

Dual loops of paper carton



Growing

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



Life cycles of a forest

Life span of 50 to 100 years

Base paper (raw paper) will not be exhausted.

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

Plant

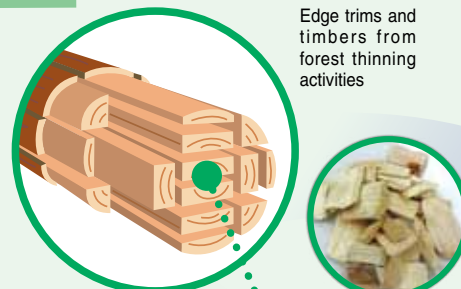


Seedlings are picked from parent trees, grown in nursery grounds, and then systematically planted in logging forests.

Use

Wood is used with zero waste.

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



Chips

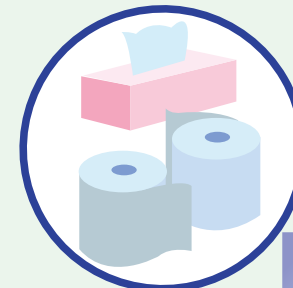


Construction materials storage site



Construction and furniture materials

Reborn as recycled products



Recycled paper manufacturers

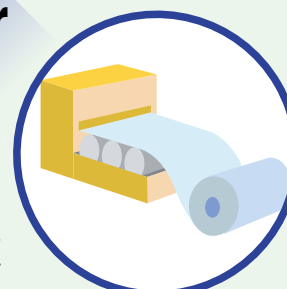
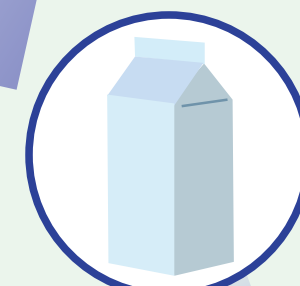
Laminated portions are removed and the base paper (raw paper) portion is dissolved. At this point, foreign substances such as residual ink are extracted in order to produce clean pulp that is suitable for manufacturing recycled products such as toilet rolls.



Paper manufacturer

Paper cartons

A paper carton refers to a container of milk, lactic beverages, juices, etc. that does not have a piece of aluminum laminated to the inside surface.



Recycling of paper cartons

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.

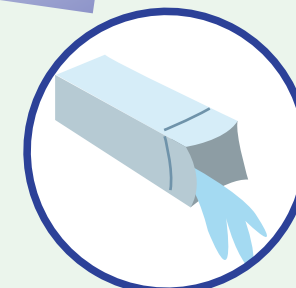
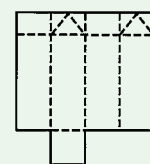
*Source: Institute for Policy Analysis and Social Innovation "2004 Report of Survey on Life Cycle Assessment of Containers and Packaging" (Entrusted by the Ministry of Environment)

Paper recyclers and wholesalers of used (consumed) paper

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



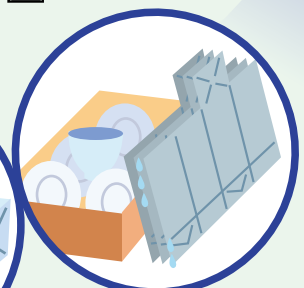
- ① Wash
- ② Open
- ③ Dry



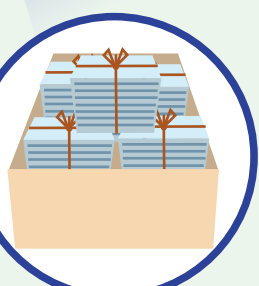
Wash



Open



Dry



Collection

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



COMCEI's activities include conducting and supporting various surveys and studies on milk cartons and other containers.
COMCEI visited Northern Europe in June 2012 as part of study activities to research recycling practices overseas.

[Visit to Stora Enso Co., Ltd.]

A large quantity of base paper (raw paper) used for beverage cartons in Japan is imported from North America and Northern Europe. During this tour, we visited the Imatra Plant of Stora Enso, the largest paper manufacturing company in Europe, and exchanged views and information during the three days. On the first day, we took a tour of the facilities in their pulp plant and a coating plant housing paper machines. We then attended their presentation explaining effective conversion of waste liquid from a pulp plant into plant energy, their base paper (raw paper) recycling approach, and information on development of new materials. A meeting on the second day was held at the establishment's Research Center. We explained the quality aspect of recycled paper in Japan by taking the quality impact (degree of whiteness) of the base paper (raw paper) containing CTMP as an example. Attendees gained a clear understanding from us about this issue. In the afternoon, we exchanged views on LCA in Japan and Europe. Meanwhile, in a separate room, other members of our group demonstrated postcard making from handmade paper as we usually do in recycling workshops in Japan. This activity was well received by attendees and provided a good opportunity for us to communicate with each other. On the third day, we visited their tree nursery and a large area of forest to experience logging and forestation. Through these experiences, we were able to learn about Stora Enso's advanced forestry management and environmental preservation techniques.



On-site explanation about forestry management

[Information exchange with ACE]








We moved from Finland to Belgium and visited ACE headquarters (Brussels). ACE, which consists of representative manufacturers of paper beverage cartons and base paper (raw paper) manufacturers, makes strategic contributions to the environmental policies of the EU in the fields of forestry management, reforestation, environmental footprint, and recycling. We have exchanged information on various subjects including the activities of ACE, legal regulations on disposal of packaging containers in Europe, producer responsibility system, and Belgium's household waste collection system. They explained that the association of local governments in Belgium collects and sorts household wastes, and then delivers them to FOST Plus (the producer body responsible for recycling packaging containers put out by households). FOST Plus collects a burden charge from business operators to cover the collection and sorting costs. FOST Plus develops their own recycling methods for collected and sorted waste.. COMCEI introduced the contents of the Recycling Law in Japan along with the activities of the Liaison Conference for 3R Promotion Organizations and the COMCEI. We then moved to the Sorting Center in Liege located in the Wallonia region in southern Belgium. After touring the facility, we saw how household containers (PET, metal cans, and paper cartons) are collected and sorted by using "blue bags". We also learned about differences in resource recycling approaches in Japan and Europe.



Blue bags used to collect household containers (PET, metal cans and paper cartons)








● History of COMCEI ■ History of JAMRA ★ Activities to strengthen collaboration

Fiscal year	History	Applicable laws
1984	■ A group of housewives started a milk carton recycling movement to teach their children to recognize the value of things.	
1985	■ "Japan Milk Carton Recycling Association" was established.	
1992	● "Committee for Milk Container Environmental Issues" was established. ■ "Milk carton recycled products mark" was created.	 Milk carton recycled products mark
1993	● COMCEI participated in "Forestry Fair" held by the Forestry Agency (COMCEI participated every year until 2008).	● The Basic Environmental Law was enacted.
1995	● "Basic survey on the present status and trends of beverage paper container (paper carton) recycling" was started.	● Containers and Packaging Recycling Law was enacted.
1996	● "The Beverage Paper Container Recycling Council" was established.	
1997	■ National case study on milk carton collection system was conducted.	● Containers and Packaging Recycling Law was enforced.
1998	● Model project for promotion of milk cartons used for school lunches was started (Hokkaido). ■ An experimental project was implemented to build a collection and recycling system of milk cartons used for school lunches (Fukuoka and Hyogo). ■ Convivial meetings were held to promote collection of paper drink cartons (Ishikawa, Osaka, Kumamoto and Ehime).	
1999	★ Local conference to promote paper carton recycling was held (this has been continuing since *1).	
2000	● The Paper Carton Identification Mark was voluntarily established. ● Discussion Meeting to Promote Recycling of Paper Cartons for Beverages was started (this has been continuing since).	 Paper Carton Identification Mark ● Containers and Packaging Recycling Law was enforced. ● Basic Law for Establishing the Recycling-Based Society was enacted. ● Law for the Promotion of Effective Utilities of Resources was enacted.
2001	★ Movement to expand milk carton collection centers was started. (Provision of collection boxes to local communities)	 Collection box ● 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).	 A symposium commemorating the 10th anniversary of COMCEI was held.
2003	Survey on paper carton LCA in North America was conducted.	 Survey on paper carton LCA in North America was conducted. ● Part of End-of-life Vehicle Recycling Law was enforced.
2004	● Environmental campaign was started (executed during Environment month and the 3R month each year). ★ Workshop on milk carton recycling was held (this has been continuing since *2). ● Participated in one of the largest class environmental-related exhibitions, called "Eco-Product Exhibition 2004" (this has been continuing every year).	 Participation in "Eco-product 2004". ● Review of Containers and Packaging Recycling Law was started.
2005	● 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 called "Milk Pack'n's Expedition" was started. ● Sponsoring "Message Box Kit" for enlightening exhibition was started. ★ Nishi Hari project (Construction of local collection system) ★ Survey on paper carton LCA in Northern Europe	 Local Conference to Promote Paper Carton Recycling was held

History

●History of COMCEI ■History of JAMRA ★Activities to strengthen collaboration

Fiscal year	History	Applicable laws
2006	■ 20th anniversary memorial meeting of JAMRA  20th anniversary memorial meeting of JAMRA	● Revised Containers and Packaging Recycling Law was 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 moth "Eco-product and Eco-fair 2007" (this has been continuing every year). ■ Supported "Friendly environment loop - JAMRA" (this has been continuing every year). ★ Onsite lessons on milk carton recycling was started (this has been continuing since *3). ★ The movement to expand the number of milk carton collection centers (20,000 locations were targeted) was developed further.  Participation in Eco-Life Fair/Eco-Products 2007.	
2008	● Participated in the Toyako Summit Memorial General Environmental Exhibition 2008. ★ Conference on employment of CTMP for beverage cartons  Participated in the Toyako Summit Memorial General Environmental Exhibition.	
2009	★ "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 was held for the leaders of the movement in Korea (in Korea). ★ Provision of collection boxes at 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 promotion council of Milk carton Recycled products mark" was established.  "Real Story of Paper Carton Recycling"	
2012	● New organizations for operation of COMCEI were started. (General Affairs, local organizations, 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 was conducted. ■ "Friendly environment loop forum - Efforts for utilization of renewable energy"  Inspection of forestry management practices in Northern Europe	● Review of Containers and Packaging Recycling Law was started.

※1 Venues of local conference to promote paper carton recycling (1999 to 2012)

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, Kochi, Fukuoka, Oita, Saga, Kumamoto, Okinawa

※2 Venues of workshop on milk carton recycling (2004 to 2012)

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

※3 We visited the following schools to run the onsite lessons on milk carton recycling (2007 to 2012)

Sukagawa City Abukuma Primary School, Chikusai City Isa Primary School, Motegi Cho Motegi Primary School, Ota City Chuo Primary School, Konosu City Akamidai-daiichi Primary Shool, Shibuya Ward Kakezuka Primary School, Hiratsuka City Okazaki Primary School, Yamato City Shibuya Primary School, Komagane City Akaho Primary School, Hokuto City Mukawa Primary School, Hamamatu City Hamana Primary School, Kanazawa City Izumino Primary School, Tarui Cho Iwade Primary School, Godo Cho Godo Primary School, Nisshin City Higashi Primary School, Nisshin City Nishi Primary School, Minamiise Cho Nantohigashi Primary School, Nabari City Mihata Primary School, Kishiwada City Jyoutou Primary School, Osaka City Bentenncho Primary School, Osaka City Turumachi Primary School, Nishinomiya City Takagi Primary School, Amagasaki City Wakaba Primary School, Hiroshima City Asamiku-omachi Primary School, Hiroshima City Niho Primary School, Hiroshima City Nukushina Primary School, Mitoyo City Omi Primary School, Yoshinogawa City Kamiura Primary School, Kochi City Kamoda Primary School

Members list

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

135 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.,Ltd.
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., Ltd.

【Chiba】

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

【Tokyo】

MEGMILK SNOW BRAND Co., Ltd
Meiji Co., Ltd.
MORINAGA MILK INDUSTRY CO.,LTD.
KYODO MILK INDUSTRY CO.,LTD.
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.,Ltd.

【Fukui】

MORINAGA-HOKURIKU MILK INDUSTRY CO.,LTD

【Gifu】

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

【Shizuoka】

Shimizu Milk Industry co.,Ltd
INASA MILK ASSOCIATION
Kannami toubu nougyoukyoudou kumiai
TOKAI MEIJI.CO.Ltd
Asagiri Milk Products Co.,Ltd

【Aichi】

Nagoya Gyunyu Co.,Ltd.
MIDORI NYUGYO CO.,LTD
CHUOSEINYU CO.,LTD.
toyota-nyugyou.co.jp
Aichi Brother Company Co.,Ltd.
TOKONAME MILK LIMITED PARTNERSHIP COMPANY
Showa Milk Co., Ltd

【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.
Takada Milk Co., Ltd.
Vitamin Milk Products Co.,Ltd
Ikaruga Milk Plant CO.,Ltd.

【Hyogo】

Hyogo-tantan Dairy Agricultural Cooperative
Kinki Glico Dairy Products Co.,Ltd
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】

nishirakunyuugyou Co.,Ltd
Omu Milk Products Co.,Ltd.
NAGATOSHI-MILK CO., LTD.

【Nagasaki】

SHIMABARA AREA DAIRY FARMERS COOPERATIVE

【Kumamoto】

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

【Oita】

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

【Miyazaki】

MINAMI NIHON RAKUNO KYODO CO.,LTD

【Kagoshima】

kagoshimakenrakunounuugyoukabushikigaisya

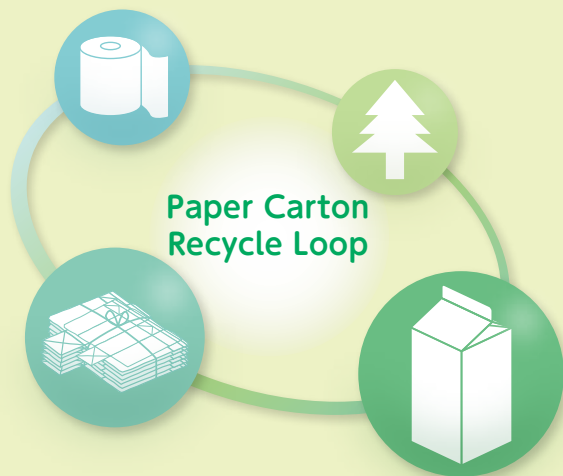
【Okinawa】

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

10 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.

As of the end of September, 2012



Dairy product manufacturers and paper container manufacturers collaborate to preserve the environment.

Committee for Milk Container Environmental Issues

Location

Postal Code 102-0073 Nyugyo Kaikan, Kudan Kita 1-14-19, Chiyoda Ku, Tokyo
 Phone 03-3264-3903, Fax 03-3261-9176
 COMCEI website : <http://www.yokankyo.jp>
 Milk Packn's Expedition website : <http://www.packun.jp>

Established

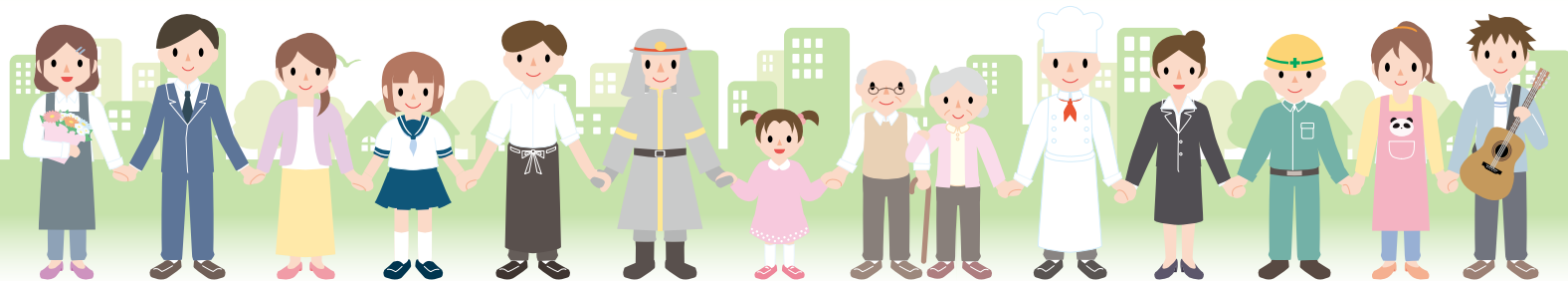
August 31, 1992

Business summary

- Educational activities related to environmental issues including environmental preservation and recycling
- Dissemination of knowledge on milk and other beverage container-related environmental issues
- Activities to support recycling of carton for milk and other beverages
- Execution and support of various surveys and studies milk and other beverage container-related environmental issues
- Other necessary business areas

Major activities

- Provision of information to enhance consumers' awareness of beverage carton-related environmental issues (consumers, municipalities, schools, etc.)
- Cooperation with beverage carton recycling movement (citizen's groups)
- Technical surveys and domestic and overseas inspection on environmental issues related to milk and beverage cartons (recycling policies, forestry management, recycled paper manufacturers), introduction of overseas documents
- Basic survey on the present status and trends of beverage carton recycling
- Collaboration with administrative agencies and relevant organizations
- Provision of information to members



This book has been produced using eco-friendly plant oil ink.