the activities of the entire group.

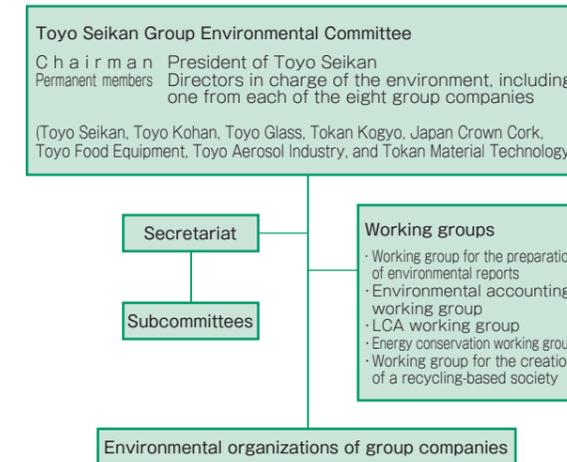
## Pursuit of the Group Environmental Vision

The Group is pursuing a management goal directed towards "harmonization of packaging and the global environment" by working on the promotion of environmental management through the participation of all members. To carry out environment management activities, the Group formulated an Environmental Vision in May 2004, consisting of the following six items:

- I. Ongoing creation of eco-friendly products
- II. Promotion of the reduction of environmental impact resulting from production activities
- III. Greener purchase, distribution and sale
- IV. Promotion of resource recycling
- V. Promotion of environmental communications
- VI. Promotion of environmental management and construction of an information system for environmental management

In February 2006, the "Toyo Seikan Group Eco Action Plan 2010" (summarizing environmental targets and action plans up to 2010) was established to help realize this Environmental Vision. All the Group companies will pursue the realization of this Environmental Vision by FY2010 by supporting activities based on this action plan in order to achieve its targets.

### Toyo Seikan Group Environment Management Organization



The Toyo Seikan Group has established the "Toyo Seikan Group Eco Action Plan 2010," summarizing the environmental targets and action plans required in order to realize the Group Environmental Vision. The Group companies are working towards the achievement of these targets.

## Environment management organization

Toyo Seikan maintains an environment management organization that quickly and smoothly implements the environmental policies formulated by the top management in response to various environment-related problems, reflects these environmental policies in the environment management activities adopted at head office, and plans to use them effectively by responding to emergencies quickly and appropriately. Specifically, the central environmental committee will handle any problems related to the entire company and a plant environmental committee will handle any problems that should be addressed on the initiative of a single plant, both by establishing action plans and discussing environmental policies.

## Roles of environmental committees

### Central environmental committee

- ① Establishes company-wide environmental policies and objectives and targets for Toyo Seikan.
- ② Discusses and determines policies for environment-related problems that concern the entire company.
- ③ Checks the activity and compliance status of the entire company, every month.
- ④ Discusses and determines the establishment, revision and abolishment of environment management manuals and regulations.

### Plant environmental committee

- ① Establishes objectives and targets for the plant.
- ② Discusses and determines policies for environment-related problems that should be handled mainly by the plant itself.
- ③ Checks the activity and compliance status of the plant, every month.
- ④ Discusses and determines the establishment, revision, and abolishment of all plant standards and procedures.
- ⑤ Submits proposals on environmental problems to the central environmental committee.

## Construction and operation of the environment management system

Toyo Seikan, after acquiring external ISO14001 certification for its environment management system, kept on constructing an ISO14001-compliant system to carry out activities based on a common integrated system for the entire company and started full-scale operation of this system in January 2007. The company was examined by an external certification organization in May and June of the same year and its company-wide integrated system was certified in July.

This system integration has had several effects:

- ① The head office and plants can now communicate and exchange information with each other more easily.
- ② At each monthly meeting of the central environmental committee, the topics reported on within one plant can now be shared by other plants.
- ③ Now that the internal environmental audit is conducted among all plants, it can be conducted from an external viewpoint, which may lead to the discovery of items not previously noticed. The auditors can also bring back some useful ideas to their own plants.

### Immediate subsidiaries

Toyo Seikan is providing support to its immediate subsidiaries so that they can construct an environment management system by themselves. Recently, two of these companies acquired certification.

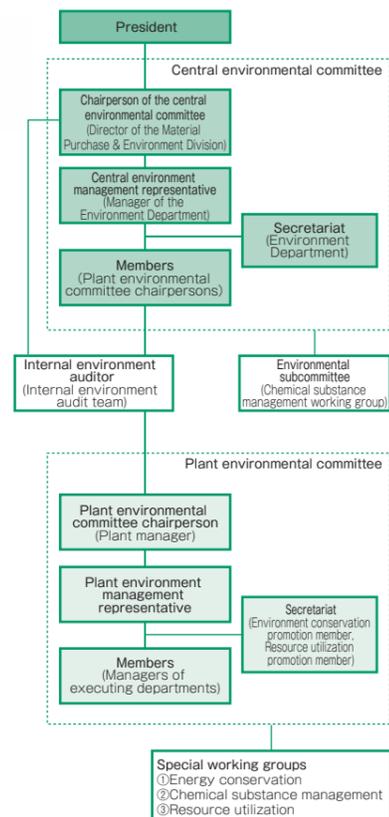
### Members of the Central Environmental Committee

Chairperson : Director of the Material Purchase & Environment Division  
 Members : Central environment management representative  
 (Manager of the Environment Department) Plant environmental committee chairpersons  
 Secretariat : Environment Department

### Members of the Plant Environmental Committee

Chairperson : Plant environmental committee chairperson  
 (Plant manager)  
 Members : Plant environment management representative  
 Managers of executing departments  
 Secretariat : Environment conservation promotion member  
 Resource utilization promotion member, etc.

### Environmental management organization chart



### List of targets for FY2010 and results in FY2007

Environmental Vision	Specific items and environmental targets	Numerical targets		
		FY2007 plan	FY2007 result	FY2010 target
1) Ongoing creation of eco-friendly products	a. Quantitative enlargement and qualitative improvement of eco-friendly products	—	—	—
	b. Promotion of sales of eco-friendly products	—	—	—
2) Promotion of the reduction of environmental impact resulting from production activities	a. Promotion of reduction of the primary unit of energy consumption	-2%, compared to the reference year level	-5%, compared to the reference year level	-11%, compared to the reference year level
	b. Promotion of reduction of carbon dioxide emissions	-3%, compared to the FY1990 level	-9%, compared to the FY1990 level	-13%, compared to the FY1990 level
	c. Promotion of reduction of the primary unit of material input	-2%, compared to the reference year level	-2%, compared to the reference year level	-6%, compared to the reference year level
	d. Promotion of reduction of wastes and zero emissions	-13%, compared to the reference year level	-20%, compared to the reference year level	-19%, compared to the reference year level
	① Reducing the quantity of wastes produced			
	② Increasing the number of zero-emission sites (with a recycling rate of 99% or higher)	45 sites	51 sites	60 sites
e. Chemical compounds management	① Reducing the primary unit of emissions and transportation for those chemicals designated in the PRTR Law	-29%, compared to the reference year level	-39%, compared to the reference year level	-38%, compared to the reference year level
	② Reducing the quantity of emissions and transportation of toluene, xylene and other organic solvents	-24%, compared to the reference year level	-42%, compared to the reference year level	-38%, compared to the reference year level
3) Greener purchase, distribution and sale	a. Promotion of green purchasing for stationery, etc.	90%	94%	93%
	b. Promotion of reduction of the primary unit of carbon dioxide emissions in the product logistics process	-13%, compared to the reference year level	-2%, compared to the reference year level	-14%, compared to the reference year level
4) Promotion of resource recycling	a. Improvement of the material recycling percentage	95.7%	95.8%	96.0%
	b. Promotion of recycling business	—	—	—
5) Promotion of environmental communications	a. Promotion of environmental communications	—	—	—
	b. Promotion of the construction and operation of effective environmental management information systems	—	—	—
6) Promotion of environmental management and construction of an information system for environmental management	a. Expansion of environmental management and promotion of the environmental management system	—	—	—
	b. Promotion of the construction and operation of effective environmental management information systems	—	—	—

\* The reference values are the average values from FY2002 to 2004.

Although the target values for FY2010 have already been achieved for some of these items, they will be reconsidered so that further reductions of environment impact can be pursued.

# FY2007 Environmental Activities Report

Toyo Seikan, in accordance with its basic philosophy and action policy for the environment, has established specific targets and action plans regarding the most important environment-related items and has carried out environmental activities, accordingly.

The central environmental committee, including participants from all plants, met each month to report the status of environment management activities and check on progress. Regarding those activities for which numerical targets can be set, their achievement status was checked using numerical values, measures for improvement were taken (if required), their effects were confirmed, and this plan-do-check-action (PDCA) process was then repeated. Consequently, all the FY2007 targets were achieved.

## Results of FY2007 activities

Evaluation indicator : ☆☆☆Good ☆☆Fair ☆Slightly behind

Field	Item	FY2007 target	FY2007 result	Evaluation	
Production activities	1. Reduction of energy consumption (primary unit per production)	4.6% reduction, compared to the FY2005 level	6.9% reduction, compared to the FY2005 level	☆☆☆	
	2. Reduction of carbon dioxide emissions	Production activities	4.5% reduction, compared to the FY2005 level	10.6% reduction, compared to the FY2005 level	☆☆☆
		Logistics department	5% increase, compared to the FY2005 level	1% reduction, compared to the FY2005 level	☆☆☆
	3. Reduction of total waste discharge	11.5% reduction, compared to the FY2005 level	14.2% reduction, compared to the FY2005 level	☆☆☆	
	4. Reduction of thermal recycling of waste	46% reduction, compared to the FY2005 level	50% reduction, compared to the FY2005 level	☆☆☆	
	5. Reduction of emissions and transportation of chemicals designated in the PRTR Law	3.2% reduction, compared to the FY2005 level	18.4% reduction, compared to the FY2005 level	☆☆☆	
	6. Reduction of VOC emissions	4.7% increase, compared to the FY2005 level	13.7% reduction, compared to the FY2005 level	☆☆☆	
7. Reduction of the primary unit of material usage	Establish a method for identifying the primary unit of material usage for the entire company. This is a period that can be used for collecting data and identifying the current amounts of material usage.	Identification of FY2007 results Setting of 2008 objectives and target values	☆☆		
Product development	8. Sales promotion and development of eco-friendly products	Sales promotion for TULC Execution of LCA evaluation in product development	Increase of TULC percentage Evaluation of various products	☆☆	
Environment management	9. Introduction of an environment management system	Introduction at six more plants by the end of FY2008	Progressing as planned	☆☆	
	10. Promotion of environment risk management	Setup and operation of environment risk management	Start of operation in June 2007, after setup	☆☆	
	11. Promotion of chemical substance management	Setup and operation of chemical substance management	Start of operation of the system in various departments, after setup	☆☆	
	12. Improvement of the green purchase ratio	95%	96%	☆☆	
	13. Reduction of copy paper purchase	7.8% reduction, compared to the FY2005 level	19.6% reduction, compared to the FY2005 level	☆☆☆	
	14. Promotion of container recycling activities	Positive activities in industry groups	Promotion of activities	☆☆	
	15. Utilization of LCA	Establishment of an LCA-based evaluation method and its application to operations	Preparation for introduction to the development department	☆☆	
Environment communications	16. Enhancement of environmental communications	Positive participation in exhibitions and academic conferences	Entry in exhibitions	☆☆	
	17. Issue of environmental reports	Issue of environmental and social reports and site reports	Issue at all plants	☆☆☆	

# Environmental Targets for FY2008 and Beyond

In FY2007, the ISO14001-compliant company-wide integrated system was established and operated for one year in order to achieve the planned environmental policies, objectives and targets. The targets and plans for FY2008 and beyond were established in order to maintain progress throughout FY2007 and continue to make improvements and address the specific target of "reduction of carbon dioxide emissions," as required in the Kyoto Protocol.

The "reduction of the primary unit of material usage," for which data has been collected and the current amounts were identified in the activities undertaken during FY2007, was incorporated into the environment management system of all plants in FY2008.

## Environmental targets for FY2008 and beyond

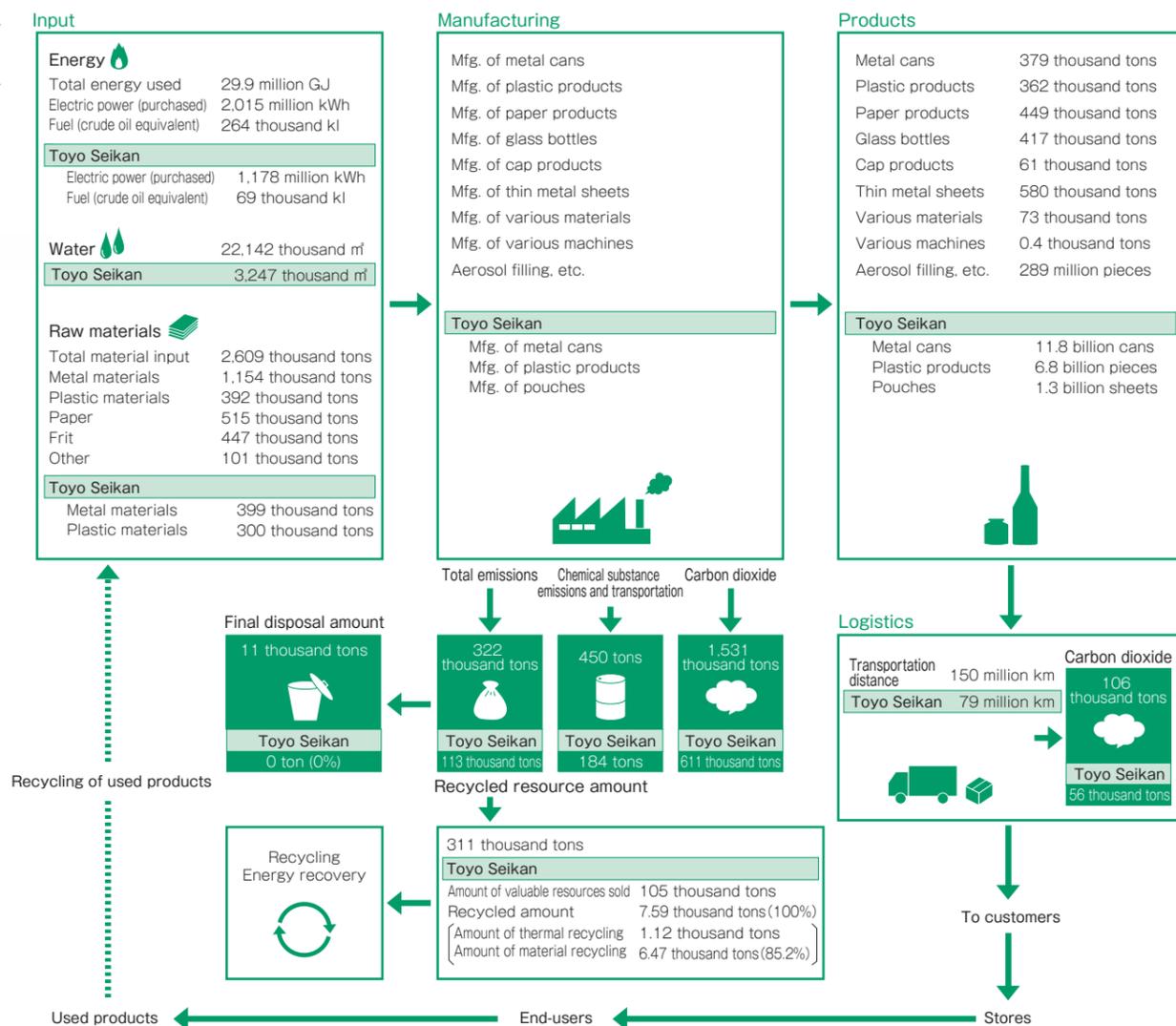
Field	Item	FY2008 target	FY2009 target	FY2010 target	
Production activities	1. Reduction of energy consumption (primary unit per production)	9.2% reduction, compared to the FY2005 level	10.0% reduction, compared to the FY2005 level	17.0% reduction, compared to the FY2005 level	
	2. Reduction of carbon dioxide emissions	Production activities	11.5% reduction, compared to the FY2005 level	12.4% reduction, compared to the FY2005 level	17.0% reduction, compared to the FY2005 level
		Logistics department	7% reduction, compared to the FY2005 level	11% reduction, compared to the FY2005 level	16% reduction, compared to the FY2005 level
	3. Reduction of total waste discharge	25% reduction, compared to the FY2005 level	27% reduction, compared to the FY2005 level	29% reduction, compared to the FY2005 level	
	4. Reduction of thermal recycling of waste	52% reduction, compared to the FY2005 level	53% reduction, compared to the FY2005 level	54% reduction, compared to the FY2005 level	
	5. Reduction of emissions and transportation of chemicals designated in the PRTR Law	18.4% reduction, compared to the FY2005 level	18.9% reduction, compared to the FY2005 level	19.4% reduction, compared to the FY2005 level	
	6. Reduction of VOC emissions	15.0% reduction, compared to the FY2005 level	28.1% reduction, compared to the FY2005 level	28.6% reduction, compared to the FY2005 level	
7. Reduction of the primary unit of material usage	1.0% reduction, compared to the FY2005 level	1.5% reduction, compared to the FY2005 level	2.0% reduction, compared to the FY2005 level		
Product development	8. Sales promotion and development of eco-friendly products	Sales promotion for TULC Execution of LCA evaluation in product development			
Environment management	9. Introduction of an environment management system	2 plants	1 plants	—	
	10. Promotion of environment risk management	Setup and operation of environment risk management			
	11. Promotion of chemical substance management	Setup and operation of chemical substance management			
	12. Improvement of the green purchase ratio	95% Maintaining the previous year's level	95% Maintaining the previous year's level	95% Maintaining the previous year's level	
	13. Reduction of copy paper purchase	21% reduction, compared to the FY2005 level	22% reduction, compared to the FY2005 level	23% reduction, compared to the FY2005 level	
	14. Promotion of container recycling activities	Positive activities in industry groups			
	15. Utilization of LCA	Establishment of an LCA-based evaluation method and its application to operations			
Environment communications	16. Enhancement of environmental communications	Positive participation in exhibitions and academic conferences			
	17. Issue of environmental reports	Issue of environmental and social reports and site reports			

# Input-Output in Container Manufacturing

## 2007 substance flow of the Toyo Seikan Group

The Toyo Seikan Group carries out a range of business activities related to packaging and containers, such as the manufacture of metal cans, plastic products (e.g., PET and general bottles, film products, cups and tubes and resin cups), paper products (e.g., paper cups, paper packing products and cardboard boxes), glass bottles, caps, thin metal sheet products mainly used as materials for containers (e.g., surface-treated steel sheets and laminate metal sheets), machines, and various materials (e.g., frit products, inorganic pigments, thermosetting resins and functional materials) and aerosol filling. Toyo Seikan mainly manufactures various metal cans (such as TULC, DI cans, welded cans) and plastic products (such as PET bottles, general bottles and pouches). The material flow of the business activities conducted in FY2007 is shown in the following figure:

FY2007 material flow of the Toyo Seikan Group and Toyo Seikan



# Chemical Management Initiatives

## Comprehensive management of chemicals

Since its foundation, Toyo Seikan has been developing products in consideration of the environment and human health. To reduce the environmental impact from chemicals used in the course of manufacturing, it is necessary to do everything possible to ensure the proper management of these chemicals and to reduce the amounts used. When a company-wide integrated ISO14001 system was introduced, comprehensive chemical management regulations were established to regulate not only the production materials but also the reagents used for evaluation and experimentation. These regulations are based on enhanced management methods adopted for designated substances, selected on the basis of legal regulations, environmental and safety concerns. The regulations also specify a company-wide system for implementing these procedures, from application for the use of new chemicals through to examination, approval and registration, including methods for storage and handling and for recording usage amounts. In parallel, procedures for banned chemicals and chemicals whose use is to be reduced and carefully managed were established in accordance with the company's own criteria in an effort to promote the purchase of materials with lower environmental impact.

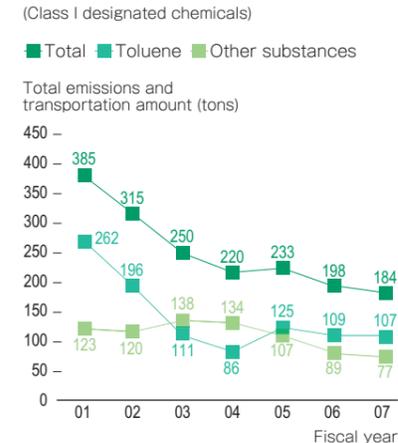
## Reduction of emissions and transportation of notified chemicals, as designated in the PRTR Law

In FY2007, the amount of notified chemicals, as designated in the PRTR Law, totaled 184 tons, representing a significant reduction of 21% and easily exceeding the reduction target of 3.2%, compared to the FY2005 level. This is the result of strongly promoting three parallel strategies: first, the promotion of alternative materials such as water-based paints, solvents, and sealants and the development of new metal cans for which the use of paints and solvents is minimized; second, the introduction of pollution prevention facilities in the manufacturing process; and third, promotion activities to reduce the amount of waste generated in the course of manufacturing. In the future, Toyo Seikan will pursue further reductions in the amount of chemicals used.

## Reduction in VOC emissions

Emission control of VOCs took effect with the revision of the Air Pollution Control Law, (enacted in FY2006). Since many of the chemicals designated in the PRTR Law are also VOCs, the activities for reducing the use of these chemicals also led to a reduction in VOC emissions. Although VOC emissions in FY2007 were expected to increase by 4.7%, compared to the FY2005 level, due to an increase in the production volume, the actual emission level turned out to be 2,191 tons, representing a 14% reduction when compared to the FY2005 level. In the future, Toyo Seikan will implement stricter controls in pursuit of further reductions in VOC emissions.

Amount of emissions and transportation of notified chemicals, as designated in the PRTR Law (Class I designated chemicals)



# Initiatives to Prevent Global Warming

Decreasing the carbon dioxide load on the Earth

## Initiatives involving the production process

### Carbon dioxide emissions during the production process

The Toyo Seikan Group defines its carbon dioxide emissions as the total amount of carbon dioxide resulting from the use of electric power, carbon dioxide accompanying the burning of fuels, carbon dioxide generated from the burning of solvents included in materials, and the manufacture of raw materials.

Total carbon dioxide emissions for the Toyo Seikan Group in FY2007 were 1,531 thousand tons, or 94% of the FY2006 level. While this reduction resulted from the energy conservation efforts undertaken by most of the Group companies, emissions increased from some companies due to an increase in the production volume.

In FY2007, Toyo Seikan decreased its carbon dioxide emission level by 38 thousand tons, compared to the FY2006 level. This resulted from the activities that the plants carried out in accordance with the ISO14001-certified company-wide integrated system that began operation in January 2007, in which the "reduction of carbon dioxide emissions" was defined as an activity item.

### Reduction initiatives undertaken by Toyo Seikan

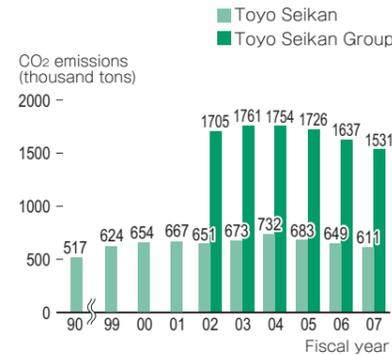
Toyo Seikan is working towards a carbon dioxide emission reduction target of "6%, compared to the FY1990 level, by FY2010."

In order to achieve this target, measures for emission reduction have been planned and are being implemented at head office, in addition to existing activities carried out in accordance with the ISO14001 system.

[Measures being implemented by the head office departments (examples)]

- ①Promotion of eco projects
- ②Consolidation and restructuring of production lines
- ③New technology development

Transition of carbon dioxide emissions



FY2010 reduction target for carbon dioxide emissions

Toyo Seikan Group: -13%, compared to the FY1990 level  
 Toyo Seikan: -6%, compared to the FY1990 level

# Initiatives to Prevent Global Warming

Decreasing the carbon dioxide load on the Earth

## Initiatives underway in the logistics department

### Carbon dioxide emissions by the logistics department

The FY2007 level of carbon dioxide emissions by the logistics department were 56 thousand tons, 112% of the FY2006 level (target: 95%) and 91% of the FY1999 level (target: 77%), marking a significant increase from the set targets.

The major cause of the increase in emissions was the need for centralized production for certain products which were delivered from a limited number of plants to customers all over Japan, resulting in a significant increase of about 25% in long-distance transportation, compared to 2006.

In response to the increase in long-distance transportation, a modal shift to marine transportation was pursued in order to decrease emissions, resulting in an improvement of the usage rate by about 4%, compared to the previous year, and a decrease in carbon dioxide emissions of about four thousand tons.

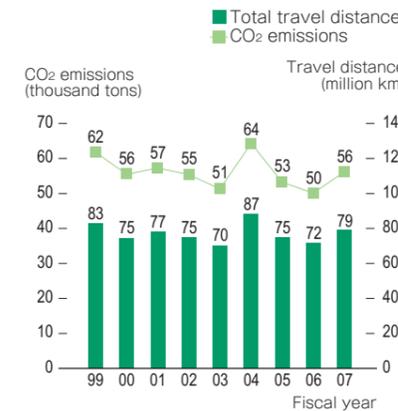
Furthermore, Toyo Seikan was appointed a Designated Sender due to the Revised Law Concerning the Rational Use of Energy and submitted regular reports on the amount of energy used and its plans for energy reduction.

### Main measures implemented by the logistics department to reduce carbon dioxide emissions

The reduction of carbon dioxide emissions will be pursued using the following measures:

- 1.The production system will be reviewed and enhanced further so that production can be carried out at a plant closer to the place of demand. Specifically, this will involve the optimization of production opportunities through the use of a demand-supply system and the improvement of production capacity.
- 2.When long-distance transportation is needed, a truck dispatch support system will be used to promote round-trip travel and reduce the number of trucks used.
- 3.Other means of transport (with lower carbon dioxide emission levels than trucks) will also be promoted.

Carbon dioxide emissions in logistics



## Initiatives for Waste Reduction and Recycling

The Toyo Seikan Group has a long history of involvement in initiatives designed to reduce the amount of waste discharged from its plants and other facilities, and to promote recycling.

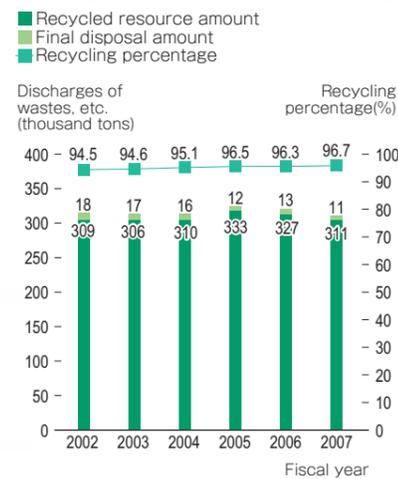
### Recycling of wastes

The total amount of wastes and other materials discharged by the Toyo Seikan Group in FY2007 amounted to 322,000 tons, marking a decrease of 5.3%, compared to the previous year's level.

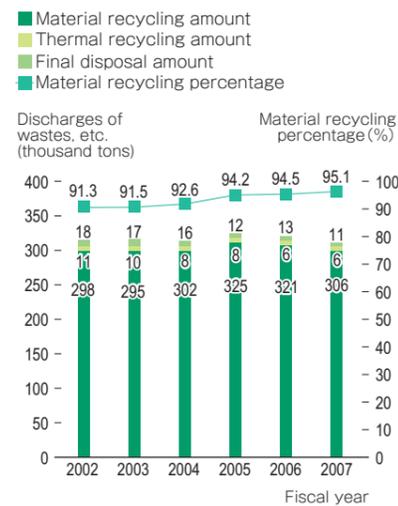
The recycled resource amount accounted for 311,000 tons, while the remaining 11,000 tons were finally disposed of in landfills and by simple incineration, marking a significant reduction of 15%, compared to the previous year's level.

The recycling percentage, (the recycling amount divided by the total discharge amount x 100), was 96.7%, marking an improvement by 0.4 percentage points, compared to the previous year's level.

#### Discharges of wastes, etc. and recycling



#### Recycling amount and material recycling percentage



### Material recycling percentage

The Toyo Seikan Group classifies waste materials into two types: "valuables" which are sold for a set price, and "wastes" which are of no value and which the company may actually have to pay to dispose of. Nearly 100% of the recycled valuables are sent to material recycling.

On the other hand, part of the recycled wastes are sent to thermal recycling, although steps are currently being taken to convert these wastes into a form suitable for material recycling.

The FY2007 material recycling percentage (the material recycling amount divided by the total discharge amount x 100) was 95.1%, marking an improvement by 0.6 percentage points, compared to the previous year's level.

## Initiatives for Waste Reduction and Recycling

Toyo Seikan achieved a recycling percentage of 100% and zero emissions in FY2007.

This is the result of efforts made to improve the accuracy of waste separation in order to increase the recycling percentage. These initiatives have also resulted in the selling of more wastes as valuables, achieving a further reduction in the amount of final waste.

The next step is to pursue further reductions of the thermal recycling amount by reviewing the method used for recycling processing in order to reduce environmental impact.

At each plant, the plant manager serves as the general supervisor who appoints resource saving activity promotion members to coordinate suitable activities. Each resource application promotion member sees to it that employees separate wastes to be discharged in accordance with the rules and manages discharged wastes correctly. Separated and discharged wastes are then sold to recycling companies or consigned for disposal to industrial waste disposal companies in accordance with a legally prescribed procedure.

### Transition of valuables and wastes



### Achievement of 100% recycling of wastes

In FY2007, all the wastes discharged from plants were recycled, achieving a recycling percentage of 100% and zero emissions.

### 354-ton reduction in the waste discharge amount

In FY2007, the waste discharge amount was 7,589 tons, marking a reduction of 354 tons, compared to the FY2006 level of 7,943 tons (95.5% of the FY2006 level).

The improvement of separation accuracy in FY2006 resulted in almost all the plastic wastes discharged in the production process being sold as valuables and led to a significant reduction in the waste discharge amount, which continued to show a reduction in FY2007.

### 730-ton reduction in the thermal recycling amount

In FY2007, the thermal recycling amount was 1,123 tons, marking a significant reduction of 730 tons from the FY2006 level of 1,853 tons. The target value, initially established as a 35% reduction, compared to the FY2005 level (1,560 tons), was reviewed in November when reductions were found to be far exceeding expectations. As a result, the target was revised upwards to a 46% reduction (1,291 tons), but only a 186-ton reduction was actually achieved due to the thermal recycling amount reduction plan implemented by the Toyohashi Plant, which produced the largest thermal recycling amount since December 2006. In FY2008, new reduction target values will be established to promote further reduction activities.

## Green Purchasing Initiatives

By selecting products with less impact on the environment in preference to those that impose a greater environmental impact, each one of us can help reduce the environmental impact on the planet and establish a sustainable society. This is the philosophy under which Toyo Seikan is carrying out low-key green purchase activities.

### Promotion of green procurement

#### Establishment of green procurement guidelines

In 2003, in order to promote the green procurement of production materials, Toyo Seikan established its own criteria on chemicals to be used as production materials. These criteria define three types of chemicals: those which must not be used (banned chemicals), those for which substitutions and reductions in use must be promoted (chemicals to be reduced), and those for which usage must be kept track of (chemicals to be managed). In view of recent social trends, however, the company reviewed the conventional classifications of banned, reduced and managed materials from the viewpoint of the environment, health, safety and security, waste disposal, etc. and established the "Toyo Seikan Green Procurement Guidelines" that define the necessary procedures for the use of these chemicals. These Guidelines were notified to all suppliers so that Toyo Seikan can, in collaboration with material manufacturers, continue to supply customers with safer products with less impact on the environment.

#### Use of recycled PET resin

Toyo Seikan has investigated the use of recycled materials from PET bottles. Recycled PET resin is used as a production material for kitchen detergent bottles and the handles of large PET bottles. In the future, the development of multilayer technologies (using recycled materials in the middle layers) will be promoted in order to expand the range of possible recycling uses. Recycled PET resin bands are now also being used in place of conventional product packing bands.

### Promotion of green purchase at offices

As a responsible corporate citizen, company purchases for office use should only be made after taking environmental concerns into consideration. To promote the green purchase of office supplies (stationery and furniture) which are part of non-manufacturing supplies, Toyo Seikan has been using an Internet-based online purchasing system since FY2002. A catalog available for viewing on the company LAN shows "Eco Labels" for products that qualify for green purchase. This system allows purchasers to preferentially select and purchase green products.

#### Maintaining a high green purchase ratio in FY2007

Every month, the "green purchase ratio," the ratio of the amount spent on green purchasing to the total monthly amount spent, is calculated in order to promote green purchasing. In FY2007, a green purchase ratio higher than 95% marked in FY2006 was attained, resulting in the achievement of this year's target. Now that ISO14001 certification has been acquired for a company-wide integrated system, Toyo Seikan will further enhance the linkage between plants and review the system used to promote green purchasing from now on. Each of the Toyo Seikan Group companies has adopted the Eco Label indication, based on the same system, and is working to further improve green purchasing.

#### Green procurement and green purchase

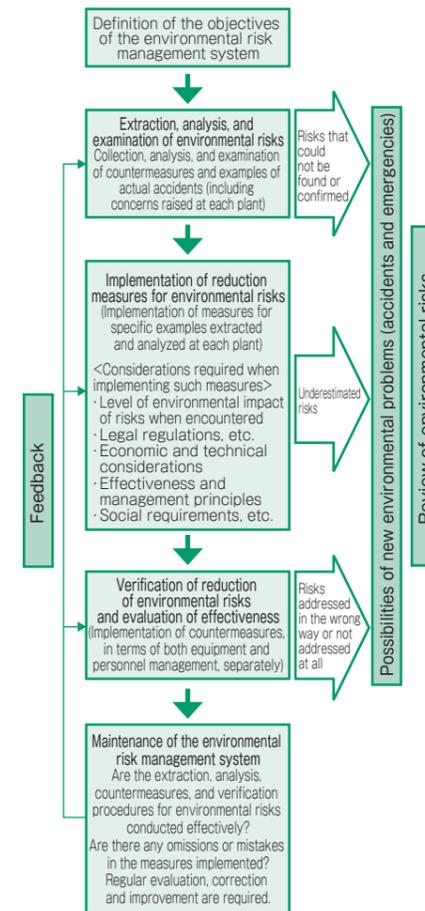
The distinction between "green procurement" and "green purchase" is as follows: the former refers to any purchase directly related to production and the latter refers to any purchase of supplies and equipment related to offices.

The use of the "Eco Label" for products that qualify for green purchase



## Environmental Risk Initiatives

### Conceptual diagram of environmental risk management



Scene of an emergency drill, in expectation of spillage into a river (Kuki Plant)

### A new direction in environmental risk management

Until recently, environmental risk management was mainly focused on reducing the amounts of environmental pollutants discharged (along with the regular measurement of the amounts involved, maintenance of facilities, and practicing essential emergency drills) in order to prevent environmental pollution, such as air and water pollution, posing environmental risks. Therefore, Toyo Seikan decided to take a step forward in its approach to environmental risk management and started to construct a management system focused on preventive management, i.e., reducing environmental risks even before problems become apparent.

### ISO14001-based environmental risk management

All previous activities that focused on reducing the amounts of environmental pollutants discharged (along with the regular measurement of these amounts, maintenance of facilities, and the practice of emergency drills) have been incorporated into the ISO14001 environmental management system in order to continue promoting environmental risk reduction.

### Construction of a new environmental risk management technique

In addition to its existing risk management system, Toyo Seikan has also started to examine a new management technique in order to promote preventive management activities based on the original concept of environmental risk management. Specifically, the company is promoting the construction of a system that allows users to extract and analyze information not only on past instances of environmental risks but also on new risks which may have arisen, and to examine the best countermeasures and the like with which to treat them. The construction of this system is expected to further reduce environmental risks.

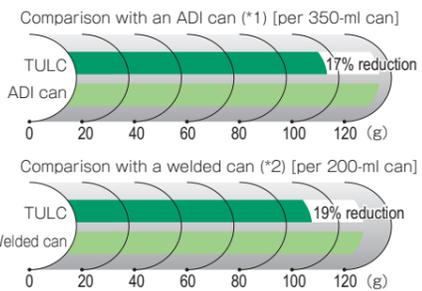
### Extension of environmental risk management to group companies

Environmental risk management is one of the most important aspects of risk management in the field of corporate management. Toyo Seikan bases its ongoing management on this concept. In 2007, Toyo Seikan, which had previously focused its promotion of management activities on in-house issues, extended the scope of these activities to include group companies. Specifically, information on environmental risks and environment-related legal regulations, etc. is now being shared, and study meetings and other events related to these legal regulations are now being held. In the future, the entire group will promote various activities directed towards the construction of a more efficient environmental risk management system.

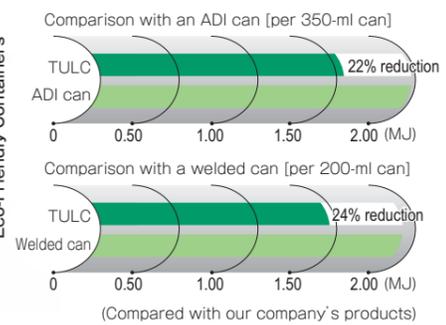
## Eco-Friendly Containers

The Toyo Seikan Group specializes in the manufacture of packaging. Based on its “packing technology,” environmental management is pursued in order to minimize environmental impact and maximize added values.

### Carbon dioxide emissions



### Energy consumption



(\*1) ADI can: a two-piece can consisting of an aluminum body that also serves as a bottom and a lid  
 (\*2) Welded can: a three-piece can consisting of a body, a bottom and a lid, all joined together by welding

### Metal containers of Toyo Seikan

#### TULC

TULC (the Toyo Ultimate Can) made its debut in 1991 as a metal can with significantly improved environmental performance due to fundamental changes that had been made in the materials used and the production process. At present, about seven billion TULC cans are used per year, accounting for about 20% of all domestic metal can production. The introduction of the Life Cycle Assessment (LCA) technique in the initial stage of development of TULC resulted in a significant reduction in both carbon dioxide emissions and energy consumption throughout the entire life cycle of the product, from material mining through to recycling.

#### Reduction of environmental impact in the manufacturing process

##### [Significant reduction in carbon dioxide emissions]

The use of a polyester laminate metal in the can manufacturing process eliminates the necessity for any internal coating or baking after coating application. Thus, carbon dioxide emissions have been significantly reduced.

##### [No use of water]

The use of a polyester laminate material and a new forming method eliminates the necessity for any lubricant or water when cleaning.

## Eco-Friendly Containers



#### [TULC, the ultimate steel can and the starting point for other eco-friendly products]

TULC, made of a steel sheet with polyester laminated on both sides, is manufactured using a dry forming method, thereby eliminating the use of a lubricant.

TULC is characterized by its white can bottom.

#### [aTULC, an aluminum can based on the TULC concept]

aTULC (the Aluminum Toyo Ultimate Can) is a polyester-laminated aluminum can based on the TULC concept and characterized by high functionality and low environmental impact. aTULC is manufactured by the direct coating of an aluminum sheet with molten resin. This system, eliminating the need for the usual film making process, has been co-developed with Toyo Kohan, an affiliated company of Toyo Seikan.

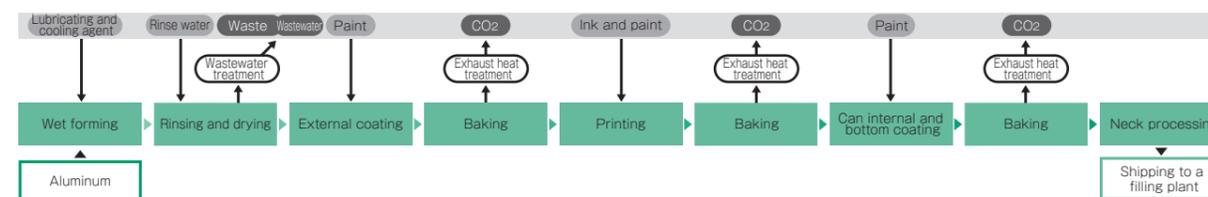
#### [TEC200, an advanced version of TULC which is easy to open and drink from, and which gives off a sweet smell]

TEC200 (Toyo Seikan Environmental, Evolutional Can & Effectual Filling System) is a 200-ml steel can with a large opening and a resealing (cap) function. This is the most appropriate can for drinks such as coffee and cocoa that need high-temperature sterilization, and liquid foods such as soup that contain solid ingredients.

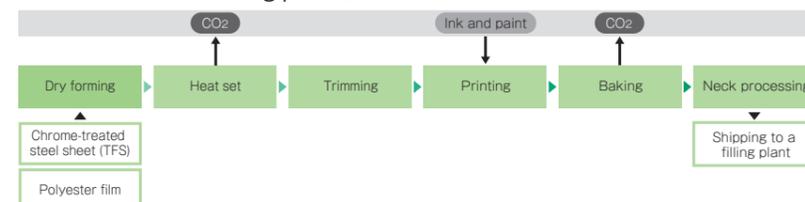
Development of the TULC series will be continued.

### TULC line: cleaner and more compact by far

#### ADI can manufacturing process



#### TULC can manufacturing process





## Plastic packaging produced by Toyo Seikan

### E-RP TRAVIS

As described in "Topics" (see P. 12), Toyo Seikan has developed E-RP (a microwavable pouch with a vapor self-release function) into a totally new flat-position type called TRAVIS, an eco-friendly pouch.

E-RP TRAVIS, which can be heated in a microwave oven while placed flat, is transformed by heating and remains transformed after heating, offering improved ease of handling and safety, compared to a conventional type of pouch.

This is an "ecological" product because the use of a microwave oven instead of hot water for heating contributes to a reduction in carbon dioxide emissions by about 90%\*.

### \* Comparison of carbon dioxide emissions

If one liter of water is put in a pot 20 cm in diameter, then brought to the boil using city gas (on medium flame for about five minutes), and after a conventional pouch product is put into the water, then heated for another five minutes, 96.8 g of carbon dioxide is emitted.  
If E-RP is heated for two minutes using a 500 W microwave oven (i.e., total power consumption of 1000 W), only 12.0 g of carbon dioxide is emitted.

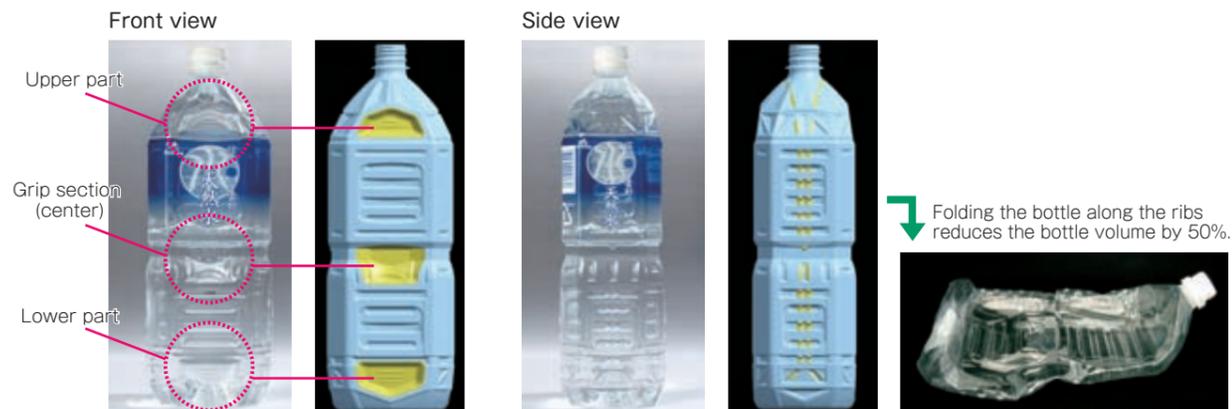


### Heat-resistant two-liter triple-support foldable PET bottle

This bottle, with a grip section in the center of the body and depressions in the upper and lower parts, offers significantly improved usability to consumers.

The depression in the upper part serves as a fingerhold when this type of bottle is picked up from a shelf at a convenience store or supermarket or when it is taken out of a refrigerator (see the front view). The depression in the lower part helps people of all ages, from children through to the elderly, to hold the bottle firmly with both hands.

When the time comes for its disposal, the bottle can be neatly folded along a line running vertically down both sides of the bottle, thereby reducing the bottle volume by about 50% (see the side view).



## Lineup of eco-friendly products made by the Toyo Seikan Group

The Toyo Seikan Group is pursuing the development of products that are friendly to the environment at all stages from production through to disposal.

### Business related to packaging

#### Weight reduction for glass bottles



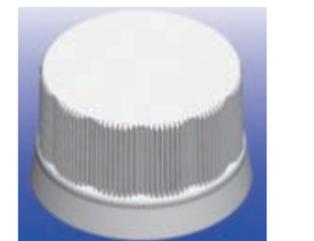
The ultralight bottle series (with "Eco Mark" certification) was the first eco-friendly product certified to bear the "Eco Mark" label in the bottle industry. In 2006, this product received the Chairperson's Award from the Eco-Products Awards Steering Committee.

#### Composite containers that can be easily separated for disposal



A composite container is made from a thin resin container, with barrier properties, contained within a paper container, for protection. This paper container is provided with a perforation to facilitate separation after use. These containers received the Japan Star Award at the Japan Packaging Contest.

#### Weight reduction for caps



Single-material caps, not using sealing materials, are already mainstream products. Furthermore, Toyo Seikan has now developed ultralight caps with a weight reduction of 10%.

#### Development of aerosol products that do not make use of liquefied petroleum gas



Aerosol products using eco-friendly nitrogen gas instead of liquefied petroleum gas can spray a soft, fine mist, which was not previously possible.

### Business related to steel sheets

#### Silver mirror finish plated steel sheet that can provide natural lighting (Mirror Coat K)

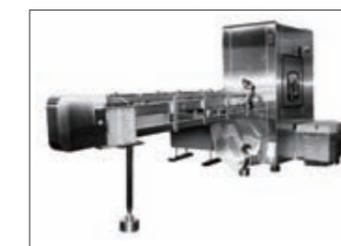


This is a system that uses a duct with a mirror finish-coated interior to reflect and direct natural light into places where a normal window cannot be installed. This system is expected to reduce CO<sub>2</sub> emissions by assisting energy conservation.



### Other business

#### A seamer (a machine that seals a lid onto a can) with an eco-friendly design



The lubricant has been changed from grease to oil in order to reduce the amount of lubricant used and lower the noise level.

#### Eco-friendly pigments

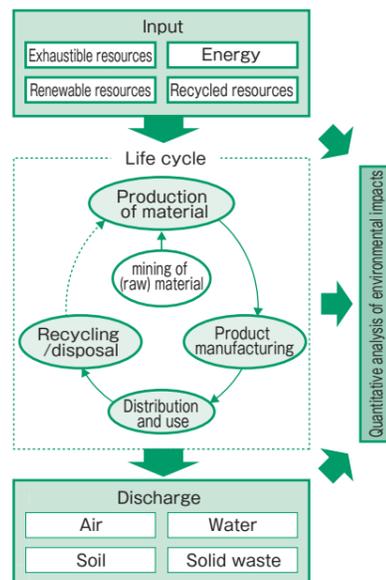


Pigments free of chrome and antimony have been developed.

## LCA initiatives

The environmental impact are identified throughout the life cycle of the containers

### Conceptual diagram of Life Cycle Assessment



### What is LCA?

Life Cycle Assessment (LCA) is a technique used to identify the environmental impact of a product throughout its life cycle and assign it an objective value. In other words, LCA allows us to analyze the environmental impact of a product throughout its entire life cycle on a quantitative basis, including the mining of raw materials, production of materials, product manufacturing, distribution and use, and recycling or disposal processes.

### Utilization of LCA from the development phase onwards

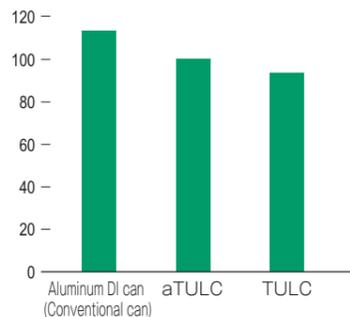
Toyo Seikan developed TULC, an eco-friendly can, by utilizing LCA from the development phase onwards. An assessment carried out on the environmental impact of conventional DI can manufacture highlighted the importance of reducing the energy consumption in coat baking, along with water consumption in processing and wastewater treatment. By focusing on these priorities during development, the company successfully developed a new forming method that has replaced "coating" with "film laminate" and has replaced "wet forming" (which consumes lots of water) with "dry forming" (which does not consume any water), thereby significantly reducing environmental impact. The use of LCA in the development phase will be further enhanced so that more eco-friendly products can be supplied to our customers, in addition to TULC.

### LCA of products

Recently, an increasing number of inquiries on the LCA of products have been received from customers. This suggests that more customers are becoming interested in using eco-friendly packaging. Toyo Seikan is happy to disclose information in response to such inquiries so that more eco-friendly products can be delivered to customers and, ultimately, to consumers.

### LCA of metal cans (capacity: 350 ml)

Carbon dioxide emissions (grams per can)



## LCA initiatives

The environmental impact are identified throughout the life cycle of the containers

### Environmental labels

Environmental labels serve as guidelines for consumers to help them select products and services that have the lowest environmental impact. Three types of environmental label are currently available. Type I is Eco Mark in Japan, which can be printed on products certified as environmentally friendly under criteria established by a third-party organization. Type II is used by corporations to claim the environmental superiority of their products, in accordance with their own standards and procedures. Type III is used to disclose environmental information acquired through LCA and other procedures in accordance with criteria established by a third-party organization. "Eco Leaf" is one of these Type III labels.

### TULC is the first metal can certified with an Eco Leaf (Type III environmental label) in Japan.

In the case of products bearing the Eco Leaf, the environmental impact throughout the life cycle (including the "mining of raw materials, production of materials, product manufacturing, distribution and use, and recycling or disposal") are all quantitatively calculated using the LCA technique and the results of the calculation are disclosed to the public via a Web site. For TULC, a product with significantly reduced environmental impact compared to conventional metal cans, Toyo Seikan has taken the initiative in disclosing the results of this LCA-based calculation publicly. Eco Leaf certification means that TULC has been approved by a third-party organization (the Japan Environmental Management Association for Industry; JEMAI).

At present, 20 models in the TULC series (TULC, aTULC, and TEC200) have been certified and the relevant environmental information has been published on the Web site of JEMAI. Try visiting the Web site if you get hold of a can with the Eco Leaf on it.

### Initiatives on LCA carried out by the Toyo Seikan Group

The Toyo Seikan Group organized an LCA working group when the Toyo Seikan Group Environmental Committee was formed in FY2002. The persons in charge from the eight principal companies of the group are currently acting as its members. The objective of the LCA working group is to ensure that each of the group companies can carry out LCA analysis on its own products. To attain this objective, the working group is studying previous examples of LCA reporting and giving presentations on the assessment of their own products.

In the future, the group will continue collaboration in pursuit of more advanced LCA analysis techniques.



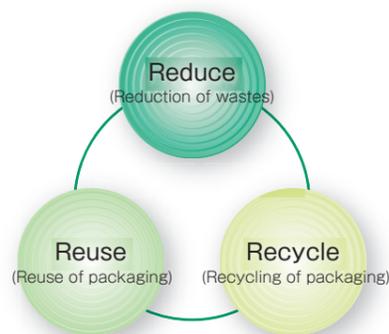
URL of Web site for information disclosure

[http://www.jemai.or.jp/ecoleaf/prodbycmp\\_companyobj68.cfm](http://www.jemai.or.jp/ecoleaf/prodbycmp_companyobj68.cfm)



# 3R Initiatives

Toyo Seikan is actively carrying out 3R promotion activities as a member of four separate recycling organizations.



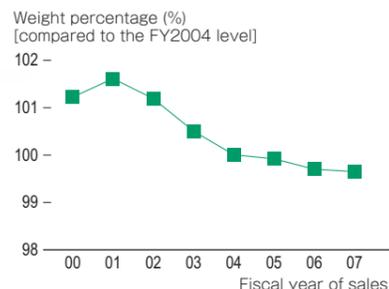
## Corporate voluntary plans

In accordance with the revision of the Containers and Packaging Recycling Law, Toyo Seikan has established a corporate voluntary plan. It reports on the 3Rs (i.e., Reduce, Reuse, and Recycle) through the 3R Promotion Organization Liaison Conference, which was established by eight recycling organizations involved in packaging.

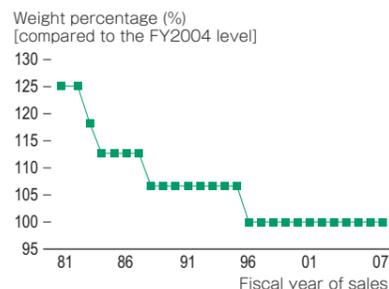
## Packaging weight reduction initiatives

Of all the 3Rs, "Reduce" is the component that should be given the highest priority. Toyo Seikan has, for many years, been working to reduce packaging weight in order to promote resource conservation. The effect this has had on the change in weight of representative containers is shown in the accompanying graphs.

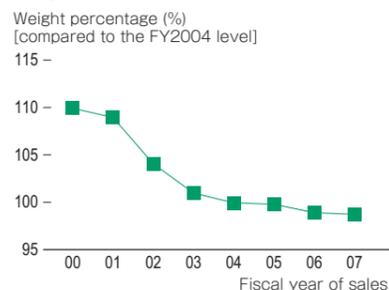
Weight transition for vacuum steel drink cans



Weight transition for 350-ml aluminum cans



Weight transition for PET bottles



## Steel cans

This graph shows the weight transition for Toyo Seikan's steel drink cans (based on the sales results in FY2004), taking into account the proportional contribution made to the sales quantity by capacity. Weight reductions for the flagship container ("TULC") will be pursued further.

## Aluminum cans

This graph shows the weight transition of 350-ml cans. Although a reduction of about 25% has been achieved, compared to the 1980 level, the rate of reduction has leveled off in recent years. Further efforts will be made to achieve a reduction of 1% or more, compared to the FY2004 level.

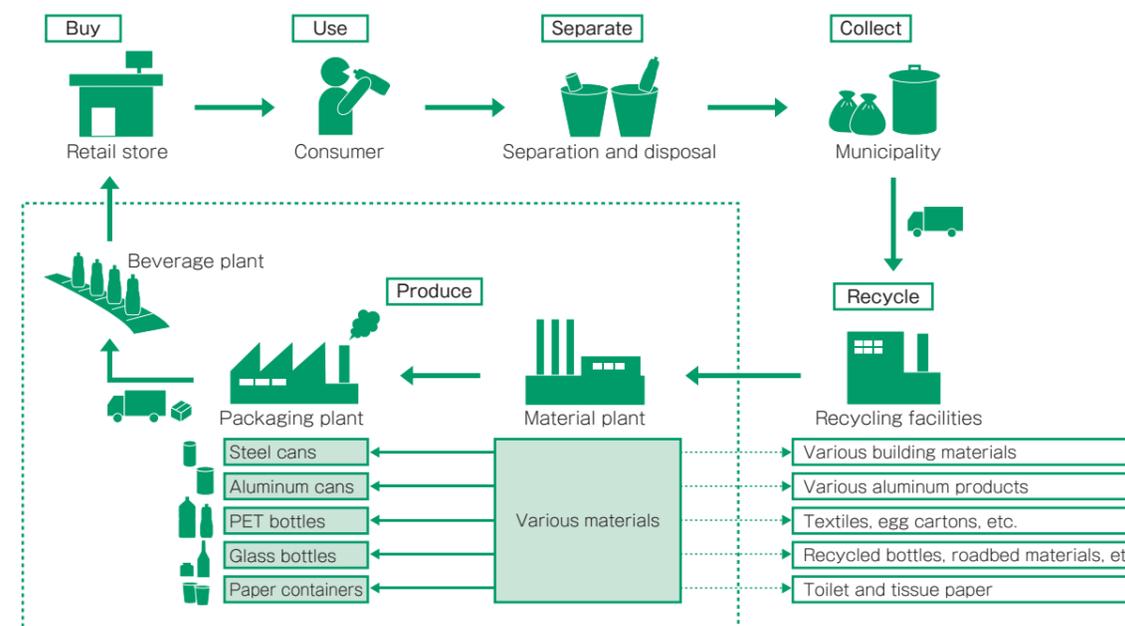
## PET bottles

This graph shows the weight transition for Toyo Seikan's PET bottles (based on the sales results in FY2004), taking into account the proportional contribution made to the sales quantity by container type. As with other containers, further weight reductions will be difficult to achieve, but will be pursued through ongoing review of container designs, etc.

# 3R Initiatives

The collaboration of all the parties concerned is the key to successfully completing the circle of recycling. Toyo Seikan provides support to ensure that all containers delivered to consumers, and emptied, are then recycled into new products.

Recycling flow for various types of packaging



Current recycling status for different types of packaging in Japan (source: Industry groups' data)

■ Steel cans ■ Aluminum cans ■ PET bottles (previous collection percentage) ■ PET bottles (new collection percentage) ■ Glass bottles



In FY2007, the definition of a collection percentage was revised and both the previous and new collection percentages for 2005 and 2006 were published.

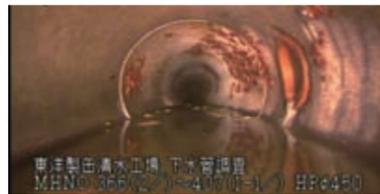
- ①As for steel and aluminum cans, the recycling percentages were calculated based on the consumption and collection amounts.
- ②As for glass, the cullet utilization percentage was calculated based on the glass production amount and the cullet usage amount.
- ③As for PET bottles, the collection percentage was calculated based on the production amount and the collection amounts from companies and municipalities.

## Individual Plant Initiatives

The environment management system is expanding from all plants to the group companies. This section describes initiatives carried out by three plants of Toyo Seikan and one of the Toyo Seikan Group companies.



Hiroshi Ikeya, Environment Management Representative



### Toyo Seikan Kaisha, Ltd. Shimizu Plant

#### Risk management survey of drainage paths

Since its foundation in 1937, the Shimizu Plant had expanded fivefold by 1961.

Consequently, the plans of buildings and premises were outdated and because expansion work had lasted so long it was no longer possible to locate some of the pipes and drainage paths on the premises. In addition, land reclamation undertaken on the periphery of the plant as part of the Shimizu Port Hinode Area Redevelopment Project had changed the layout and direction of flow of some of the sewage and rainwater drainage paths. This survey inspected drainage paths using a self-propelled robotic camera to map the layout of the sewage and rainwater drainage pipes leaving the plant, and the position of all manholes, checking for any deterioration or other problems regarding the connection status of the pipes.

Inside the plant buildings, the arrangement of pipes was also scrutinized in order to compile a detailed piping diagram of the premises and the periphery of the plant, including all drainage paths.

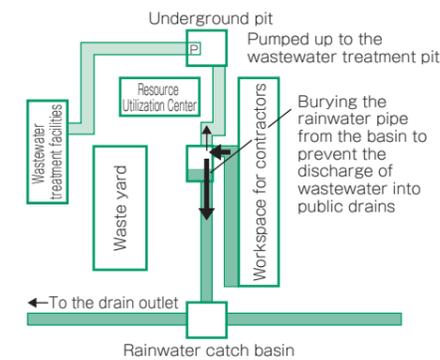
The data obtained will be utilized to ensure a quick response to emergencies such as oil spillages, and to review emergency drills.

## Individual Plant Initiatives



Junshi Nakagawa, Environment Management Representative

#### Countermeasures for environmental risks at the Resource Utilization Center



### Hiroshima Plant

To minimize environmental risks, the Hiroshima Plant carries out an emergency drill every year, testing its emergency response facilities. The experience gained ensures that the organization is ready to respond to all eventualities.

#### Prevention of environmental pollution through improvement of the drainage paths

At our plant's Resource Utilization Center, waste oil and paint are poured into separate containers before being transported elsewhere for disposal. This was designated as an at-risk facility because, if a container drops or falls down, the spilled waste oil or paint may spill into the rainwater basin and then enter a public waterway.

The rainwater flow path has now been changed so that no wastewater can run directly into the rainwater ditch, turning the Center into a facility that is well-prepared for any risks that may arise.

We also color-coded the lids of individual catch basins, marked the positions of all drain outlets, and created a drainage path map that shows all the drainage paths on the premises. Furthermore, the workers at the plant were educated about these drainage paths to ensure that all staff are now well informed about their layout and operation.

Further activities of this sort, addressing environmental risks, will be carried out in the future.



Takahiko Wakabayashi, Environment Management Representative

### Ibaraki Plant

Ibaraki Plant implemented three new countermeasures for drainage processing and noise prevention.

#### Installation of a chemical spillage prevention sheet

The wastewater treatment system, installed in 1989, is maintained by conducting regular repairs and inspections. Furthermore, a chemical spillage prevention sheet was installed as a preventive measure in the event of a drainage blowout caused by piping malfunctions.

#### Improvement of the liquid control dyke

The height of the liquid control dyke, installed as a preventive measure in case of a spillage of chemicals on the premises, was raised.



#### Noise control measure, adopted in consideration of local residents

There is a scrap treatment plant on the east side of the plant. A noise control barrier was installed, in consideration of the local residents, so that noise from the scrap treatment plant will not leak to the outside.



Toshio Kitagata, Environment Management Representative

### Daito Seikan Kaisha, Ltd.

Daito Seikan Kaisha, Ltd., founded in Nishiyodogawa-ku, Osaka, in 1956, specializes in the manufacture of general cans. In consideration of the local community, the company is carrying out various activities to minimize environmental impact.

In October 2007, the company acquired certification for Eco Action 21.

#### Improvement of energy saving in the plant

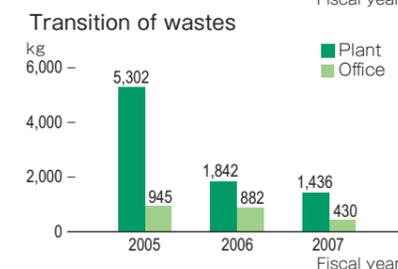
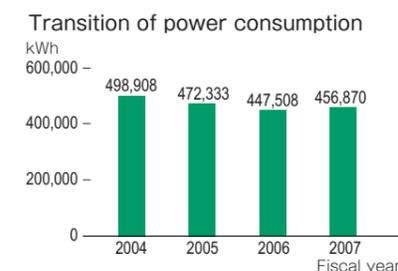
The lighting in the plant was reviewed and energy-saving lighting fixtures were introduced in order to achieve an 8% reduction in power consumption, compared to the FY2004 level. The arrangement of lighting fixtures was also changed to suit the layout of the production lines, reducing the number of lighting fixtures by about 10%.

#### Significant reduction of wastes via the recycling of paper

Paper scrap, which used to be disposed of as general waste, began to be separated and recycled in 2006, thereby achieving a significant reduction in the amount of waste produced.

Furthermore, clerical departments are also reducing the amount of waste paper by using both sides of copy paper and making the circulation of reference materials more efficient.

As part of environmental education and training, emergency drills are conducted in preparation for possible oil spillages from delivery trucks and waste oil drums, in order to improve the workers' readiness for emergencies. In future, further environmental improvements will be promoted through the diligent and concerted efforts of the entire company.



# Environment Management Accounting

Toyo Seikan analyzes the costs and effects of its environmental conservation activities and reflects the analysis results in its corporate activities.

Toyo Seikan is promoting the construction of an [Integrated Environment Management Accounting System], thereby taking a step forward in improving the framework of environmental accounting. At present, the operation of the [Environment-Conscious Investment Decision Making Technique] and the introduction of [Material Flow Cost Accounting] are also underway.

### The Environment-Conscious Investment Decision-Making Technique

This technique for capital investment decision-making in environment conservation investment is used as a target costing system, comprising a conventional economic evaluation plus an environmental effect evaluation.

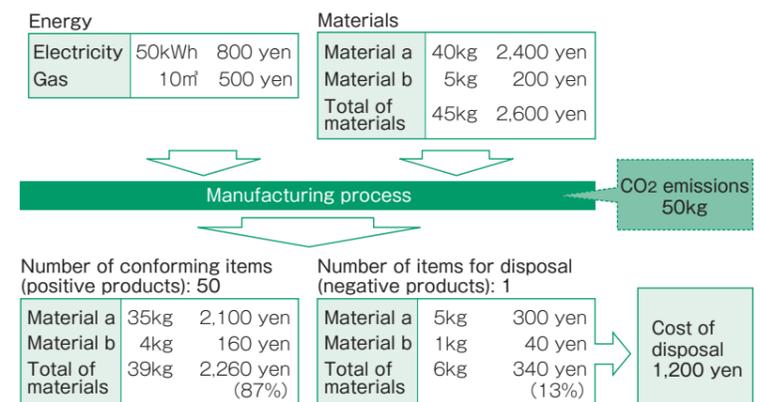
Balance sheet model used for the environment-conscious capital investment decision-making technique

Plant	Environmental facilities investment proposal	Cash flow				Economic evaluation		Environmental effect							
		Initial investment	Total cash flow		Funding cost	Facility service life (years)	Net present value (NPV)	Environmental load reduction per year			CO2 emission reduction (kg)				
			Priority	Priority				Priority	Priority	Priority	Priority	Priority			
A	Facility a	▲10,000	15,000	2	5%	5	11,647	2	1,000	2	100	1	661	0.057	1
B	Facility b	▲30,000	20,000	1	5%	5	13,295	1	1,500	1	0	3	638	0.048	2
C	Facility c	▲8,000	12,000	3	5%	5	9,318	3	500	3	50	2	330	0.035	3
Total		▲48,000	47,000				34,260		3,000		150		1,629		

### Material flow cost accounting

This technique divides the material inputs to production, the costs of manufacturing, and other factors into two flows, i.e., flow to products (positive) and flow to wastes (negative), and thus identifies them both in terms of material quantities and monetary values. This technique has the advantage of highlighting any inefficiencies in the manufacturing process and providing information on any inefficiencies that need to be addressed in order to achieve environmental impact reduction and cost cutting.

### Material flow cost accounting model



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Toyo Seikan, upholding the customer-first principle and extending the utmost consideration to consumers, is pursuing the manufacture of high-quality products.

## Basic policies of Toyo Seikan

The can manufacturing industry originated as a spin-off from the canning industry. Toyo Seikan was founded in 1917 with a mission to serve as a common packaging plant for its customers, supplying packaging safely, inexpensively, and quickly.

With this background in mind, the company upholds the following three fundamental principles:

- We will contribute to the happiness of mankind.
- The objective of business is not just to make money. A profit is a result, not an objective.
- We will contribute to the prosperity of related industries.

## Technical development policies

### Technologies that promote the welfare of mankind

The company is conducting ongoing research and development by constantly studying the processes of "production, filling, consumption, collection and recycling" related to packaging, and promoting packaging innovations directed towards the welfare of mankind.

## Quality policies

### Pursuit of product quality in accordance with the needs of the times

The need for various products varies in accordance with current trends in society, as customer requirements are constantly changing. The company seeks to stay in touch with current needs by maintaining up-to-date communications with customers and responding promptly in order to realize the product quality required. In particular, the company is working on issues such as the "guarantee of safety and sanitation" and the "challenge to achieve zero defects" which will bring about increased safety and reliability.

## Quality assurance system

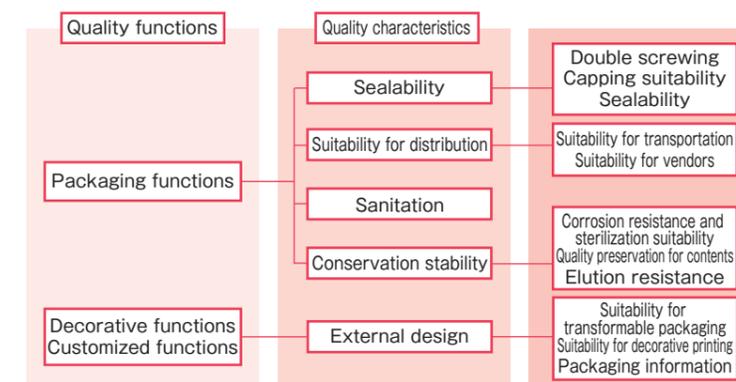
### Construction of a quality system "in harmony with customers"

Customers and Toyo Seikan share a common objective - the supply of better products to consumers. In order to achieve this objective, an uninterrupted, consistent system for ensuring quality is needed that includes the acquisition of materials required for packaging through to the delivery of final products filled with contents to consumers. Since many of our customers have adopted an ISO9001-compliant quality management system, Toyo Seikan has also taken positive action to introduce such a system in an effort to maintain and improve product quality.

### Quality functions required from packaging

A wide range of quality characteristics are required in order that packaging can fulfill its required functions, which in turn requires the use of a wide range of technologies. The figure on the right shows the principal quality characteristics required. Toyo Seikan is constructing a system for proposing new functions that address current needs and will be appreciated by customers and consumers alike, and is incorporating these new functions into its products.

Quality functions and principal quality characteristics required by customers



## A system for realizing quality functions

As laid down in the quality policies, food safety is a strict requirement these days and packaging standards must keep up with customer demand and the needs of society. Therefore, Toyo Seikan established the Comprehensive Product Safety Promotion Guidelines to check the safety of products in accordance with the Product Liability Law in an effort to maintain and improve product safety. In response to growing concern about chemicals, a food packaging sanitation committee was also organized in order to deal with issues involving chemical sanitation, thus enhancing supervision and ensuring food safety.

To incorporate the required quality functions (as designated above) in the manufacturing process, the company has developed a quality assurance system chart and a QC process chart and is actively promoting product defect prevention, recurrence prevention, and discharge prevention, using various different systems to prevent quality failures.

Furthermore, Toyo Seikan is endeavoring to manufacture cost-competitive and high-quality products, while paying due attention to environmental issues throughout the manufacturing process. The company is constantly seeking to improve the product quality level because there is, at present, an urgent need to carry out mass-production efficiently, with the minimum number of rejects.

## Further enhancement of the quality assurance system

Since the level of quality demanded by consumers continues to rise, day by day, Toyo Seikan will construct and enhance a quality assurance system that proactively incorporates the future needs of customers in advance, instead of just addressing quality issues in a reactive manner, in order to supply products that will be appreciated by customers and consumers alike. To achieve this objective, the company will:

- Construct a system that ensures "safety," "sanitation," and "guaranteed manufacturing standards" even at the earliest stages of product development and design, and securely links them together in order to increase the value of the final products.
- Construct a system that actively incorporates the "customers' points of view" and "customers' systems" and reflects this feedback in the production values of our products.



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



**Aiming to play a responsible corporate role in society**

The Toyo Seikan Group places great importance on the disclosure of environment-related information. To ensure that we always provide full accountability to stakeholders, each of the group companies is actively disclosing environmental information through environmental reports, site reports, and the Toyo Seikan Web pages.

**Tools for communication with stakeholders**

Since 1999, Toyo Seikan has been issuing an environmental report (the "Eco Report") which describes the various environmental activities of Toyo Seikan and the Toyo Seikan Group, focusing on those with the highest priority. Since 2005, these reports have been renamed "Environmental and Social Reports," in which more social matters have been included and the communication content has been increased. Furthermore, each individual plant now issues its own site report, disclosing information to residents in the local community.

Valuable opinions and comments contributed by stakeholders are much appreciated and will be taken into consideration with regard to future improvements.

**Entry in "Eco Products 2007"**

Toyo Seikan submitted an entry to "Eco Products 2007" (the largest environmental event in Japan), held in December 2007.

The company's poster display showed the evolution of packaging in pursuit of "conservation stability," "ease of use," and "friendliness to the global environment." Also included were a "can sealing demonstration" and a quiz, which had also featured the previous year. These events received more than 4,000 visitors.



Since Toyo Seikan is a business-to-business company, we do not have many opportunities to listen to the opinions of end-users. Therefore, a stakeholders' meeting is used as a communication tool, with which we can exchange opinions directly with consumers.



M.C.:Ms. Kikuko Tatsumi, Executive Director, NACS

**Bidirectional communication with stakeholders:  
Opinion exchange meetings with the Nippon Association of Consumer Specialists**

Toyo Seikan, in collaboration with the Nippon Association of Consumer Specialists (NACS), has been holding opinion exchange meetings ever year since 2006.

At the 2008 meeting, Toyo Seikan asked the participants what they thought or felt about the role packaging played in their daily life, and the latest information concerning Toyo Seikan and NACS topics and initiatives was presented to the participants in order to promote mutual understanding. (The opinions and comments contributed at the meeting were summarized as questions and answers, as listed below).

**D a t e :** June 18, 2008  
**P l a c e :** Toyo Seikan head office  
**M e m b e r s**  
 General consumer : 5  
 representatives Suzuki, Miyazaki, Oishi, Takai, Fukatsu  
 (In no particular order)  
**Participants from :** 9  
 Toyo Seikan General Affairs  
 Department: Asada  
 Sales Division: Shinoda, Kuriki, Yoshihara, Hagi  
 Environmental  
 Department: Masaki, Komatsu, Aoyagi, Takani

**Q1.What criteria do you use when selecting the drinks that you buy?**

When I drop by at a convenience store on the way home, I buy drinks in paper cartons because they are less expensive and easy to dispose of. When I go out with my children, I buy drinks in PET bottles because they can be capped again.

**Q2.What do you think of one-way and reusable packages?**

I hope that one-way packages will be recycled more. As for reusable packages, I think they are worthwhile, especially when combined with a home-delivery service such as a consumer cooperative, and bearing in mind the problems associated with an aging society.

**Q3.What are your complaints about packaging in general?**

My main complaint is that the ease of disposal varies, depending on the PET bottle type. Can't the industry adopt a single type of bottle?

**Q4.What do you think the ideal next-generation packaging should be like?**

Packaging should be flexible in design and reusable. In addition, it would be wonderful if IC tags could be put on packaging so that different types can be separated automatically.

**Q5.What do you expect from packaging manufacturers?**

I think it is necessary for the various manufacturers to broaden their perspectives, get together, and overcome the existing differences between companies. I hope that they can encourage stakeholders to get more involved and come up with measures that CAN actually be implemented, instead of just thinking up reasons why they CANNOT.



**After the Stakeholders' Meeting**

Frank opinions were expressed by the participants. The results of activities currently underway will be disclosed to all stakeholders, in response to stakeholder requests and in order to increase understanding. Furthermore, additional activities will be carried out in collaboration with suppliers and customers via the supply chain. While many problems were highlighted, Toyo Seikan will deal with them all constructively in its capacity as a responsible manufacturer that seeks to play a leading role in the industry and wishes to continue to meet the needs of society as a whole.



**Holding the "Environmental Report Discussion Meeting"**

In March 2008, an "environmental report discussion meeting" was held to consider improvements to the environmental report. This meeting turned out to be a valuable opportunity to listen to frank opinions expressed by the eleven participants from various head office departments. Since reports from other companies were also presented and compared with that of Toyo Seikan, the problems and tasks facing our company became much clearer. All these opinions will be reflected in the contents of the reports due to be issued in and after FY2008.

In future, environmental report discussion meetings will be held more frequently and at other plants (not just head office) in an effort to better reflect the opinions of the staff of the company at large.

**The principal opinions advanced at the "environmental report discussion meeting"**

- The overall tone of the report is too serious. Fonts and pagination need to be improved.
- There should be more emphasis in the report on "communication with society."
- The questionnaire results from the previous year should be included. The use of a Web site may be a possibility.
- Long-term projects should also be covered.
- I think that the report itself could be presented in a simpler form.

**Community clean-up activities**

Each of the plants of the Toyo Seikan Group is actively participating in community clean-up activities in order to contribute to the development of an aesthetically pleasing and comfortable town.

Regular clean-up activities are conducted around the periphery of each plant, as well as collaborative activities involving neighborhood residents and other companies, thereby assisting in the development of a better community. Furthermore, all plants actively participate in the clean-up campaigns conducted in their respective communities.

- Participation in joint clean-up activities in the industrial area
- Clean-up of Miho Masaki Coast
- Participation in Mikawa Bay Akemi Area zero-garbage campaign
- Participation in Sendai Harbor cleanup volunteer activities
- Participation in the campaign for eliminating empty cans and other scattered garbage
- Participation in the Tsurumi clean-up campaign
- Clean-up of the Tama River dry riverbed, etc.



Relationship with Society



Prof. Akemi Ori, College of Law, Kanto Gakuin University

**Environmental education**

**Environment-related education at plants**

As part of the ISO14001 environment management activities, each plant regularly provides all employees with general education and special education opportunities, aimed at sharing expert knowledge and skills. Furthermore, each plant actively participates in environmental seminars held by communities and local public bodies.

**Environmental seminars at head office**

Starting in 2000, an annual environmental seminar has been held at head office, as part of the environmental education program, featuring an invited guest speaker from outside the company. In the seminar held in June 2008, there were about 70 participants from the Toyo Seikan Group. Although the speaker spoke about "Corporate Activities and Risk Communications," a theme not directly related to the environment, it was a highly informative speech featuring several specific examples which the participants found very interesting. These seminars will continue to be held in the next fiscal year, and beyond.

**Activities in recycling organizations**

Toyo Seikan, in its role as a total packaging manufacturer, was actively participating in recycling activities long before packaging recycling was required by "Containers and Packaging Recycling Law (enacted in 1997)". Ever since its foundation, Toyo Seikan has been participating in recycling organizations dealing with various types of packaging and continues to submit proposals to administrative bodies and general consumers through various associations. The company has participated in exhibitions as a member of these associations and has conducted a wide range of recycling education activities.

**Participation in recycling organizations**

Organization name	Posts
Japan Steel Can Recycling Association	Vice-chairman, director, executive member
Japan Aluminum Can Recycling Association	Vice-chairman, planning member
PET Bottle Council	Vice-president, director, member of committees
Council for PET Bottle Recycling	Director, member of committees
Plastic Packaging Recycling Council	Planning and steering member
The Japan Containers and Packaging Recycling Association	Director, PET bottle business member, plastic package business member



Relationship with Society

## Relationship with Society

The Toyo Seikan Group, extending its basic policy of contributing to society with packaging technology, is conducting social contribution activities outside its main line of business.

### Social contribution activities

#### Japan Crown Cork

The Okayama Plant of Japan Crown Cork, in its role as a member of the Shoei Area Forestation Group, actively participates in forest care activities such as tree felling and undergrowth clearing, every year.

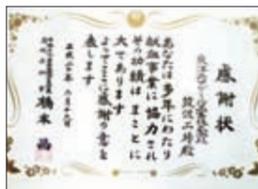
The Ishioka Plant participated in the Ibaraki Forestation for the first time this year. The importance of forestation in the protection of the global environment was clearly recognized.



#### Toyo Aerosol Industry

The Tsukuba Plant of the Toyo Aerosol Industry received a commendation from the governor of Ibaraki prefecture for its contribution to blood donation activities (on February 19, 2008).

Furthermore, the Kawagoe Plant of this company won third prize in the 22nd Self-Defense Fire Company Fire Hydrant Drill Contest in the Kawagoe Area (on October 24, 2007).



#### Toyo Seikan

The Yokohama Plant of Toyo Seikan, which has been a member of the Kanagawa Environmental Conservation Association for many years, received a commendation from this association for its voluntary environment management activities, in recognition of its development of an environment management organization and its participation in activities carried out in the local community.



## Relationship with Employees

The employees who work for the company play a key role in its corporate activities. Toyo Seikan pursues the development of a safe, hygienic and dynamic workplace by respecting human rights and employee individuality.

At Toyo Seikan, we strive to act as a responsible member of society and to uphold a high standard of ethics. In the workplace, we aim to respect human rights and the individuality of others in order to fully utilize our employees' abilities and individuality.

Furthermore, we have a personnel system that properly evaluates each employee's individual level of work performance in order to provide an incentive for employees to tackle challenging assignments. The entire organization is energized if employees work with vigor and enthusiasm as professionals. As a result of this process, Toyo Seikan successfully develops, manufactures and sells safe and reliable products that possess excellent functions, and receives a high degree of respect from society, in return.

### Support for the improvement of individual workers' abilities through respect for their individuality

#### Personnel system

To evaluate the work performance of employees in an appropriate manner, Toyo Seikan rates them in accordance with the performance requirements set down by the company for each certification grade and assesses the contributions of employees fairly, reflecting this in the wage system. The company is committed to planning and operating a personnel system that provides all employees with equal opportunities to tackle challenging tasks as this assists them to make of their abilities.

#### Personal interview system for feedback

The results of the performance assessment for each employee are fed back to the employee by his/her superior by means of personal interviews. A personal interview is also an opportunity for opinions to be exchanged between the employer and his/her superior, using a communication sheet.

#### Reemployment system

An employee who wants to continue working after reaching the mandatory retirement age is reemployed by the company until the start of their pension, as long as the employee satisfies the requirements specified by the company.

#### Employment of disabled persons

The rate of disabled person employment is 2.04% (as of March 1, 2008), thereby complying with the legal employment rate. In the future, disabled person employment will be promoted on a planned basis, every year. The development division building of the Shizuoka Plant is being constructed to a completely barrier-free design. At other plants, the design of facilities will be reviewed. Toyo Seikan is taking steps to realize a workplace where disabled and able-bodied persons can work together.

#### Education and training system

Human resources are assets for any company. Toyo Seikan provides many opportunities for education in order to foster the development of workers who are innovative, flexible and highly creative. The education system, based on the premise that employees are primarily responsible for their own development, consists of three principal types: education for each layer of employment, education for each function, and support for self-development. As a manufacturer, Toyo Seikan naturally gives a high priority to "manufacturing" education. The Technical Education Center is equipped with training equipment that allows production engineers to gain experience and acquire the wide range of skills and knowledge required for their work. In FY2007, a total of 188 persons received training at this center.

Layer	Training for each layer	Education for each function	Common
Management layer	Legal training for new board members Toyo Seikan Business College (TSBC)		
Administrator layer	Section chief training		
Supervisor layer	New subsection chief training		
Mid-level employee layer	Workplace leader training course		
	Manufacturing department: Research and development and sales departments Problem-solving training: Logical thinking		
New recruit layer	Mid-level employee training		
	New recruit training University graduate collective training at head office		
	University graduate correspondence courses and taking of tests: TOEIC, Business Law 3rd grade, and Bookkeeping 3rd		
	Senior high school and technical college graduates Workplace training Senior high school and technical college graduates Correspondence course		
	Classroom education: Plant visiting training		
	Correspondence courses for prospective employees, currently at university		
		Special training at each department	
		Compliance training	
		Correspondence courses	
		Official certification incentive system	
		TOEIC test	
		Dispatch of employees to external training and seminars	
		Foreign language training	



A program has also been established to provide support for employees who wish to develop further skills and abilities, on their own initiative. Those who have completed correspondence courses are reimbursed the total amount of the course fees. This program was used by 2760 participants in FY2007. A further program offers a financial incentive to those who have acquired official certification in specific areas, designated by the company. To foster the development of the next generation of business leaders, the company has opened the "Toyo Seikan Business College (TSBC)" where selected staff members from throughout the company are engaged in active discussions and submit proposals on the future of the company. In addition, training on corporate compliance is actively pursued by the entire company.

**Enhancement of the work environment and programs to remove anxiety from the workplace**

**Retirement pension plan**

At Toyo Seikan, it is recognized that in order for employees to be able to carry on their work without anxiety and make full use of their abilities, they must be assured of a suitable standard of living in their old age. Based on this concept, a point-based retirement benefit plan and a contract-type defined benefit pension plan have been introduced. This system provides a flexible pension plan that allows employees to select either a lump sum payment or a pension supply period and pension start time, thereby offering a choice in accordance with their preferred lifestyle after retirement.

**Establishment of health counseling rooms**

Each plant has a health counseling room where employees with a nursing license are permanently stationed. They are engaged in health management operations such as the implementation of periodic physical examinations and providing feedback on examination results. In collaboration with industrial physicians, they also provide employees with counseling regarding various problems such as mental health, and they support comprehensive disease prevention and health promotion activities by providing nutritional guidance, exercise guidance, and advice on lifestyle-related diseases, etc.

**Unused paid holiday carry-over system**

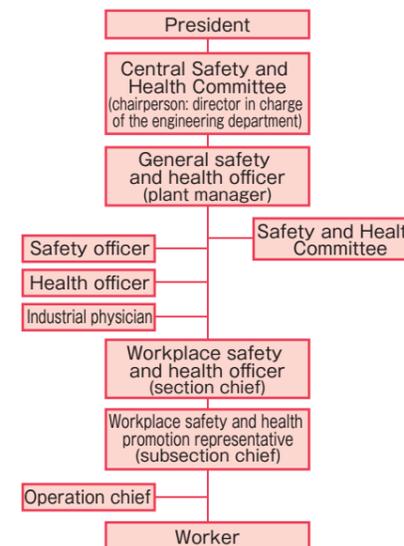
Under the unused paid holiday carry-over system adopted by Toyo Seikan, an employee can carry over up to 30 annual paid holidays before their expiration date. Employees can use this system for medical treatment, care for family members, volunteer activities, etc.

**Parental leave system**

Employees who are rearing children under the age of one can take parental leave. Additional "exemptions from working overtime and working on days off," "the advancement or postponement of starting or finishing time," and "reductions of working hours" are also available for these employees, until their children start elementary school. In FY2007, 12 employees took parental leave (a leave-taking rate of 80%).

**Family-care leave system**

Employees who are taking care of family members can take 365 days of family-care leave, in total. Furthermore, "exemptions from working overtime and working on days off," "advancement or postponement of starting or finishing time," and "reductions of working hours" are also available for these employees.



**Safety and health**

**Safety management organization**

As part of its safety and health activities, Toyo Seikan has established safety and health management regulations to define the scope of responsibilities and powers regarding safety and health and has set up a Central Safety and Health Committee, chaired by the director in charge of the engineering department in order to promote safety and health management activities from a company-wide point of view.

The Central Safety and Health Committee identifies and analyzes the circumstances of industrial accidents, diseases, and accident prevention activities throughout the entire company. This committee also determines the policies adopted each fiscal year, and ensures that they are executed in the form of actual safety and health activities at each plant.

At each plant, safety and health activities are promoted on the initiative of the Safety and Health Committee, with the plant manager serving as the general safety and health officer. The FY2007 annual accident frequency rate was 0.08.

$$\text{Accident frequency rate} = \frac{\text{Number of casualties resulting from industrial accidents}}{\text{Total number of actual working hours}} \times 1,000,000$$

**Introduction of AEDs**

Toyo Seikan has introduced automated external defibrillators (AEDs) at all its plants and has trained employees how to use them and how to carry out cardiopulmonary resuscitation in emergencies.



**Safety and health activities in FY2008**

**Safety**

- 1) Enhancement of "risk forecasting, hazard prevention activities"
- 2) Ensuring the use of "finger pointing/calling safety checks"
- 3) Establishment of an "approval system for special work"
- 4) Establishment of "risk assessment" and "question-posing safety patrols"
- 5) Review and check procedures for "work permitted during machine operations (rotation)"
- 6) Review and creation of safe work procedures
- 7) Ensuring safety education for temporary and dispatched employees
- 8) Prevention of traffic accidents and disasters

**Health**

- 1) Provision of mental health education
- 2) Start of specific health examination and specific health guidance programs
- 3) Decrease in the number of employees working long hours, and the enhancement of health management
- 4) Enhancement of health management for employees stationed abroad

## Global column

### Initiatives at overseas offices

Toyo Seikan has been conducting overseas operations in accordance with its basic policy of popularizing human- and eco-friendly packaging around the world in order to contribute to the betterment of human life and culture. The company observes all local laws and customs in countries where it has established offices in order to contribute to the development of local communities.

The company also provides local employees with training in Japan. These training opportunities are mainly aimed at the improvement of skills involving production activities, and also serve as a great opportunity for trainees to deepen their understanding of Japanese culture and customs throughout their stay in Japan, and through exchanges with Japanese employees.

In FY2007, training was given to local employees from Malaysia. A total of 24 trainees from Malaysia Packaging Industry BHD visited the Toyohashi Plant and stayed for up to four weeks. The training they received improved their skills and promoted mutual understanding with Japanese employees, overcoming barriers imposed by language, culture, customs and different ways of thinking.



## Commendations

### Two awards were received from the Japan Packaging Institute as part of the 32nd Kinoshita Prize



#### Method for manufacturing high-gas volume can products based on a pressurized sterilization technique

Toyo Seikan and Asahi Breweries, Ltd. received the Kinoshita Prize (Research and Development Award) for the joint application of a new "method for manufacturing high-gas volume can products based on a pressurized sterilization technique." Normally, there is a limit to the amount of carbon dioxide that can be sealed into a carbonated drink can containing fruit juice. This new technology provides drinks with a more refreshing taste by increasing the amount of carbon dioxide in the can.

#### DIPO pouch with a dispensing function

Toyo Seikan received the Kinoshita Prize (Packaging Technology Award) for DIPO, a pouch that comes ready for use as a hanging dispenser, eliminating the need for any troublesome refilling into other containers. DIPO can be used as a substitute for a pump-dispenser bottle and thus contributes to the reduction of waste by reducing both weight and volume.



### "E-RP TRAVIS" wins the World Star Award

In the 2007 World Packaging Contest held by the World Packaging Organization (WPO), Toyo Seikan's "E-RP TRAVIS" product won the World Star Award, in competition with products from all around the world. The details of this form of packaging are described in "Topics" (see P. 12).



### "Metashine Can" receives an award in "Can of the Year 2007"

Toyo Seikan's "Metashine Can" won the bronze award in the prototype section of the "Can of the Year 2007" contest sponsored by "The Canmaker," an authoritative industry magazine in the U.K. The "Metashine Can" is base-coated with "Metashine" (glass flake coating), a luster pigment consisting of fine glass flakes coated with metal powder. It has a high reflectance, adding a brilliant, lame-like luster to the can.



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# History of Environmental Activities

Year	Technologies related to packaging production	Recycling activities, etc.
1917	-Foundation of Toyo Seikan and the establishment of head office and the first plant in Osaka	
1919	-Start of can production using the first automatic can machine in Japan	
1920	-Establishment of the Tokyo Plant	
1933	-Establishment of the Tobata Plant	
1935	-Listed on the Osaka Stock Exchange	
1937	-Establishment of the Shimizu Plant	
1944	-Relocation of the head office to Chiyoda-ku, Tokyo	
1949	-Listed on the Tokyo Stock Exchange	
1958	-Establishment of the Sendai Plant -Start of production of beer cans	
1960	-Establishment of the Ibaraki Plant	
1961	-Establishment of the Yokohama Plant -Start of production of plastic containers	
1965	-Start of production of cola cans	
1967	-Establishment of the Kawasaki Plant	
1968	-Start of production of coffee cans	
1969	-Start of production of retort pouches	
1970	-Development and commercialization of TFS -Start of production of Toyo Seam Cans (cemented cans)	-Start addressing the can litter problem
1971	-Establishment of the Saitama Plant and Takatsuki Plant -Start of production of Lamicon	-Start field survey on litter and litter prevention experiments (Kirigamine Project)
1972	-Establishment of the Chitose Plant -Installation of a Direct Flame Fume Incinerator (DFI)	
1973	-Start of production of Lamicon bottles -Establishment of the Hiroshima Plant	-Establishment of the Used CAN Treatment Association -Establishment of the All Aluminum Can Collection Association -Establishment of the Beverage Industry Environment Beautification Association -Publication of Introduction to Can-cology (used can collection simulation) -Implementation of the Can Litter Prevention Campaign
1974	-Relocation of the Osaka Plant to Izumisano-shi -Establishment of the Kiyama Plant -Practical application of UV printing -Start of production of DI cans	
1975	-Start of production of high retort pouches	
1976	-Start of production of push-in tabs	
1977	-Establishment of the Iishioka Plant -Start of production of PET bottles for soy sauce -Start of production of drawn and redrawn cans (DRD cans)	
1978	-Start of production of Toyo seam retort cans -Start of production of Lamicon cups -Switch to water-based sealing compound	
1979	-Establishment of the Kuki Plant -Start of production of welded aerosol cans -Start of production of standing pouches	
1980	-Completion of the Saiwai Building for the new head office -Start of production of Toyo seam multi-bead cans	
1981	-Start of production of welded beverage cans	
1982	-Start of production of PET bottles for carbonated beverages -Switch to water-based coatings for cans -Start of production of triple necked-in cans (cans with decreased can lid diameters)	-Establishment of the JAPAN PET Bottle Association (start of study on recycling systems)
1983	-Relocation of the Sendai Plant to Minato, Miyagino-ku, Sendai	-Reorganization of the Beverage Industry Environment Beautification Association to form The Beverage Industry Environment Beautification Association -Establishment of a unified mark, "Put Used Can in Its Place"
1984	-Start of production of BOB bottles for infusion	
1985	-Start of production of hiRETOfLEX (drawn cups made of composite materials)	
1986	-Start of production of heat-resistant PET bottles for juices	
1986	-Installation of a Catalytic Combustion System (CSS)	
1987	-Switch to plastic caps for PET bottles for beverages	
1989	-Start of production of stay-on tabs (SOT) -Start of production of refill pouches for detergents, etc.	-Reorganization of the All Aluminum Can Collection Association to form the Japan Aluminum Can Recycle Association
1991	-Start of production of TULC, eco-friendly metal container -Switch to water-based finishing varnish -Switch to one-piece PET bottles for beverages	-Enactment and enforcement of the "Law for the Promotion of Utilization of Recycled Resources" -Establishment of identification marks
1992		-Establishment of the Environment Office
1993	-Establishment of the Toyohashi Plant -Start of bulk transportation of PET resin for bottles	-Start of operation of large-scale PET bottle recycling companies -Establishment of the Council for The Council for PET Bottle Recycling
1994	-Start of production of Oxyguard (oxygen-absorbing containers)	
1995	-Start using recycled resin in PET bottles for kitchen detergents -Start of production of TULC diamond-cut cans	-Enactment of the "Law for Promotion of Sorted Collection and Recycling of Containers and Packaging" (Containers and Packaging Recycling Law)
1996	-Start of operation of a cogeneration system at the Osaka Plant	-Establishment of the Japan Containers and Packaging Recycling Association
1997	-Start of production of Moisture Guard films	-Partial enforcement of the Containers and Packaging Recycling Law
1998	-Start of production of floss (refill) pouches	-Establishment of the Plastic Packaging Recycling Council
1999	-Start using recycled PET resin in the handles of large PET bottles	-Publication of the Environmental Report (Eco Report) -Establishment of the Environmental Committee for the entire company, and establishment of Toyo Seikan Environmental Policies
2000	-Establishment of the Shizuoka Plant -Integration of the Tokyo Plant with the Yokohama Plant -Start of operation of a cogeneration system at the Kawasaki Plant -End the use of small incinerators at all plants	-Full enforcement of the Containers and Packaging Recycling Law -Setup of guidelines for green purchasing and procurement
2001	-Start of production of Oxyblock (high-function PET bottles) -Start of production of aTULC -Start of production of aluminum diamond-cut cans	-Full-scale application of environmental accounting -Reorganization of the Used CAN Treatment Association to form the JAPAN STEEL CAN RECYCLING ASSOCIATION
2002	-Completion of removal of small incinerators from all plants -Start of production of a microwavable pouch with a vapor self-release function (E-RP)	-Establishment of the Toyo Seikan Group Environmental Committee -Issue of a site report at the Saitama Plant
2003	-Integration of the Tobata Plant with the Kiyama Plant -Start of production of TEC200 (resealable steel cans) -Start of production of SIBARD (SiOx-evaporated bottles) -Start using recycled PET bands	-Reorganization of the Environment Office to form the Environment Department -Issue of a site report at all plants
2004	-Start of bottle-to-bottle production of PET bottles	-Completion of ISO14001 certification for 14 plants
2005	-Start of operation of NAS batteries at the Kuki Plant -Use of recycled PET resin for the handles of beverage bottles	-Certification of TULC products with a Type III environmental label (Eco Leaf) -Completion of ISO14001 certification for head office and the development division
2006	-Start of production of Z-End	-Revision and enforcement of the Containers and Packaging Recycling Law -Formulation of the "3R Promotion Organization Liaison Conference" consisting of eight recycling organizations related to packaging, and publication of the voluntary action plan
2007	-Start of production of sTULC at BCM	-ISO14001 certification of a company-wide integrated system

# Toyo Seikan's Participation in External Organizations

## Activities in external organizations

Toyo Seikan actively involves itself in the activities of external organizations by dispatching personnel to environmental and recycling organizations, study groups and committees, and by acting as a member of various environment-related institutions.

### Recycling organizations

- JAPAN STEEL CAN RECYCLING ASSOCIATION
- Aluminum Can Recycle Association
- JAPAN PET Bottle Association
- The Council for PET Bottle Recycling
- Plastic Packaging Recycling Council
- The Japan Containers and Packaging Recycling Association
- Liaison Committee of the Associations Promoting 3Rs

### Study groups and committees

- Member of the Extended Deliberation Committee for Containers and Packaging Recycling Systems, Waste and Recycling Working Group, Central Environment Council (Ministry of the Environment)
- The Eco Materials Forum
- Nikkei BP ECO Management Forum
- Environmental Committee, Japan Polyethylene Products Industrial Federation
- The Japan Plastics Industry Federation
- Environmental Committee & Weight Reduction Promotion Committee, Japan Canners Association
- The Institute of Life Cycle Assessment, Japan
- LCA Japan Forum

# INPUT-OUTPUT

Site-by-site input-output data for Toyo Seikan Kaisha, Ltd.

Plant	Input					Product (output)			Emission (output)				
	Material consumption		Energy consumption		Water consumption	Production			Carbon dioxide emissions	Waste			
	Metal	Plastic	Power	Fuel (crude oil equivalent)		Metal cans	Plastic bottles	Pouches		Waste amount	Recycled amount	Landfill amount	Recycling percentage
	(thousand tons)	(thousand tons)	(million kWh)	(thousand kl)	(thousand m <sup>3</sup> )	(100 million)	(100 million)	(100 million)	(thousand tons)	(tons)	(tons)	(tons)	(%)
<b>Chitose Plant</b> 857 Kitashinano, Chitose-shi, Hokkaido, 066-0075 TEL (0123)24-3171 Manufacture of cans for canning and plastic bottles	18.0	7.1	54.3	3.0	116.4	6.9	1.8	-	32.0	248.7	248.7	0.0	100.0%
<b>Sendai Plant</b> 2-4-1 Minato, Miyagino-ku, Sendai-shi, Miyagi, 983-8502 TEL (022)259-2311 Manufacturing of cans for canning and plastic bottles	37.0	4.7	53.2	5.1	136.2	10.2	2.1	-	34.4	396.8	396.8	0.0	100.0%
<b>Ishioka Plant</b> 8-2 Kashiwabara, Ishioka-shi, Ibaraki, 315-8585 TEL (029)24-2711 Manufacturing of cans for canning, art cans, and plastic bottles	41.7	9.3	99.3	6.1	367.3	11.6	2.3	-	46.0	1280.3	1280.3	0.0	100.0%
<b>Kuki Plant</b> 3 Kawaraicho, Kuki-shi, Saitama, 346-0028 TEL (0480)23-2811 Manufacturing of plastic bottles	-	74.7	189.7	1.4	366.0	-	14.3	-	67.1	122.6	122.6	0.0	100.0%
<b>Saitama Plant</b> 950-2 Shimohosoya, Yoshimi-machi, Hiki-gun, Saitama, 355-0193 TEL (0493)54-2111 Manufacturing of cans for canning and plastic bottles	55.8	14.7	88.9	5.5	115.4	17.0	4.9	-	41.2	63.8	63.8	0.0	100.0%
<b>Kawasaki Plant</b> 11-1 Ukishimacho, Kawasaki-ku, Kawasaki-shi, Kanagawa, 210-0862 TEL (044)266-1581 Manufacturing of plastic bottles	-	21.3	63.5	0.9	227.3	-	5.3	-	23.4	134.4	134.4	0.0	100.0%
<b>Yokohama Plant</b> 1-1-70 Yako, Tsurumi-ku, Yokohama-shi, Kanagawa, 230-0001 TEL (045)571-2411 Manufacturing of cans for canning, art cans, and plastic bottles	58.1	25.8	86.0	9.0	250.4	15.1	3.5	-	47.7	372.0	372.0	0.0	100.0%
<b>Shimizu Plant</b> 8-28 Hinodecho, Shimizu-ku, Shizuoka-shi, Shizuoka, 424-8765 TEL (0543)53-3251 Manufacturing of cans for canning	5.2	-	4.9	0.2	54.4	3.0	-	-	2.8	26.7	26.7	0.0	100.0%
<b>Shizuoka Plant</b> 622-8 Shirai, Makinohara-shi, Shizuoka, 421-0598 TEL (0548)55-3511 Manufacturing of plastic bottles	-	25.2	74.0	0.6	98.5	-	7.9	-	37.0	31.7	31.7	0.0	100.0%
<b>Toyohashi Plant</b> 3-60 Akemicho, Toyohashi-shi, Aichi, 441-8074 TEL (0532)23-5661 Manufacturing of plastic bottles and plastic film	-	24.9	63.2	5.2	111.1	-	3.2	13.2	46.8	2716.8	2716.8	0.0	100.0%
<b>Takatsuki Plant</b> 22-5 Minamishodokorocho, Takatsuki-shi, Osaka 569-0063 TEL (072)675-5701 Manufacturing of cans for canning and art cans	14.7	-	12.7	2.3	84.7	3.3	-	-	9.1	184.0	184.0	0.0	100.0%
<b>Ibaraki Plant</b> 1-81 Higashiunobecho, Ibaragi-shi, Osaka, 567-0879 TEL (072)623-1121 Manufacturing of cans for canning	84.1	-	74.1	9.1	382.7	23.0	-	-	43.6	938.6	938.6	0.0	100.0%
<b>Osaka Plant</b> 29-3 Sumiyoshicho, Izumisano-shi, Osaka, 598-0061 TEL (0724)64-3451 Manufacturing of plastic bottles	-	55.4	138.6	7.7	402.1	-	13.3	-	62.0	98.4	98.4	0.0	100.0%
<b>Hiroshima Plant</b> 234 Shimokitakata, Hongocho, Mihara-shi, Hiroshima, 729-0414 TEL (0848)86-3421 Manufacturing of cans for canning and plastic bottles	46.9	21.0	88.3	7.1	252.8	15.7	5.0	-	73.5	377.2	377.2	0.0	100.0%
<b>Kiyama Plant</b> 380-2 Nagano, Kiyama-cho, Miyaki-gun, Saga, 841-0202 TEL (0942)92-6011 Manufacturing of cans for canning and plastic bottles	37.0	15.8	87.7	5.7	282.1	12.4	4.0	-	44.4	430.1	430.1	0.0	100.0%

# INPUT-OUTPUT

Input-output: Data for principal companies of the Toyo Seikan Group

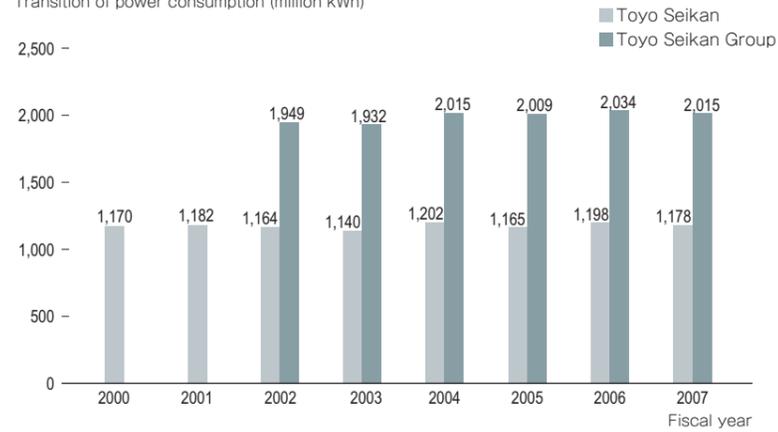
	Input				Output							
	Material consumption (thousand tons)		Energy consumption		Water consumption (thousand m <sup>3</sup> )	Production (thousand tons)	Carbon dioxide emissions (thousand tons)	Waste				
	Metal	Plastic	Power consumption (million kWh)	Fuel (crude oil equivalent) (thousand kl)				Waste amount (tons)	Recycled amount (tons)	Landfill amount (tons)	Recycling percentage	
	(thousand tons)	(thousand tons)	(million kWh)	(thousand kl)	(thousand tons)	(thousand tons)	(thousand tons)	(thousand tons)	(thousand tons)	(%)		
Toyo Kohan Co., Ltd.	Metal	628	Power consumption (million kWh)	276	13,160	Metal products	553	270	9,419	1,495	7,924	16%
	Plastic	2	Fuel (crude oil equivalent) (thousand kl)	35								
Toyo Glass Co., Ltd.	Glass	417	Power consumption (million kWh)	58	704	Glass products	395	283	1,779	1,173	606	66%
			Fuel (crude oil equivalent) (thousand kl)	100								
Tokan Kogyo Co., Ltd.	Plastic	22	Power consumption (million kWh)	109	290	Plastic products	17	50	15,994	15,962	32	99.8%
	Paper	57	Fuel (crude oil equivalent) (thousand kl)	3		Paper products	47					
Japan Crown Cork Co., Ltd.	Metal	14	Power consumption (million kWh)	132	424	Metal products	14	72	549	538	10	98%
	Plastic	50	Fuel (crude oil equivalent) (thousand kl)	6		Plastic products	45					
Toyo Food Equipment Co., Ltd.	Metal	0.6	Power consumption (million kWh)	5	17	Other products		2	221	219	2	99%
			Fuel (crude oil equivalent) (thousand kl)	0.1								
Toyo Aerosol Industry Co., Ltd.	Other materials	55	Power consumption (million kWh)	17	222	Aerosol filling, etc. (million cans)	289	11	1,343	1,297	46	98%
			Fuel (crude oil equivalent) (thousand kl)	2								
Tokan Material Technology Co., Ltd.	Other materials	19	Power consumption (million kWh)	16	100	Other products	7	17	1,250	594	656	59%
			Fuel (crude oil equivalent) (thousand kl)	5								

## Construction status of environment management systems for Toyo Seikan Group companies

Company	Certified sites (certification month)	
Toyo Seikan	Saitama (Jul. '99), Ishioka (Aug. '02), Yokohama (Oct. '02), Hiroshima (Jun. '03), Kuki (Jul. '03), Shizuoka (Dec. '03), Kawasaki (Jan. '04), Takatsuki (Mar. '04), Sendai (Jun. '04), Kiyama (Aug. '04), Chitose (Sep. '04), Ibaraki (Sep. '04), Toyohashi (Nov. '04), Osaka (Nov. '04), Development Division (Nov. '05), Head Office (Nov. '05), Company-side integration (Jul. '07); Integrated certification of the entire company, including the Shimizu Plant	
	Nippon National Seikan	
	Toyo Unso	
	Honshu Seikan	
	Toyo Seihan	
	Daito Seikan	
	Toyo Denkai	
Toyo Kohan	Kudamatsu (Dec. '99), Integrated certification of eight group companies (Dec. '04)	
Toyo Glass	Kawasaki (Dec. '98), Shiga (Oct. '99), Chiba (Feb. '00), Integrated certification of the entire company (Aug. '01)	
	Toyo-Sasaki Glass	
	Toyo Glass Butsuryu	
Tokan Kogyo	Shizuoka (Mar. '02), Atsugi (Sep. '03), Development Center (Jan. '04), Komaki (Jan. '04), Ibaraki (Sep. '04), Osaka (Sep. '04), Fukuoka Plastic Containers (Feb. '05), Integrated certification of the entire group (Sep. '05), Integrated certification of the entire Tokan Kogyo group (Jan. '07)	
	Nippon Tokan Package (NTP)	
	Toyo Unicon	
	Tokan Kosan	
	UEDA PRINTING	
	Shida Shiko	
	Japan Crown Cork	Okayama (Oct. '00), Ishioka (Aug. '02), Hiratsuka (Sep. '02), Komaki (Aug. '02), Head Office (Nov. '04)
	Toyo Food Equipment	Integrated certification of the entire company (Oct. '05)
Toyo Aerosol Industry	Kawagoe (Dec. '03), Tsukuba (Jan. '06), Mie (Jan. '06), Head Office (Mar. '06), Osaka Office (Mar. '07)	
Tokan Material Technology	Kyushu (Apr. '04), Integrated certification of the entire company (Apr. '05)	

## Power, water, and fuel consumption

Transition of power consumption (million kWh)



Transition of water consumption (thousand m<sup>3</sup>)



Transition of fuel consumption (thousand kl: crude oil equivalent)



## Chemicals designated in the PRTR Law

FY2007 amount of emissions and transportation for notified chemicals in the PRTR Law (tons)

Chemical name	Emissions		Transportation	
	Air	Public water	Sewerage	Waste
Ethyl benzene	12.7	0.0	0.0	4.5
Ethylene glycol monoethyl ether	3.0	0.0	0.0	1.3
Xylene	22.0	0.0	0.0	5.9
Ethylene glycol monoethyl ether acetate	5.3	0.0	0.0	1.3
1,3,5-trimethylbenzene	2.5	0.0	0.0	2.6
Toluene	92.2	0.0	0.0	15.1
Polyoxyethylene alkyl ether	0.0	0.4	1.8	13.8

## Environmental accounting data

### Toyo Seikan only

Scope of accounting: (all plants, head office, development division, and Corporate R&D of Toyo Seikan)  
Period: April 1, 2007 to March 31, 2008

Unit: Million yen

Environmental conservation costs		
Classification [principal initiatives and their effects]	Investment amount	Cost amount
(1)Environmental conservation costs required to control the environmental impact generated in the business area by production and service activities (business area costs)	239	1,428
Breakdown	①Pollution prevention costs [air and water pollution prevention activities, maintenance and inspection of equipment, and measurement]	40 689
	②Global environmental conservation costs [energy conservation activities]	192 119
	③Resource recycling costs [waste recycling and maintenance/inspection of waste treatment facilities]	7 620
(2)Costs required to control environmental impact generated in the upstream and downstream processes by production and service activities (upstream and downstream costs)	0	0
(3)Environmental conservation costs in management activities (management costs) [activities for acquiring and maintaining ISO14001 certification]	0	502
(4)Environmental conservation costs in research and development activities (research and development costs) [product development with low environmental impact]	0	1,846
(5)Environmental conservation costs in social activities (social activity costs) [environmental cleanup activities]	0	42
(6)Costs of environmental remediation (environmental remediation costs)	0	0
<b>Total</b>	<b>239</b>	<b>3,818</b>

Item	Description	Amount
Total investment amount over the report period	Machinery and equipment installation, etc.	11,076
Total R&D amount over the report period	Research center personnel costs, experimentation and research costs, etc.	9,596

Environmental conservation effects			
Description of effects	Environmental impact index		
	Total amount	Reduced amount	
(1)Environmental conservation effects achieved in the business area (business area effects)	Energy consumption (total)	14,291 TJ	349 TJ
	(Due to utility power)	11,500 TJ	281 TJ
	(Other than utility power)	2,791 TJ	68 TJ
	Water consumption	3,247 thousand m <sup>3</sup>	▲ 31 thousand m <sup>3</sup>
	CO <sub>2</sub> emissions (total)	611 thousand tons	38 thousand tons
	(Due to utility power)	465 thousand tons	26 thousand tons
(Other than utility power)	146 thousand tons	11 thousand tons	
Total waste discharge	7,589 tons	355 tons	
Waste amount (landfill)	0 ton	2 tons	
(2)Environmental conservation effects achieved in upstream and downstream processes (upstream and downstream effects)	Recycled material amount (recycled PET)	2,079 tons	(155-ton increase)
(3)Other environmental conservation effects	CO <sub>2</sub> emissions in the logistics process	56 thousand tons	▲ 6 thousand m <sup>3</sup>

Economic effect due to environmental conservation	
Description of effect	Amount
Revenue from recycling	417

# Lawsuits, penalties and fines regarding the environment

## Lawsuits, penalties and fines regarding the environment

Toyo Seikan was not subject to any lawsuits, penalties or fines regarding the environment in FY2007.

## Editor's Note

This is the tenth year since the publication of our first environmental report. This FY2008 report on the Toyo Seikan Group has had its name changed from the "Eco Report" to "Environmental and Social Report" in an effort to clearly state the company's intention not to limit the content solely to environmental issues.

During the editing process, we took care to avoid producing a "serious-looking science document" and tried to make the report easier to read and understand (in order to reflect the opinions and comments on the FY2007 Environmental Report received from both inside and outside the company) and to address the problems pointed out in the "Third-Party Opinion" section, as shown below. We also attempted to enhance the social content of the report by adding new items to inform readers of the relationship between the Toyo Seikan Group and society at large.

Since there are many things that could still be improved, regarding the selection of items to be reported and the integration of the social report with the PDCA cycle, for example, and since this will require more time to complete, we intend to continue publishing these reports as a means of disclosing information on our company. We hope this will enable readers to gain a better understanding of what we do, and thereby help foster a closer relationship with society. In addition, we will continue to make improvements in order to meet the wide-ranging needs of all our stakeholders.

Editor in charge of Environmental and Social Reports, Environment Department, Toyo Seikan Kaisha, Ltd.

## Third Party Opinion



**Masanobu Ishikawa**

Professor, Graduate School of Economics  
Kobe University

My overall impression of this report is that it has been prepared with the clear intention of presenting more information than last year's issue, in an easy-to-understand way, making full use of tables, graphs, and flowcharts. The sections on the foundation and history of Toyo Seikan Kaisha, Ltd. (hereinafter referred to as Toyo Seikan) and the "Packaging Technology" used for conserving our beautiful Earth help the reader gain a better understanding of the foundation of Toyo Seikan as a corporation and the contributions it has made to society. In this fiscal year, this report has had its name changed from the "Eco Report" to "Environmental and Social Report" in order to clearly express the degree of importance the company places on both the environmental and social aspects of its work.

The "FY2007 Highlights" section reports on Toyo Seikan's participation in trial projects dealing with the subject of carbon footprints. It can be clearly seen that this is a natural outcome of the company's past efforts on the development and promotion of LCA.

Before we get to the details of the environmental and social reports, several pages are devoted to corporate governance in order to explain the company-wide efforts currently underway. Therefore, the status of these activities throughout the entire company is much easier to understand than in last year's issue. I think it would have been better if a more detailed explanation was included regarding the revised edition of the Corporate Code of Conduct distributed to all employees in April 2008.

Although readers learn that the environmental policies have been clearly defined and that activities conducted in accordance with these policies have achieved satisfactory results, it would have been better if more information had been provided about waste reduction. Toyo Seikan, as a leading company in the packaging industry, has been putting a lot of effort into package weight reduction and establishing a good track record. The recently revised Containers and Packaging Recycling Law clearly shows that the major challenge we face today is the reduction of wastes, rather than recycling.

The reduction of carbon dioxide emissions is being pursued not only by Toyo Seikan but also by the entire Toyo Seikan Group, which achieved a 6% reduction in FY2007, compared to the FY2006 level. This wonderful achievement, in which many of the readers of this report must be interested, should have been explained in more detail. Although the production activities described easily achieved the overall carbon dioxide reduction target, the logistics department, unfortunately, failed to achieve its set target. This would have been easier to understand if this report had included the ratio of the production-related emissions to the logistics-related emissions, and shown how this compared to the life cycle emissions.

Regarding wastes, this report states that the thermal recycling percentage has dropped significantly while the material recycling percentage has increased. When the Japan Containers and Packaging Recycling Association compared recycling techniques for plastic packaging, however, there was no evidence that material recycling was superior to any other technique. Since Toyo Seikan is enthusiastic about the development/promotion and use of LCA, I hope that, in future, the company will pay more attention to how high a recycling rate the recycling process will be able to achieve.

With regard to the many eco-friendly products that have been developed, special mention should be made of the E-RP TRAVIS microwavable pouch with which the carbon emissions during heating can be reduced to one-tenth of that of ordinary retort pouches heated with hot water. I hope that this product will be the subject of much positive advertising to consumers, and that it will be used more widely, as a result.

The section on social reporting places great importance on communications with stakeholders and summarizes the relationship between Toyo Seikan and society in an easy-to-understand way. I think it would be better for the company to establish specific targets for its relationship with society and employ the plan-do-check-action (PDCA) process in this field, too.

My hope for the future is that the relationship with society will be further enhanced and that this report will evolve into one that covers the environment, society and economics based on the theme of sustainability.



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