

# 2018

Paper Carton Recycling



# Annual Report

Paper Carton Recycling Annual Report

Recycling

makes you  
feel good.

rather than  
trashing



# Chairman's Message upon Publication of "Paper Carton Recycling Annual Report 2018"

First, I wish to express my gratitude to all of you for your understanding and cooperation in the activities of the Committee for Milk Container Environmental Issues. I would like to take this opportunity to thank all of you.

The Japanese economy is maintaining moderate growth despite the lack of strength in consumer spending because it is being supported by strong exports and stock price rises. This year as well, it is expected to maintain the firm growth, along with a continuing increase in exports, increases in capital investments by companies, and demands for construction for Tokyo Olympic Games, etc.

In the dairy industry, the good news is that raw milk production in Hokkaido since the summer has been recovering for the first time in approximately one year. On the other hand, in the other prefectures there has been no slowdown in the decline in production, so a recovery in the domestic raw milk production foundation remains a long way off. Furthermore, regarding the sales volume of paper carton products, there has been no change in the trend of a gradual decline in the amount of paper carton used mainly for white milk, affected by the growth of beverages in PET bottles.

"The Revised Containers and Packaging Recycling Law" was fully implemented in 2008, and the second review of the law began in 2013 and finally finished in May 2016 with the compilation of "The Report on Evaluation and Examination of the Enforcement Status of the Containers and Packaging Recycling System". Although some challenges were presented, mainly concerning plastic containers, there were no unresolved issues specific to paper cartons. We believe that a conclusion was drawn to keep the situation regarding paper cartons under the recycling system the way it is until the next review. Regardless of the state of progress, we must continue our actions to disseminate and expand the paper carton recycling movement in order to form a society where people are environment-conscious and act accordingly.

The paper carton collection rate, which is the KPI of the activity, was improving since the survey was launched. However, growth of the rate has been sluggish in recent years and declined in fiscal 2015. But, the data for fiscal 2016 has shown a slight recovery.

In order to boost the collection rate, we have been striving to improve the operation of committee system and enhance the capabilities of working members of each committee. The General Affairs Committee visits the sections in charge of environmental issues at local governments to exchange ideas on how to make publicity activities more effective and how to establish a better collection system, and to jointly promote educational activities aimed at consumers. The Publicity Committee continues to revamp our website and also improve the contents of the exhibition panels. The Event Committee calls for consumers' cooperation with correct sorting and collection of cartons by exhibiting in the Eco-Life Fair in June and the Eco-Products in December, and hosting the paper carton recycling events at storefronts of large local retail outlets.

Continuously, the Committee has held various activities such as paper carton recycling workshops in collaboration with local governments, and onsite lessons in the elementary schools nationwide in order to provide students with opportunities to learn the sense of



**Kazuo Aoyama**

Committee for Milk Container Environmental Issues  
Chairman

appreciation of paper as essential resource and Mottainai mind." The Local Organization Board prepared and made the promotional materials and quiz panels available for exhibitions and the regional environmental promotion events in which COMCEI members were involved in order to enhance visitors' interest in paper carton recycling. As a result, many of these events now take place annually. A total of over 24,000 of paper carton collection boxes made by recycled paper cartons have been distributed.

In fiscal 2017 we also ran a publicity campaign in which we put advertisement on Toei Buses, for the first time for the Committee. From October for approximately three months, the buses wrapped by the advertisement to call for paper carton recycling ran around mainly in Kita-ku, Arakawa-ku, and Adachi-ku in Tokyo.

This "Paper Carton Recycling Annual Report 2018" presents our activities of the last year including many other events. We appreciate it if you could read through and provide us with your candid feedback.

Unfortunately, we could not achieve the collection rate target, which is more than 50%, in fiscal 2016. However, by fiscal 2020, we intend to gain an understanding of more realistic collection rates by exploring and compiling data of the paper carton collection routes that have not been tallied, identifying the quantity of paper cartons disposed of with other miscellaneous recyclable papers, and surveying the rate of paper cartons reused as cutting boards or oil waste containers.

We will promote our activities jointly with a range of stakeholders including the Japan Milk Carton Recycling Association, a citizens' group. We appreciate the increased level of assistance from the committee members.

January 2018

# Action Plan to Improve the Paper Carton Collection Rate

By setting a goal to achieve a collection rate of more than 50% in 2020, the Committee for Milk Container Environmental Issues (hereafter COMCEI) has been aiming to enhance the paper carton collection rate. Specific initiatives are as follows:

**《Target》**  
Paper carton collection rate Fiscal 2020 **More than 50%**

● To value the blessings of nature and help preserve the global environment so that the next generation of children can enjoy peace of mind, we strengthen our collaboration with all parties working in the area of paper carton recycling, and promote voluntary activities to improve the collection rate.

● We save resources and reduce environmental load by utilizing paper cartons, which are renewable sources, as high quality resources. We continue to communicate the importance of resource conservation via paper carton recycling.

**[Major Activities]**

1. Provision of opportunities to enhance paper carton collection
  - ① Enhancing stakeholder meetings
  - ② Holding the annual regional conference to discuss the corresponding regions issues and continuously following up for improvement
  - ③ Taking part in regional environment-related activities - hosting a paper carton recycling workshops (co-sponsored by the Japan Milk Carton Recycling Association (hereinafter referred to as JAMRA)), and sharing information



## CONTENTS

### Activity Topics

- "Plan 2020" ..... 2
- Friendly Environment Loop Forum ..... 3
- Regional conference for promotion of carton recycling ..... 4
- Discussion meeting with paper manufacturers ..... 5
- Discussion meeting to promote recycling ..... 6
- Paper carton recycling workshop ..... 7
- On-site lessons on milk carton recycling ..... 8
- Eco-Life Fair and Eco-Products 2017 ..... 10
- "Learn and Play" with Milk Cartons Contest ..... 11
- Other activities ..... 12

### Activity Report Digest

- Paper carton collection rate in fiscal 2016 ..... 14
- Paper carton material flow in fiscal 2016 ..... 16

2. Promotion of paper carton collection in various types of living environment

① Enhancing paper carton collection rate in real-life situation (installing collection boxes, encouraging the dairy companies to add advertisements featuring our environmental message posted on paper carton products during the annual environmental campaign period, promoting paper carton recycling to the factory visitors).

② Promoting collection of 500 ml and 200 ml paper cartons (other than 1,000 ml milk cartons)

③ Promoting the correct sorting and collection of paper carton

④ Shifting from reusing paper cartons to recycling paper with high resource value

⑤ Promoting collection of paper cartons used outdoors and HORECA channels

3. Promotional activities in educational and learning facilities

① Coordinating education and lessons with recycling (hosting on-site lessons on milk carton recycling at elementary schools in cooperation with JAMRA, and cosponsoring the annual "Learn and Play" with Milk Cartons Contest)

② Improving the collection rate of milk cartons used for school meals (hereinafter referred to as school milk cartons)

4. Enhancement of communication

① Exchanging ideas and cooperating with stakeholders

② Promoting the use of recycled products

③ Engaging in various events

④ Establishing relevant communication via the Internet and other tools (COMCEI website, Milk Packn's Expedition website)

⑤ Promoting international collaboration

### Activity Report of Fiscal 2017

- Recycling status of retailers ..... 18
- Recycling status of welfare organizations ..... 19
- Status of municipality collection and group collection ..... 20
- Recycling status at schools ..... 22
- Recycling status of paper manufacturers ..... 23

### Recycling of Paper Cartons

- Dual loops of paper carton recycling ..... 24

### Outline of COMCEI

- Milestones ..... 26
- COMCEI publications ..... 28
- Members list ..... 29

## "Plan 2020" Status of Our Efforts During the Second Year

## Friendly Environment Loop Forum



### "Plan 2020" Action Plan for Paper Carton Recycling

Four committees promote activities based on the action plan. Major activities of 2017 are as follows:

#### 1. General Affairs Committee

##### (1) Provision of opportunities to enhance paper carton collection

In February, we held a "Discussion Meeting to Promote Recycling of Paper Cartons for Beverages" with various stakeholders, and in October, we held a "Regional Conference to Promote Carton Recycling in Tokyo's 23 Wards" in Tokyo. Examples of activities to increase the paper carton collection rate were presented, issues were identified, and problems to be solved were addressed.

##### (2) Promotion of paper carton collection in various types of living environment

In order to shift from reusing paper cartons to recycling paper with high resource value, the committee conducted a survey to estimate the volume of reused paper cartons and the volume of used paper cartons that are not collectable as resources. In addition, the committee created a brochure to educate people to collect reusable leftover materials after reusing paper cartons for handicrafts and help them converted into resources. The committee also continues to encourage collection of used paper cartons at hotel outlets.

##### (3) Promotional activities in educational and learning facilities

As part of the goal of enhancing paper carton collection focused on schools, the committee conducts the soundings with teachers and students about collection of school milk cartons when we run on-site lessons.

##### (4) Enhancement of communication

As part of the "Basic Survey on Paper Carton Recycling in Fiscal 2017," the committee surveyed dealers of used paper materials via a questionnaire.

#### 2. Publicity Committee

##### (1) Promotional and educational projects

###### ① Enhancement of website

To improve the contents of our website, the committee completely revised the "Flow of Paper Carton Recycling," using easy-to-understand illustrations and photographs.

###### ② Putting advertisement on buses

The committee initiated to put advertisements promoting paper carton recycling on the metropolitan buses as new PR tool.

###### ③ The committee published "Recycling Workshops for Adults and Children to Create Crafts with Milk Cartons."

In cooperation with JAMRA, the committee created an 8-page, B5-sized promotional booklet to illustrate how to make crafts out of milk cartons, environmental education

and communicate that the leftover materials of cartons after enjoying crafts can also be recycled.

###### ④ The committee worked to plan and edit the Annual Report.

#### (2) Collection promotion projects

① We have installed half-size collection boxes, which were created in cooperation with the General Affairs Committee, at 15 locations including convenience stores and related facilities in Musashino City.

#### 3. Event Committee

##### (1) Environmental education including paper carton recycling and promotional activities

① In collaboration with JAMRA, the Committee held "On-site Lessons on Milk Carton Recycling" at six elementary schools, provided educational lessons to 406 students and 67 parents via lectures about the environment by Representative Hirai of JAMRA, and taught them how to make postcards from recycled milk carton pulp. The committee also hosted recycling workshops in six locations including local governments and retail outlets.

② The committee also participated in the environment fairs including the Eco-Life Fair 2017 and Eco-products 2017.

##### (2) "Learn and Play" with Milk Cartons Contest

The committee strived to expand the presence of this event by sending direct mail to all elementary schools in the four prefectures, which had a small number of applicants, and schools in Tokyo, which had participated in the past, to encourage them to participate.

#### 4. Local Organization Board

##### (1) Active support and participation in regional environment-related activities

① Regional offices of COMCEI members' carried out their own promotional activities to educate paper carton recycling using various panels and booklets provided by COMCEI, and also actively took part in regional environment-related activities held by local governments and other organizations.

② In collaboration with local governments and regional dairy industry associations, the committee provided educational tools and distributed toilet rolls made of recycled paper. The committee continued to collect information from the consumers, who answered the quiz in the events, via questionnaires printed on the back of quiz answer sheets and used the information as reference for another survey.

③ The committee made additional tapestry-type quiz panels that received favorable comments and used them at local government and COMCEI events.

##### (2) Issuing and expansion of mail magazines

① The mail magazine featured unique local activities in order to spread the movements to other regions, and continuously communicated about availability of the committee's promotional aid.

② The mail magazine is sent to those who attended the meetings hosted by COMCEI, including the regional conference. The subscriber list is growing.

In this forum in which members of local governments, NPO's, and associated companies participated, activities of milk carton recycling in European nations and the United States, and comparison of case examples with Japan were presented.

### [Friendly Environment Loop Forum] November 7th

The Friendly Environment Loop Forum and the general networking assembly, which were hosted by JAMRA and supported by COMCEI, were held at Nakano Sunplaza. The theme this year was "Considering the State of Paper Carton Recycling by Looking at Overseas Recycling Policies and Japan's Legal System for Resource Circulation." A total of 70 people from central and local governments, NPO's and associated companies attended.

Representative Hirai of JAMRA explained how she decided to host this forum in her opening speech. She realized that there are only three organizations, which promote paper carton recycling, in the world; ACE of Europe, Carton Council of North America, and COMCEI of Japan, during her visit to Europe and North America in 2016. And, she thought of holding a global information exchange event with three of them, along with JAMRA, a citizens' group that has been promoting paper carton recycling before any other groups in the world. She explained the objective of this forum is to provide an opportunity for people to consider the ideal state of recycling scheme for the future as well as what is needed to make it happen by sharing the practices in other countries and information exchanges.

Next, in the congratulatory speech, Chairman Aoyama of COMCEI explained that COMCEI has been engaged in three activities based on the action plan "Plan 2020" which was updated in April 2016 : (1) Improve the paper carton collection rate, (2) Accurately communicate the environmental benefits of paper cartons, (3) Increase the number of people who can

think and act to support the environment. Also, he introduced the most recent example of these activities. COMCEI promoted to recycle paper cartons by putting the advertisement featuring the Milk Packn character on the metropolitan buses, which ran from October 1 until the end of December in the Senju Bus Depot area. In the keynote address, following a presentation titled "Trends of Domestic and International Resource Circulation Policies" by the Ministry of the Environment, guest speakers from both ACE and Carton Council introduced cases in Europe and North America respectively in their speeches titled "Beverage Paper Carton Recycling in Europe" and "Beverage Paper Carton Recycling in North America and Carton Council's Activities," using related materials and videos.

In the question-and-answer session, there was a lively exchange of questions and answers, e.g., their relationships with brand owners, whether or not shifting plastic containers to cartons is happening, and the future of recycling in Japan.

To wrap up the forum, it was concluded that setting high goals rather than staying in line with global trends is important for Japan in order to maintain our outstanding paper carton recycling activities because Japan's recycling scheme is different from those in Europe and North America in which dairy companies are leading and the role and responsibilities are shared well to implement a variety of activities. In the general networking assembly, participants had active information exchange, and the forum ended as a great success.



The host of the forum, Representative Hirai of JAMRA



Guest speakers from ACE (left) and Carton Council (right)

## Regional conference for promotion of carton recycling

COMCEI held a local conference to promote recycling via sharing information with local communities.

### Regional Conference for Promotion of Carton Recycling in Tokyo's 23 Wards

- ◆ Date held: October 25th, 2017
- ◆ Participants: 40 members from the Ministry of the Environment, Ministry of Economy, Trade and Industry, Ministry of Agriculture, Forestry and Fisheries, local governments, citizen's groups, dairy companies, paper carton manufacturers, and paper recyclers

#### [Major reports and presentations on relevant issues]

- In the congratulatory speech, the Ministry of Agriculture, Forestry and Fisheries introduced the diverse paper cartons exhibited at JAPAN PACK and Life's Package Fair. Regarding the Chinese ban on imports of recyclable waste, the Ministry of the Environment requested to appropriately recycle resources domestically in Japan as they were concerned that the Chinese ban might affect our domestic used paper market. The Ministry of Economy, Trade and Industry stated they would like to consider together with us to understand how to make the Japanese paper carton recycling system initiated by citizens function more efficiently.
- In the keynote presentation, COMCEI introduced the outline of "Plan 2020" action plan, the evolution of paper carton collection rate and issues, and main activities. In addition, activities carried out by each participating ward were shared.
- In the discussion meeting, participants discussed how they could get involved in group collection, handling of and procedures for collection at large apartment buildings. It was pointed out that as group collection is based on contracts between the residents' associations and private companies,



Regional Conference in Tokyo's 23 Wards

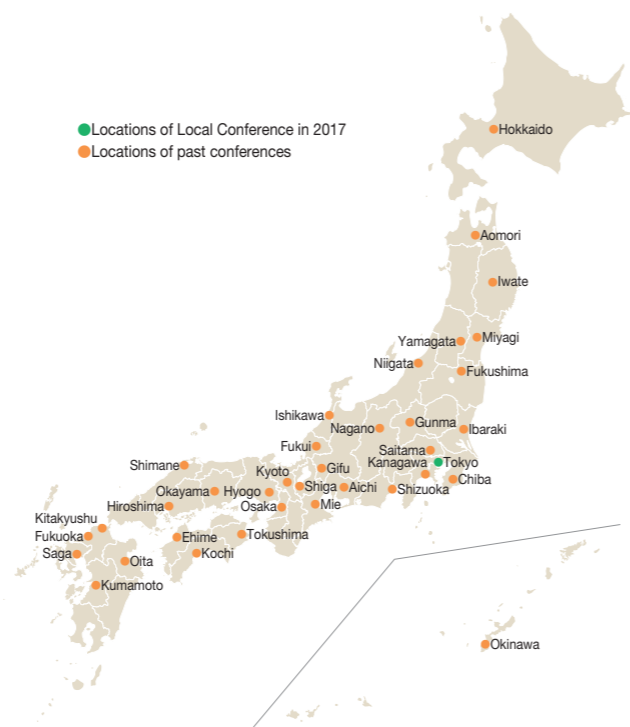
public administrations cannot control, and that municipal collection is more convenient for residents because collection occurs once a week. On the other hand, another opinion expressed was about large apartment buildings: as construction of these types of apartment buildings increases municipal collection costs, group collection was being recommended during the completion inspections of such apartment buildings.

On the subject of domestic circulation and restriction in destination of resources, COMCEI asked the participants to promote recycling within the country because some wards clearly indicate domestic recycling on specifications agreed with recyclers while others do not.

JAMRA said, "From a citizen's point of view, it is not good that we cannot see where used paper cartons, which we put time and effort to collect, are taken to. I would like to request municipalities to share the information with each ward residents to keep their motivation. Even if 100% of paper cartons are collected, Japanese paper manufacturers have enough capacities to process them."

At the end, we urged participants to continue to use COMCEI for their educational activities for ward residents, and confirmed that the cooperation of all parties and sharing of information are vital to promote paper carton recycling.

### Locations of Regional Conference



## Discussion meeting with paper manufacturers

Current status and issues of paper carton recycling were clarified.

### [Discussion meeting with paper manufacturers] July 18th

In cooperation with JAMRA, we hosted a discussion meeting with paper manufacturers in the "Fujisanmesse" meeting hall in Fuji City, Shizuoka Prefecture. 24 people from home-use paper manufacturers and used paper dealers attended.

At the start, COMCEI reported that the collection volume of paper cartons decreased in fiscal 2015, compared to fiscal 2014. A participant stated that in order to improve the situation, it is important to find new collection routes that include preschools and hotels, in addition to continuing existing promotional activities. It was reported that COMCEI asked preschools to separate and collect reused paper cartons because preschools use a large amount of paper cartons as materials for handicraft activities and then dispose them after use.

Major topics discussed during the meeting included the effect of increasing exports of used paper cartons on the collection rate of paper cartons, used paper cartons mixed with other miscellaneous recyclable paper, the volume of paper cartons collected by coffee chains, and the increasing volume of paper cartons with no aluminum for alcoholic beverages.

Regarding the issue with used paper cartons mixed with other recyclable paper, the Paper Containers



A discussion meeting



Fujisanmesse meeting place

and Packing Recycling Promotion Council conducted a composition analysis of collected used paper and found out that a certain amount of paper cartons are mixed. They also indicated that strict separate collection is not easy for citizens.

Regarding coffee chains, a success case was introduced. In an attempt to find a new collection route for paper carton collection, an overseas paperboard manufacturer for paper cartons asked the headquarters of an overseas coffee chain to cooperate in the collection of used paper cartons in the Japanese market. This resulted in an acceleration of their collection activities. It was also explained that franchises have a number of unresolved issues regarding paper carton collection.

In the discussion meeting this year, manufacturers and organizations shared more detailed real cases and deeper viewpoints than ever before. As a result, participants reaffirmed the importance of paper carton collection and were able to consider about each issue from various perspectives.

## Discussion meeting to promote recycling

An important forum to exchange views on the recycling current status and issues with relevant organizations.

### [29th Discussion Meeting to Promote Recycling of Paper Cartons for Beverages]

A discussion meeting to promote recycling of paper cartons for beverages was held on February 8th in the Nyugyo Kaikan meeting hall. A total of 55 people attended from the Recycling Promotion Section of the Ministry of the Environment, Office of Environmental Measures of the Ministry of Agriculture, Forestry and Fisheries, the Recycling Promotion Section of the Ministry of Economy, Trade and Industry, National Tax Agency, local governments, citizen's groups, paper manufacturers, used paper dealers and distributors. Chairman Aoyama of COMCEI explained the history of paper carton collection, the goal of the "Plan 2020" defined last year, and three action objectives in his opening speech. His speech was followed by a presentation by the Ministry of the Environment, which covered the outcome of 2016 review of the Containers and Packaging Recycling Law, and the creation of a circular economy that makes full use of the characteristics of Japanese people who put time and effort to recycle paper cartons properly. The Ministry of Agriculture introduced the current status of the No Food Waste Project in which they put a great deal of effort, and stated they would like to introduce paper cartons with new functionalities if they can help reduce food waste. Reporting on the status of recent efforts, COMCEI provided an overview of their activities and explained that they are working in line with the three objectives of "Plan 2020" to form an environmentally-friendly society in which each person takes action while considering the environment. After that,



Speech by the host: COMCEI Chairman, Aoyama



Stakeholders

activities of four expert committees were reported by each chairman.

A research company reported the results of a survey on paper carton recycling in fiscal 2015. Main points of the report included that the collection rate dropped 1.6 points from last year to 43.1%, that they were unable to identify the volume of exported used paper cartons, and that a high proportion of paper cartons are collected by private recyclers, not by municipalities.

In the latter half of the meeting, opinions about paper carton recycling were exchanged. In connection with the causes of the sluggish collection rate, opinions were expressed from a range of viewpoints about the cost of local governments, leeway to review the method of collection, collectors and the destination of paper cartons. There was also an opinion of the state of collection. With the transition to group collection, the number of collection point increases while the collection volume per point decreases, which increases the burden on recyclers. A paper manufacturer commented about exporting and mixed collection of paper cartons and aluminum laminated paper cartons. A participant from the distribution industry stated that something is wrong with the claim that there is no time or place to wash school milk cartons after consumption, and that although they would cooperate in collecting cartons from retail outlets, they want support from municipalities and the industry to share transportation costs. A participant involved in the handling of paper cartons for alcoholic beverages shared the information on collecting cartons with the spouts removed.

Within the limited time available, all the participants shared comments on issues specific to paper carton collection.

## Paper carton recycling workshop



A fun workshop where people learn about the current status of recycling and experience it firsthand.

### [Kasugai City in Aichi Prefecture] July 25th

Kasugai City aspires to become an eco-city. At "Ecomesse Kasugai," an on-site learning facility in the city, a "Summer Vacation Milk Carton Recycling Workshop" was held as part of summer educational events for parents and children. A total of 31 parents and children attended. After a lecture by Representative Hirai of JAMRA and learning how to disassemble milk cartons by hand, participants had fun making the one and only postcard in the world produced from recycled pulp of paper cartons.



Children disassembling milk cartons by hand

### Contents of paper carton recycling workshop

- Lecture "Resources and Forestry Management" and "Milk Cartons Are a Quality Resource"
- Watching DVD "Milk Packn's Expedition"
- Experience "Make Postcards Using Milk Carton Pulp" and "How to Disassemble Milk Cartons by Hand"
- Question corner "Recycling Learning Panel"

### [Nishitokyo City in Tokyo] August 9th

In collaboration with JAMRA, the Committee held a workshop in the event which Nishitokyo City hosted. 53 people including parents and children participated. A lecture featuring some quizzes taught them the importance of reusing milk cartons as resources. While making postcards from milk carton pulp, participants asked questions about how to make pulp out of used milk cartons. The process in which milk cartons were turned into pulp were explained in a special lesson.



Making postcards

### [Sagamihara City in Kanagawa Prefecture] August 3rd

47 people including 22 elementary school students, six preschool children and 19 parents participated in the workshop in Sagamihara City. After watching the instructor disassembling a large dummy of a milk carton, the children tried. When they finished, they were delighted at their work and held up the disassembled milk cartons. At the end of the workshop, the participants received a completion certificate and a commemorative gift from "Paper Pink," one of the mascots of the city's resource recycling program.



Participant receiving a certificate from Paper Pink

### [Itano Town in Tokushima Prefecture] October 20th

28 people ranging from their 60s to 80s participated in the workshop hosted by the local consumer center. The workshops are usually targeted at elementary school students. Thus, providing lecture and using videos targeted at adult audience made this workshop unique. After enjoying making postcards, the participants showed off the postcards to one another. They showed their eagerness to continue making postcards from milk carton pulp by asking questions about how to do it at home.



Smiling with postcards in their hands

# On-site lessons on milk carton recycling



Children's place of learning. "On-site lessons" are welcomed every year at elementary schools across the country.

In 2017, in collaboration with JAMRA, the Committee held "On-site Lessons on Milk Carton Recycling" at elementary schools across the country.

[Misato Municipal Tango Elementary School in Saitama Prefecture] May 25th

At Tango Elementary School, each student disassembles a school milk carton after drinking milk. Students in each classroom take turns to collect, wash and dry the cartons of classmates. Under the supervision of sixth graders, they start taking part in recycling activities when they are in first grade. As a result, all students are eco-minded. The students enthusiastically listened to the lecture, were amused by foreign-made toilet rolls, and were pleased with the original postcards that they made, saying "I'll treasure it". (82 fourth graders attended the lesson)



Lecture by Representative Hirai



Making postcards

## Contents of on-site lessons

- Lecture "Resources and Forestry Management" and "Milk Cartons Are a Quality Resource"
- Watching DVD "Milk Packn's Expedition"
- Experience "Make Postcards Using Milk Carton Pulp"
- Question corner "Recycling Learning Panel"

[Hiroshima Municipal Inokuchidai Elementary School, Hiroshima Prefecture] July 11th

The educational goal of Inokuchidai Elementary School's is "Be kind, strong, sincere and tenacious." The Committee presented an on-site lesson at this school as part of their PTC (Parents, Teachers, Children) activities for third graders. After the lecture by Representative Hirai of JAMRA, students made postcards. They were amazed at the feel of pulp that they touched for the first time. Holding the completed postcards in their hands, they were impressed, saying "We can make a pure white, spotless postcard like this!" (74 third graders attended the lesson)



Making postcards



There enjoyed some quizzes as well

[Minami-Alps City Shiranehyakuta Elementary School, Yamanashi Prefecture] September 12th

The on-site lesson held at Shiranehyakuta Elementary School was greeted by the cheerful, lively children just like last year. As students make paper for their own graduation certificates when they reach sixth grade, they put a lot of effort into touching the high-quality pulp dissolved in water to check its condition, and making postcards by following the instructions. The lesson ended with their cheerful greetings. (53 fourth graders attended the lesson)



Taking a photograph with postcards

[Sendai City Nakayama Elementary School] September 27th

As one of the activities of the "Class for Active Nakayama Kids" after school project in Sendai City, the Committee held an on-site lesson at Nakayama Elementary School. Students attended a lecture on recycling and tried making postcards. During the lesson that incorporated some quizzes, we saw them raising their hands and actively speaking up. We demonstrated disassembling milk cartons by hand and encouraged them to recycle school milk cartons as this school does not have a school milk carton recycling program. (37 students from third to sixth grades attended the lesson)



Students listening to the lecture by Representative Hirai

[Shimamoto Town Second Elementary School in Mishima County, Osaka Prefecture] October 11th

Although the temperature was close to 30 degrees, unusually high for October, students did not let the heat get them down and attended the lesson. During the lecture by Representative Hirai of JAMRA, they were surprised at the whiteness of Japanese recycled toilet rolls, compared to foreign-made ones. They were so interested in making postcards that some of them wanted to make another one. They said that they learned the importance of recycling and that they were starting to work hard to recycle. (A total of 152 fourth graders and parents attended the lesson)



Fascinated by making postcards

[Yokohama City Ekoda Elementary School, Kanagawa Prefecture] November 24th

An on-site lesson was held at Ekoda Elementary School, which has an educational goal of "Smile together, Cheer up together, Grow up together." During the lesson, they learned that hygienic paper cartons are collected as part of recycling scheme in Japan, and that pulp used for making paper cartons is friendly to the environment. They were surprised at how recycled pulp transforms while making postcards from recycled pulp of milk cartons. Students showed off their postcards one another once they had completed. (75 third graders attended the lesson)



Students answering to question in loud voices

# Eco-Life Fair and Eco-Products 2017

# "Learn and Play" with Milk Cartons Contest



Raising awareness regarding importance of recycling. Participants disassembled paper cartons by hand and made postcards.

COMCEI booth was prosperous every day. We participated in one of the largest environmental exhibitions in Japan.

Mayu Osamura's Work "Gifu Paper Lantern in My Town" received the Best Prize.

[Eco-Life Fair 2017] June 3rd and 4th

The Eco-Life Fair is held every year in June - Environment Month - in Yoyogi Park in Tokyo. The event is primarily hosted by the Ministry of the Environment. COMCEI has been participating in this event, which celebrated its 28th anniversary this year, and this year was the 11th year we have exhibited. In our booth, panels explaining paper carton recycling were displayed, quizzes were given and the participants made postcards from recycled pulp made of milk cartons. Our booth was not close to the main stage, however, about 630 people participated, and it became a very lively place. In the workshop, visitors enjoyed events such as the "Milk Packn's Expedition" DVD screening, quizzes about paper carton recycling, as well as lectures on nutrients in milk and their effects. Throughout the event, we communicated the value of paper cartons as resources to many people and heard some of them saying, "I'm going to wash, open, dry, and recycle paper cartons from now." It was a rewarding event.

[Eco-Products 2017] December 7th to 9th

"Eco-Products" is the largest environmental exhibition in Japan and has been held every year since 1999. 2017 marked its 19th anniversary. COMCEI participated in this exhibition along with the Milk Carton Recycle Mark Promotion Council. A total of 160,091 visitors attended the exhibition, and 1,714 people visited the COMCEI booth and took part in events. Various events were carried out in the booth including an "Environment Panel Rally" that explained the rules and flow of paper carton recycling, distribution of educational materials such as "Real Story of Paper Carton Recycling," and a workshop on "disassembling milk cartons by hand." In addition to the above, visitors tried making postcards from milk carton pulp, which was co-hosted by JAMRA. Through the various exhibitions and activities, we had an opportunity to deepen visitors' understanding of paper carton recycling and encourage them to cooperate on the paper carton recycling.

A total of 2,610 elementary school students participated in the 17th "Learn and Play" with Milk Cartons Contest 2017. Among the many impressive handiworks, the following seven prize-winning creations were selected through impartial judgement. Congratulations.

Best Prize was awarded to "Gifu Paper Lantern in My Town," the work of Mayu Osamura, a sixth grader in Gifu Prefecture. She chose Gifu Paper Lantern to express the nice things about milk cartons and Gifu. She made both the main body and the decorations of lantern from milk cartons and added her message that a milk carton is a wonderful resource full of potential to her work.

The awards ceremony celebrating the prize-winning creations was held in the COMCEI booth at "Eco-Products 2017" on December 9th. The diplomas, shields and sub-prizes were handed out to award winners by the Chairman of the Review Board, Mr. Zeniya (Executive Director of Tokyo National Museum), Executive COMCEI Managing Director Mr. Kato of the Executive Committee, and other review board members.

The prize-winning creations are introduced on COMCEI's "Milk Packn's Expedition" website targeting for the elementary school students.

«Prize-winning creations»

- ◆ **Best Prize**  
"Gifu Paper Lantern in My Town"  
Mayu Osamura (Sixth grader at Gifu Municipal Gifu Elementary School)
- ◆ **Excellence Prize "Milk Carton Hedgehog"**  
Yui Inagaki (Third grader at Saitama Municipal Urwabesho Elementary School)
- ◆ **Excellence Prize "Milk Carton Shoes"**  
Tasuku Matsuzawa (Fourth grader at Kawagoe City Kasumigaseki Higashi Elementary School)
- ◆ **Prize of National Primary/Junior High Schools Environment Teachers' Association Prize**  
"Ao-chan, the Swallowtail Worm"  
Satsuki Kubota (Fourth grader at Kumagaya City Sakuragi Elementary School)
- ◆ **JAMRA Prize**  
"Coin Sorting Machine Made from Milk Cartons"  
Haruto Morikawa (Fifth grader at Hiroshima Municipal Ohzu Elementary School)
- ◆ **Prize of Japan Dairy Industry Association**  
"Summer Outing Items"  
Rinako Masaki (First grader at Chitose Municipal Suehiro Elementary School)
- ◆ **COMCEI Prize "Milk Carton Hydrangeas"**  
Kokoro Date (Third grader at Hiroshima Municipal Yano Elementary School)



Best Prize  
"Gifu Paper Lantern in My Town"  
Mayu Osamura



Explanation and quizzes in the environmental panel



At the workshop



At the workshop



Explanation via use of environment panel rally



Mayu Osamura who received the best prize



Awards ceremony held at COMCEI booth in "Eco-Products 2017"

# Other activities



COMCEI and JAMRA collaborated on promotional activities at commercial facilities.

[Commercial facility "Nitori Mall Sagamihara"]  
March 18th

COMCEI participated in an event held at the commercial facility "Nitori Mall Sagamihara" as part of "Operation Sagamihara Trash DE71," an activity promoting reduction and recycling of waste hosted by Sagamihara City in Kanagawa Prefecture. COMCEI has been participating in this event, and this year marked our 5th time. Thanks to the appearance of Sagamihara City's "Garbage Collection Rangers, Shigenjya Ginga Paper Pink" and "Lemon Chan," the mascot of "Operation Sagamihara Trash DE71," we had a steady stream of visitors. As 132 people attended the workshop "Let's Create Original Greeting Card from Milk Cartons!," a long queue formed. They were very pleased with their work. We believe that they realized that paper cartons are valuable resources. 141 people responded to quizzes and questionnaire about recycling paper cartons. They were surprised to find that it takes only six paper cartons to make one toilet roll. We hope that the event this year provided an opportunity for participants to start recycling paper cartons.



Creating greeting cards with milk cartons

### Contents of recycling promotion

- Watching DVD "Milk Packn's Expedition"
- Experience Drink Milk and "Disassemble Milk Cartons by Hand"
- "Make Postcards Using Milk Carton Pulp"
- Panel "Forestry Management - Wonder of Pulp - The Flow of Collection and Recycling of Paper Cartons"
- Event Exchanging six used paper cartons for a box of tissue paper

[Commercial facility "Ario Kawaguchi"] June 17th

With the support of Kawaguchi City of Saitama Prefecture, we held a paper carton recycling event titled "Let's Experience Recycling Together!" at the commercial facility "Ario Kawaguchi." 159 people took part in "Make Postcards Using Milk Carton Pulp" and enjoyed making original postcards. 160 people came to "Drink Milk and Disassemble Cartons by Hand" and experienced disassembling empty milk cartons. We saw some elementary school children who visited the event teaching their parents how to disassemble paper cartons using methods they had learned at school and felt that this will contribute to increase penetration of recycling. 170 people came to see the panels explaining the scheme of paper carton recycling, and many people took part in the quizzes. They also learned that it's necessary to "wash, open, and dry" and "separate collection" for paper carton recycling. Many families visited the exchange desk to exchange used paper cartons for a box of tissue paper. A total of 367 paper cartons were collected. We would like to continue to promote the importance of paper carton recycling through promotional activities run at commercial facilities where we can reach out large numbers of people.

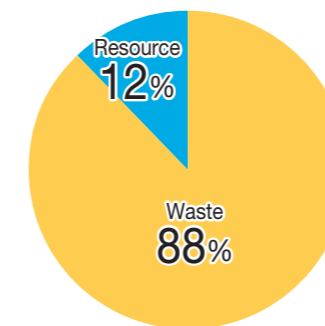


Disassembling milk cartons by hand

We conducted a fact-finding survey on reuse of paper carton at home

[On-line consumer survey]

Past survey results showed that 10 to 20% of used paper cartons were reused at home. However, how they were used and disposed of at the end was not clear. Therefore, we conducted two sets of surveys to understand the state of reuse at home. Subjects of the survey were people who drank or used 1000 ml of milk. We selected nine prefectures with combined populations exceeding half the total population of Japan, and we surveyed 1,926 men and women in their 30s to 60s. The results indicated that the reuse rate of 1,000 ml milk cartons was 12.7%. Half of them were used as cutting boards, followed by oil waste containers, materials for children's crafts, kitchen trash bags, and so on. We found that after being reused, 88% were disposed of as burnable garbage. This means that about 9,600 tons of paper cartons were disposed of after being reused. How could this enormous amount of paper cartons be back into recycling routes? What could we do to reflect this figure to the collection rate? Although there are many problems to solve, we continue to conduct surveys and work on improving the collection rate of paper cartons.



How to separate paper cartons (1000 ml milk cartons) after reuse

We promoted recycling of paper cartons via wrap advertising on buses.

[ "Milk Packn" buses operated ]

As part of promotional and educational projects in "Plan 2020," we launched a new effective initiative to improve the collection rate of paper cartons. We chose the wrap advertising method on Tokyo metropolitan buses as a media to create a visual impact that can attract the attention of a large number of local residents. For three months starting from October 1st, 2017, buses featuring wrap advertising ran in the Senju Bus Depot area centering around Adachi ward, Kita ward, and Arakawa ward. "Milk Packn" the eye-catching COMCEI mascot was displayed on three sides - left, right and back of a bus - with a message indicating that six paper cartons are used to make one roll of toilet paper and encouraging "wash, open, and dry" and correct separation for carton recycling in order to preserve this important resource. Buses featuring wrap advertising were operated every day in the area at various times. We believe that many residents including men and women of all ages saw the "Milk Packn" advert. We are going to continue to work on improving the collection rate of paper cartons.



"Milk Packn" bus



# Paper carton collection rate in fiscal 2016



The paper carton collection rate in fiscal 2016 was 44.3%.

The "Basic Survey on the Current Status and Trends of Beverage Paper Carton Recycling" has been carried out since 1995 to enable collection and provision of data about paper carton recycling to communities. This survey was conducted from June to October 2017, and the status of paper carton recycling in fiscal 2016 was subsequently revealed. The overall paper carton collection rate in fiscal 2016 was 44.3% (an increase of 1.2 points over the previous fiscal year). The collection rate of used paper cartons was 35.6% (an increase of 1.4 points over the previous year).

※In fiscal 2016, we conducted questionnaire-based surveys at nine paper carton manufacturers, 304 beverage manufacturers, 1,736 local authorities, 2,008 elementary schools, 1,043 supermarkets, 22 citizen's groups and welfare work places. The interview survey took place at four facilities. Areas affected by the nuclear accident in Fukushima are excluded from the survey.  
 ※"Industrial waste paper and used paper" refers to waste paper and used paper generated in paper carton manufacturing plants or beverage manufacturing plants.  
 ※"Industrial waste paper" refers to edge trims generated in paper carton manufacturing processes or at beverage manufacturing plants before paper cartons are filled with beverages. "Used paper" refers to waste paper cartons after filling beverage product. "Used paper cartons" refers to paper cartons consumed at home, schools, stores, and offices.

## Paper Carton Collection Rate in Fiscal 2016

Collection rate of paper carton  
(Including industrial waste paper and used paper)

**44.3%**  
(43.1% in fiscal 2015)

= Collection volume of domestic paper cartons  
 ÷ Amount of base paperboard used  
 = 99,900 tons / 225,400 tons

Collection rate of used paper carton  
(Used paper cartons)

**35.6%**  
(34.2% in fiscal 2015)

= Volume of collected used paper cartons  
 ÷ Shipping volume of paper cartons from beverage manufacturers  
 = 68,500 tons / 192,600 tons

**Note: Collection rate that reflects paper cartons reused or disposed of as other miscellaneous used paper**

Some of the used paper cartons are reused as cutting boards before being disposed of. Some are not counted in the collection volume even if they are collected as they are mixed in the other miscellaneous used paper. Subtracting the former from the denominator and adding the latter to the numerator, we calculate each collection rate as follows:  
 Collection rate of paper carton = 46.8%, Collection rate of used paper carton = 38.1%

Trade prices of paper cartons collected via municipality collection and group collection are growing.

As paper fibers of paper cartons are long and stiff, used paper cartons are considered to be high-quality materials for recycled papers and are subsequently traded at a relatively high price.

However, since the trade price of paper cartons differs by local government, it is difficult to calculate a standard price. Based only on the price of paper cartons without taking any additional conditions into account, we have calculated the average price of municipality collection (including collection at Tokyo special wards) and group collection after dividing the trade price into two types: the "pick-up price" and the "carry-in price." The former is when the counterpart visits you to purchase the products, and the latter is when you bring the products to the counterpart.

Used paper recyclers and wholesalers of used paper materials are the main counterparts of the collection. The average trade prices of all paper cartons collected in the municipality collection and group collection are higher than they were in the previous fiscal year.

## Average trade price of used paper cartons

Fiscal year		2013	2014	2015	2016	
Municipality collection	Used paper recyclers	Pick-up price	7.0	6.9	8.0	7.8
		Carry-in price	6.5	7.0	7.7	8.1
	Wholesalers of used paper materials	Pick-up price	8.3	9.0	8.4	10.3
		Carry-in price	8.4	9.3	9.4	9.4
	Paper manufacturers	Pick-up price	6.4	8.6	6.8	7.6
		Carry-in price	9.0	12.0	7.8	9.4
Average price		7.4	7.9	8.3	8.6	
Group collection	(Unknown traders)	Pick-up price	5.1	5.2	5.5	5.7
		Carry-in price	5.7	6.0	5.7	6.7
	Average price		5.2	5.4	5.6	6.0

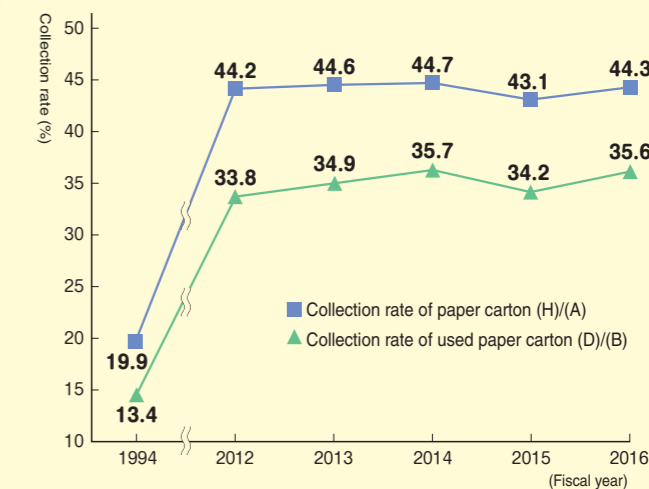
(Yen/kg)

The paper carton collection volume in fiscal 2016 was 99,900 tons.

The collection rate of domestic paper carton is evolving as shown in the graph on the right. The following table presents details of the collection volume and rate.

The collection volume of domestic paper cartons in fiscal 2016 was 99,900 tons. This was an increase of 1,600 tons (1.6%) over the previous fiscal year. Industrial waste paper and used paper remained on the same level. The collection volume of paper cartons in the country increased primarily because of the increase in the collection volume of used paper cartons. The collection volume of used paper cartons was 68,500 tons. This was an increase of 1,500 tons (2.2%) over the previous year. The increase in the independent collection by wholesalers of used paper materials compensated for the decreased collection volume from store collection and municipality collection.

## Trends in paper carton collection rate



## Trend in major figures (thousand tons)

Category	Fiscal 1994	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Over previous year	
Amount of base paperboard used for paper cartons for beverages (A)	216.0	242.9	238.2	233.7	228.3	225.4	-1.3%	
Industrial paper waste at paper carton manufacturers	16.5	36.2	33.5	31.4	29.7	29.8	0.5%	
Industrial paper waste at beverage manufacturers	-	2.4	2.4	2.2	1.9	1.9	-0.5%	
Shipping volume of paper cartons for beverages from beverage manufacturers (B)	197.9	204.3	202.1	199.3	196.0	192.6	-1.8%	
Household (C)	168.7	180.3	178.5	176.2	176.2	169.8	-3.7%	
Shipping volume of business	29.2	24.0	23.6	23.1	19.8	22.8	15.2%	
School meals	10.7	11.9	11.8	11.7	11.6	11.6	0.1%	
Restaurants and others	18.5	12.1	11.7	11.3	8.3	11.2	36.2%	
Collection volume of used paper cartons (D) = (E) + (F)	26.5	69.1	70.6	71.1	67.0	68.5	2.2%	
Household (E)	25.9	57.2	59.4	60.4	56.3	57.8	2.8%	
Store collection	13.8	32.6	32.3	31.9	30.4	29.3	-3.5%	
Municipality collection	4.3	13.7	13.6	12.8	12.2	11.6	-4.7%	
Group collection and others	7.8	10.9	13.5	15.7	13.7	16.9	23.2%	
Municipalities' acknowledged volume	7.8	8.7	9.1	8.4	8.8	8.6	-2.5%	
Independent collection by wholesalers of used paper materials	-	2.2	4.4	7.3	4.9	8.3	69.9%	
Business (F)	0.6	11.9	11.2	10.7	10.7	10.6	-0.7%	
School meals	0.6	9.6	9.3	8.8	8.8	8.7	-0.3%	
Restaurants and others	-	2.3	1.9	1.9	2.0	1.9	-2.7%	
Collection volume of industrial paper waste and used paper cartons (G)	16.5	38.4	35.7	33.3	31.3	31.4	0.3%	
Paper carton manufacturers	16.5	36.2	33.5	31.4	29.7	29.8	0.5%	
Beverage manufacturers	-	2.2	2.2	1.9	1.7	1.6	-2.9%	
Collection volume of domestic paper cartons (H) = (D) + (G)	43.0	107.5	106.3	104.4	98.3	99.9	1.6%	
Import volume of used paper cartons	-	11.4	12.8	18.6	19.8	19.8	±0.0%	
Total volume of accepted paper cartons	43.0	118.8	119.1	123.0	118.1	119.6	1.3%	
Recycling volume of paper cartons	30.1	95.2	93.7	95.4	95.1	96.4	1.3%	
Collection rate	Collection rate of paper carton (H)/(A)	19.9%	44.2%	44.6%	44.7%	43.1%	44.3%	1.2points
	Collection rate of used paper cartons (D)/(B)	13.4%	33.8%	34.9%	35.7%	34.2%	35.6%	1.4points
	Collection rate of used paper cartons in households (E)/(C)	15.4%	31.7%	33.3%	34.3%	31.9%	34.1%	2.2points

※Recycling volume of paper cartons = Total volume of accepted paper cartons X Yield rate  
 The yield rate since fiscal 2001 is computed based on the results of the questionnaire survey.

※Industrial paper waste for fiscal 1994 included aluminum laminated paper cartons.

※Some of the total values may include errors due to values being rounded to the nearest 100 tons. Also, due to the same reason, some figures may not add up if you calculate the collection rate and percentage over those of the previous fiscal year using the values in the table.

# Paper carton material flow in fiscal 2016

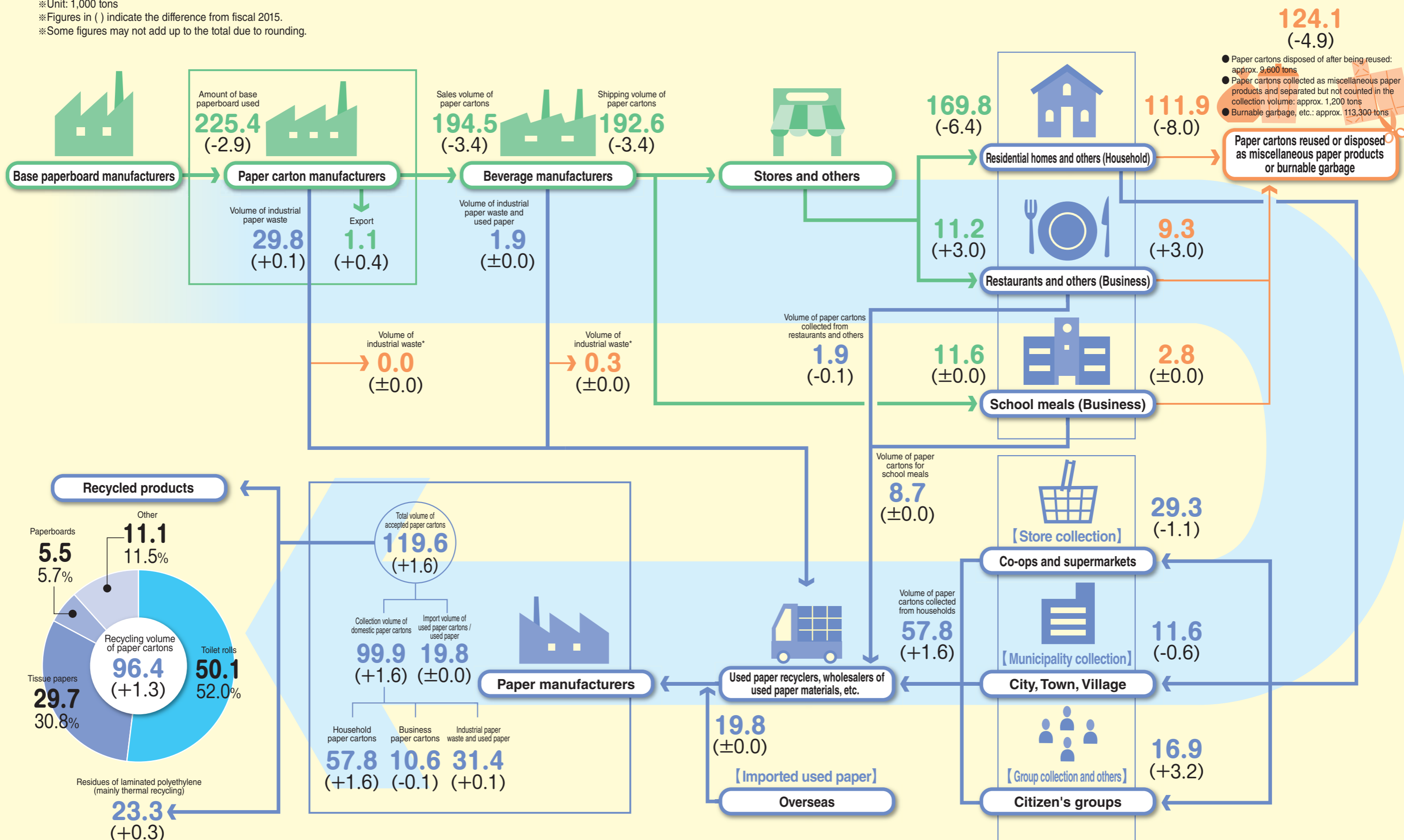


The following shows the overall state of paper carton recycling in fiscal 2016 in the form of material flow.

※Unit: 1,000 tons

※Figures in ( ) indicate the difference from fiscal 2015.

※Some figures may not add up to the total due to rounding.



\* The volume of industrial waste includes that for thermal recycling.

# Recycling status of retailers

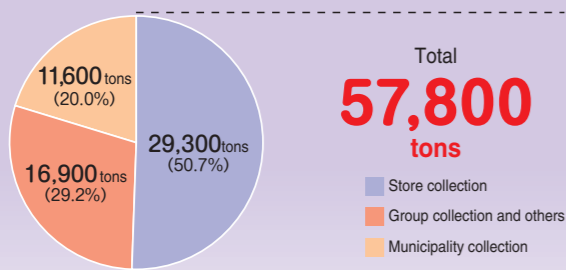
# Recycling status of welfare organizations



Storefront collection boxes such as those at supermarkets collect a large volume of paper cartons.

Storefront collection boxes such as those at supermarkets collect more than 50% of paper cartons collected from households. Store collection figures are based on data published by each member corporation of the Japan Chain Stores Association (JCSA), the Japanese Consumers' Cooperative Union (JCCU) and each of its member corporations, and our independent survey. The volume of store collection in 2016 was 29,300 tons. This was a decrease of 1,100 tons from the previous year. Aligned with changes in the form of retail stores, the survey also covered a part of drug stores.

Household paper carton collection volume by collection type (estimated value)



## We are working to recycle!

### AEON Co., Ltd.

(Headquarters: Mihama Ward, Chiba City)

**Activity example**

AEON is a retail corporate group with 520,000 employees, operating in 13 countries. In Japan, it has approximately 17,000 stores and offices including general merchandise stores, supermarkets, convenience stores and shopping malls. Aeon formulated the Aeon Sustainability Principle in 2011 to help realize a sustainable society by cooperating with various stakeholders. Aeon stores installed collection boxes for used paper cartons, food trays, aluminum cans and plastic bottles. They started collecting paper cartons from 1991, and 4,652 tons were collected from 26 companies in the group in fiscal 2016. Aeon recycles part of the collected paper cartons and makes own brand toilet rolls using 100% recycled paper pulp. For the purpose of promoting resource recovery and improving convenience for customers, new machines (for collecting used paper, paper cartons, and plastic bottles) were installed in some stores to provide WAON electronic money points to customers who contribute to resource recovery. 1 WAON point is awarded for every ten 1L paper cartons (300g) collected. By collecting resources including paper cartons, the stores function as local resource circulation bases. The stores will continue to live up to the expectations of customers and the community.



Automatic collection machine of plastic bottles and paper cartons \* Located in four Aeon Malls

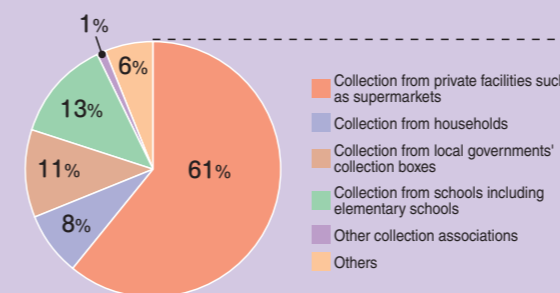


Used paper collection machine that provides WAON points

Collection sources of welfare organizations are wide-ranging.

Welfare organizations mainly collect used paper cartons from collection boxes at supermarkets. Their other collection sources are schools including elementary schools, collection boxes at local government offices, and residential homes. Many organizations deliver paper cartons that they collect or receive mainly to paper recyclers.

Split of paper cartons collected by welfare organizations by collection source



## We are working to recycle!

### Self-reliance support facility

#### Ainosato

(Aizuwakamatsu City, Fukushima Prefecture)

**Activity example**

Ainosato, a self-reliance support facility was established in October 1986 as a place for people with disabilities who could not commute to the first commuting-type vocational aid facility opened in April the same year. In October 2008, it switched to a Continuous Working Support Institution of Type B. Currently, 21 users commute to this facility. Since its establishment, the users working for this facility have been collecting used paper cartons and making postcards and business cards, and the institute has been providing the earnings to the users as wages. They started this work process because any user can participate in any tasks in this process, and furthermore, the initiatives allow the facility to promote itself to the public as an "eco-friendly, recycling-oriented facility." They started to collect used paper cartons from nearby private residences, using a trolley more than 30 years ago. Now, they have been collecting paper cartons, by truck, from supermarkets, private residences and company offices in four municipalities near Aizuwakamatsu City about three times a week. The students at six elementary schools and junior high schools inside and outside the city who have been collecting used school milk cartons by washing, opening and drying as part of environmental education were in trouble once as paper recyclers were no longer available to visit schools to pick them up. The facility decided to start collecting their used cartons on a regular basis to support recycling-focused education. In addition, the facility has been receiving about 150 kg of paper cartons collected by all the employees of Aizu Shinkin Bank every year for more than 10 years. From the paper cartons collected, they select ones that are easy to process and use them as materials. The rest are handed over to used paper recyclers (approx. 8.5 tons in 2016). The earnings and the financial incentive for collecting resources provided by Aizuwakamatsu City are paid as wages to the users. From now on, they are going to work on improving production efficiency through enhancing equipment in order to use as many collected paper cartons as possible and on developing new products, taking costs into account.



Task of tearing paper cartons by hand



A user focusing on making paper from recycled pulp

# Status of municipality collection and group collection



Almost 90% of local governments are collecting paper cartons.

20,200 tons of paper cartons were collected through the municipality and group collection.

Municipality collection of paper cartons is executed by the sorted collection system and the collection-center system.

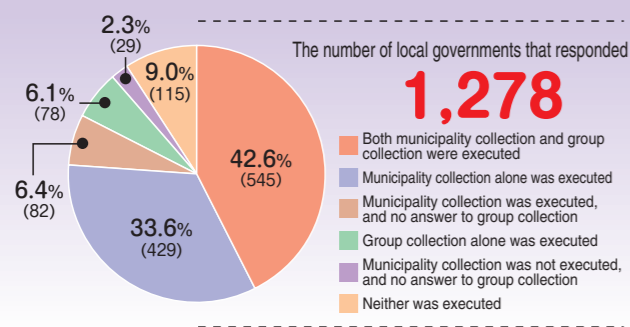
Among the 1,741 municipalities in the country, we have sent questionnaires to 1,736 local governments in fiscal 2016 excluding five areas that have been affected by the Fukushima nuclear accident. We received responses from 1,278 municipalities. The total population of municipalities that responded to this survey made up 88.8% of the total population in Japan.

Used paper carton collection by municipalities and unions is classified as "municipality collection," and collection carried out by citizen's groups (registered to respective municipalities) is classified as "group collection."

The execution rates of municipality collection and group collection were about the same as those of the previous fiscal year; the municipality collection was 83%, and the group collection excluding cases where no answers were received was 53%\*. Either municipality collection or group collection was executed in 89% of the municipalities. This means that almost 90% of local governments are collecting paper cartons.

\* Execution rate of group collection = (both municipality collection and group collection were executed + group collection alone was executed) / (the number of local governments that responded - the number of local governments that did not answer) x 100 (%) = (545 + 78) / (1278 - (82 + 29)) x 100 % = 53%

### Execution rate of municipality collection and group collection



The survey estimated by splitting the municipality collection volume and group collection volume into four city types: "general cities," "ordinance-designated cities," "Tokyo special wards" and "towns and villages." In fiscal 2016, the municipality collection volume was 11,600 tons, and the group collection volume was 8,600 tons. Total collection volume was 20,200 tons.

Per capita collection volume (basic unit) of municipality collection was larger in towns and villages and general cities, and smaller in ordinance-designated cities and Tokyo special wards. Group collection was larger in general cities and ordinance-designated cities. Aggregated per capita collection volume was larger in both general cities and towns and villages, and smaller in big cities including ordinance-designated cities and Tokyo special wards.

We must study and develop action plans unique to the given regions to collect more paper cartons.

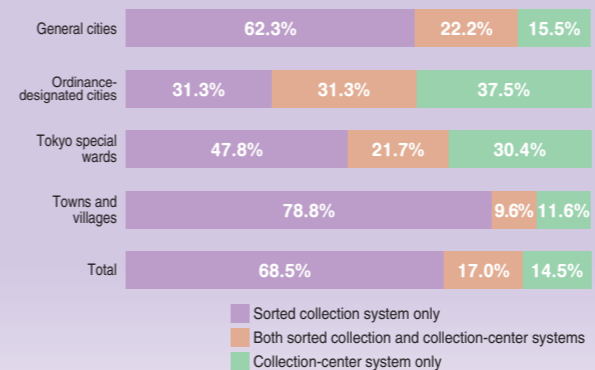
### Estimated collection volume from municipality and group collection by city type

	Total	General cities	Ordinance-designated cities	Tokyo special wards	Towns and villages
<b>Municipality collection</b>					
Estimated volume (1,000 tons)	11.6	8.5	1.0	0.7	1.4
Ratio of estimated collection volume by city type	100%	73%	9%	6%	12%
Per capita collection volume (grams)	91	106	38	72	123
<b>Group collection</b>					
Estimated volume (1,000 tons)	8.6	6.1	1.7	0.2	0.6
Ratio of estimated collection volume by city type	100%	71%	19%	2%	7%
Per capita collection volume (grams)	67	77	61	20	54
<b>Total</b>					
Estimated volume (1,000 tons)	20.2	14.7	2.7	0.8	2.0
Ratio of estimated collection volume by city type	100%	72%	13%	4%	10%
Per capita collection volume (grams)	158	183	100	92	177
Population by city type (millions)	128	80	27	9	11

\* Some figures may not add up to the total due to rounding.

Used paper cartons are collected in two ways in each municipality. One is the sorted collection system, and the other is the collection-center system. The sorted collection system refers to collection from each household and the area's collection points, and the collection-center system refers to collection from collection boxes installed at community halls and similar locations. By city type, the sorted collection system is more widely executed by general cities, towns and villages, and the collection-center system is executed more in the ordinance-designated cities and Tokyo special wards.

### Ratio of executed collection system by city type



## We are working to recycle!

### Itabashi Ward, Tokyo

#### Activity example

Itabashi Ward is located in the northern part of Tokyo. Approximately 560,000 people live there, and its slogan is "Itabashi' Where Greenery and Culture, Which Develop the Future, Thrive." The name "Itabashi" appears in Japanese history as the place where Mr. Minamoto no Yoritomo arrayed for the battle in the Kamakura Period (1185 - 1333). Itabashi Ward has collected paper cartons in 257 locations in total, including 118 ward facilities, 65 municipal schools, two community facilities, 13 public apartments, and 59 private facilities (as of April 1st 2017). Combined with group collection, the collection volume of paper cartons was 42.4 tons in fiscal 2016. This means that the per capita collection volume (basic unit) was 77 g per person, which was ranked approximately average among 23 wards.

On the other hand, a large volume of used papers had been mixed in the burnable garbage collected in 21,500 collection points within the ward in the past. Therefore, in order to reduce the waste and increase the used paper recycling rate, the ward started clearly indicating and collecting "paper cartons" and "paper boxes, paper bags, and photocopying papers" at the collection points on April 1st 2016. Used papers collected as resources once a week is gathered, sorted and recycled.

According to the COMCEI's estimate, the rate of paper cartons mixed with burnable garbage in other municipalities was about 0.5%. Applying the rate to approx. 100,000 tons, which is the annual collection volume of burnable garbage in Itabashi Ward, we can expect that per capita collection volume increases substantially if even only a portion of paper cartons mixed with burnable garbage are collected as resource.



Recyclable waste at a collection point



Collection boxes installed in a ward office

# Recycling status at schools

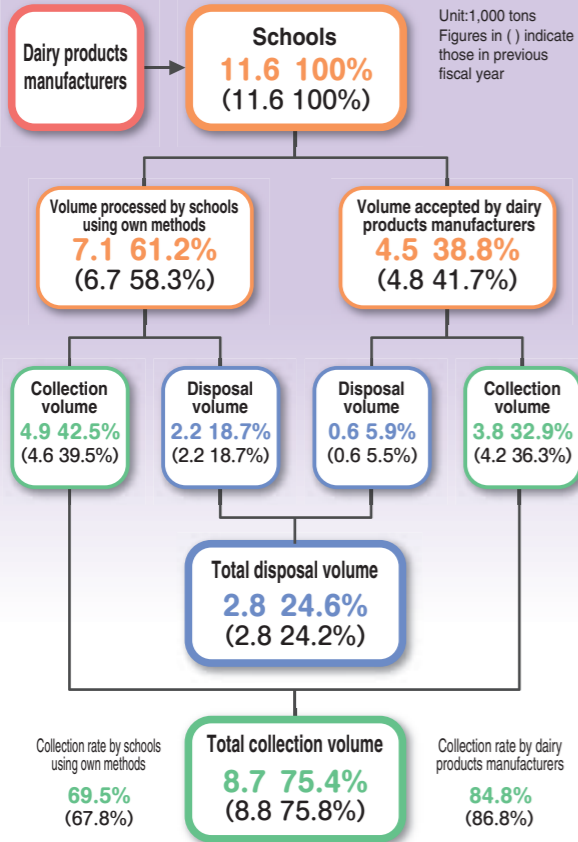
# Recycling status of paper manufacturers



Recycling of milk cartons used in school meals also continues increasing.

Approximately 11,600 tons of milk cartons used for school meals were supplied in fiscal 2016, which was roughly the same amount as in the previous year. Out of the total supply, 8,700 tons of paper cartons were collected for recycling, and the collection rate remained high. In addition to recycling of milk cartons, elementary schools are reusing paper cartons in science and art classes as well as collecting paper cartons from students' homes.

## Material flow of milk cartons used for school meals (estimated value)



\* Processing by schools using own methods refers to delivery of paper cartons directly to local governments or used paper recyclers.  
\* Some figures may not add up to the total due to rounding.

## We are working to recycle!

### Minami-Alps City Shiranehyakuta Elementary School

(Minami Alps City, Yamanashi Prefecture)

#### Activity example

Shiranehyakuta Elementary School is located in the west of Kofu Basin, and you can get a whole panoramic view of Mt. Fuji in the south behind the school playground. The school district contains orchards of peaches, cherries, prunes and grapes. In this rich natural environment, the school has an educational goal of "Be Intelligent, Kind and Strong, Love Hometown and Develop Dream," and 353 students enjoy learning.

All children at this school have been recycling milk cartons used for school meals since around 2001. In April and May every year, sixth graders supervise first graders learning the recycling procedure. At lunch time, each student takes an empty paper carton to the sink in the hallway, opens up the top of carton, rinses the carton with water, and disassembles and stacks it in a basket in front of the classroom to let it dry. Paper cartons put in a basket to dry the day before are transferred to another basket for collection before lunch time. Every Friday, fourth graders collect and store the collected paper cartons from all classrooms. Stored paper cartons are collected by Yamanashi Shigyo twice a month and recycled into toilet rolls.

Putting a lot of effort into environmental education, the school carries out other environment-related activities. For example, the students regularly pick up trash on their way to school with the help of their parents, teachers separate and dispose of paper waste generated in the faculty office, and the student council works on the Eco Cap program (collecting caps of PET bottles).



Disassembling a paper carton before putting it in a basket for drying

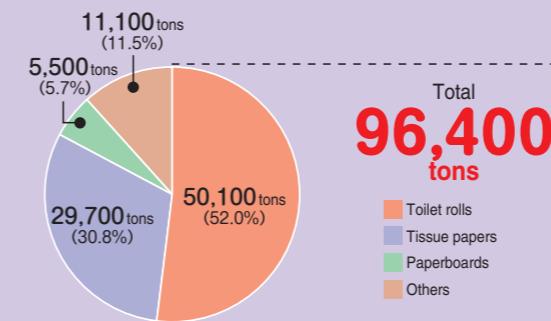


When cartons are dry, they are transferred to another collection basket

Collected paper cartons are recycled as high-quality pulp fibers.

The total volume accepted by paper manufacturers, which consisted of the collection volume of domestic paper cartons and import volume of used paper cartons and used paper in fiscal 2016 was 119,600 tons. Out of this, about 81% (96,400 tons) were recycled into toilet rolls, tissue papers, and other recycled products. Paper cartons have been used for their products as precious high-quality pulp fiber material.

## Ratio of use of accepted papers by recycled products



\* Composition ratio of fiscal 2015 was used to calculate the above.

## We are working to recycle!

### Nishinohon Eizai Co., Ltd.

(Tatsuno City, Hyogo Prefecture)

#### Activity example

Nishinohon Eizai Co., Ltd. began operation in 1963 in Tatsuno City which lies downstream of the Ibo River in Hyogo Prefecture. From the start, they have been working on promoting the environment preservation through recycling used paper, which is their motto. They built a recycling system enabling them to use the whole cardboard boxes, which contain confidential documents from companies and local governments in western Japan, without shredding as main raw material of their recycling products. They have been contributing to "environment" and "recycling" in the region by manufacturing and distributing toilet rolls produced from 100% recycled paper pulp.

As for provision of environmental education through their factory tours, they accept about a dozen groups of visitors every year, including elementary schools, junior and senior high schools in the region and the municipalities that visit the factory as local environmental and health activities. As these activities took root in the region and Nishinohon Eizai gained publicity, recently, JICA asked them to accept observation teams from abroad.

The representative said, "Now, we are promoting the 'Urban Forest Project.' Paper products discarded in our daily life are valuable resources generated from 'a Forest Called City.' We would like to keep communicating the importance of efforts made by each individual to conserve resources."



Factory tour



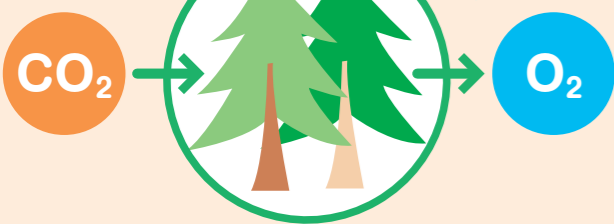
No. 5 Paper mill

# Dual loops of paper carton recycling



## Grow

Appropriately managed forestry practices absorb atmospheric carbon dioxide and discharge oxygen.



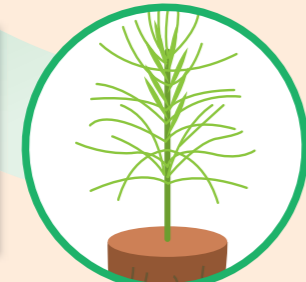
### Life cycles of a forest

### Life span of 50 to 100 years

#### Base paperboard used for paper carton will not be exhausted.

Acicular trees in North America and Northern Europe are mainly used for production of base paperboard for carton. Forests of acicular trees have been managed according to forestry certifications, and tree trimming, planting of seedlings and growing processes are conducted systematically. Acicular trees in North America are raised for approximately 50 to 80 years, and in Northern Europe they are raised for approximately 70 to 100 years. Trees in both regions are subject to controlled thinning.

## Plant

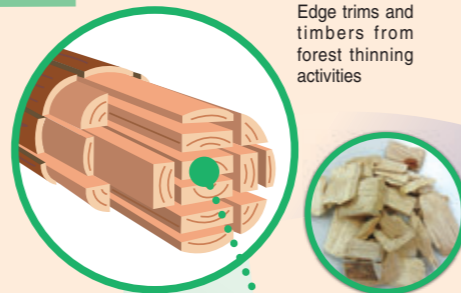


Seedlings are picked from parent trees, grown in nursery grounds on a massive scale, and then systematically planted in the lands after harvesting.

## Use

### Wood is used with zero waste.

Logged trees are primarily used for construction materials and furniture. Wood chips made from thin timber from forest thinning activities, edge trims resulting from manufacturing of construction materials, and branches are used as raw material to produce paper. Long fibers of acicular trees are suitable for processing of durable paper cartons.



Edge trims and timbers from forest thinning activities



Chips



Construction materials storage



Materials for construction and manufacturing furnitures

## Reborn as Recycled Products



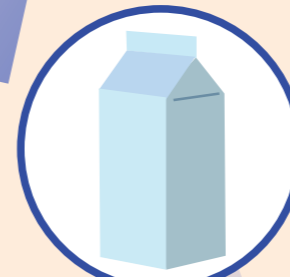
A used paper carton is a high-quality resource. It is reborn as recycled products.

## Paper manufacturers

Laminated portions are removed and the base paperboard portion is dissolved. At this point, foreign substances such as residual ink are extracted in order to produce clean pulp that is suitable for manufacturing recycled products such as toilet rolls.



Paper manufacturers



## Paper cartons

Paper cartons refer to a container of milk, liquid dairy products, juices, etc. that does not have an inner layer of aluminum laminated. In addition to 1,000 ml, 500 ml and 200 ml containers are also collected.

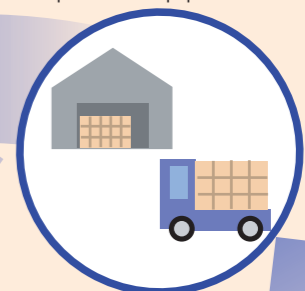
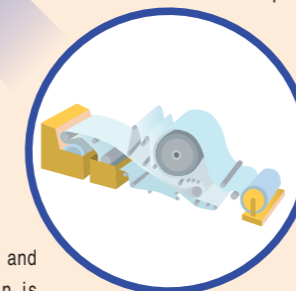
## Paper cartons have small environmental footprint\*

CO<sub>2</sub> emissions from a 1,000 ml paper carton total 32.4 g, and the environmental footprint is very small. Moreover, recycling a 1,000 ml paper carton reduces CO<sub>2</sub> emissions by 23.4 g.

\* Source: Institute for Policy Analysis and Social Innovation "2004 Report of Survey on Life Cycle Assessment of Containers and Packaging" (Entrusted by the Ministry of the Environment)

## Paper recyclers and wholesalers of used papers

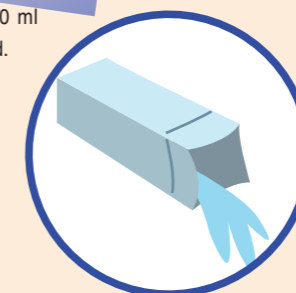
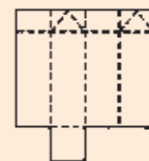
Paper cartons are sorted and transported to the paper manufacturers.



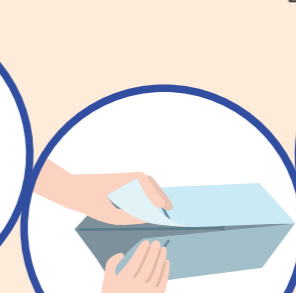
### Recycling of Paper Cartons



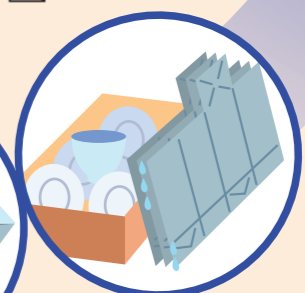
- 1 Wash
- 2 Open
- 3 Dry



## Wash



## Open



## Dry

## Collection

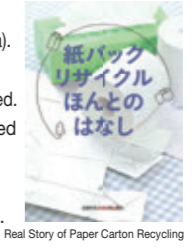


Collection sources include store collection at supermarkets and other similar stores, municipality collection, group collection by citizen's groups, and collection at schools.

# Milestones



● COMCEI's milestones ■ JAMRA's milestones ★ Activities to strengthen collaboration

Fiscal year	Milestones	Applicable laws
1984	■ A group of housewives started a milk carton recycling movement to teach their children to recognize the value of things.	
1985 to 1993	<ul style="list-style-type: none"> <li>■ "Japan Milk Carton Recycling Association" was established (1985).</li> <li>● "Committee for Milk Container Environmental Issues" was established (1992).</li> <li>■ "Milk carton recycled products mark" was created (1992).</li> <li>● The Committee participated in "Forestry Fair" held by the Forestry Agency (the Committee participated every year from 1993 to 2008).</li> </ul> 	● The Basic Environment Law was enacted (1993).
1995	● "Basic survey on the present status and trends of beverage paper container (paper carton) recycling" was started.	● Containers and Packaging Recycling Law was enacted.
1996	● "The Beverage Paper Container Recycling Council" was established.	
1997	■ National case study on milk carton collection system was conducted.	● Containers and Packaging Recycling Law was enforced.
1998	<ul style="list-style-type: none"> <li>● Model project for promotion of milk cartons used for school meals was started (Hokkaido).</li> <li>■ An experimental project was implemented to build a collection and recycling system of milk cartons used for school meals (Fukuoka and Hyogo).</li> <li>■ Convivial meetings were held to promote collection of beverage paper containers (Locations of meeting *1).</li> </ul>	
1999	★ Local conference to promote paper carton recycling was held (this has been continuing since *1).	
2000	<ul style="list-style-type: none"> <li>● The Paper Carton Identification Mark was voluntarily established.</li> <li>● Discussion Meeting to Promote Recycling of Paper Cartons for Beverages was started (this has been continuing since).</li> </ul> 	<ul style="list-style-type: none"> <li>● Containers and Packaging Recycling Law was completely enforced.</li> <li>● Basic Law for Establishing the Recycling-Based Society was enacted.</li> <li>● Law for the Promotion of Effective Utilites of Resources was enacted.</li> </ul>
2001	★ Movement for expansion of milk carton collection centers was started (Provision of collection boxes to local communities).	● Act on Promoting Green Purchasing was enacted.
2002	<ul style="list-style-type: none"> <li>● A symposium commemorating the 10th anniversary of the Committee for Milk Container Environmental Issues was held.</li> <li>★ Activities to expand milk carton collection centers to 10,000 locations was started.</li> <li>● Survey on Paper Carton Life Cycle Assessment (LCA) was started (this has been continuing since).</li> </ul>	
2003	★ Survey on paper carton LCA in North America was conducted.	
2004	<ul style="list-style-type: none"> <li>● Environmental campaign was started (executed during Environment month and the 3R month each year).</li> <li>★ Workshop on milk carton recycling was held (this has been continuing since *2).</li> <li>● Participated in one of the largest class environmental-related exhibitions, called "Eco-Product Exhibition 2004" (this has been continuing every year).</li> </ul> 	● Review of Containers and Packaging Recycling Law was started.
2005	<ul style="list-style-type: none"> <li>● Goal of the paper carton collection rate in fiscal 2010 was set to 50% or greater.</li> <li>● The voluntary action plan for promoting 3R of containers and packaging was announced (The Beverage Paper Container Recycling Council).</li> <li>★ The website for children's environmental education called "Milk Packn's Expedition" was started.</li> <li>★ Survey on paper carton LCA in Northern Europe.</li> </ul> 	
2006	■ 20th anniversary memorial meeting of JAMRA.	● Revised Containers and Packaging Recycling Law was enacted.
2007	<ul style="list-style-type: none"> <li>● "Plan 2010 - Action Plan for Recycling of Paper Cartons for Beverages - Toward collection rate of 50%" was established and published.</li> <li>● Participated in the main event of the environmental moth "Eco-fair 2007" (this has been continuing every year).</li> <li>■ Supported "Friendly environment loop - Recycling Association" (this has been continuing every year).</li> <li>★ Survey on paper carton LCA in North America was conducted.</li> <li>★ Onsite lessons on milk carton recycling was started (this has been continuing since *3).</li> <li>★ The movement for further expansion the number of milk carton collection centers (20,000 locations were targeted).</li> </ul> 	
2008	<ul style="list-style-type: none"> <li>● Participated in the Toyako Summit Memorial General Environmental Exhibition 2008.</li> <li>★ Conference on employment of CTMP for beverage cartons.</li> </ul>	● Revised Containers and Packaging Recycling Law was completely enforced.
2009	★ A book "Paper Carton Manifesto" was published.	
2010	<ul style="list-style-type: none"> <li>★ "Milk Packn's Expedition" DVD was produced.</li> <li>★ The 1st Japan and Korea Forum on Processed Milk Industry Environmental Management (in Seoul, Korea).</li> </ul>	

Fiscal year	Short history	Applicable laws
2011	<ul style="list-style-type: none"> <li>★ "Real Story of Paper Carton Recycling" pamphlet was published.</li> <li>★ Onsite lessons on paper carton recycling was held for the leaders of the movement in Korea (in Korea).</li> <li>★ Provision of collection boxes to 20,000 locations was achieved.</li> <li>● "Plan 2015 - Action Plan for Recycling of Paper Cartons for Beverages" was established and published.</li> <li>● The second voluntary action plan for promoting 3R of containers and packaging was announced (The Beverage Paper Container Recycling Council).</li> <li>● Certified as PCR of "milk".</li> <li>★ The 2nd Japan and Korea Forum on Processed Milk Industry Environmental Management (in Osaka).</li> <li>■ "Milk Carton Recycle Mark Promotion Council" was established.</li> </ul> 	
2012	<ul style="list-style-type: none"> <li>● New organizations for operation of the Committee were started (General Affairs, local organizations, Event Committee).</li> <li>★ The 3rd Japan and Korea Forum on Processed Milk Industry Environmental Management (in Kyongju, Korea).</li> <li>★ Survey on paper carton LCA in Northern Europe was conducted.</li> <li>★ Workshop at a commercial facility "Ginza Mitsukoshi" (Tokyo).</li> </ul> 	
2013	<ul style="list-style-type: none"> <li>● A symposium commemorating the 20th anniversary of COMCEI was held.</li> <li>★ A booklet "Story of Waste" was published.</li> <li>★ Workshop at a commercial facility "Ario Hashimoto (Sagamihara City)" and "LaLa garden Nagamachi (Sendai City)".</li> </ul> 	● Review of the Revised Containers and Packaging Recycling Law was started.
2014	<ul style="list-style-type: none"> <li>● Composition analysis of paper cartons in Matsudo City.</li> <li>★ Workshop at a commercial facility "Isetan Matsudo Store (Matsudo City)" and "LaLa garden Nagamachi (Sendai City)".</li> </ul>	
2015	<ul style="list-style-type: none"> <li>● Composition analysis of paper cartons (Machida City).</li> <li>★ "Milk Carton Recycling - Nationwide Collection of 20 Cases" 4th volume published.</li> <li>★ "Discussion meeting with paper manufacturers associated with paper carton recycling" was held.</li> <li>■ "Friendly environment loop forum - 30th anniversary memorial meeting of JAMRA".</li> </ul>	
2016	<ul style="list-style-type: none"> <li>● "Plan 2020 - Action Plan for Recycling of Paper Cartons for Beverages" was established and published.</li> <li>● The third voluntary action plan for promoting 3R of containers and packaging was announced (The Beverage Paper Container Recycling Council).</li> <li>★ Survey on paper carton LCA and fact-finding survey on paper carton recycling in North America was conducted.</li> <li>★ Leaflet of "Real Story of Paper Carton Recycling" was published.</li> <li>■ The theme this year was "The State of Required Paper Carton and Its Suitability for Recycling".</li> </ul>	● Review of the Revised Containers and Packaging Recycling Law was completed.
2017	<ul style="list-style-type: none"> <li>● Implemented metropolitan bus advertising campaign ("Milk Packn" Bus)</li> <li>★ The committee published the brochure "Recycling Workshops for Adults and Children to Create Crafts with Milk Cartons."</li> <li>■ "Friendly Environment Loop Forum - Considering the State of Paper Carton Recycling by Looking at Overseas Recycling Policies and Japan's Legal System for Resource Circulation."</li> </ul>	

\*1 Venues of local conference to promote paper carton recycling (1998 to 2017)

Hokkaido, Hakodate, Aomori, Iwate, Miyagi, Fukushima, Yamagata, Niigata, Nagano, Shiga, Gunma, Warabi, Saitama, Chiba, Ibaraki, Tokyo (northern area) (eastern area) (23 wards), Akishima, Kanagawa, Yokohama, Kuwana, Kasuga, Shizuoka, Gifu, Ishikawa, Fukui, Mie, Aichi, Osaka, Kyoto, Hyogo (Kobe and Hanshin area), Akashi, Shimane, Okayama, Hiroshima, Tokushima, Ehime, Kochi, Fukuoka, Kitakyushu, Oita, Saga, Kumamoto, Okinawa

\*2 Venues of paper carton recycling workshop (2004 to 2017)

Asahikawa City, Sapporo City, Saitama City, Fujimi City, Shibuya Ward, Shinagawa Ward, Koto Ward, Nakano Ward, Kita Ward, Nishitokyo City, Yokohama City, Atsugi City, Sagamiara City, Yokoshibahikarimachi (Chiba Prefecture), Otsuki City, Kofu City, Shimizu Town (Shizuoka Prefecture), Chikusei City, Kasugai City, Nisshin City, Osaka City, Nishinomiya City, Matsuyama City, Itano Town (Tokushima Prefecture), Kochi City, Beppu City, Naha City

\*3 We visited the following schools to run the on-site lessons on milk carton recycling (2007 to 2017)

Aomori City Izumikawa Elementary School, Sendai City Nakayama Elementary School, Sendai City Shoryo Elementary School, Sukagawa City Abukuma Elementary School, Sukagawa City Abukuma Elementary School, Mito City Akatsuka Elementary School, Chikusei City Ueno Elementary School, Chikusei City Isa Elementary School, Motegi Town Motegi Elementary School, Haga Town Hagaminami Elementary School, Nogi Town Tomonuma Elementary School, Ota City Chuo Elementary School, Misato City Tango Elementary School, Kawaguchi City Tozokaminami Elementary School, Koshigaya City Obukurohigashi Elementary School, Konosu City Akamidai Daiichi Elementary School, Ichihara City Chiharadaisakura Elementary School, Noda City Futakawa Elementary School, Shibuya Ward Kakezuka Elementary School, Edogawa Ward Shinozaki Daini Elementary School, Nishitokyo City Mukoudai Elementary School, Machida City Oyama Elementary School, Orme City Imai Elementary School, Yokohama City Ekoda Elementary School, Yokohama City Tsunashima Elementary School, Yokohama City Hie Elementary School, Yamato City School Education Study Group, Hiratsuka City Okazaki Elementary School, Minami Alps City Shiranehyakuta Elementary School, Hokuto City Mukawa Elementary School, Komagane City Akaho Elementary School, Toyama City Shinjo Elementary School, Kanazawa City Izumino Elementary School, Tarui Town Iwade Elementary School, Godo Town Godo Elementary School, Shizuoka City Togendai Elementary School, Hamamatsu City Hamana Elementary School, Nisshin City Higashi Elementary School, Nisshin City Nishi Elementary School, Okazaki City Yamanaka Elementary School, Minamiise Town Nantohigashi Elementary School, Nabari City Mihata Elementary School, Shimamoto Town Daini Elementary School, Osaka City Benten Elementary School, Osaka City Turumachi Elementary School, Kishiwada City Jyoutou Elementary School, Kaizuka City Chuo Elementary School, Amagasaki City Wakaba Elementary School, Nishinomiya City Takagi Elementary School, Oji Town Ojikita Elementary School, Matsue City Kashimahigashi Elementary School, Hiroshima City Inokuchidai Elementary School, Hiroshima City Ushitashinmachi Elementary School, Hiroshima City Niho Elementary School, Hiroshima City Nukushina Elementary School, Hiroshima City Omachi Elementary School, Fukuyama City Hikino Elementary School, Mito City Matsusaki Elementary School, Mito City Omi Elementary School, Kochi City Kamoda Elementary School, Yoshinogawa City Kamiura Elementary School, Kitakyushu City Tenraji Elementary School, Saga City Wakakusa Elementary School

# COMCEI publications

The Committee provides DVDs and leaflets that explain the benefits of paper cartons and illustrates how they are recycled.

DVD "Milk Packn's Expedition" COMCEI has prepared a detailed DVD version of a website called "Milk Packn's Expedition" that is targeting at elementary school students. This is an educational tool that helps them think about the environment and learn the importance of initiating their own activities. We send it free of charge to schools and organizations that apply.



DVD "Milk Packn's Expedition"

"Recycling Workshops for Adults and Children to Create Crafts with Milk Cartons" With the instructions by NPO Corporation "Yuimaru," we created the booklet illustrating how to make beautiful crafts out of used paper cartons. We also communicate that the leftover materials of cartons after enjoying crafts can be recycled in this booklet. This can be useful for your craft making events.



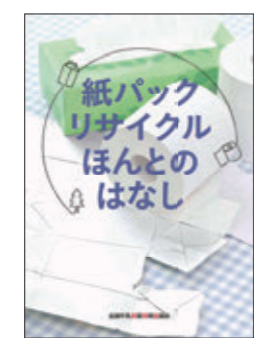
"Recycling Workshops for Adults and Children to Create Crafts with Milk Cartons"

### "Story of Waste"

"Real Story about Paper Carton Recycling" has been edited for children and features interesting illustrations of Milk Packn.



"Story of Waste"



"Real Story of Paper Carton Recycling"

### "Story of Milk Cartons"

It is for early elementary school children. It shows the life of a milk carton - from its birth to finally being recycled into a new product - in an easy to understand manner using cartoons. This publication is recommended for use in events such as workshops where many visitors bring their children.



"Story of Milk Cartons"

### "Recycling Workshop for Creating and Playing with Milk Cartons"

This book is full of ideas such as how to make postcards from handmade paper and how to craft objects out of milk cartons. It is distributed in events such as recycling workshops and eco-life fairs.



Recycling Workshop for Creating and Playing with Milk Cartons

### Book "Paper Carton Manifesto"

This book details characteristics of paper cartons and recycling activities in order to submit recommendations for the future of our planet while enhancing consciousness about the meaning of recycling. The writers include Mr. Inose, president of ECOIPS, Ms. Hirai, representative of JAMRA, and seven members of COMCEI, among others.



Book "Paper Carton Manifesto" Nihon Hyouron Sha

### "Milk Carton Recycling - Nationwide Collection of 20 Cases" 4th volume

Separate collection of paper cartons requires community people's understanding of the recycling and creative ideas in the collection. This case book introduces actual recycling activities carried out by citizen's groups, local governments and various business sectors throughout Japan to assist readers when they are confronted with problems.



"Nationwide Collection of 20 Cases" 4th edition

# Members list

- 3 related associations**  
 Japan Dairy Industry Association  
 Japan Dairy Association  
 Federation of Milk Processors Co-operatives

- 7 Carton manufacturers**  
 Nippon Paper Industries Co., Ltd.  
 Nihon Tetra Pak K.K.  
 ISHIZUKA GLASS Co.,Ltd.  
 Dai Nippon Printing Co.,Ltd.  
 TOPPAN PRINTING CO.,LTD.  
 BF&Package Co., Ltd.  
 TOKYO PAPER MFG. CO. ,LTD

- 122 dairy companies**  
**[Hokkaido]**  
 Yotsuba Milk Products Co., Ltd.  
 Satsuraku Dairy Agricultural Coop  
 HOKKAIDO HOSHO MILK PLANT Co.,Ltd.  
 SHIN SAPPORO NYUGYO CO., LTD  
 KUMIAI DAIRIES LIMITED  
 Hokkaido Milk Product Co.,Ltd.  
 Hakodate Milk  
 Hokkaido Dairy Corporation Co.,Ltd.  
 MACHIMURA FARM ,Inc.  
 kurasimamilk.Co,ltd.  
 TOYOTOMI MILK PRODUCTS

- [Aomori]**  
 HAGIWARA MILK PLANT Co.Ltd.  
**[Iwate]**  
 Fujiya Milk Co., Ltd.  
**[Miyagi]**  
 TOUHOKU MORINAGA MILK INDUSTRY CO., LTD  
 furukawa milk industry Co. Ltd  
 YAMADA MILK PRODUCTS  
 Michinoku Milk Co.,Ltd.  
 Touhoku Glico Dairy Products Co.,Ltd

- [Yamagata]**  
 Fuji Milk Co., Ltd.  
 GOTO Farm Co.,Ltd  
 Ohu Dairy Cooperative

- [Fukushima]**  
 Rakuou milk products Co.,Ltd.  
 Tohoku-kyodo Milk industry Co., Ltd  
 Aizu Chuoh Nyugyo Corporation  
 Matsunaga milk Co., Ltd.  
 Fukushima Milk Co., Ltd.

- [Ibaraki]**  
 IBARAKI DAIRY PRODUCT INDUSTRY CO., LTD.  
 TOMOE DAIRY PROCESSING CO., LTD  
 Ibaraku Co.,Ltd.  
 KANTO MILK INDUSTRY CO., LTD.

- [Tochigi]**  
 Harigai Milk Industry Co.,Ltd.  
 Tochigi Meiji Milk Co. Ltd  
 Tochigi Milk Co., Ltd.  
 HORAI Co.,Ltd.

- [Gunma]**  
 Haruna Dairy Cooperatives  
 Tomo Dairy Cooperative  
 GUNMA MILKJOINT BUSINESS COOPERATIVES

- [Saitama]**  
 MORI MILK Co., Ltd.  
 SEIBU RAKUNOU  
 JA Saihoku Rakunou  
 osawa milk Co., Ltd.

- [Chiba]**  
 FURUYA MILK PRODUCTS CO.,LTD  
 Chiba Hokubu Rakuno Dairy Cooperative  
 Chiba-raku Dairy Cooperative

- [Tokyo]**  
 MEGMILK SNOW BRAND Co., Ltd  
 Meiji Co., Ltd.  
 MORINAGA MILK INDUSTRY CO.,LTD.  
 KYODO MILK INDUSTRY CO.,LTD.  
 KOIWA DAIRY PRODUCTS CO., LTD.  
 Koshin Milk Products Co,Ltd

- [Kanagawa]**  
 Takanashi Milk Products Co.,Ltd.  
 YOKOHAMA MILK INDUSTRY CO.,LTD.  
 KONDO MILK PRODUCTS CO.,LTD.  
 Ashigara Milk Products Co.,Ltd.  
 Kyoudou Milk Co., Ltd.

- [Nagano]**  
 YATSUGATAKE MILK Co.,Ltd.  
 MATSUDA MILK co.ltd

- [Niigata]**  
 Niigata-ken Nokyo Milk Co., Ltd.  
 HARADA Daily Products.CO.,LTD.  
 Tsukada Milk Products.Co.LTD  
 Sado Milk Products Ltd.

- [Toyama]**  
 Tonami Milk Co., Ltd.  
 Kokuto milk

- [Ishikawa]**  
 i-Milk Hokuriku Co.,Ltd.

- [Gifu]**  
 Hida Rakuno Dairy Cooperative  
 Bokuseisha Ltd.  
 Seki Milk Co., Ltd.  
 Mino Dairy Cooperatives

- [Shizuoka]**  
 INASA MILK ASSOCIATION  
 Kannami toubu nougyoukyoudou kumiai  
 TOKAI MEIJI.CO.Ltd  
 Asagiri Milk Products Co.,Ltd

- [Aichi]**  
 CHUOSEINYU CO.,LTD.  
 Aichi Brother Company Co.,Ltd.  
 TOKONAME MILK LIMITED PARTNERSHIP COMPANY

- [Mie]**  
 Ouchiyama Dairy Agricultural Cooperative

- [Kyoto]**  
 HIRAYA MILK  
 JA Kyoto Rakuno Center

- [Osaka]**  
 SEN-NAN Dairy Products Co.,Ltd.  
 NIPPON DAIRY CO-OPERATED CO.,LTD.  
 Vitamin Milk Products Co.,Ltd  
 Ikaruga Milk Plant CO.,Ltd.  
 EZAKI GLICO CO.,LTD.

- [Hyogo]**  
 TAMBA MILK CO.,LTD.  
 Awajishima Milk Co.,Ltd.

- [Tottori]**  
 DAISEN Dairy agricultural cooperative

- [Shimane]**  
 KISUKI Daily Product  
 Yasugi Milk Product Co.,Ltd

- [Okayama]**  
 OHAYO DAIRY PRODUCTS CO.,LTD  
 KAJIHARA MILKPRODUCTS CO.LTD  
 HIRUZENRAKUNOU NOUGYOU KYOUDOU KUMIAI  
 okayamanisougyoukyoudoukumiai

- [Hiroshima]**  
 Sanyo Milk Industry Co., Ltd.  
 TOYO MILK INDUSTRY CO.,LTD.  
 Hiroshima Kyodo Milk Industry Co.,Ltd.  
 Chichiyasu Co.,Ltd.

- [Yamaguchi]**  
 Yamaguchi Kenraku Milk industry Co.,Ltd  
 houfurakunou agricultural cooperative  
 Nishimotobokujou

- [Kagawa]**  
 Shikoku Meiji Co.,Ltd.

- [Ehime]**  
 SHIKOKU MILK PRODUCTS CO.,LTD.

- [Kochi]**  
 Himawari Milk

- [Fukuoka]**  
 nishirakunyuugyou Co.,Ltd  
 Omu Milk Products Co.,Ltd.  
 NAGATOSHI-MILK CO., LTD.

- [Nagasaki]**  
 SHIMABARA AREA DAIRY FARMERS COOPERATIVE

- [Kumamoto]**  
 KUMAMOTO DAIRY CO-OPERATIVE ASSOCIATION  
 KUMAMOTO MILK INDUSTRY CO., LTD.  
 Kuma Dairy Agricultural Cooperative  
 JA ASO  
 Limited Partnership (Corp.) HOTTA KOUNYUUSHA

- [Oita]**  
 KYUSUYUNYUGYO CO.,LTD

- JA-Shimogo  
 Koyama Dairies Co., Ltd

- [Miyazaki]**  
 MINAMI NIHON RAKUNO KYODO CO.,LTD

- [Kagoshima]**  
 kagoshimakenrakunounyuugyoukabushikigaisya

- [Okinawa]**  
 OKINAWA MEIJI MILK PRODUCTS CO.,LTD.  
 OKINAWA MORINAGA MILK INDUSTRY CO., LTD.  
 Mariya milk industry  
 YAEYAMA GENKI  
 Genki Seikatsu Co., Ltd.  
 Miyahira Dairy Corporation

- 13 supporting members**  
 Oji Eco Materials Co.,Ltd  
 NISHINIHON EIZAI CO.,LTD  
 Nissei Sangyo co.,Ltd.  
 NIPPON PAPER CRECIA CO.,LTD  
 DAIWA ITAGAMI CO., LTD.  
 SHIN-EI PAPER MFG.CO.,LTD.  
 Marutomi Paper Company  
 YAMADAYOUJI SYOUTEN CO., LTD.  
 CRESCO Corporation  
 WestRock Asia Co.  
 Masukoo Paper Company  
 Stora Enso Japan  
 Weyerhaeuser Japan Ltd.

As of the end of August, 2017





Dairy product companies and paper carton manufacturers collaborate to recycle paper containers such as milk cartons to preserve the environment.

## Committee for Milk Container Environmental Issues

Postal Code 102-0073 Nyugyo Kaikan, Kudan Kita 1-14-19, Chiyoda Ku, Tokyo  
 Phone: +81-3-3264-3903, Fax: +81-3-3261-9176  
<http://www.yokankyo.jp>



### A message to all members of associations and groups collecting paper carton

Your strong support to establish the system enabling collection of paper cartons on a regular basis and to request schools, local governments, public facilities, retail stores, and welfare organizations to install collection boxes at their premises is highly appreciated.

#### Contact

Japan Milk Carton Recycling Association (JAMRA)  
 Phone: +81-554-22-3611, Fax: +81-554-56-9216  
<http://www.packren.org>

If you do not know where paper cartons are collected, please contact the relevant section at your local government/public administration.