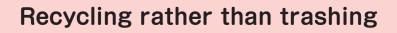
2016 Paper Carton Recycling Annual Report











Committee for Milk Container Environmental Issues

Chairperson's message

Nearly five years have passed since the Great East Japan Earthquake. The many challenges facing Japan today include ongoing reconstruction from the disaster, recovery from the effects of the nuclear accident, and ensuring an optimal energy mix. While companies in many industries are recording all-time high profits, a change in circumstances including slower growth in neighboring emerging economies has once again shrouded the Japanese economy in uncertainty.

The revised Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging came into full effect in 2008. While work to revise the legislation was initiated in 2013, the advisory council has not met since September 2014 and the industry awaits further progress. Regardless of legislative processes, we remain committed to further establishing and expanding paper carton recycling, under our aim of "encouraging each and every member of society to think and act for the benefit of the environment."

Recycling of paper cartons, measured using a performance indicator known as the collection rate, rose steadily following the initiation of data collection, but has plateaued in the last few years. Indeed, the first ever year-on-year decrease in the collection rate came in fiscal 2011 in the aftermath of the Great East Japan Earthquake, but this has reverted to an upward trend from fiscal 2012 onwards.

As growth in the collection rate for paper cartons has slowed, we have responded by focusing our efforts on improving the operation of our committee system and engaging in activities that enhance the capabilities of our expert committee members.

Members of our General Affairs Committee visited environmental departments of local governments to exchange ideas for better publicizing paper carton recycling and enhancing systems for collection. The Committee also organized collaborative initiatives to raise consumer awareness, and implemented waste composition analysis studies at a number of locations to determine the amount of paper cartons actually entering the paper waste stream.

The Publicity Committee issued its fourth publication of "Paper Carton Recycling – Nationwide 20 Cases" in February 2015. The publication highlights the challenges and issues faced by organizations and business operators, to serve as a reference for projects that are about to be established or existing projects that are seeking to improve their collection efficiency.

The Events Committee organized booths at the Eco-Life Fair 2015 in June and Eco-Products 2015 in December, and organized carton paper



Kazuo Kishida Chairperson Committee for Milk Container Environmental Issues

recycling events at regional large-scale retail outlets to directly promote paper carton recycling to the wider public.

We also continued working with local governments to conduct carton paper recycling workshops at elementary schools, in order to reinforce "paper is an extremely valuable resource" as part of students' environmental education.

The Local Organization Board developed exhibits, quizzes and other materials for use at environmental events that are organized by our member corporations across Japan, in order to raise awareness about paper carton recycling. An increasing number of these events are being held as regular annual events.

Collection boxes for paper cartons are now found in approximately 23,000 locations across Japan, including high-rise condominiums in Tokyo where boxes are placed on each floor to encourage recycling, which provides a good example of how to effectively place collection boxes.

The Paper Carton Recycling Annual Report 2016 is to summarize the full range of our activities over the last year. We hope that you will take the time to read it and welcome any feedback you may have.

We will continue to work with diverse stakeholders including the Japan Milk Carton Recycling Association to achieve our goal of a paper carton collection rate in excess of 50% in fiscal 2015. We hope that you will lend us even greater support as we pursue these various efforts.

Action Plan to Improve the Paper Carton Collection Rate

By setting the goal to achieve a collection rate of more than 50% in fiscal 2015, the Committee for Milk Container Environmental Issues (COMCEI) aims to enhance the paper carton collection rate.

Specific initiatives are as follows.



• 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 will strengthen our cooperation with all parties working in the area of paper carton recycling, and promote voluntary activities to improve the collection rate.

•We will save resources and reduce environment load by utilizing renewable paper cartons as high quality resources. We will continue to promote the importance of resource conservation through paper carton recycling.

[Major Activities]

1. Providing opportunities to enhance paper carton collection in local regions

①Hosting of a regional conference for promotion of carton recycling and a milk carton recycling workshop (the latter is co-sponsored by the Japan Milk Carton Recycling Association, which is hereinafter referred to as JAMRA)

 $\textcircled{O}\xspace{1.5}$

③Identifying people who can lead paper carton collection activities (individuals who have potential to lead local activities)

 $\textcircled{\sc 0}$ Participation in environmental events (such as Eco-Products and Eco-Life Fair)

S Supporting the "Friendly Environment Loop" Forum (held by JAMRA)

CONTENTS

Activity topics

	"Plan 2015"2
	30th anniversary memorial meeting of JAMRA3
	Regional conference for promotion of carton recycling4
	Discussion meeting with recycled paper manufacturers5
	Discussion meeting to promote recycling6
	Onsite lessons on milk carton recycling7
	Milk carton recycling workshop8
	Eco-Life Fair/Eco-Products 2015
	"Learn and Play" with Milk Cartons Contest
	Composition analysis of paper cartons/Other activities
4	activity Report Digest
	Paper earten collection rate in ficeal 2014

Paper carton collection rate in fiscal 2014	14
Paper carton material flow in fiscal 2014	16

- 2. Promoting domestic paper carton collection
- ①Creation of opportunities for collection
- ② Promotion of collection of 500 ml and 200 ml paper cartons (smaller than the standard 1000 ml cartons)
- ③Setting up collection centers by installing paper carton collection boxes (in cooperation with JAMRA)
- (4) Conducting an environmental campaign in which an advertisement featuring our environmental message is posted on paper carton products (in cooperation with suppliers)
- (5) Promoting paper carton recycling communications for factory visitors
- 3. Promoting collection of paper cartons used outdoors and at the point of sale
- ①Study on how to collect paper cartons at workplaces and educational facilities such as high schools and colleges
- ②Support initiatives to collect paper cartons used at food stores and restaurants (in cooperation with JAMRA)
- 4. Promoting activities in educational facilities and learning places
- ①Hosting of onsite lessons on milk carton recycling at elementary schools (in cooperation with JAMRA)
- $\textcircled{O}\$ Promotion of recycling of milk cartons used for school lunches
- ③Production and distribution of the "Milk Packn's Expedition" DVD for children (in cooperation with JAMRA)
- ④Support of "Learn and Play" with Milk Cartons Contest5. Enhancing communication about recycling
- ①Utilization of "Milk carton recycling case studies" (in cooperation with JAMRA)
- ②Implementation of a basic survey on the present status and trends of beverage paper carton recycling
- ③Implementation of a Web survey on citizens' awareness of recycling and associated behavior
- (4)Enrichment of website contents of COMCEI and "Milk Packn's Expedition"
- $\textcircled{\sc b}$ International cooperation through paper carton recycling movement

Activity Report of fiscal 2015

Recycling status of retailers		
Collection status at welfare	organizations19	
Status of municipality and g	roup collection20	
Recycling status at schools		
Recycling status of recycled	l paper manufacturers ·······23	
Recycling of paper of		
Dual loops of paper carton r	ecycling ·····24	
Outline of COMCEI		
Short history	26	
COMCEI publications	23	
Members list ·····		

"Plan 2015"

Action Plan for Recycling of Paper Cartons for Beverages -Report on achievements during the fifth year-

Our four committees have promoted activities based on the action plan.

1. General Affairs Committee

(1)Promoting collection

①Basic survey on paper carton recycling and calculation of the collection rate

The committee has conducted a composition analysis of mixed papers in Machida City to identify the quantity of paper cartons disposed of as miscellaneous paper products. The committee continues with the studies on the quantity of paper cartons in mixed papers in cooperation with the Paper Containers and Packing Recycling Promotion Council.

O Hosting of a regional conference for promotion of carton recycling

The committee hosted a regional conference for promotion of carton recycling in Kitakyushu City, Fukuoka Prefecture to discuss various problems related to enhancing the collection rate.

③Partly in collaboration with JAMRA, the committee also held discussion meetings and information exchange meetings with the stakeholders.

(2)Development toward the next action plan "Plan 2020" (tentative name)

Four expert committees have conducted various activities based on "Plan 2015". A working group has been launched to establish the outline of the next mid-term plan "Plan 2020" (tentative name) for the coming five year period from 2016 to 2020.

2. Publicity Committee

(1)Promotional and educational projects

①Expansion of website

The committee held a study session two times on forestry management inviting two base paper (raw paper) manufacturers as lecturers in order to improve the contents of our website.

②The committee worked to plan and edit the Annual Report 2016.

(2)Collection promotion projects

①The committee published "Milk Carton Recycling-Nationwide Collection of 20 Cases (4th edition)".

We have collaborated with JAMRA when publishing this

booklet in order to organize the collected information and confirm details with the source of case examples.

②We have installed half-size collection boxes, which have been created in cooperation with the General Affairs Committee, at 20 locations including a convenience store in Tama City.

③We created educational POPs for recycling in cooperation with the General Affairs Committee, and put them up in Uny Co., Ltd. and MaxValu Chubu Co., Ltd. stores with their cooperation.

3. Event Committee

(1)Environmental education and expansion of educational activities through paper carton recycling

①The committee hosted onsite lessons at four elementary schools, and a recycling workshop in eight cities and stores with the cooperation of JAMRA. The total number of schools that conducted onsite lessons reached 50 (the schools conducted the lessons in December that will be mentioned in the 2017 Annual Report) as did the number of workshops held.

(2)The committee also participated in local environmental fairs including the Eco-Life Fair 2015 and Eco-products 2015.

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

To commemorate the 15th anniversary of the contest, we held a meeting to share ideas followed by a thank-you party with teachers from elementary schools that have been participating in the event for a long time.

4. Local Organization Board

(1)Discover and support individuals who have potential to lead local paper carton recycling activities

①The board worked to expand the recycling network to enhance the paper carton collection rate by providing various panels to environmental events, and distributing leaflets and original toilet rolls made of recycled paper at event sites.

②The board supported regional voluntary efforts by providing a variety of educational tools to the regional environmental fairs participated by local companies and supporters.

③The mail magazine published by the board has actively communicated unique local events and introduced promotional goods.

Each committee deploys energetic activities based on "Plan 2015". Their activities are reported to and reviewed (as needed, modified) by the Planning and Steering Committee Meeting, which is attended by the chairman and vice chairman of each committee, and the Quarterly Steering Committee Meeting, which is attended also by the administrative board members.



It was a valuable meeting in which JAMRA's 30-year history spanning from its pioneer days to the present was outlined by its relevant parties.

[30th anniversary memorial meeting of JAMRA] October 15

The 30th anniversary memorial meeting hosted by JAMRA and supported by COMCEI was held at Nakano Sunplaza with 98 participants from administrative institutions, local governments, welfare organizations, citizen's groups, industry groups, and business operators.

Ms. Hirai, Director General of JAMRA presented an outline of the organization's history from when it was launched in 1984 to the present, making references to the early days of the milk carton collection movement, the national conventions, collaboration with COMCEI, onsite lessons, and recycling workshops. Looking back, she said, she started this movement to educate children about the concept of appreciating things around them.

In the congratulatory speech, Mr. Kishida, Chairperson of COMCEI explained about cooperation with JAMRA, and the current status and problems regarding paper carton collection activities that are carried out based on "Plan 2015", the action plan for recycling paper cartons used for beverages.

Mr. Lee Chairman of Institute of Dairy Technology Korea offered compliments about the carton collection activity that is promoted based on a broader perspective of global environment protection, and the forum that is functioning as a bridge between Japan and Korea. He said that he had started onsite lessons in Korea because he was so impressed by the ones he saw in Japan, and the lessons have since spread widely throughout Korea. He hoped that the Japan-Korea exchanges will continue in the future. Then a panel discussion titled "The Past and Present of 30 or More Years Old Action Groups - Milk Carton Recycle Movement" was held. First, the panelists were introduced.



Speech by the organizer, Ms. Hirai, Director General of JAMRA

DAICHI WO MAMORUKAI Co., Ltd. made a presentation of their business of directly delivering chemical-free agricultural products to their customers. They also referred to influences of the nuclear meltdown at Chernobyl, the relationship between milk carton collection and environmental awareness, and their overseas activities. A representative from Dynax Urban Environment Research Inst., Inc. spoke about consultation and survey services they provide to local governments and relevant organizations, and described an attempt to persuade staff at a government office to hold an event for milk carton recycling when the activity was not widely recognized.

A panelist from NPO Corporation Central recycling campaign citizen's society reported about a grass-roots summit that attracted 510 participants from 170 citizen's groups. He said that milk carton collecting is a valuable activity, and that what matters in terms of environmental education is a caring attitude toward environment. NPO Corporation, AO Lake Biwa, which has the slogan, "Toward smiling faces of children and Lake Biwa", introduced specific examples of activities they are promoting based on members' joint efforts and a caring attitude toward things around us.

In the panel discussions and the following session in which ideas were exchanged with participants, we obtained precious information about the present status of paper carton collection and future problems, interactions among the concerned parties including administrative authorities, and about the activities of JAMRA. We were again impressed by what is being implied by collecting milk cartons as well as collaborations among the concerned parties.



Speech by the guest of honor, Mr. Lee Chairman of Institute of Dairy Technology Korea Activity topics 30th anniversary memorial meeting of JAMRA

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

Regional conference for promotion of carton recycling in Kitakyushu City, Fukuoka

Date held : October 27, 2015

The conference was attended by 53 members from the Ministry of the Environment, local governments, citizen's groups, dairy product manufacturers, paper carton manufacturing companies, and paper recyclers.

[Major reports and presentations on relevant issues]

- The participant from the Ministry of the Environment emphasized in their speech about the importance of carrying out recycling activities and educating children about recycling in addition to information about the progress of revising the Containers and Packaging Recycling Law.
- COMCEI introduced its educational activities on paper carton recycling, expansion of education regarding environmental issues, investigative study projects, and three objects and specific activities based on Plan 2015.
- Participant from local governments introduced the current status of municipality collections at collection centers and supermarkets, a new way of collecting milk cartons for school meals that was launched this year, and the result of a composition study on combustible waste. Other accounts in the meeting included a report from the Kitakyushu Activation Conference on the development of "Eco-per" toilet rolls created from used paper cartons, and utilization of donations of ¥1/ pack by a paper manufacturing company. Representatives from various business sectors reported about a range of other activities such as onsite lessons, paper carton workshops, and recycling activities.
- Presentations by officials from many local governments and local associations during the information exchange meeting helped clarify the current status and problems regarding how to



Regional conference in Kitakyushu

utilize "Eco-per" and difficulties of the base and group collections.

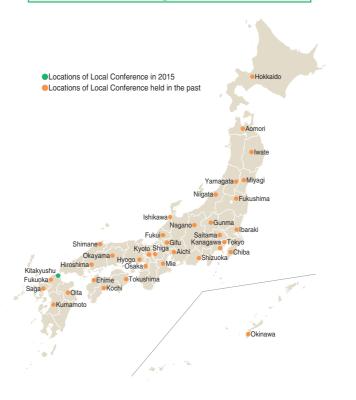
- The paper manufacturing company introduced their regional education activities as the basis of recycling used papers, including paper cartons. A representative from a used paper wholesaler explained their measures to prevent mixing of paper cartons with miscellaneous recyclable papers, and how they are promoting an educational campaign program. In addition, a representative from a recycled pulp manufacturer spoke about how they are recycling paper cartons.
- JAMRA explained their educational activities on separating paper cartons from miscellaneous recyclable paper and the problems associated with the papers gathered via separate collection are being exported.
- A representative from the survey company reported that a quantity of paper cartons that are exported are being mixed with miscellaneous recyclable papers because both the municipality collection and group collection are not so active in the Kyushu district.
- Other points raised during the meeting included the following.
 It is difficult to identify the quantity of used paper cartons because they are exported mixed with miscellaneous recyclable papers.

- They are exported rather than used in Japan because of the principles of the market economy such as differences in price and quality.

- The quantity of available used paper cartons is limited. Therefore, it is inevitable that they are mixed with miscellaneous recyclable papers when bales are made.

We were able to obtain meaningful information about the area characteristics of Kitakyushu during this meeting. It will greatly help us in our future activities.

Locations of Regional Conference



Present status and paper carton recycling tasks have been clarified.

[Discussion meeting with recycled paper manufacturers] July 2

With the support of JAMRA, we hosted a discussion meeting with home-use paper manufacturers in "Fujisanmesse" meeting hall in Fuji City, Shizuoka Prefecture. The meeting was attended by 30 people from recycled paper manufacturers and used paper recyclers. At the beginning, COMCEI explained that despite the increase in the paper carton collection rate, their shipments to home-use paper manufacturers are falling. COMEI asked for their ideas on how to further increase the collection rate, which was the main agenda for the day. Then JAMRA presented an outline of trends in paper carton collection, use of the paper container identification mark, and the current status and problems related to paper carton recycling that led to this meeting and subsequent sharing of ideas. The position of COMEI among various stakeholders in terms of paper carton recycling as well as the importance of the recycling system were explained.

Recycled paper manufacturers reported that shipments of paper cartons to them are falling. They pointed out two causes: One was the decrease in use of paper-carton drinks and the other was increase in export of used paper cartons.



A discussion meeting

Regarding exports of used paper cartons, some said a large volume of them were being exported, while others said export volumes of used paper cartons were not able to be identified because they were mixed with other miscellaneous recyclable papers. They gave the principles of the market economy as the reason. Namely, the price of home-use papers in the export destination is generally higher than in it is Japan, as is the price of used paper cartons.

Other discussion topics included how we should consider the identification mark various cartons including unbleached-paper based aluminum laminated cartons that are increasingly used these days, what we should do to enhance people's awareness of recycling, and what we should expect from the administrative body.

Paper carton recycling is built on efforts made by various stakeholders who are attempting to deal with the issue that the quantity of paper cartons is limited although they are high-quality paper products. The attendants agreed to jointly promote paper carton recycling in the future.



Meeting place "Fujisanmesse"

An important forum to exchange views on the current status and recycling-related tasks among relevant organizations.

[27th Discussion Meeting to Promote Recycling of Paper Cartons for Beverages]

A discussion meeting to promote recycling of paper cartons used for beverages was held on February 5 in the Nyugyo Kaikan meeting hall in Kudanshita, Tokyo. A total of 59 people attended from the Recycling Promotion Section of the Ministry of Economy, Trade and Industry, Office of Environmental Measures of the Ministry of Agriculture, local authorities, citizen's groups, and NPO associations.

Mr. Nakamura (then), Chairperson of COMEIC explained in the opening speech about the background of paper carton recycling and the voluntary action plan, "Plan 2015". He then explained the meaning of this discussion meeting. A participant from the Ministry of Economy, Trade and Industry explained that the Recycling Law was now achieving a measure of legitimacy thanks to collaborative efforts made by the organizations concerned, and that he expected more active discussions would be developed that focus on reducing and recycling. The participant from the Ministry of Agriculture, Forestry and Fisheries said, in relation to recycling of food containers and packing, that the recycling system must be improved to protect food safety and also to respond to changes in social structures due to the country's low birth rate and the long average life span of citizens.

The Chief of the Secretariat of COMCEI presented information about activities that were developed based on "Plan 2015" and results from the basic survey on the present status and trends of beverage paper carton recycling. Each of the four expert committees also reported their activities. Ms. Hirai, Director General of

JAMRA introduced cases of group collection at Mandai Co., Ltd. mass merchandise store in Higashi Osaka City. Referring to the Nationwide 20 cases, the representative pointed out the current status and problems related to paper carton collection being experienced by local governments.

The chairman of the residents' association of Osaki West City Towers reported that residents have positively participated in paper carton collection thanks to collection boxes installed on each floor. The association gave toilet rolls to residents in exchange for paper cartons they brought in during the Thanks Fair. The participant from MEGMILK SNOW BRAND Co., Ltd. reported on their internal activities that include achieving a paper carton collection rate of over 50%, ensuring installation of a collection box at every plant, and utilizing COMCEI tools at company events.

During the discussion, a recycled paper manufacturer expressed concern about the increase in exports of used paper cartons and the potential for a subsequent raw material shortage in Japan. A person from the trade association for used paper recycling businesses proposed watching and identifying structural changes such as a global increase in demand for used papers, and falling yields. At the end, COMCEI reported that it is receiving the cooperation of the Paper Containers and Packing Recycling Promotion Council in determining the quantity of paper cartons being mixed with magazines and other miscellaneous recyclable papers. COMCEI said one of their major activities is to enhance people's awareness of the separate collection, and declared it will keep facilitating interactions with the relevant organizations.

At the end, COMCEI reported that it is receiving the cooperation of the Paper Containers and Packing Recycling Promotion Council in determining the quantity of paper cartons being mixed with magazines and other miscellaneous recyclable papers. COMCEI said it is one of their major activities to enhance people's awareness to the separate collection, and declared it will keep facilitating interaction with the organizations concerned.



At a children's place of learning. "Onsite lessons" are welcomed every year at elementary schools across the country.

In 2015, in collaboration with JAMRA, the Committee held "Onsite Lessons on Milk Carton Recycling" at elementary schools across the country.

Content of onsite lessons

- Lecture "On resources and forestry management" and "Milk cartons are a valuable resource"
- Viewing and listening "Milk Packn's Expedition" DVD - Demonstration "Making postcards from handmade
- paper (using pulp from milk cartons)"
- Question corner "Recycling explanation panel"

[Koshigaya City Obukurohigashi Elementary School, Saitama Prefecture] June 20

This elementary school held an "Eco festival" in the Environmental Month of June. COMCEI was invited to support the festival with onsite lessons as one of the companies and organizations that work actively on environmental issues.

We told children to peel off polyethylene film from milk cartons. Then cartons were then torn to pieces and put into a blender. After blending, we show them white pulp fibers of the cartons to let them know why milk cartons must be separately put out. (140 children from all grades attended the lesson.)



Children are peeling off polyethylene film



Speech by Mr. Nakamura, Chairperson of COMCEI (then)

[Aomori City Izumikawa Elementary School, Aomori Prefecture] September 17

Some of the Grade 3 to 6 students at this school are practicing milk carton recycling activities triggered by the paper carton collection boxes that were installed by a dedicated environmental protectionist about four years ago. Before school meal is served, children other than those who have been tasked with serving school meals cut open the milk cartons that were washed yesterday and dried up to the current day, and put them into the collection box. After lunch, children rinsed milk cartons with water and put them in an empty turning them upside down to dry. (Ninety one fourth graders attended the lesson)



They are drying milk cartons after rinsing.

[Fukuyama City Hikino Elementary School, Hiroshima Prefecture] October 1

After drinking milk that was part of their school meals, all children at this school routinely wash, open and dry the milk cartons. A collection box installed in front of each teaching room was full to the brim with milk cartons. They were surprised to learn from the lecture how carton collection methods differ between Japan and overseas countries. They realized the importance of the recycling activities they carry out. (Forty six fourth graders attended the lesson)



Collection boxes full to the brim with milk cartons

An enjoyable workshop where the participants can learn about the current status of recycling and experience it first hand.

COMCEI holds a milk carton recycling workshop every year aimed at boosting consumers' understanding of the current status of paper carton recycling and forestry administration in terms of securing materials for paper. The workshop also raises consumers' attention to milk carton collection through practical teaching.

[Yokoshibahikarimachi, Chiba Prefecture] July 23

COMCEI held, in collaboration with JAMRA, "Milk carton recycling workshop - Let's create original postcards" as part of the Summer Holidays Children's Science Seminar at Yokoshibahikarimachi Library attended by 27 children and six parents. They have enriched their understanding about paper cartons through the lecture presented by Ms. Hirai, Director General of JAMRA, "Milk Packn's Expedition" DVD, disassembling milk cartons by hand, and making postcards from handmade paper.

Content of onsite lessons

- Lecture "On resources and forestry management" and "Milk cartons are a valuable resource"
- Viewing and listening "Milk Packn's Expedition" DVD
- "Making postcards from handmade paper (using pulp from milk cartons)" and "disassembling milk cartons by hand"
- Question corner "Recycling explanation panel"

[Sagamihara City] July 31

The workshop was held as part of the events held at Hashimotodai Recycling Square. Ms. Hirai, Director General of JAMRA stated that she first began recycling when she realized it is a waste to discard used milk cartons in a country like Japan that has scarce natural resources. Recycling has since grown into an activity that is practiced throughout the world. Attendees tried various measures for layout of postcards they have created from handmade papers.



Eagerly listening to the lecture.



Making postcards from handmade paper!



She is very gently placing a picture while holding her breath



Beautiful postcards are made from handmade paper.

[Shimizucho, Shizuoka Prefecture] August 4

Our recycling workshop, which was held as part of the events hosted by Shimizucho Regional Exchange Center, was attended by 33 elementary school children in grades 3 to 6. These children from Shimizucho elementary school skillfully disassembled milk cartons by hand because they do this every day after school meals. The COMCEI staff held a study session in the student's free time so that they could learn more about paper cartons and the raw materials that made up a cartons in front of them.



You can open milk cartons cleanly and quickly by hand.

[Nishitokyo City] August 20

We held an annual milk carton recycling workshop at Eco-Plaza Nishitokyo. After a lecture by Ms. Hirai, Director General of JAMRA on forestry management, along with spontaneous quizzes, they enjoyed "Milk Packn's Expedition" DVD and the experience of disassembling milk cartons by hand. In making postcards from handmade paper, they have succeeded in creating original postcards for themselves although some children seemed to have difficulty in choosing a design. Forty four elementary school children and 20 parents took a ceremonial photograph at the end of the workshop.



Original postcards were created.

[Atsugi City] August 26

In the parent-child workshop held at Atsugi Citizens' Exchange Plaza Atelier, a multi-purpose exchange facility, used milk cartons brought by participants were exchanged with toilet rolls. They seemed to have fun as shown by the various questions asked in the run-through of paper carton recycling, which was demonstrated using recycled exhibits. It will likely become a lasting memory of their summer vacation along with the postcards made from handmade paper.



An original postcard made from handmade paper.

[Shinagawa Ward, Tokyo] November 15

We have supported the second "Recycling Thanksgiving" held by Osaki West City Tower Management Association and Residents' Association with an educational campaign on milk carton recycling. We were able to interact with residents through various events such as exchanging their used milk cartons with toilet rolls, quizzes, survey interviews, making postcards from handmade paper, and a recycling workshop.



Study on recycling with the panel.

Activity topics

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

[Eco-Life Fair 2015] June 6 and 7

The Eco-Life Fair is held every year in June -Environmental Month - in Yoyogi Park in Shibuya, Tokyo. The event is primarily hosted by the Ministry of the Environment. COMCEI has been participating in this event, which celebrates its 26th anniversary this year, from 2007, and this year was the 9th presentation we have made. This two-day event drew many visitors thanks to fine weather, and 524 guests in total dropped into our booth.

We played trivia, and demonstrated creating accessory pouches using used paper cartons and making postcards from handmade paper in the booth. In the workshop tent, visitors enjoyed events such "Milk Packn's Expedition" DVD, guizzes about paper carton recycling, and disassembling used milk cartons by hand. We believe many of the visitors were interested in paper carton recycling.

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

[Eco-Products 2015] December 10 to 12

The largest environmental exhibition in Japan, "Ecoproduct Exhibitions", has been held every year since 1999, and 2015 marks its 17th anniversary. COMCEI participated in this exhibition along with the Milk Carton Recycle Mark Promotion Council.

A total of 169,118 visitors attended the exhibition, and 1,939 people visited the COMCEI booth and took part in events. Various events were hosted in the booth including an "Environmental panel table" that explained the rules of paper carton recycling, educational materials such as "Story of Waste" were distributed, and a workshop on "opening milk cartons by hand" was held. In addition to the above, visitors tried making postcards from handmade paper, an activity co-hosted by JAMRA. Through the various exhibitions and activities, we had an opportunity to deepen visitors' understanding of paper carton recycling and enhance their cooperation in this activity.





Challenging quizzes about paper cartons



Explanation by use of environmental panel tabl



At the workshop

Grand Prize went to "Milk Phoenix" by Yuri Takada

Two thousand, eight hundred and twenty eight elementary school children participated in the 15th "Learn and Play" with Milk Cartons Contest 2015. Among the many impressive creations, the following seven prize-winning creations were selected through impartial examination. Congratulations.

≪Prize-winning creations≫

- Grand Prize "Milk Phoenix" Yuri Takada (5th grader at Narashino City Mimomi Elementary School)
- Award for Excellence "Carrying my Dream" Yukio Hata (5th grader at Wakayama City Santa Elementary School)
- Award for Excellence "Chameleon" Hiroto Higashihara (3rd grader at Suita City Furuedai Elementary School)
- Prize of National Primary/Junior High schools Environment Teachers' Association "Straw Hat" Saki Ueda (4th grader, Yokohama City Mitsukyo Primary School)
- Prize of Japan Dairy Industry Association "Transformation of Milk Carton" Ami Hino (2nd grader at Takayama City Enako Elementary School)
- ◆JAMRA Prize "My Brother's Fancy School Bag" Ayaka Tajiri (2nd grader at Kakogawa City Kakogawa Elementary School)
- COMCEI Prize "Ancient Dinosaur" Koji Aihara (4th grader at Yokohama City Nokendai Elementary School)

≪Special Prize≫

Awarded schools or teachers

- Munakata City Akama Elementary School, Fukuoka Prefecture
- Sakura City Nishishizu Primary School, Chiba Prefecture
- Gujo City Takasu Elementary School, Gifu Prefecture
- Uda City Haibara Elementary School, Nara Prefecture
- Teacher Junko Hazu (Saitama City Oosato Higashi Elementary School, Saitama Prefecture)

The Grand Prize went to "Milk Phoenix" by Yuri Takada, a 5th grader at an elementary school in Chiba Prefecture. The power of her idea of seeing a phoenix in a milk carton that rises in various forms, and her ability to form a shape from the idea using her inquisitive mind and knowledge stood out. The awards ceremony marking the prize-winning creations was held in the COMCEI booth at "Eco-Products 2015" on December 12. 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), Mr. Kishida (Chairperson, COMCEI), and other review board members. Commemorating the 15th anniversary of the contest, the Review Board awarded a special prize to the elementary schools and a teacher that acted as intermediary in introducing many children's creations over the years.

The prize-winning creations are introduced on COMCEI's "Milk Packn's Expedition" website for children.



Grand Prize creation "Milk Phoenix" Yuri Takada



Grand Prize winner Yuri Takada



Awards ceremony held at "Eco-Products 2015" at the COMCEI booth

We have conducted a composition analysis of the relevant resources to learn the current status of separation and disposal.

[Composition analysis of paper cartons in Machida City]

Municipalities that promote paper carton collection release separate-and-dispose rules for rubbish via pamphlets and website. However, paper carton collection in general is not being carried out 100% successfully at present because a certain volume of them are separately disposed of while being mixed with magazines and other miscellaneous recyclable papers. These municipalities are collecting paper cartons based on the released separation rules. However, there are certain towns and cities where paper carton collection volume is fairly low compared in relation to their populations. Referencing a survey (2013) by the Ministry of the Environment, we chose Machida City as the target, and with cooperation of the city, conducted a survey to determine the actual status of separate-anddispose of paper cartons.

Under the midsummer sun, we started analyzing the composition of used papers in a garbage truck in the Machida Recycling Culture Center.

At first, waste papers looked like they had been separated in an appropriate manner into cardboard boxes, magazines, other miscellaneous recyclable papers, and paper cartons. Then we began to find many paper cartons in the bags containing miscellaneous papers. This created within us a renewed sense of the importance of correct separation methods.

This analysis was very important for us to learn how paper cartons are actually disposed of.



Composition analysis

COMCEI and JAMRA have started to collaborate with commercial facilities.

[Collaboration with a commercial facility - Nitori Mall Sagamihara]

On March 7, as part of "Operation Sagamihara Trash DE71", we held a workshop titled "Let's create greeting cards with milk cartons!" at Nitori Mall Sagamihara mass merchandise store. We believe about 300 participants including those who only took part in a quiz realized that paper cartons are excellent resources.



Paper making corner crowed with visitors

[Collaboration with "LaLa Garden Nagamachi" mass merchandise store]

As part of an environmental event, we co-hosted a paper carton recycling promotion campaign on September 5 and 6 at a community-based "LaLa garden Nagamachi" mass merchandise store in Sendai.

The campaign presented a variety of events for visitors including exchanging six paper cartons with a box of tissue paper made from recycled paper cartons, the experience of making paper by hand, quizzes, and an introduction to the recycling through the use of samples of products made out of recycled paper cartons.



Visitors learned the flow of paper carton recycling

We created POP cards for in-store use

[Creation and utilization of in-store POP cards]

We have created educational POP cards for paper carton recycling and, with cooperation of large supermarket chains Uny Co., Ltd. and MaxValu Chubu Co., Ltd., displayed them on store shelves. These cards tell consumers in an-easy-to understand way using "Milk Packn" that small (500 and 200 ml) containers can be recycled if they carry the "paper packages" marking, and that collected milk cartons are recycled into various product such as toilet rolls. Then the design was revised to attract more attention to the store, and posted on store shelves in Uny Co., Ltd. to educate consumers.





Second edition



Half size collection boxes were installed. A fabric quiz panel was also prepared.

[Promotion of activities with half-size paper carton collection box]

We are promoting use of half size paper carton collection boxes that can be installed in areas with limited space. Thanks to advice received from Tama City, this type of box are installed at many convenience stores in the city to promote paper carton collection.

If you are interested, contact the Secretariat of COMCEI.



"Paper carton collection box" installed

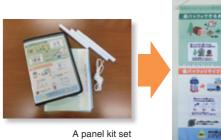
(22 cm wide x 47 cm deep x 86 cm high)

[Update of quiz panel]

We created a new easy-to-hang fabric panel in place of the current hardboard panel that has been used for a long time in recycling events to ask visitors questions on paper carton recycling. This new panel is compact and easier to carry than the conventional hard panel.

Please use it for regional recycling events and other activities. If you are interested in using it, please contact the Secretariat of COMCEI.

(60 cm wide x 90 cm high)





Simply assemble it



The paper carton collection rate in fiscal 2014 was 44.7%.

The "Basic survey on the present status and trends of beverage paper carton recycling" has been carried out since 1995 to enable collection and provision of information about paper carton recycling to communities. This survey was also held in the period from June to October 2015, and the status of paper carton recycling in fiscal 2014 was revealed.

The collection rate of all paper cartons in fiscal 2014 was 44.7% (0.1% increase over the previous year).

The used paper carton collection rate was 35.7% (0.8% increase)

Taking into consideration the diversification in used paper carton collection routes in recent years, we have added direct collection by wholesalers of used paper materials and recycled paper manufacturers in the 2014 survey. The volume of the above direct collection is included in "group collection and others" in the material flow.

%In the fiscal 2014 survey, we conducted questionnaire-based surveys at nine paper carton manufacturers, 307 beverage manufacturers, 1,734 local authorities, 2,057 elementary schools, 1,032 supermarkets, 611 citizen's groups and welfare work places, and 31 recycled paper manufacturers. The interview survey took place at four facilities. Areas affected by the nuclear accident in Fukushima are excluded from the survey.

*Waste papers or industrial waste papers refer to faulty paper cartons and base paper (raw paper) that have been generated in the paper carton manufacturing processes or at beverage plants before being filled by beverages, including edge trims that are not used as a paper carton. *Empty paper cartons generated at stores, business facilities, schools and households are called "used papers"

Paper Carton Collection Rate in Fiscal 2014

Paper carton collection rate (Including industrial waste papers and used papers)



(44.6% in fiscal 2013) = Collection volume of domestic paper cartons

÷ Amount of base paper (raw paper) used = 104.4 thousand tons/233.7 thousand tons

Used paper carton collection rate (Used paper cartons)



= Used paper carton collection volume ÷ Shipping volume of paper cartons from beverage manufacturers

= 71.1 thousand tons/199.3 thousand tons

Transaction prices of paper cartons collected in municipality collection and group collection are growing.

As paper fibers are long and strong, used paper cartons are considered to be high-quality recycled paper materials and are traded at a relatively high price accordingly.

However, since the transaction 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 transaction price into two types: the "delivery 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 transaction prices of paper cartons collected in the municipality collection and group collection are higher than they were last year.

Average transaction price of used paper cartons

Fiscal year			2011	2012	2013	2014
_	Used paper collectors	Delivery price	7.1	6.8	7.0	6.9
Munic	Useu paper collectors	Carry-in price	7.5	6.7	6.5	7.0
ipalit	Used paper collectors Used paper collectors Wholesalers of used paper materials Recycled paper manufacturers	Delivery price	9.4	9.2	8.3	9.0
y coll		Carry-in price	8.7	8.2	8.4	9.3
ectior		Delivery price	10.8	9.4	6.4	8.6
2		Carry-in price	10.3	10.9	9.0	12.0
Group collection	(Unknown traders)	Delivery price	5.2	4.9	5.1	5.2
ction		Carry-in price	5.9	5.3	5.7	6.0
						(Yen/kg)

The paper carton collection volume in fiscal 2014 was 104.4 thousand tons.

The collection volume of domestic paper cartons in fiscal 2014 was 104.4 thousand tons due to a reduction in waste papers. This was a decrease of 1.9 thousand tons (1.8%) over the previous year. The collection volume of used paper cartons was 71.1 thousand tons. This is an increase of 0.5 thousand tons (0.7%) over the previous year.

Although the paper carton collection rate in 2011 dipped as shown in the figure to the right, the rate began to increase again in 2012. In particular, the collection rate of used paper cartons is increasing.

Trends in volumes of used paper cartons and their collection volume are summarized in "Trends shown by major data".

Trend in major figures (thousand tons)

	Category	Fiscal 1994	Fiscal
Usage volu	ume of base paper (raw paper) for paper cartons for beverages (A)	216.0	2
Indu	ustrial paper waste at paper carton manufacturers	16.5	
Indu	ustrial paper waste at beverage manufacturers	-	
Shipping vol	ume of paper cartons used for beverages from beverage manufacturers (B)	197.9	2
Hou	sehold wastes (C)	168.7	1
Ship	pping volume of business wastes	29.2	
S	chool meals	10.7	
R	estaurants and others	18.5	
Collection	n volume of used (consumed) paper cartons (D) = (E) + (F)	26.5	
Hou	sehold wastes (E)	25.9	
С	ollection volume from stores	13.8	
M	lunicipality collection volume	4.3	
G	roup collection volume	7.8	
Bus	iness (F)	0.6	
S	chool meals	0.6	
R	estaurants and others	-	
Collection	volume of industrial paper waste and used paper cartons (G)	16.5	
Рар	er carton manufacturers	16.5	
Bev	erage manufacturers	-	
Collectio	on volume of domestic paper cartons (H) = (D) + (G)	43.0	1
Import v	olume of used paper cartons	_	
Total vol	lume of accepted paper cartons	43.0	1
Recyclin	g volume of paper cartons	30.1	
C c	Paper carton collection rate (H)/(A)	19.9%	43
Collection rate	Collection rate of used (consumed) paper cartons (D)/(B)	13.4%	33
tion	Collection rate of used(consumed) paper cartons in residential homes (E)/(C)	15.4%	30

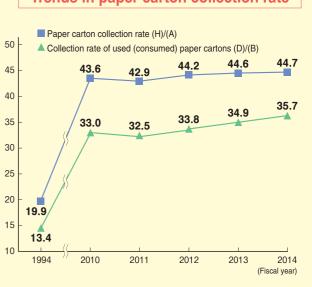
*Recycling volume of paper cartons = Total volume of accepted paper cartons X Yield rate The yield rate after fiscal 2001 is computed based on the results of the questionnaire survey #Industrial paper wastes for fiscal 1994 include aluminum laminated paper cartons.
#Collection volume of paper cartons from business organizations is calculated from fiscal 2004 based on the results of the questionnaire survey.

%The revision conducted in 2005 on the milk cartons for schools has affected the values of some of the items *Some of the total values may include errors due to rounding 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 year using the values in the table.

Trends in paper carton collection rate

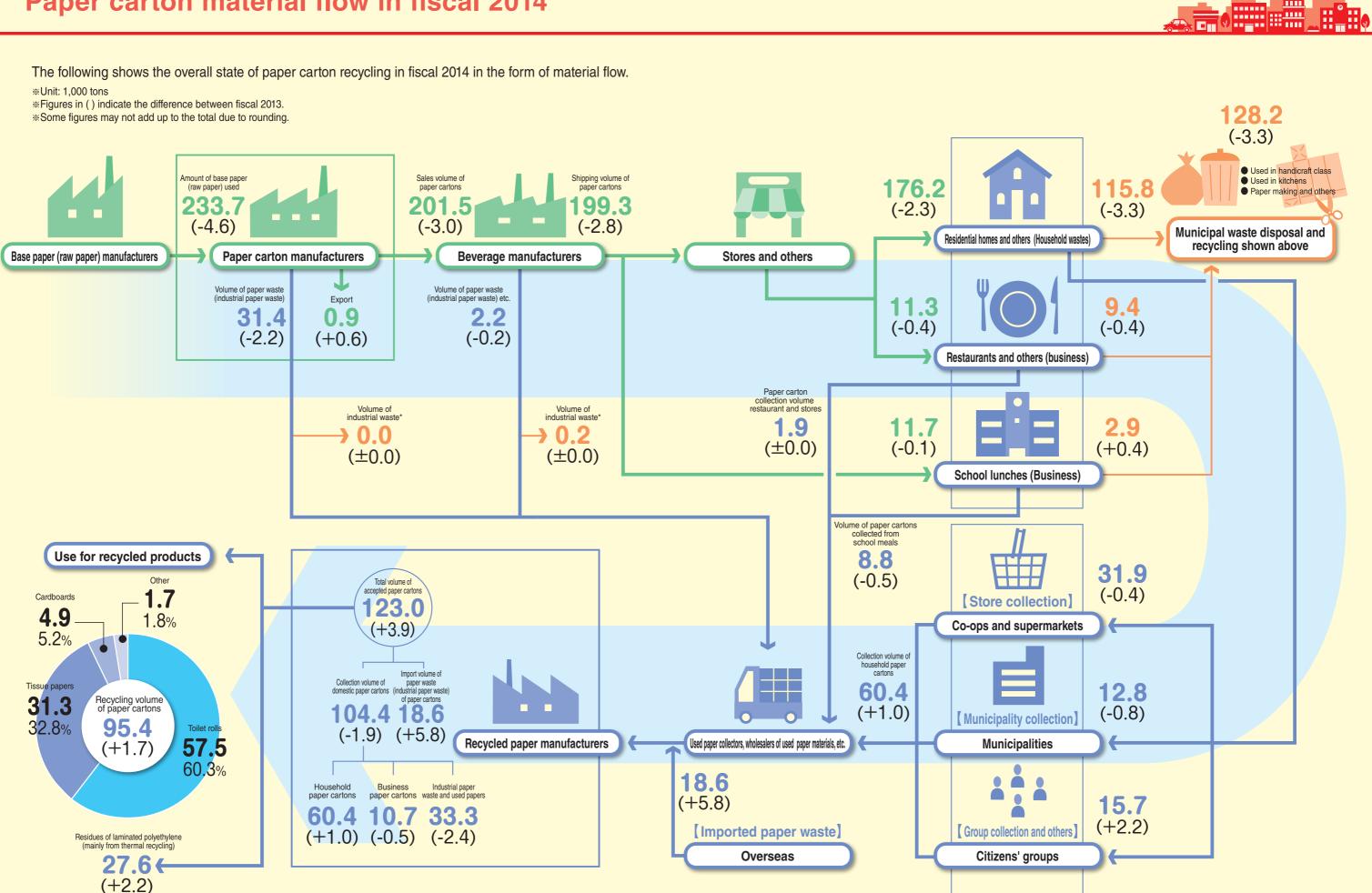
Activity Report Digest

IIII



Percent al 2010 Fiscal 2011 Fiscal 2012 Fiscal 2013 Fiscal 2014 revious year 246.8 246.6 242.9 238.2 233.7 -1.9% 37.3 35.1 36.2 33.5 31.4 -6.5% 2.1 3.3 2.4 2.4 2.2 -8.3% 207.3 208.3 204.3 202.1 199.3 -1.4% 184 6 -1.3% 184.8 180.3 178.5 176 2 22.6 23.5 24 0 23.6 23.1 -2.2%11.8 11.9 11.8 -0.9% 11.8 11.7 10.8 11.7 12.1 11.7 11.3 -3.5% 68.4 67.7 69.1 70.6 71.1 0.7% 56.6 56.2 57.2 59.4 60.4 1.7% 33.6 33.0 32.6 32.3 31.9 -1.3% 14.1 13.9 13.7 13.6 12.8 -5.9% 8.9 10.9 13.5 15.7 9.3 16.3% 11.8 11.5 11.9 11.2 10.7 -4.4% 9.4 9.2 9.3 96 8.8 -5.0% 2.3 2.3 2.3 1.9 1.9 -1.4% 39.3 38.1 38.4 33.3 35.7 -6.7% 37.3 35.1 36.2 33.5 31.4 -6.4% -10.1% 1.9 3.0 2.2 2.2 1.9 107.6 105.7 107.5 106.3 104.4 -1.8% 12.7 14.0 11.4 12.8 45.6% 18.6 120.3 118.8 3.3% 119.7 119.1 123.0 96.3 95.7 95.2 93.7 95.4 1.8% 43.6% 42.9% 44.2% 44.6% 44.7% 0.1 points 33.0% 32.5% 33.8% 34.9% 35.7% 0.8points 30.6% 30.4% 34.3% 1.0points 31.7% 33.3%

Paper carton material flow in fiscal 2014



* The volume of industrial wastes includes that generated by thermal recycle.



Activity Report Digest

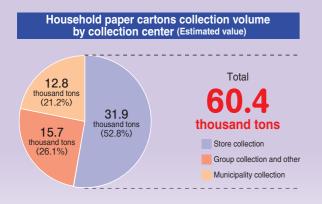
, mm

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 homes.

Store collection figures are based on information provided by the Japan Chain Stores Association (JCSA), the Japanese Consumers' Cooperative Union (JCCU), and our independent survey. The collection volume of cartons from stores in 2014 was 31.9 thousand tons. This was a dip of 0.4 thousand tons from the previous year.

In keeping with changes in the types of retail stores, the survey also covers a percentage of drug stores.



We are working on recycling!!

Seicomart Co., Ltd.

(Head office: Sapporo City, Hokkaido)

Seicomart Co., Ltd. is the chain office Activity of "Seicomart" stores that run examplés business in all parts of Hokkaido and some areas of Ibaraki and Saitama Prefecture. They

have a network consisted of 1,178 stores (as of October 2015). They started paper carton collection at storefronts in

2005. They efficiently collect paper cartons using their own distribution network and produce original boxed tissue papers from this material. Customers can receive a box of tissue papers in exchange for "20 PB (private brand) paper packaging" or "30 PB egg containers".

The collection rate has been increasing year on year from 33% in 2005 thanks to this "participatory recycling". They have maintained a high collection rate of about 60% from 2007, and they continue to carry out ongoing consistent efforts to increase awareness of paper carton recycling activities.

In addition to paper packaging and egg packages, they recycle old newspapers and magazines as well as cardboard boxes collected as paper materials at storefronts.

They also utilize used vegetable oils from food cooking plants as the fuel to heat greenhouses where vegetables are grown. Because of these and other various environmental activities, they obtained "Sapporo Mayor Prize of Recycling-Oriented Society Promotion Category in 4th Sapporo Environmental Prize" in 2012.



A Seicomart store

Original tissue papers recycled from paper cartons

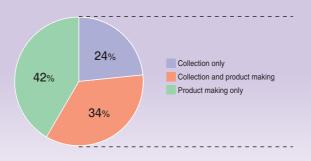
Welfare organizations produce a range of products using collected paper cartons.

Welfare organizations collect paper cartons from various sources including home, elementary schools, supermarkets, administrative bodies and daycare centers. They also produce a range of products utilizing collected cartons.

Among 274 facilities that are carrying out collections or product making, 42% are devoted to product making and 34% are doing both. This figure accounts for three quarters of the total. They produce a wide range of products including postcards, business cards and calendars.

More than half of the facilities engage in the collection. Sources are home, daycare centers and retailers in the region.

Breakdown of welfare organizations by collection and product making



We are working on recycling!!

Social welfare corporation Yume Kobo Welfare Society Work Space Yume Kobo

(Location: Suzaka City, Nagano Prefecture)

Activity examplés

Social welfare corporation Work Space Yume Kobo was opened in 1999 as a work place for people with disabilities. It

is currently operated as a multi-functional welfare facility for people with disabilities (30 target people of support of continued working Type B, and six target people of rehabilitation training). To support the social independence of people with disabilities, it provides them with opportunities to work along with leisurely daytime activities at the facility.

In this facility, they collect paper cartons, and production and sales of original hand-woven fabric goods and baked goods. Other than that, this facility focuses on orderbased processing of souvenirs and cardboard boxes as well as out-of-facility work.

This facility has continued collecting paper cartons from when they opened because they think it contributes to improving the regional environmental and recycling issues. They currently collect about eight tons of paper cartons a year (three times a week) via well maintained collection centers mainly set up in supermarkets in Suzaka City and Nagano City. This facility recycles paper cartons through the network of Nagano Help Center Association, a specified non-profit corporation.

They plan to continue collecting paper cartons because it not only provides disabled citizens with opportunities to get outdoors and have contact with people outside the society, but it also provides a type of relaxation that is difficult to experience from indoor work alone.



Collection work



Paper cartons stored in a warehouse

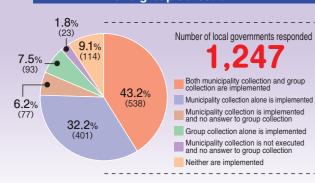
(19)

Collection of paper cartons is carried out by about 90% of local governments.

Among the 1,741 municipalities in the country, we have sent questionnaires to 1,734 local governments in 2014 excluding seven areas that have been affected by the nuclear accident related to the Fukushima nuclear plants. We received responses from 1,247 municipalities. The total population of municipalities that responded to the survey made up 87.6% of the total population.

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 implementation rates of municipality collection and group collection were about the same as those of the previous year. The municipality collection rate was 82%, and the group collection rate - excluding cases where no answers were received - was 51%. Either municipality collection or group collection was executed in 89% of the municipality. This means that almost 90% of local governments are collecting paper cartons

Implementation rate of municipality collection and group collection



21.2 thousand tons of paper cartons are collected through the municipality and group collection.

The survey estimated the municipality collection volume and group collection volume after grouping the target municipalities into four types: "General cities", "Government-ordinance-designated cities", "Tokyo special wards" and "Towns and villages". In fiscal 2014, the municipality collection volume was 12.8 thousand tons, and the group collection volume was 8.4 thousand tons. Total collection volume was 21.2 thousand tons.

Per capita collection volume (basic unit) both in the municipality and group collection is decreasing because of the decrease in the general cities that share more than 60% of the national population. In Tokyo's special wards, the volume by group collection is flattering out and that by municipality collection is decreasing. In the Government-ordinance-designated cities, the share of group collection is increasing compared to municipality collection. We must study and develop measures unique to the given region to secure a better collection rate.

	volumes by city type					
Ē			General cities	Government- ordinance- designated cities	Tokyo special wards	Towns and villages
Munici	Estimated volume (1,000 tons)	12.8	9.1	1.3	0.7	1.6
Municipality collection	Estimated collection ratio by city type	100%	71%	11%	5%	13%
llection	Collection volume per person (grams per person)	100	113	50	78	139
Group	Estimated volume (1,000 tons)	8.4	5.5	2.1	0.2	0.6
p collection	Estimated collection ratio by city type	100%	65%	25%	2%	7%
oction	Collection volume per person (grams per person)	65	68	78	23	54
Po	pulation by city type (millions)	128	81	27	9	11

Municipality collection of paper cartons is promoted by the separate collection approach and the base collection approach.

Used paper cartons are collected in two ways in each municipality. One is the separate collection approach, and the other is the base collection approach. Strict separate collection refers to collection from homes and stations, and the base collection approach refers to collection from collection boxes at community halls and similar locations.

By city type, the separate collection is more widely employed by general cities, towns and villages, and the base collection approach is used more in the ordinance-designated cities and Tokyo special wards.

Ratio of paper carton collection types by city type



We are working on recycling!

Kitakyushu City, **Fukuoka Prefecture**

Activity examplés

Under the slogan of Kitakyushu City it aims at "Nurturing of human resources and culture, preservation of environment

and development of technology to deepen its global relationships", this city works hard to provide support for parents, to upgrade the educational environment and to improve welfare and medical care in addition to its dream for the future of achieving growth as a future-focused, environment-conscious city. Taking a cue from the fullscale enforcement of the Containers and Packaging Recycling Law in April 2000, Kitakyushu City started collection and recycling of paper cartons in July of that year. The city collected 152 tons in 2014 via 264 collection bases installed at the Citizen Center, supermarkets and other locations. The base collection approach helps maintain paper cartons in good condition as materials suitable for recycling.

The city is promoting wide use of toilet rolls "Eco-per" made from used papers and milk cartons that are collected in the city and recycled into new products for consumers. From April 2015, they start building a regional circulatory zone of milk cartons and used papers aiming to help create a low carbon society with the cooperation of citizens. To achieve this goal, they promote wide use of "Eco-per" featuring the friendly environmental mascot characters "Teitan & black Teitan" in the city and at facilities of neighboring cities. They say it will help people to visualize and gain a better idea of their recycling activities. At the same time, the city started comprehensive collection and recycling of milk cartons for school meals at elementary schools.

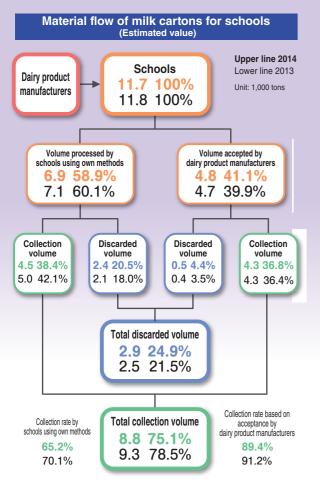


Toilet roll "Eco-per" and promotional seal

21

Recycling of paper milk cartons used in school lunches is also increasing.

Approximately 11.7 thousand tons of paper milk cartons were supplied for school lunches in 2014, which was roughly the same amount as in the previous year. Out of the total supply, 8.8 thousand tons (75.1%) are collected for recycling. The figure remains high. In addition to recycling of paper milk cartons for schools, reuse of paper cartons used in science and mathematics classes as well as collection of paper cartons from children's homes are being implemented at elementary schools.



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

We are working on recycling! Shimizu Cho Nishi Elementary School and **Minami Elementary School**

(Suntogun, Shizuoka Prefecture)



Shimizu Cho, where Nishi Elementary School and Minami Elementary School are located, is an area with a wonderful

natural environment commanding a panoramic view of Mt. Fuji with the clear water of the Kakita River and Kano River flowing through the town. In addition to the above two elementary schools, Shimizu Elementary school is also situated in the town, and children attending these three schools are working on recycling of milk cartons used in school lunches.

At Nishi Elementary School, sixth graders teach new pupils how to disassemble milk cartons by hand. After lunches, all children open milk cartons used for meals by hand, stack cartons in plastic cases, and then children on duty rinse cartons and dry them in the sun. Collected milk cartons are recycled into home-use papers at Corelex Shin-ei Mfg. Co., Ltd. with the help of Kannami Tobu Agricultural Cooperative. Recycled tissue papers are distributed to each class once a year to help students visualize their achievement and to educate them regarding the importance of valuing resources.

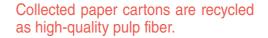
In addition to recycling of milk cartons used for school lunches, as part of the activity of the Welfare Committee, children of both schools collect paper cartons, aluminum cans, caps of pet bottles and products featuring the Bellmark at home and take them to school every Wednesday morning. Participating children get a seal for their reward card. The funds raised through this activity are donated to welfare organizations and used for PTA expenses.



(Nishi Elementary School)



Welfare Committee activity (Collection of paper cartons) (Minami Elementary School)



Among the 14 recycled paper manufacturers who answered the questionnaire, 12 manufacturers accept paper waste (industrial paper waste) of paper cartons, used papers, and used paper cartons generated in Japan.

The total volume accepted by the manufacturers was 123.0 tons in 2014 after the collection volume of domestic paper cartons and import volumes of used paper cartons are combined. About 80% (95.4 thousand tons) of them are recycled into toilet rolls and tissue papers. Paper cartons are used for these products as precious high-quality pulp fiber material



We are working on recycling!

Kitakyushu Plant, KYUSHU PAPER PRODUCTS Co., LTD.

(Kitakyushu City, Fukuoka Prefecture)

Activity examplés

Kitakyushu Plant of KYUSHU PAPER PRODUCTS Co., LTD. began business in 2006 at Yawata Plant of the former

Nippon Steel Corporation Co., Ltd. as a cutting-edge plant that utilizes the comprehensive technology of Oita Paper Products Co., Ltd., which was founded in 1918. Under the company credo "Growing with regional development", staff at this company work hard, in addition to carrying out their business activities, to build a regional recycling society, preserve the environmental, and contribute to society through paper making.

For the purpose of environmental preservation, they utilize surplus electricity, gas, steam and water to recycle various types of used papers into high-quality toilet rolls. They accept about 3,000 tons of paper cartons a year mainly from the western part of Japan as precious resources to enhance the quality of their toilet rolls. They also recycle wastes by, for instance, processing polluted sludge from drainage treatment processes into foaming inhibitor, which is required in the iron-making process to eliminate impurities.

They also work hard to provide environmental education, including educating people to enhance their awareness of recycling. The plant accepts about 2,500 visitors a year, and positively participates in recycling of school lunch milk cartons and providing onsite lessons, both of which are to be started this year at every elementary school in Kitakyushu. They participate in an environmental event "Eco-Life Stage" hosted by the city to increase consumers' awareness of paper carton recycling.



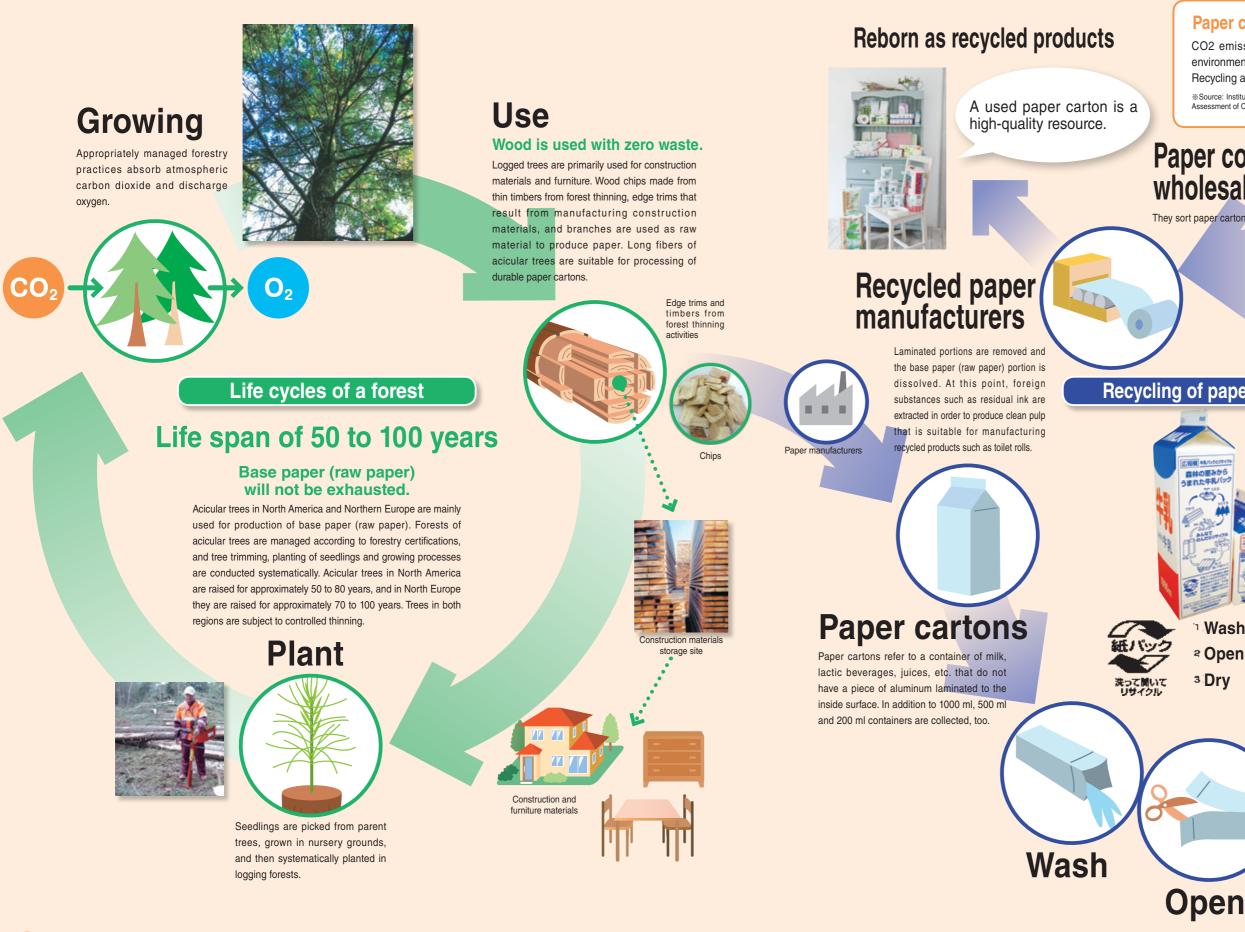
Onsite lessons



Eco-Life Stage



Dual loops of paper carton recycling



Paper cartons have lower environment load*

CO2 emissions from a 1000 ml paper carton total 32.4 g. The environment load resulting from this is very small. Recycling a 1000 ml paper carton reduces CO2 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)

0

207-98338 BrisseLATE

Paper collectors and wholesalers of used paper

They sort paper cartons and transport them to recycled paper manufacturers

Recycling of paper cartons

Wash

² Open

3 Drv

Collection

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

Dry

Short history

Fiscal ye	ar Short history	Applicable laws
984	A group of housewives in Yamanashi Prefecture started a milk carton recycling movement to educate their children about the value of things around them.	
985	"Japan Milk Carton Recycling Association" (JAMRA) was established.	
992	"Committee for Milk Container Environmental Issues" (COMCEI) was established. "Milk carton recycled products mark" was decided.	
993	• COMCEI participated in the "Forestry Fair" held by the Forestry Agency (COMCEI participated every year until 2008).	The Basic Environment Law was enacted.
995	• "Basic survey on the present status and trends of beverage paper container (paper carton) recycling" was started.	Containers and Packaging Recycling Law was enacted.
996	 "The Beverage Paper Container Recycling Council" was established. 	
997	National case study on milk carton collection system was conducted.	Containers and Packaging Recycling Law was enforced.
998	 Model project for promotion of milk cartons used for school meals was started (Hokkaido). An experimental project was implemented to build a collection and recycling system for milk cartons used for school meals (Fukuoka and Hyogo) Convivial meetings were held to promote collection of beverage paper containers (Locations of meeting * 1) 	
999	\star Local conference to promote paper carton recycling was held (It is continued since then $*$ 1).	
2000	 The Paper Carton Identification Mark was voluntarily established. Discussion Meeting to Promote Recycling of Paper Cartons Used for Beverages was started (this is continued up to the present). 	 Containers and Packaging Recycling Law was completely enforced. Basic Law for Establishing the Recycling- Based Society was enacted. Law for the Promotion of Effective Utilities of Resources was enacted.
001	* 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	 A symposium commemorating the 10th anniversary of COMCEI was held. Activities to expand milk carton collection centers to 10,000 locations was started. Survey on Paper Carton Life Cycle Assessment (LCA) was started (this has been continuing since). 	
003	* Survey on paper carton LCA in North America was conducted.	
004	 Environmental campaign was started (executed during Environment month and the 3R month each year). A milk carton recycling workshop was held (it is continued since then * 2). Participated in one of the largest class domestic environmental-related exhibitions, called "Eco-Product Exhibition 2004" (It has been held every year since then). 	 Review of Containers and Packaging Recycling Law was started. Participation in "Eco-product 2004".
005	 Goal of the paper carton collection rate in fiscal 2010 was set to 50% or greater. The voluntary action plan for promoting 3R of containers and packaging was announced (The Beverage Paper Container Recycling Council). The website for children's environmental education "Milk Packn's Expedition" was started. Sponsoring of "Message Box Kit" for educational exhibition was started. Nishi Hari project (Construction of local collection system) Survey on paper carton LCA in Northern Europe 	
2006	JAMRA 20th anniversary memorial meeting	Containers and Packaging Recycling Law was revised and enacted.
2007	 "Plan 2010 - Action Plan for Recycling of Paper Cartons for Beverages - Toward collection rate of 50%" was established and published. Participated in the main event of the environmental month "Eco-product and Eco-fair 2007" (It has been held every year since then). Supported "Friendly environment loop - JAMRA" (It has been held every year since then). Survey on paper carton LCA in North America was conducted. Onsite lessons on milk carton recycling were started (it is continued up to this time * 3). The movement for further expansion the number of milk carton collection centers (20,000 locations were targeted). Participation in Eco-Life Fair/Eco-Products 2007. 	

Short history of COMCEI

Fiscal year	Short history	Applicable laws
2008	Participated in the Toyako Summit Memorial General Environmental Exhibition 2008. Conference on employment of CTMP for beverage paper containers	 Revised Containers and Packaging Recycling Law was completely enforced
2009 7	A book "Paper Carton Manifesto" was published	
2010	"Milk Packn's Expedition" DVD was produced. The 1st "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Seoul, Korea)	
2011	 "Real Story of Paper Carton Recycling" pamphlet was published. Onsite lessons on paper carton recycling were held for leaders of the movement in Korea (in Korea). Provision of collection boxes to 20,000 locations was achieved. "Plan 2015 - Action Plan for Recycling of Paper Cartons for Beverages" was established and published. The second voluntary action plan for promoting 3R of containers and packaging was announced. (The Beverage Paper Container Recycling Council). Certified as PCR of "milk". The 2nd "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Osaka) "The Milk Carton Recycle Mark Promotion Council" was established. 	
2012	New organizations for operation of COMCEI were started. (General Affairs, Local Organizations, Publicity and Event Committee) The 3rd "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Kyongju, Korea) Survey on paper carton LCA in Northern Europe "Friendly environment loop forum - Efforts for utilization of renewable energy" Workshop at a commercial facility "Ginza Mitsukoshi" (Tokyo)	
	A symposium commemorating the 20th anniversary of COMCEI was held. A booklet "Story of Waste" was published. Workshop at a commercial facility "Ario Hashimoto (Sagamihara City)" and "LaLa garden Nagamachi (Sendai City)". Supported "Friendly environment loop - Effects and problems of recycling containers and packaging" here and an	Review of the Revised Containers and Packaging Recycling Law was started.
2014	Composition analysis of paper cartons in Matsudo City Workshop at a commercial facility "Isetan Matsudo Store (Matsudo City)" and "LaLa garden Nagamachi (Sendai City)". Friendly environment loop forum - Information exchange on activities at welfare organizations associated with milk carton recycling	
2015	Composition analysis of paper cartons (Machida City) "Milk Carton Recycling - Nationwide Collection of 20 Cases" 4th edition published "Discussion meeting with paper manufacturers associated with paper carton recycling" was held "Friendly environment loop forum - 30th anniversary memorial meeting of JAMRA"	

*1 Venues of local conference to promote paper carton recycling (1998 to 2015)

Hokkaido, Hakodate, Aomori, Iwate, Miyagi, Fukushima, Yamagata, Niigata, Nagano, Shiga, Gunma, Warabi, Saitama, Chiba, Ibaraki, Tokyo (northern and eastern parts), 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 milk carton recycling workshop (2004 to 2015)

Asahikawa City, Sapporo City, Saitama City, Fujimi City, Shibuya ward, Shinagawa ward, Koto ward, Nakano ward, Kita ward, Nishitokyo City, Yokohama City, Atsugi City, Sagamihara City, Yokoshibahikarimachi, Otsuki City, Kofu City, Shimizu Town, Chikusei City, Nisshin City, Osaka City, Nishinomiya City, Matsuyama City, Kochi City, Beppu City, Naha City

*3 We visited the following schools to run the onsite lessons on milk carton recycling (2007 to 2015)

Aomori City Izumikawa Elementary School, Sendai City Shoryo Elementary School, Sukagawa City Abukuma Elementary School, Mito City Akatsuka Elementary School, Chikusei City Ueno Elementary School, Chikusei City Isa Elementary School, Motegimachi Motegi Elemenary School, Hagamachi Hagaminami Elementary School, Nogimachi Tomonuma Elementary School, Ota Chuo Primary School, Kawaguchi City Tozukaminami Elementary School, Koshigaya City Ôbukurohigashi Elementary School, Konosu City Akamidaidaiichi Elementary School, Ichihara City Chiharadaisakura Elementary School, Noda City Futakawa Elementary School, Shibuya Ward Kakezuka Primary School, Edogawa Ward Shinozakidaini Elementary School, Nishitokyo City Mukoudai Elementary School, Yokohama City Hie Elementary School, Yamato City School Education Study Group, Hiratsuka City Okazaki Elementary School, Hokuto City Mukawa Elementary School, Komagane City Akaho Elementary School, Toyama City Shinjo Elementary School, Kanazawa City Izumino Elementary School, Tarui Cho Iwade Elementary School, Godo Cho Godo Elementary School, Shizuoka City Togendai Elementary School, Hamamatsu City Hamana Elementary School, Nisshin City Higashi Elementary School, Nisshin City Nishi Elementary School, Nisshi Elementary School, Nisshin City Nishi E Nabari City Mihata 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 Cho Ojikita Elementary School, Matsue City Kashimahigashi Elementary School, Hiroshima City Ushitashinmachi Primary School, Hiroshima City Niho Elementary School, Hiroshima City Nukushina Elementary School, Hiroshima City Omachi Elementary School, Fukuyama City Hikino Elementary School, Mitoyo City Matsusaki Elementary School, Mitoyo City Omi Elementary School, Kochi City Kamoda Elementary School, Yoshinogawa City Kamiura Elementary School

Outline of COMCEI



Members list

The Committee provides DVDs and leaflets that explain characteristics of paper cartons and how they are recycled in an easy-to-understand manner.

DVD "Milk Packn's Expedition"

COMCEI has prepared a detailed DVD version of a website called "Milk Packn's Expedition" that is aimed 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

"Real Story of Paper Carton Recycling"

This leaflet contains answers to frequently asked guestions that are raised in the course of promoting activities to improve the recycling rate of paper cartons. Utilizing many illustrations it also clearly and simply explains that paper cartons are very environmentally-friendly products and that they must be collected separately from other paper products in order to utilize this resource effectively.

"Story of Waste"

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





"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"

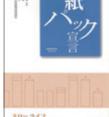
This book is full of ideas such as how to make postcards from handmade paper and how to craft objects out of milk cartons. It is distributed in events such as recycling workshops and Eco-Life Fairs.



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, Director General of JAMRA, and seven members of COMCEI, among others.



Book "Paper Carton Manifesto" Nippon Hyoron Sha Co., Ltd.

"Milk Carton Recycling - Nationwide Collection of 20

Cases" 4th edition 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

4 related associations

Japan Dairy Industry Association Japan Dairy Association National Association of Agricultural cooperative Dairy 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

125 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. Oofunato 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., I td KANTO MILK INDUSTRY CO., LTD.

[Tochigi]

DAIRY TOCHIGI AGRI, CO-OP Tochiraku Milk Co., Ltd. Harigai Milk Industry Co., Ltd. Tochigi Meiji Milk Co. Ltd Tochigi Milk Co., Ltd. HORAI Co., Ltd. Dairy Industry Division

[Gunma]

Haruna Dairy Cooperatives Tomo Dairy Cooperative GUNMA MILKJOINT BUSINESS COOPERATIVES

[Saitama]

MORI MILK Co., Ltd. SEIBU RAKUNOU JA Saihoku Rakunou osawa milk Co. I td

[Chiba]

FURUYA MILK PRODUCTS CO..LTD Chiba Hokubu Rakuno Dairy Cooperative Chiba-raku Dairy Cooperative

[Tokyo]

MEGMILK SNOW BRAND Co., Ltd Meiii Co., Ltd. MORINAGA MILK INDUSTRY CO., LTD. KYODO MILK INDUSTRY CO., LTD. KOIWAI 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., I td

[Gifu]

Hida Rakuno Dairy Cooperative Bokuseisha I td. Seki Milk Co., Ltd. Mino Dairy Cooperatives



スロー ライフ

, inn

[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 Dairy Agricultural Cooperative [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 okayamanisinougyoukyoudoukumiai

[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 Dairies Corporation

[Ehime]

SHIKOKU MILK PRODUCTS CO..LTD.

[Kochi]

Himawari Milk

[Fukuoka]

nishirakunyuuqyou 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]

KYUSYUNYUGYO CO.,LTD JA-Shimogo Koyama Dairies Co., Ltd

[Miyazaki]

MINAMI NIHON RAKUNO KYODO CO., LTD

[Kagoshima]

kagoshimakenrakunounyuugyoukabushikigaisya

[Okinawa]

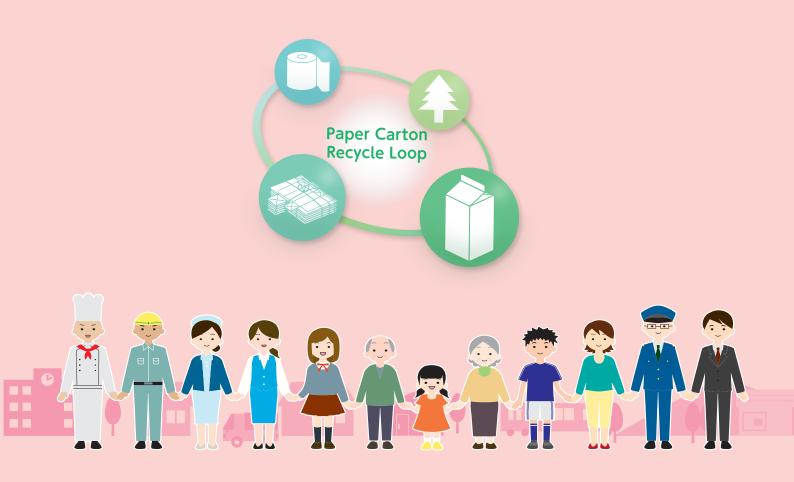
OKINAWA MEIJI MILK PRODUCTS CO..LTD. OKINAWA MORINAGA MILK INDUSTRY CO., LTD Mariva milk industry YAEYAMA GENKI Genki Seikatsu Co., Ltd. Miyahira Dairy Corporation

13 supporting members

Oji Eco Materials Co.,Ltd NISHINIHON EIZAI CO..LTD Nissey 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 MeadWestvaco Asia K.K. Masukoo Paper Company Stora Enso Japan Weyerhaeuser Japan Ltd.

As of the end of October, 2015





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

Committee for Milk Container Environmental Issues

Nyugyo Kaikan, Kudan Kita 1-14-19, Chiyoda Ku, Tokyo 102-0073 Phone: +81(0)3-3264-3903, Fax: +81(0)3-3261-9176 http://www.yokankyo.jp



A message to members of paper carton collection associations

Please contact schools, local governments, public facilities, retail stores, and welfare organizations to gain their cooperation with regard to installing collection boxes. At the same time, please set up a system to enable regular collection of paper cartons. If you do not know where paper cartons are collected, please contact the section in charge of the local government/public administration. Contact the following for more information:

Japan Milk Carton Recycling Association (JAMRA) Phone: +81(0)3-3360-1098, Fax: +81(0)3-3360-7090 Higashi Nakano 4-6-7-201, Nakano Ku, Tokyo 164-0003