# 2015 Paper Carton Recycling Annual Report





**Committee for Milk Container Environmental Issues** 

## Chairperson's message

Almost four years on from the Great East Japan Earthquake, Japan still faces a plethora of challenges: the reconstruction of the affected areas, the cleanup and decommissioning of the Fukushima Nuclear Power Plant, and the securing of energy sources. Meanwhile, the boost to exporting industries provided by the depreciation of the yen has combined with the government's postponement of its planned increase in the consumption tax rate to raise hopes for an economic recovery in Japan.

Since last year, the revised Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging, enacted in 2008, has been under review with an eye to further revision. In August, a call was put out for public comment on the existing system, which suggests that the review is approaching its final stages. Regardless of the outcome, we remain resolute in our devotion to promoting the recycling of paper cartons and expanding our recycling initiatives with the 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, has plateaued over the last few years, despite having risen steadily since data collection began. 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 reverted to an upward trend in fiscal 2012, which continued in fiscal 2013.

We responded to the slower growth in the collection rate by improving the ways in which our committee system is operated, and by focusing on activities aimed at raising members' abilities in this area. General Affairs Committee members visited local governments' environmental departments in order to gain their feedback on improving the effectiveness of public relations and collaborate on consumer education and awareness-raising efforts. To ascertain the current status of paper resource recycling, the committee carried out composition analysis studies at three locations into paper carton disposal.

The Publicity Committee continued its work on the fourth edition of "Milk Carton Recycling – Nationwide Collection of 20 Cases", and sought input from relevant groups and businesses to help identify current issues and challenges in recycling. The results are due to be published soon.

The Events Committee was active in a broad range of activities this year. Through the committee, we participated in the Eco-Life Fair in June, exhibited at Eco-Products 2014 in December, held joint paper carton recycling workshops with local governments, and continued to



## Hirotada Nakamura Chairperson Committee for Milk Container Environmental Issues

hold guest classes at elementary schools so as to enable children to learn within their regular educational environment that "paper is an extremely valuable resource."

The Local Organization Board established a framework that enabled committee members to use a range of exhibits, quizzes, and panels at the environmentally-themed events they hold nationwide to educate visitors about paper carton recycling.

Paper carton recycling boxes have been installed in a cumulative total of more than 22,000 locations to help boost recycling. New developments include neighborhood associations seeking to make recycling easier by placing a box on each floor of high-rise residential complexes instead of having one box for the entire building. The Paper Carton Recycling Annual Report 2015 summarizes these and other efforts over the last year. Please take the time to read the report and give us your feedback.

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

January 2015

## Action Plan to Improve the Paper Carton Collection Rate

By setting the goal of "Achieving a collection rate of more than 50% in fiscal 2015", the Committee for Milk Container Environmental Issues (hereinafter referred to as COMCEI) aims to enhance the paper carton collection rate and recycling rate. Specific initiatives are as follows.

**(Target)** 0% or more Paper carton collection rate in fiscal 2015

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 environmental impact 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 to promote carton recycling and a workshop on milk carton recycling (the latter is co-sponsored with the Japan Milk Carton Recycling Association, which is hereinafter referred to as JAMRA)

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

④Participation in environmental events (such as Eco Products and Eco-Life Fair)

⑤Supporting the "Friendly Environment Loop Forum" (held by JAMRA)

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- 2. Promoting domestic paper carton collection
- ①Creation of opportunities for collection

O Promotion of collection of 500 milliliter and 200 milliliter paper cartons (smaller than the standard 1000 milliliter 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)

⑤Promoting paper carton recycling for plant tour participants

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 of collection of paper cartons used at food stores and restaurants (in cooperation with JAMRA)

4. Promoting activities in educational facilities and places of learning

Hosting of on-site lessons on milk carton recycling at elementary schools (in cooperation with JAMRA)

 $\ensuremath{\textcircled{O}}\xspace^{-1}$  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 – Nationwide Cases" (in cooperation with JAMRA)

2 Implementation 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

④Enrichment of website contents of COMCEI and "Milk Packn's Expedition"

⑤International cooperation through paper carton recycling movement

#### Activity Report of fiscal 2014

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"Plan 2015" Action plan for paper carton recycling -Report on achievements of the fourth year-

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

1. General Affairs Committee

(1)To achieve a collection rate of 50% or more

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

In response to the lowering of paper carton collection rates in the recent years, the Committee framed a hypothesis on this trend to gain an understanding of the volume that was not calculated in the past surveys, based on various hypotheses.We have conducted composition analysis of mixed papers in Matsudo to determine the quantity of paper cartons disposed of as mixed papers. 2 Hosting of a regional conference to promote carton

recycling

This year, the conference was held in Chiba and Kanagawa. Prior to the conference, the Committee members visited the local governments in these areas to obtain a general overview of the collection status in the areas. Then, based on the above-mentioned information. they discussed ways to share information about the collection method and problems that may affect the collection rate.

③Installation of improved paper carton collection box We built a small collection box for offices with limited space while continuing to distribute collection boxes that were improved last year.

(2) We drew up and submitted our public comments on the revision of Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging. 2. Publicity Committee

(1) Promotional and educational projects

(1)Expansion of website

We have revised the overall layout of the website's design after reviewing it with the management company and utilizing an analytical tool.

2 Uchiwa (paper fans) in three coloring picture designs were created as the educational tools.

3The committee worked to plan and edit the Annual Report 2015.

(2) Collection promotion projects

(1)The committee planned the publishing of the fourth edition of "Milk Carton Recycling - Nationwide Collection of 20 Cases" with the cooperation of JAMRA. In addition, expert committee panels and JAMRA gathered information about new cases, and updated the cases that were introduced in the third volume.

2 The committee reviewed plans and designs of the educational POP of recycling for mass merchandise stores with the General Affairs Committee.

3. Event Committee

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

(1) The committee hosted a recycling workshop in five cities and stores, and on-site lessons at eight elementary schools with the cooperation of JAMRA.

2)It also participated in environmental fairs including the Eco-Life Fair 2014, Adachi Global Environment Fair 2014, and Eco Products 2014.

(2) The committee also planned the "Learn and Play" with the Milk Cartons Contest.

To cope with the lower number of entries, the committee asked the educational boards of Tokvo and three prefectures to cooperate with the event along the lines of the successful example carried out in Saitama last year. 4. Local Organization Board

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

1)The board worked to expand the recycling network to enhance the paper carton collection rate by lending various panels to environmental events and distributing leaflets at event sites.

②The board revised the guidelines for support of the events to enable more efficient operation.

③The board worked to enhance and activate cooperation with local organizations by lending educational tools to local environmental fairs that local companies and supporters participated in.

Activities of each committee are reported at the monthly committee meeting and the quarterly steering committee meeting that administrative board members attend in order to confirm accomplishments and to enable the committees to carry out necessary modifications so that relevant activities continue.



#### [Friendly Environment Loop Forum] October 30

The Friendly Environment Loop Forum and the general networking assembly, which were hosted by JAMRA and supported by COMCEI, were held in the Osaka Industry Creation Hall. The theme this year was "Information exchange on activities at welfare organizations relevant to milk carton recycling". A total of 114 people from welfare organizations, local governments and associated companies participated in the forum.

In the opening address, Ms. Hirai, Director General of JAMRA explained the purpose of this forum by referring to the transition from "National Convention of the Japan Milk Carton Recycling Association" to "Friendly Environment Loop Forum", JAMRA's activities, how welfare organizations have been carrying out paper carton recycling activities, and the intercommunication occurring between welfare organizations.As part of a congratulatory speech by a guest of honor, Mr. Nakamura Chairperson of COMCEI explained the objectives of the "Plan 2015" action plan, which is now in the process of being established, as well as COMCEI's commitment to increasing the paper carton collection rate.

In the keynote address. Mr.Hisazawa.Chairman introduced the activities of the Osaka Vocational Aide Center, as well as events, bazaars and sales activities conducted by welfare organizations around the country.



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



Mr.Okuue, Representative of Mugino Kai, the exchange center for aficionados of handmade paper, explained the fundamental principles of "Mugino Kai", namely, 1) Reducing volume of waste papers, 2 Protecting forestry resources, 3 Supporting welfare organizations, and ④ Paper-making classes (environmental education) in connection with construction of a network among welfare organizations based on products recycled from handmade paper. The representative mentioned the importance of creating a network and called for cooperation to take action to counter the difficulty involved in obtaining used paper cartons today, and to expand sales channels for paper carton-based recycled products produced at welfare organizations.

The following anecdotal reports were presented. (1)"On Milk Carton Collection Activities" by Everyone's Labor and Culture Center (NPO), (2)"Paper Carton Collection Operation in Coffee Chains" by Anjaen of a social welfare corporation, 3"Voluntary Making of Products Such as Handmade Paper and Relationship with the Community" by Ikoma Kai Kazaguruma, and (4)" Joint Activities with Silver for Production of Handmade Paper from Milk Cartons" by Kouryoucho Eco-Center. Activities such as paper carton collection and paper making using used paper that helps enhance our relationship with local communities were introduced.

The forum then proceeded to exchange ideas and introduce products produced at welfare organizations. Furthermore, there was a rare opportunity for attendees to listen to stories about the activities and issues at welfare organizations.In the succeeding get-together, information was shared by many enthusiastic participants from welfare organizations and various companies with the forum ending on a high note.



Key note address: Mr. Hisazawa, Osaka Social Welfare Council Chairman of Osaka Vocational Aide Center

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

The "Regional conference to promote carton recycling" is held each year. Its objective is to increase the rate of paper carton recycling via gaining an understanding of the current situation and problems in each local community.The 2014 conferences were held in two locations: Saitama and Osaka.

The conferences were attended by a variety of members from the government, local authorities, citizens' groups and associated business operators. Participants reported their activities and also raised problems they were concerned about. The conference helped deepen mutual understanding among participants, encouraged them to share information, and helped them confirm their commitment to further promote paper carton recycling.

# Regional conference for promotion of paper carton recycling in Tokatsu, Chiba prefecture

#### Date held August 29, 2014

The conference was attended by 39 members from the Ministry of Economy, Trade and Industry, the Ministry of Agriculture, Forestry and Fisheries, local governments, citizens' groups, dairy product manufacturers, paper carton manufacturing companies, and paper recyclers.

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

- •A guest of honor from the Ministry of Economy, Trade and Industry mentioned the target collection rate and utilization rate of used papers. He requested that attendees make a contribution to the development of recycling through various ideas such as promoting stockpiling of toilet rolls. Then, a guest from the Ministry of Agriculture, Forestry and Fisheries explained that although paper cartons are not currently included in the target of the mandatory recycling in the Recycling Law, collection and recycling of paper cartons are very important and further efforts need to be made in this area.
- COMCEI reported its business lineup and the specific activities of its four committees. Then COMCEI explained the problems in fulfilling five items of the road map created for accomplishing the target collection rate in 2015 as well as specific activities conducted to date. The five items are①Providing the opportunities for enhancing paper carton collection in local regions,②Promoting domestic paper carton collection,③ Promoting collection of paper cartons used outdoors and at shops,④Promoting activities in educational facilities and places of learning, and⑤Enhancing communication about recycling.

- COMCEI reported results of interviews with local governments. Results indicate that sorted disposal and collection were becoming difficult due to the increase in the number of households containing single and elderly people. Some local governments provide collection gear to collection bodies, and some utilize collection traders when requested. COMCEI further reported on the current status of garbage stations, group resource collection, activities to promote collection by retailers, and educational activities directed at consumers. A question-and-answer session was held after the presentation.
- JAMRA stressed the importance of sharing recognition of the current status of paper carton recycling with local governments. JAMRA then introduced an advanced case of a high-rise apartment in Osaki, which is a new target of coverage for " Milk Carton Recycling – Nationwide Collection of 20 Cases ". JAMRA believes that collecting information on a range of cases can help establish relationships among local governments.
- A local government introduced the case in which they informed citizens about the collection system at "Collaborator Stores of Waste Reduction" by inserting store names into books on recycling.
- Representatives from used paper recyclers and used paper wholesalers described the importance of profitability and maintaining good relationships with competitors. They said paper cartons were a precious resource even though the total volume of paper cartons was very small.
- Participants raised various issues including problems related to collection methods, measuring the collected amounts, and the importance of independent collection and collection of paper cartons used for school lunches, and engaged in a lively exchange of opinions.



A regional conference in Tokatsu, Chiba

# Regional conference to promote carton recycling in Yokohama, Kanagawa Prefecture

#### Date held November 11, 2014

The conference was attended by 43 members from the Ministry of Economy, Trade and Industry, Ministry of Agriculture, Forestry and Fisheries, local governments, citizens' groups, dairy product manufacturers, paper carton manufacturing companies, and paper recyclers.

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

- The guest speaker from the Ministry of Economy, Trade and Industry explained that recycling of containers and packages was based on the cooperation of the local government, citizens, and business operators. He also mentioned that used paper cartons were high quality paper-making material, and that there are increasing expectations that the collection rate will increase because it is becoming difficult to secure high quality used papers. The guest speaker from the Ministry of Agriculture, Forestry and Fisheries explained that he expected to see positive commitments from local communities and businesses in the area of recycling because it is a critical process.
- COMCEI reported on the activities of four committees engaged in promoting recycling of beverage paper containers, dissemination of knowledge about the environment, and investigative research. It was also reported that the collection rate in 2012 was 44.2% against the target value of 50%.
- Representatives of the nine cities and a collection group reported on paper carton collection appro aches, recovered amounts, and problems related to recovery efforts. Concerning the cities that did not participate in the forum, a member of the expert committee reported their approaches based on interviews carried out with them.
- According to JAMRA, grass roots activities of citizens' organizations are making significant contributions to increasing group collection volumes within Kanagawa. Regarding collection at mass merchandise stores, people are less resistant to put out trash at mass merchandise stores than at other locations. At any rate, there are many



A regional conference in Kanagawa

problems related to resource collection, which makes it essential to work together with the public administration.

Activity topics

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- The participant from Fujisawa City reported that the city had participated in the Checkout Bag Reduction Council, and is also promoting store collection jointly with mass merchandise stores. In addition, the city launched the Waste-Reduction Stores Registration System, in which all 136 stores in the city participated. The city also introduced store collection of paper cartons via the Internet.
- A participant from Genki Net pointed out that we need to construct a network to raise awareness among citizens, in particular senior citizens, and to provide relevant feedback to them.
- A person from a paper manufacturing company mentioned current problems relevant to the collection process including falling trends in collection volumes, the influence of falling milk sales, and commingling of cartons with mixed papers to be exported.
- Participants shared ideas and opinions about problems related to collecting and recycling paper cartons. The problems included care required after use, convenience of collection centers, commingling of mixed papers when putting out paper cartons, and recognition of the current situation involving export of used papers.
- Participants actively presented problems they had and shared ideas and opinions on the subjects at hand such as approaches to stores, in particular mass merchandise stores, to promote store collection, recognition of export volumes of used paper cartons, and construction of community-oriented collection centers (installation of collection centers close to residents in large apartment complexes and housing estates).

Locations of Regional Conference



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

#### [26th Stakeholders' Meeting to Promote Recycling of Paper Cartons for Beverages

The 26th Stakeholders' meeting to promote recycling was held on February 6 in the Nyugyo Kaikan meeting hall. A total of 65 people attended from the Office for Recycling Promotion of the Ministry of the Environment, Office for Environmental Program of the Ministry of Agriculture, Consumer and Recreational Goods Division of the Ministry of Economy, Recycling Promotion Division of the Ministry of Economy, local authorities, citizens' groups, NPO associations, recycled paper manufacturers, used paper recyclers, and base paper companies.

In the opening speech, Mr. Yamato, Chairperson of COMCEI (then) expressed the objective, history and goals of paper carton recycling activities after thanking the participants for attending. The representative from the Ministry of the Environment remarked that recycling of containers and packages had started with this paper carton recycling activity, in particular considering its 26year history. The speaker from the Ministry of Agriculture, Forestry and Fisheries noted that the efforts of COMCEI in the area of recycling were a visionary model case for future measures.

Then the Secretariat of COMCEI reported on the status of: (1) the voluntary action plan "Plan 2015", (2) present status and trends of recycling paper cartons for beverages, 3 Web survey in Kanto and Kansai, and 4 organizational operation and tasks of COMCEI. The four expert committees of COMCEI then reported on their respective activities.

Among the reports from associations and companies, Ms. Hirai, Director General of JAMRA reported on the "Statistical data obtained from status survey of welfare organizations in milk carton recycling". This was followed by report on the activities of Uny Group Holdings Corp., Nisseisangyo Corp., and Nihon Tetra Pak K.K.

In the latter half of the discussion on paper carton recycling, participants from each municipality noted that they used materials provided by COMCEI for promotion purposes as well as to promote recycling-focused educational activities. They also reported on the current status and problems in the area of paper carton recycling. In addition, the representative of paper manufacturing companies mentioned that they were promoting recycling through agreeing to run plant tours. He also noted that incoming volumes of paper cartons were low this year due to a fall in milk consumption possibly due to the weather. Participants shared ideas and opinions on these subjects. A participant from the recycling association requested that current recycling marks for paper be made easier to recognize via a revision of Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging because there too many types of symbols. He also proposed educating and communicating with consumers about the ban on commingling restricted items in a more comprehensive fashion.

Ms. Hirai, Director General of JAMRA said that we should keep watching events in Osaka because they still utilize municipal collection despite other cities shifting to group collection.



Host's speech: Mr. Yamato, Chairperson of COMCEI (then)



Stakeholders

An enjoyable workshop where people learn about the current status of recycling and experience it firsthand.

COMCEI holds Workshops on Milk Carton Recycling 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 workshops also raise consumers' attention about milk carton collection through experiencing the collection rules.

#### [Sagamihara City] July 31

With cooperation from the Environment Section of Sagamihara City, COMCEI held a workshop at Hashimotodai Recycle Square, which was attended by 55 school children in 21 groups. The children were mostly elementary school students.After making original postcards from handmade paper, we ran an active question and answer session involving parents, while referencing the panels describing recycling of milk cartons as well as actual products made from recycled paper.

#### [Nishi Tokyo City] August 5

We held the 6th Workshop on Milk Carton Recycling in Tokyo as part of the event "Summer Vacation Free Study in 2014" at Eco-Plaza Tokyo. An event called "Let's create original postcards from handmade paper!"was held and attended by 48 children from third to sixth grades and 20 parents. All participants made their own original postcards.



Disassembly of used milk carton by hand (Sagamihara City)



#### [Fuji mi City] August 21

This event was held as part of the "Children's College Fujimi" learning program overseen by the secretariat of the city's educational board, which was attended by 60 elementary school children and eight college students or volunteers.Each participant brought in six or more paper cartons, which indicated their awareness regarding environmental issues. They deepened their understanding of milk carton recycling through Representative Hirai's speech, making postcards from handmade paper, and disassembling milk cartons by hand.



Speech by Ms. Hirai, Director General of JAMRA (Nishi Tokyo City)



How did your original postcards made from handmade paper come out? (Fuji mi City)

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

In 2014, in collaboration with JAMRA, CONCEI held "On-site lessons on milk carton recycling" at elementary schools across the country.

## [Ichihara City Chiharadai Sakura Elementary School in Chiba Prefecture] January 29

This elementary school was founded only three years ago.The onsite lessons were held in the gym for 134 fourth graders from four classes. Eight groups were organized in each class, and they all took turns making postcards out of handmade paper. This was a large-scale lesson involving eight pressing irons. Some children wanted to make postcards for their friends who were absent from the school due to flu. They all succeeded in making postcards.

## [Edogawa Ward Shinozakidaini Elementary School in Tokyo] February 14

A paper carton recycling program was launched at this school in 2014 when the periods for integrated study were installed. The lesson was given to 74 fourth graders from two classes. Despite heavy snow, many parents attended the lesson along with the person in charge of waste reduction in the Cleaning Section of the Environment Department of Edogawa Ward. Using very cold water, the children carefully made original postcards out of handmade paper.

## [Noda City Futakawa Elementary School in Chiba Prefecture] September 18

We gave an onsite lesson at Noda City Futakawa Elementary School, which is located in the honeycolored rice fields between the Tonegawa River and Edogawa River, and 75 4th graders from two classes attended. In the paper carton recycling lesson, which took place along with a lesson in postcard making using handmade paper, self-proclaimed "old poppas" from COMCEI explained the paper recycling process in a humorous way using a panel. The lesson helped children gain an insight into manufacturing methods involving recycled papers.

## [Shizuoka City Togendai Elementary School in Shizuoka Prefecture] September 25

The rain in the morning due to typhoon No.16 had stopped when the lesson started for 108 fifth graders from four classes.While watching the demonstration of making postcards from handmade paper, one student asked us a good question: "Why do you come all the way from Tokyo for this onsite lesson?"We answered, "The collection rate of used paper cartons is still low, and that is why we are carrying out educational activities."

#### [Chikusei City Ueno Elementary School in Ibaraki Prefecture] October 2

We presented an onsite lesson to 40 third and fourth graders at Ueno Elementary School in Chikusei City, which is located in the western part of Ibaraki Prefecture.A new carton collection box with a wider slot was installed in the hallway. This new box was well received in terms of how easy it is to insert as well as remove paper cartons.In the postcard making lesson, children looked happy with the finished cards they had made with Halloween designs.

#### [Nogi-machi Tomonuma Elementary School in Tochigi Prefecture] October 17

We presented a lesson to 26 fifth graders at Tomonuma Elementary School, which has a 143-year history (founded in 1872.)In the lecture, Ms. Hirai, Director General of JAMRA asked children, "Do you know how many one-liter milk cartons it takes to make a single roll of toilet paper?"They looked surprised when they were told the correct answer was "six". Children looked satisfied with the original postcards they had made out of handmade paper.



Handmade paper came out nicely! [Ichihara City Chiharadai Sakura Elementary School]



Lecture on paper carton recycling by "old poppa" (Noda City Futakawa Elementary School)



Fascinated by recycling of paper cartons! (Nogi-machi Tomonuma Elementary School)

#### [Oji Cho Ojikita Elementary School in Nara Prefecture] November 26

Oji Cho, northwest of Nara Prefecture, flourishes as one of Osaka's commuter towns.This town is said to have strong associations with Prince Shotoku.An onsite lesson was held at Oji Cho Ojikita Elementary School, which is located in a residential area.The lesson, attended by 57 fourth graders and three teachers, began with a cheerful "Good morning".In the on-site paper making lesson, students created postcards from handmade paper with great interest despite the cold temperature of the water.

#### [Mito City Akatsuka Elementary School in Ibaraki Prefecture] December 5

On the day the onsite lesson for 51 fourth graders from two classes and two teachers was held, Japan was hit by a cold wave for the first time this winter. Students demonstrated a fairly high level of understanding about recycling as indicated by the number of correct answers they gave in the quizzes held during the lecture. During the on-site paper making lesson, students made postcards with reindeer and other Christmas designs. In the closing remarks, the children said boldly that "We will always continue recycling."



Here are our postcards made from handmade paper. (Mito City Akatsuka Elementary School)

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

#### [Eco-Life Fair 2014] June 7 and 8

The Ministry of the Environment and relevant associations have run the Eco-Life Fair every year since the 1990's around Environment Day (June 5) in Yoyogi Park, Shibuya, Tokyo. COMCEI participated in the fair with JAMRA for the 8th time, and a total of 370 people visited this year.

In a tent in the Event Square, we demonstrated postcard making using handmade paper and how to create accessory pouches with the help of the "Tanpopo" citizens' group. We also explained the paper carton recycling process to visitors using the panels while running quizzes from time to time. In the workshop, visitors learnt a number of skills, including how to disassemble paper cartons by hand.Despite the rain in the morning on the first day, there was a constant stream of visitors coming to the tent. We provided the opportunity to experience recycling to many visitors during the two-day event.

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

#### [Eco Products 2014] December 11 to 13

The largest environmental exhibition in Japan, "Eco Products Exhibitions", has been held every year since 1999, and 2014 marks the 16th time it has been held. COMCEI participated in this exhibition along with the Promotion Council of Milk Carton Recycle Product Mark.A total of 161,647 visitors attended the exhibition, and 1,607 people visited the COMCEI booth and took part in events.Various events were hosted in the booth including a "Environmental panel rally" that explained the rules of paper carton recycling, various educational materials were providing such as the "Story of Waste", and a workshop on "Disassembling milk cartons by hand". In addition to the above, visitors experienced postcard making using handmade paper, which was co-hosted by JAMRA. Through the various exhibitions and activities, we were able to share information to deepen understanding of paper carton recycling and ask for cooperation.

Creation of Takeru Kubotani The Grand-Prix prize was awarded to "This is my Kurihara **Elementary School** 

2,720 elementary school children participated in the 14th "Learn and Play" with Milk Cartons Contest 2014. Among the many impressive creations, the following seven prizewinning creations were selected through impartial examination.Congratulations.



The Grand-Prix prize was awarded to "This is my Kurihara Elementary School" Takeru Kubotan

Quizzes on recycling in the ter



Creation of accessory pouches



Explanation in the environmental panel rally



At the workshop

≪Prize-winning creations≫

- Grand-Prix Prize "This is my Kurihara Elementary School" Takeru Kubotani (6th grader, Tsukuba City Kurihara Elementary School)
- Award for Excellence "Cleaner in Deep Sea Giant Isopod" Yasuyoshi Kamitani (Third grader at Gifu City Nagara Higashi Elementary School)
- Award for Excellence "Machibika Tong" Kanau Sakamoto (Second grader at Kawasaki City Mukai Elementary School)
- Prize of National Primary/Junior High schools **Environment Teachers' Association** "Transformation Bag" Satsuki Kubota (First grader at Kumagaya City Sakuragi Elementary School)
- JAMRA Prize "Moridako" Taichi Terasak (First grader at the Elementary School attached to Kyoto Women's University)
- COMCEI Prize "Custom-made Chair of My Sister" Atsushi Nanbu (4th grader at Wakuya Cho Wakuya Daiichi Elementary School)
- Japan Dairy Industry Association Prize "Milk Carton Armor" Yukio Hata (4th grader at Wakayama City Santa Elementary School)



The Grand-Prix Prize was awarded to "This is my Kurihara Elementary School" by Takeru Kubotani, a sixth grader in Ibaraki. He has created this work to express his memories of his six years at school. He worked on this during the last summer break. The high quality finish incorporating a mixture of realistic textures and the clever use of milk cartons received recognition as a remarkably elaborate creation, even among the other excellent entries.

The awards ceremony marking the prize-winning creations was held in the COMCEI booth at "Eco Products 2014" on December 13. 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 Chairperson Mr. Nakamura (Chairman of the Committee), and other review board members.

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



Grand-Prix winner Takeru Kubotan



Awards ceremony held at Eco Products 2014

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

## Composition analysis of paper cartons in Matsudo City]

Many cities advise of rules regarding sorted disposal of paper cartons via leaflets and websites for citizens. In order to gain an understanding of the current status of sorted rubbish disposal, COMCEI conducted the composition analysis in Matsudo City with the support from used paper recyclers on July 8. Since COMCEI had not conducted this type of study for several years, we asked the Paper Containers and Packing Recycling Promotion Council and other groups to provide coaching.

According to the sorted rubbish disposal rules, "paper" must be sorted into the following categories and be bundled using string. The relevant categories are corrugated boxes, newspapers/leaflets, magazines/books, paper boxes (boxes for sweets, etc.) and milk cartons.We found through our survey on resources collected from the stations that the majority of people who collected resources followed the rules, however, some did not.We carefully sorted the paper cartons keeping in mind the necessity of correctly disposing of paper cartons.

We reported the findings of the recent composition analysis in the "Regional conference for promotion of paper carton recycling in Tokatsu, Chiba."



Composition analysis

COMCEI and JAMRA have started to collaborate with commercial facilities.

#### [Cooperation with Isetan Matsudo Store]

JAMRA and COMCEI participated in the "Environmental event for parents and children in spring break" by running a workshop. It was held on March 29 and 30, when cherry blossoms were in full bloom, at Art Spot Matsudo in the new annex of the Isetan Matsudo Store.In the two-day event, about 170 people participated in postcard making using handmade paper, and about 130 people took part in the panel quiz.



Try the panel quiz!

## [Collaboration with "LaLa garden Nagamachi" mass merchandise store]

We held an eco-recycle event on July 26 and 27 in the community-based "LaLa garden Nagamachi" mass merchandise store in Sendai. This was the second time this event has been held in this city. Many visitors participated in the quizzes and the handmade paper making and newly added disassembly of milk cartons lessons. Our leaflet about postcard making using handmade paper was presented to those who wanted to make postcards from handmade paper at home.



The corner of "Postcard making using handmade paper"



## [For further transmission of information on paper carton recycling]

The familiar COMCEI website with its yellow background has been renewed.

Prior to the update, we used an analytical tool to check the number of visitors by page, mean viewing time per page, and referring sources, and reorganized the hierarchy and grouping of contents accordingly. The website's contents are classified into the major categories of "Principal activities", "Mechanism of recycling", "Paper cartons", "Application guide", "Announcement", "COMCEI overview", and "Collection of links". Messages regarding paper carton collection are also featured.

Our new website featuring Milk Packn on a white background has been updated so that it is easier to view.

Please visit our new website.

#### COMCEI Website: http://www.yokankyo.jp



Renewed COMCEI website

#### Newly created half-size collection box and Uchiwa (paper fan)

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

In addition to the collection boxes created in 2013, we have created new collection boxes that are 50%

narrower than the conventional boxes. Features of the current boxes, namely a two-part box body structure and an upper lid for mobility, h a v e b e e n l e f t unchanged, while the size was reconsidered so that the boxes can be installed in small office spaces such as beside a cabinet or desk.

Please apply separately for this collection box to the Secretariat of COMCEI.



Half-size paper carton collection box

#### [Renewed "Uchiwa" educational tool]

We have employed a new design for the "Uchiwa" educational tool. The size is slightly larger than the previous one with an illustration for coloring on the front side. Three types of pictures, sea, mountains, and hills, are available. The rear side features milk carton collection rules and a description of the recycling flow. It is used in events such as recycling workshops and Eco-Life Fair.



Newly created "Uchiwa'

## Paper carton collection rate in fiscal 2013

#### The paper carton collection rate in fiscal 2013 was 44.6%.

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 information about paper carton recycling to communities. This survey was also held in the period from June to October 2014, and the status of paper carton recycling in fiscal 2013 was revealed.

The overall paper carton collection rate in fiscal 2013 was 44.6% (an increase of 0.4 points over the previous fiscal year). The collection rate of used (consumed) paper cartons was 34.9% (an increase of 1.1% over the previous year). Taking into consideration the diversification in current used paper carton collection routes, we have added direct collection by wholesalers of used (consumed) paper materials and recycled paper manufacturers in the 2012 survey. The volume of the above direct collection is included in "group collection and others" in the material flow.

%In the fiscal 2013 survey, we selected nine paper carton manufacturers, 312 beverage manufacturers, 1,735 municipalities, 2,080 elementary schools, 996 supermarkets, six citizens' groups and welfare organizations, and 31 recycled paper manufacturers to be guestionnaire survey respondents. In addition, we interviewed staff members at four locations.Areas affected by the nuclear accident in Fukushima are excluded from the SUIVEV

%Faulty paper cartons that have been generated in the paper carton manufacturing process or in the beverage filling processes at beverage plants, and unusable trims resulted during paper carton manufacturing are called "paper waste" or "industrial paper

\*Empty paper cartons that are generated at stores, business facilities, schools and households are called "used paper"

#### Paper Carton Collection Rate in Fiscal 2013

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



= Collection volume of domestic paper cartons

÷ Amount of base paper (raw paper) used

= 106.3 thousand tons/238.2 thousand tons

Used paper carton collection rate (Used paper cartons)



= Used paper carton collection volume

- ÷ Shipping volume of paper cartons from beverage manufacturers

= 70.6 thousand tons/202.1 thousand tons

Paper carton transaction price of municipalities remains high.

As paper fibers are long and strong, used paper cartons are considered to be high-quality raw materials for recycled paper 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 municipal collection (including collection at Tokyo special city 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 (consumed) paper materials are the main counterpart of the collection. The transaction price in the municipal collection and group collection remains high.

#### Average transaction price of used paper cartons

	年度		2010	2011	2012	2013
Municipal collection	Used paper recyclers	Delivery price	7.5	7.1	6.8	7.0
		Carry-in price	6.9	7.5	6.7	6.5
	Wholesalers of used (consumed) paper materials	Delivery price	8.9	9.4	9.2	8.3
		Carry-in price	8.0	8.7	8.2	8.4
	Paper manufacturers	Delivery price	12.3	10.8	9.4	6.4
		Carry-in price	10.2	10.3	10.9	9.0
Group collection	(Regardless of	Delivery price	5.2	5.2	4.9	5.1
	counterpart)	Carry-in price	5.1	5.9	5.3	5.7

(Yen/ka)

#### Paper carton collection volume in fiscal 2013 was 106.3 thousand tons.

The paper carton collection rate in 2011 dipped for the first time since the survey began as shown in the figure at right. However, the rate began to increase again in 2012. The collection volume of domestic paper cartons in fiscal 2013 was 106.3 thousand tons. This was a decrease of 1.2 thousand tons (1.1%) over the previous year. The collection volume of used paper cartons was 70.6 thousand tons. This is an increase of 1.5 thousand tons (2.2%) over the previous year. Trends in used volume of paper cartons and their collection volume are summarized in "Trends shown by major data".

#### Trend shown by main data (thousand tons)

Trend shown by main data (thousand tons)								
Category		Fiscal 1994	Fiscal 2009	Fiscal 1994	Fiscal 1994	Fiscal 1994	Fiscal 1994	Percent increase over previous year
Usage vol	ime of base paper (raw paper) for paper cartons for beverages (A)	216.0	244.3	246.8	246.6	242.9	238.2	-1.9%
Indu	strial paper waste at paper carton manufacturers	16.5	35.9	37.3	35.1	36.2	33.5	-7.3%
Indu	strial paper waste at beverage manufacturers	-	2.6	2.1	3.3	2.4	2.4	-0.7%
Shipping v	lume of paper cartons for beverages from beverage manufacturers (B)	197.9	205.8	207.3	208.3	204.3	202.1	-1.1%
Hous	ehold (C)	168.7	184.3	184.6	184.8	180.3	178.5	-1.0%
Busi	ness (F)	29.2	21.5	22.6	23.5	24.0	23.6	-1.8%
S	chool lunches	10.7	11.8	11.8	11.8	11.9	11.8	-0.4%
R	estaurants, vending machines and others	18.5	9.7	10.8	11.7	12.1	11.7	-3.2%
Collectio	n volume of used (consumed) paper cartons (D) = (E) + (F)	26.5	68.0	68.4	67.7	69.1	70.6	2.2%
Hous	ehold wastes (E)	25.9	57.3	56.6	56.2	57.2	59.4	3.8%
C	ollection volume from stores	13.8	34.5	33.6	33.0	32.6	32.3	-1.1%
N	lunicipality collection volume	4.3	13.9	14.1	13.9	13.7	13.6	-1.0%
Group collection volume		7.8	8.9	8.9	9.3	10.9	13.5	24.6%
Business (F)		0.6	10.7	11.8	11.5	11.9	11.2	-5.8%
s	chool lunches	0.6	9.3	9.4	9.2	9.6	9.3	-3.6%
Restaurants, vending machines and others		-	1.4	2.3	2.3	2.3	1.9	-15.1%
Collection	volume of industrial paper waste and used paper cartons (G)	16.5	38.2	39.3	38.1	38.4	35.7	-7.0%
Pape	r carton manufacturers	16.5	35.9	37.3	35.1	36.2	33.5	-7.4%
Beve	rage manufacturers	-	2.3	1.9	3.0	2.2	2.2	-0.2%
Collection volume of domestic paper cartons (H) = (D) + (G)		43.0	106.2	107.6	105.7	107.5	106.3	-1.1%
Import volume of used paper cartons		-	10.9	12.7	14.0	11.4	12.8	12.6%
Total volume of accepted paper cartons		43.0	117.1	120.3	119.7	118.8	119.1	0.2%
Recycling volume of paper cartons		30.1	93.2	96.3	95.7	95.2	93.7	-1.6%
ç	Paper carton collection rate (H)/(A)	19.9%	43.5%	43.6%	42.9%	44.2%	44.6%	0.4points
Collection rate	Collection rate of used (consumed) paper cartons (D)/(B)	13.4%	33.0%	33.0%	32.5%	33.8%	34.9%	1.1points
" tion	Collection rate of used paper cartons in residential homes (E)/(C)	15.4%	31.1%	30.6%	30.4%	31.7%	33.3%	1.6points
		I						

\*\*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 waste 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 for some of the items. \*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 the previous year using the values in the table

Activity Report Digest

Trends in paper carton collection rate



## Paper carton material flow in fiscal 2013

The following shows the overall state of paper carton recycling in fiscal 2013 in the form of material flow.

\*Unit: 1.000 tons

\*Figures in ( ) indicate the difference between fiscal 2012.





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

Storefront collection boxes such as 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 volume of store-collected cartons in 2013 was 32.3 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!!

## Bandai Co., Ltd.

(Head office in Higashi Osaka City, Osaka)



Bandai is a chain-store that operates 147 in Kansai area mainly in Osaka (as the end of November 2014). Under

the corporate philosophy of "With an eye toward becoming the best place to shop in Japan", Bandai is implementing various reforms to make customers' lives "more affluent", "more enjoyable", and "more comfortable".

They installed the first collection box in 1992 as part of company-wide environmental measures, and the collected milk cartons were given to the welfare workplace recommended by Higashi Osaka City. With collection volumes increasing beyond the level that can be handled at the welfare workplace, Bandai now sells the cartons to a paper-making company. Profits from sales are used to fund the welfare organization.

The collection volume of milk cartons in fiscal 2013 was 234 tons. Bandai buys 22,000-35,000 boxes of recycled paper that they call "Welcome back tissue", and 270,000 toilet rolls a year that they call "Backhome rolls" for use in their stores and various company departments.

To prevent cartons containing foreign substances or left-over milk being inserted into the collection boxes, they monitor the collection boxes. This way, Bandai maintains and utilizes the quality of the resource.



In addition to collecting paper cartons, they create products such as postcards from handmade paper produced from paper cartons.

Welfare organizations and citizen groups collect the largest volume of paper cartons from the storefront collection boxes of supermarkets and other types stores. This is followed by collection from homes, educational facilities such as elementary schools, and municipalities. They have a range of collection sources.According to the basic survey carried out in 2013, the collection volume was about 1,000 tons. This volume was almost the same as in the past.

In addition to collecting paper cartons, many welfare organizations create products such as postcards from recycled paper cartons.

The collection volume shown in the material flow also reflects the information obtained from JAMRA's fact-finding-survey on welfare organizations





## We are working on recycling!!

## Social welfare corporation Tohka Juku

(Location: Tondabayashi City, Osaka Prefecture)

Activity examples

The Tohka Juku welfare social corporation was established in 1916 with the basic concept of "Veneration

of life." They have four operations: "Children's department", "Adults department", "Visit department", and "Care home" - to support the welfare of children and the lives of people with disabilities.

Their environmental activities include selling the collected and sorted resources such as paper cartons and waste cans to recycling business operators, and creating and selling writing materials and sundries created from paper carton pulp.

They use logistics centers of a nearby supermarket, schools and daycare centers as collection centers. Recently, they have been receiving support from the administrative board of a large-scale apartment complex. They collected 48 tons in 2013. The number of collaborating towns is gradually increasing thanks to the efforts of their friends and social welfare workers. Although there are problems with store collections at supermarkets due to commingling of foreign substances and uncleaned cartons, they have promoted this approach considering that separating foreign substances is part of their business. In order to enhance quality of the collected cartons, they are communicating their efforts and the basic rules of "rinse, open and dry" to the public through a growing number of collaborating companies and supporters.



Writing materials and sundries recycled from paper carton pulp



A scene of collection of resources



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

Among the 1,742 municipalities in the country, our 2013 survey was conducted in 1,735 of them excluding 7 areas that have been affected by the nuclear accident. We received responses from 1,247 municipalities. The total population of municipalities that responded to the survey made up 85.9% of the total population.

Used (consumed) paper carton collection by municipalities and unions is classified as "municipality collection," and collection carried out by citizens' 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 81%, and the group collection rate - excluding cases where no answers were received - was 49%. Either municipality collection or group collection was executed in 88% of the municipality. This means that almost 90% of local governments are collecting paper cartons.



22.7 thousand tons of paper cartons are collected through the efforts of local governments.

The survey estimated the municipality collection volume and group collection volume after grouping the target municipalities into four types: "General cities", "Government-decreed cities", "Tokyo special city wards" and "Towns and villages". In fiscal 2013, the municipality collection volume was 13.6 thousand tons, and the group collection volume was 9.1 thousand tons. Total collection volume was 22.7 thousand tons.

As a whole, per capita collection volume (basic unit) of the group collection is slightly higher than that of municipality collection.Collection volumes in main cities, which contain 60% of the national population, have remained stable and high in recent years.In government-decreed cities, Tokyo special city wards and town/villages, group collection is becoming more widespread then municipality collection. The task now is how to promote collection in big cities because the basic unit in government-decreed cities and Tokyo special city wards is small.

Estimated municipality and group collection volumes by city type						
					Towns and villages	
Munici	Estimated volume (1,000 tons)	13.6	9.7	1.4	0.7	1.5
Municipality collection	Estimated collection ratio by city type	100%	72%	10%	5%	11%
llection	Collection volume per person (grams per person)	104	121	53	76	126
Grou	Estimated volume (1,000 tons)	9.1	6.0	2.2	0.2	0.6
Group collectior	Estimated collection ratio by city type	100%	66%	25%	2%	7%
oction	Collection volume per person (grams per person)	71	75	83	23	55
Pop	pulation by city type (millions)	128	81	27	9	12

Municipality collection of paper cartons is implemented in the sorted collection approach and the collection-center approach.

Used (consumed) paper cartons are collected in two ways in each municipality. One is the sorted collection approach, and the other is the collection-center approach. The sorted collection refers to collection from homes and stations, and the collection-center approach refers to collection from collection boxes at community halls and similar locations.

By city type, the sorted collection is more widely employed by general cities, towns and villages, and the collection-center approach is used more in the ordinance-decreed cities and Tokyo's special wards.



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## We are working on recycling!!

## **Osaki West City Towers**

(Shinagawa Ward, Tokyo)

Activity examples

An urban development targeted at housing and offices in the area around the west exit of JR Osaki station was

carried out in 1987 to make the area adequate as a newly emerging city center in Tokyo. This is a good example of milk carton collection in a community covered by the condo association board and the residents' association of Osaki West City Towers, which contains 1,084 households.

Collection of milk cartons in this location started in November 2013 when the condo association board and residents' association installed trial collection boxes at six locations. Today, they collect milk cartons by posting "Milk carton collection rules" at commonuse garbage and material yards (78 locations).Milk cartons collected on each floor are carried to the stock yard in the basement and collected on a regular basis. The rule of "Rinse, open and dry" is observed by the residents in a cooperative manner.

They hold a "Gratitude for Recycling Festa" every autumn, and the money earned from carton sales is returned to the residents in the form of toilet rolls, packs of low-pesticide vegetables, etc.With the cooperation of the Shinagawa refuse collection office, they display the catch-phrase, "Garbage if mixed, resource when separated".



"Milk carton collection rules"



Installed collection box

21

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

Approximately 11.8 thousand tons of paper milk cartons were supplied for school lunches in 2013, which was roughly the same amount as in the previous year. Out of the total supply, 9.3 thousand tons are collected for recycling. The figure remains high.

In addition to recycling of paper milk cartons for school lunches, 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!!

Kawaguchi City Tozukaminami Elementary School (Kawaguchi City, Saitama)

Activity examples

Founded in April 2005, Kawaguchi City Tozukaminami Elementary School in Saitama Prefecture is the newest

elementary school in Kawaguchi. This school conducts unique educational activities under the educational goal of "Rearing children to have a dream and who live with a rich spirit. "Its "Eco-school" provides children with the opportunity to experience collecting used papers and milk cartons as well as conditioning soil using compost. The school is promoting a range of environmental efforts as seen in the roof greening, green curtains, solar power panels, and rainwater utilization panels. The amounts of energy collected from such panels are displayed at the school entrance. The paper carton collection initiative started from an approach made by the Kawaguchi Citizens' Environmental Conference NPO organization. Its members arranged, as an environmental coordinator, a meeting between the school and business operators. Milk carton collection in the "Eco-school" is planned along the lines of environmental activities in the integrated study. Collection and recycling of milk cartons for school lunches were started when the school was founded. Profits from sales are returned to children in the form of toilet rolls. The first to sixth graders collect the cartons during a lunch break on the fourth Friday of each month, which is called "Paper Day". Now 13 neighboring schools are participating in the activity, which is expanding the scope of the movement.

In 2013, 1,550 kg of milk cartons used for school lunches were collected, 550 kg were collected from home, a total of 2,100 kg.





Collected paper cartons are recycled as highquality pulp fiber.

Among the 15 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 manufacturers, which consists of the collection volume of domestic paper cartons and import volumes of used paper cartons in 2013 is 119.1 tons. About 80% (93.7 thousand tons) from this are recycled into toilet rolls and tissue paper.Paper cartons are used for these products as precious high-quality pulp fiber material.





## We are working on recycling!!

## Marutomi Paper Manufacturing Company

(Fuji City, Shizuoka Prefecture)

Activity examples

Marutomi Paper Manufacturing Company started its business in 1955. The company makes a social contribution

and contributes to environmental conservation through paper making. They have been taking a proactive stance to preserve resources and the environment since their business began, based on the slogan, "Working toward becoming an eco-friendly company." They focus a great deal of energy on improving the efficiency involved in using resources and energy by, for instance, establishing technology not to generate wastes (such as zero emissions).

From 1984, they started recycling used paper cartons at the request of the "Tanpopo" study group in Ohtsuki City, Yamanashi. Since then, they have been playing a leadership role in this activity.

They collect paper cartons from elementary schools, junior high schools, supermarkets and other associations by using recovery vehicles. They also cooperate with supermarkets' sales of products recycled from paper cartons. They secure stable collection volumes of paper cartons by collecting them at the delivery point. The total collection volume including paper waste generated in the process exceeds 13,000 tons.

They also place emphasis on environmental education, and about 7,000 plant visitors are accepted per year. Each visitor is requested to bring three paper cartons as the plant tour 'fee'. Visitors learn how milk cartons are recycled into toilet rolls.



Loading of used papers onto the truck



Paper cartons as the tour charge



A used paper carton is a highquality resource. It is reborn as recycled products.



#### Paper cartons have lower environmental load\*

CO2 emissions from a 1000 ml paper carton total 32.4 g. The environmental 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 Environment)

# Paper recyclers and wholesalers of used (consumed) paper

They sort paper cartons and transport them to recycled paper manufacturers.

Cont-MANE Encesiment

## **Recycling of paper cartons**

**O**Rinse

Open

3 Drv

# Collection

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

Dry

## History

#### History of COMCEI History of JAMRA \*Activities to strengthen collaboration

Fiscal ye	r History	Trend in applicable laws
1984	A group of housewives started a milk carton recycling movement to teach their children to recognize the value of objects.	
1985	Japan Milk Carton Recycling Association" (JAMRA) was established.	
1992	<ul> <li>"Committee for Milk Container Environmental Issues" (COMCEI) was established.</li> <li>"Milk carton recycled products mark" was created.</li> </ul>	
1993	• COMCEI participated in "Forestry Fair" held by the Forestry Agency (COMCEI participated every year until 2008).	<ul> <li>The Basic Environmental Law wa enacted.</li> </ul>
1995	• "Basic survey on the present status and trends of beverage paper container (paper carton) recycling" was started.	<ul> <li>Act on the Promotion of Sorted Collection ar Recycling of Containers and Packaging was enacted</li> </ul>
1996	"The Beverage Paper Container Recycling Council" was established.	
1997	National case study on milk carton collection system was conducted.	<ul> <li>Containers and Packaging Recyclin Law was enforced.</li> </ul>
1998	<ul> <li>Model project for promotion of milk cartons used for school lunches was started (Hokkaido).</li> <li>An experimental project was implemented to build a collection and recycling system for milk cartons used for school lunches (Fukuoka and Hyogo)</li> <li>Convivial meetings were held to promote collection of beverage paper containers (Locations of meeting * 1)</li> </ul>	
1999	$\star$ Local conference to promote paper carton recycling was held (this has been continuing since then $*1$ ).	
2000	<ul> <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> <li>Act on the Promotion of Sorted Collectio and Recycling of Containers and Packagin was completely enforced.</li> <li>Basic Law for Establishing the Recycling Based Society was enacted.</li> <li>Law for the Promotion of Effective Use of Resources was enacted in its entirety.</li> </ul>
2001	★ Movement for expansion milk carton collection centers was started. (Provision of collection boxes to local communities)	Act on Promoting Green Purchasin was enacted.
2002	<ul> <li>A symposium commemorating the 10th anniversary of COMCEI was held.</li> <li>A 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.	Part of End-of-life Vehicle Recyclin Law was enforced.
2004	<ul> <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 Products 2004" (this has been continuing every year).</li> </ul>	Review of Act on the Promotion of Sorted Collection and Recyclin of Containers and Packaging was started.
2005	<ul> <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>Sponsoring of "Message Box Kit" for enlightening exhibition was started.</li> <li>Nishi Hari project (Construction of local collection system)</li> <li>Survey on paper carton LCA in Northern Europe</li> </ul>	
2006	■ 20th anniversary memorial meeting of JAMRA	Revised Act on the Promotion of Sorted Collection and Recyclin of Containers and Packaging wa enacted.

Histor	y of COMCEI ■History of JAMRA ★Activities to strengthen collaboratio
Fiscal ye	ear History
2007	<ul> <li>"Plan 2010 -Action plan for paper carton recycling - Toward collection rate of 50%" was established and published.</li> <li>Participated in the main event of the environmental month "Eco-Life Fair (this has been continuing every year).</li> <li>Supported "Friendly environment loop forum - JAMRA" (this has been contin On site lessons on milk carton recycling were started (and continue * 3).</li> <li>The movement to expand the number of milk carton collection centers (20,000)</li> </ul>
2008	Participated in the Toyako Summit Memorial General Environmental Exhi
2009	* A book "Paper Cartoon Manifesto" was published
2010	* "Milk Packn's Expedition" DVD was produced. The 1st "Japan and Korea Forum on Processed Milk Industry Environme
2011	<ul> <li>"Real Story of Paper Carton Recycling" pamphlet was published.</li> <li>On site lessons on paper carton recycling were held for leaders of the movemed Provision of collection boxes at 20,000 locations was achieved.</li> <li>"Plan 2015 - Action plan for paper carton recycling" was established and</li> <li>The second voluntary action plan for promoting 3R of containers and packat (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 M</li> <li>"The promotion council of Milk carton Recycle products mark" was established.</li> </ul>
2012	<ul> <li>New organizations for operation of COMCEI were started. (General Affairs, local organizations, Event Committee)</li> <li>The 3rd "Japan and Korea Forum on Processed Milk Industry Environmental Management Survey on paper carton LCA in Northern Europe was conducted.</li> <li>"Friendly environment loop forum - Efforts for utilization of renewable energy Workshop at a commercial facility "Ginza Mitsukoshi" (Tokyo)</li> </ul>
2013	<ul> <li>A symposium commemorating the 20th anniversary of COMCEI was hele</li> <li>A booklet "Story of Waste" was published.</li> <li>Workshop at a commercial facility "Ario Hashimoto (Sagamihara City)" at "LaLa garden Nagamachi (Sendai City)".</li> <li>Supported "Friendly environment loop - Effects and problems of recycling conta</li> </ul>
2014	Composition analysis of paper cartons in Matsudo City Workshop at a commercial facility "Isetan Matsudo Store (Matsudo City)" Friendly environmental loop forum - Information exchange on activities at welfare

#### \*1 Venues of local conference to promote paper carton recycling (1998 to 2014)

Hokkaido, Hakodate, Aomori, Iwate, Miyagi, Fukushima, Yamagata, Niigata, Nagano, Shiga, Gunma, Warabi, Saitama, Chiba, Ibaragi, 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, Oita, Saga, Kumamoto, Okinawa

#### \*2 Venues of workshop on milk carton recycling (2004 to 2014)

Asahikawa, Sapporo, Saitama, Fujimi, Shibuya, Shinagawa, Koto, Nakano, Kita, Nishitokyo, Yokohama, Sagamihara, Otsuki, Kofu, Chikusei, Nisshin, Osaka, Nishinomiya, Matsuyama, Kochi, Beppu, Naha

#### \*3 We visited the following schools to run the on-site lessons on milk carton recycling (2008 to 2014)

Sukagawa City Abukuma Elementary School, Toyama City Shinjo Elementary School, Haga Cho Hagaminami Elementary School, Motegi Cho Motegi Elemenary School, Mito City Akatsuka Elementary School, Ota Chuo Primary School, Nogi-machi Tomonuma Elementary School, Chikusei City Ueno Elementary School, Noda City Futakawa Elementary School, Ichihara City Chiharadaisakura Elementary School, Kawaguchi City Tozukaminami Elementary School, Shibuya Ward Kakezuka Primary School, Edogawa Ward Shinozakidaini Elementary School, Yokohama City Hie Elementary School, Hiratsuka City Okazaki Elementary School, Yamato City Shibuya Elementary School, Shizuoka City Togendai Elementary School, Komagane City Akaho Elementary School, Hokuto City Mukawa Elementary School, Kanazawa City Izumino Elementary School, Tarui Cho Iwade Elementary School, Godo Cho Godo Elementary School, Nisshin City Higashi Elementary School, Nisshin City Nishi Elementary School, Ninamiise Cho Nantohigashi Elementary School, Nabari City Mihata Elementary School, Oji Cho Ojikita Elementary School, Kishiwada City Jyoutou Elementary School, Osaka City Benten Elementary School, Osaka City Turumachi Elementary School, Nishinomiya City Takagi Elementary School, Amagasaki City Wakaba Elementary School, Hiroshima City Omachi Elementary School, Hiroshima City Ushitashinmachi Primary School, Hiroshima City Niho Elementary School, Hiroshima City Nukushina Elementary School, Mitoyo City Omi Elementary School, Mitoyo City Matsusaki Elementary School, Yoshinogawa City Kamiura Elementary School

#### Outline of COMCEI

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## ion Trend in applicable laws ir 2007" tinuing every year) Participation in Eco-Life Fair 2007 000 locations were targeted) was developed further hibition 2008. nental Management (in Seoul, Korea) nent in Korea (in Korea). 紙バック リサイクル nd published. ほんとの kaging was announced のはなし Management (in Osaka) 1000 ----"Real Story of Paper Carton Recycling" Review of Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging was ent (in Kyongju, Korea) started ces in Northern Furop - 乳容器環境論議会 əld. • Small-Appliance Recycling Law and was enforced. tainers and packaging" A symposium commemorating the 20th anniversary of COMCEI was held y)" and "LaLa garden Nagamachi (Sendai City)" re organizations associated with milk carton recycling



# **COMCEI** publications

## Members list

COMCEI 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 questions 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.



"Story of Waste

ほんとの (はなし "Real Story of Paper Carton Recycling"

#### "Story of Milk Cartons"

We have created this book by re-editing "A Life of Milk Cartons", which had been published as Milk Carton

Library and designed for children in the lower grades of elementary schools. It shows the life of a milk carton - from its birth to finally being recycled to 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"

COMCEI has various publications to help people gain awareness of the global environment through recycling.

#### 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.



Nihon Hyouron Sha

## Collection of 20 Cases"

cartons. These are: store collection, municipality collection, and voluntary group collection. To make strict sorted collection a success, it is necessary to educate the local community and devise ways that suit individual communities. This case book introduces actual recycling activities carried out by citizens' groups, local governments and various business sectors throughout Japan to assist readers when they are confronted with problems.



The third edition of "Milk Carton Recycling Nationwide Collection of 20 Cases" (The fourth edition will be published in 2015)

#### 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. Hokuetsu Package Co., Ltd. TOKYO PAPER MFG, CO., LTD

#### 128 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.

## [lwate]

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. Glico Dairy Products 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 Ltd. Seki Milk Co., Ltd. Mino Dairy Cooperatives

#### [Shizuoka]

INASA MILK ASSOCIATION

Outline of COMCELOCOMCEL publications



Book "Paper Carton Manifesto"

## the third edition of "Milk Carton Recycling - Nationwide

#### Currently, three methods have been established to collect paper

#### Outline of COMCEI



Kannami toubu nougyoukyoudou kumiai TOKAI MEIJI.CO.Ltd

Asagiri Milk Products Co.,Ltd [Aichi]

CHUOSEINYU CO..LTD. toyota-nyugyou.co.jp

Aichi Brother Company Co., Ltd. TOKONAME MILK LIMITED PARTNERSHIP COMPANY

#### [Mie]

Ouchiyama Dairy Agricultural Cooperative

### [Kyoto]

HIRAYA MII K

JA Kyoto Rakuno Center

#### [Osaka]

SEN-NAN Dairy Products Co.,Ltd. NIPPON DAIRY CO-OPERATED CO.,LTD. Takada Milk Co., Ltd.

Vitamin Milk Products Co..Ltd

Ikaruga Milk Plant CO., Ltd.

#### [Hyogo]

Hyogo-tantan Dairy Agricultural Cooperative Awajishima Dairy Agricultural Cooperative

#### [Tottori]

DAISEN Dairy agricultural cooperative

#### [Shimane]

**KISUKI Daily Product** Yasugi Milk Product Co.,Ltd YUGEN GAISHA YOEKISHA

#### [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, 2014





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

## Committee for Milk Container Environmental Issues

#### A message to members of the paper carton collection associations

Please contact schools, local authorities, public facilities, retail stores, banks and post offices to gain their cooperation with regard to installing a collection box. At the same time, set up a system to enable collection on a regular basis. When you do not know from where to collect, contact the section in charge of the local government/public administration.

#### Contact the following for more information:

<Secretariat of Japan Milk Carton Recycling Association> Phone: 03-3360-1098, Fax: 03-3360-7090 4-6-7-201 Higashi Nakano, Nakano Ku, Tokyo 164-0003





