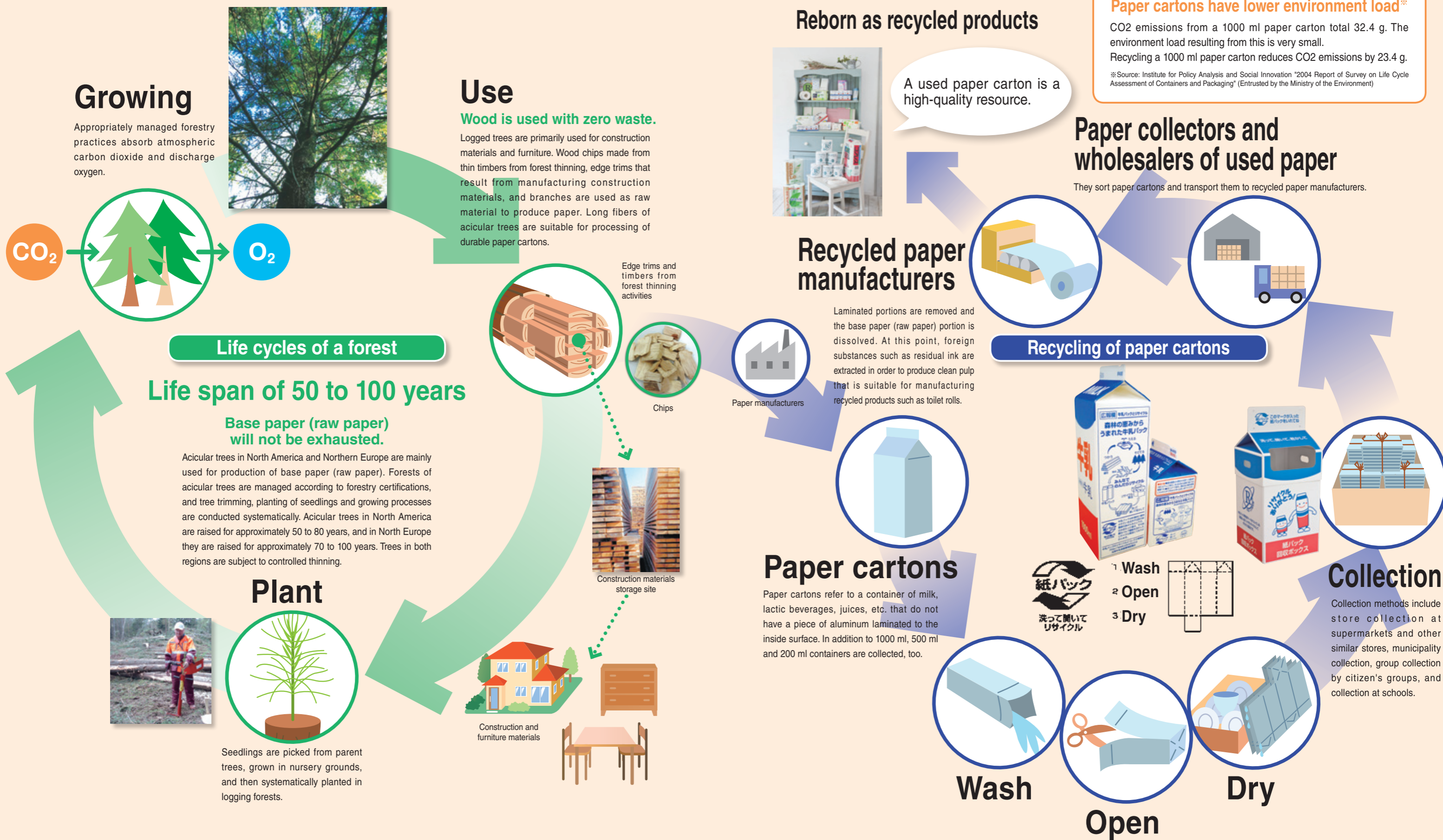


Dual loops of paper carton recycling



Growing

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



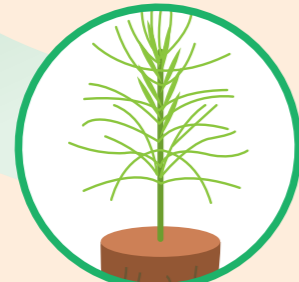
Life cycles of a forest

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 North Europe they are raised for approximately 70 to 100 years. Trees in both regions are subject to controlled thinning.

Plant

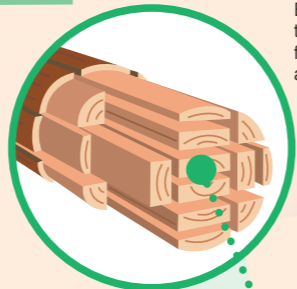


Seedlings are picked from parent trees, grown in nursery grounds, and then systematically planted in logging forests.

Use

Wood is used with zero waste.

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



Edge trims and timbers from forest thinning activities



Chips



Construction materials storage site



Construction and furniture materials



Reborn as recycled products



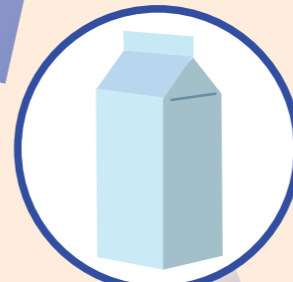
A used paper carton is a high-quality resource.

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 manufacturers



Paper cartons

Paper cartons refer to a container of milk, lactic beverages, juices, etc. that do not have a piece of aluminum laminated to the inside surface. In addition to 1000 ml, 500 ml and 200 ml containers are collected, too.

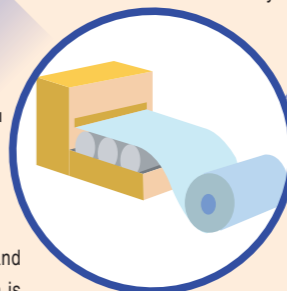
Paper cartons have lower environment load^{**}

CO2 emissions from a 1000 ml paper carton total 32.4 g. The environment load resulting from this is very small. Recycling a 1000 ml paper carton reduces CO2 emissions by 23.4 g.

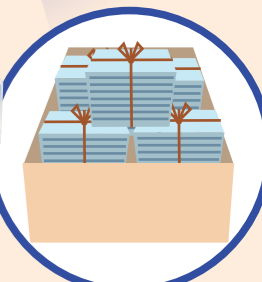
**Source: Institute for Policy Analysis and Social Innovation "2004 Report of Survey on Life Cycle Assessment of Containers and Packaging" (Entrusted by the Ministry of the Environment)

Paper collectors and wholesalers of used paper

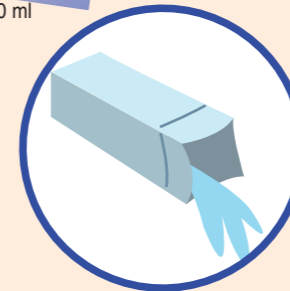
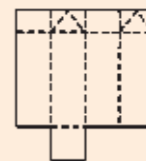
They sort paper cartons and transport them to recycled paper manufacturers.



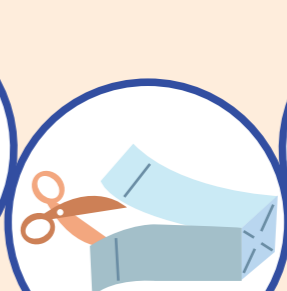
Recycling of paper cartons



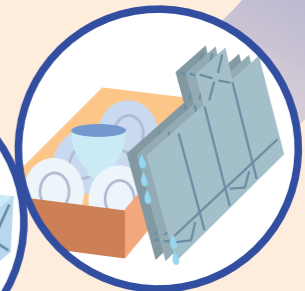
- 1 Wash
- 2 Open
- 3 Dry



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.

Short history



● Short history of COMCEI ■ Shor history of JAMRA ★ Activities to strengthen collaboration

Fiscal year	Short history	Applicable laws
1984	■ A group of housewives in Yamanashi Prefecture started a milk carton recycling movement to educate their children about the value of things around them.	
1985	■ "Japan Milk Carton Recycling Association" (JAMRA) was established.	
1992	● "Committee for Milk Container Environmental Issues" (COMCEI) was established. ■ "Milk carton recycled products mark" was decided.	
	 Milk carton recycled products mark	
1993	● COMCEI participated in the "Forestry Fair" held by the Forestry Agency (COMCEI participated every year until 2008).	● The Basic Environment 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 meals was started (Hokkaido). ■ An experimental project was implemented to build a collection and recycling system for milk cartons used for school meals (Fukuoka and Hyogo) ■ Convivial meetings were held to promote collection of beverage paper containers (Locations of meeting * 1)	
1999	★ Local conference to promote paper carton recycling was held (It is continued since then * 1).	
2000	● The Paper Carton Identification Mark was voluntarily established. ● Discussion Meeting to Promote Recycling of Paper Cartons Used for Beverages was started (this is continued up to the present).	● Containers and Packaging Recycling Law was completely enforced. ● Basic Law for Establishing the Recycling-Based Society was enacted. ● Law for the Promotion of Effective Utilities of Resources was enacted.
	 Paper Carton Identification Mark	
2001	★ Movement for expansion of milk carton collection centers was started. (Provision of collection boxes to local communities)	● Act on Promoting Green Purchasing was enacted.
2002	● 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).	
2003	★ Survey on paper carton LCA in North America was conducted.	
2004	● Environmental campaign was started (executed during Environment month and the 3R month each year). ★ A milk carton recycling workshop was held (it is continued since then * 2). ● Participated in one of the largest class domestic environmental-related exhibitions, called "Eco-Product Exhibition 2004" (It has been held every year since then).	● Review of Containers and Packaging Recycling Law was started. Participation in "Eco-product 2004".
	 Participation in "Eco-Product 2004".	
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 "Milk Packn's Expedition" was started. ● Sponsoring of "Message Box Kit" for educational exhibition was started. ★ Nishi Hari project (Construction of local collection system) ★ Survey on paper carton LCA in Northern Europe	
	 Local Conference To Promote Paper Carton Recycling was held	
2006	■ JAMRA 20th anniversary memorial meeting	● Containers and Packaging Recycling Law was revised and enacted.
2007	● "Plan 2010 - Action Plan for Recycling of Paper Cartons for Beverages - Toward collection rate of 50%" was established and published. ● Participated in the main event of the environmental month "Eco-product and Eco-fair 2007" (It has been held every year since then). ■ Supported "Friendly environment loop - JAMRA" (It has been held every year since then). ★ Survey on paper carton LCA in North America was conducted. ★ Onsite lessons on milk carton recycling were started (it is continued up to this time * 3). ★ The movement for further expansion of the number of milk carton collection centers (20,000 locations were targeted). Participation in Eco-Life Fair/Eco-Products 2007.	
	 Participation in Eco-Life Fair 2007.	

Fiscal year	Short history	Applicable laws
2008	● Participated in the Toyako Summit Memorial General Environmental Exhibition 2008. ★ Conference on employment of CTMP for beverage paper containers	● Revised Containers and Packaging Recycling Law was completely enforced
2009	★ A book "Paper Carton Manifesto" was published	
2010	★ "Milk Packn's Expedition" DVD was produced. ★ The 1st "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Seoul, Korea)"	
2011	★ "Real Story of Paper Carton Recycling" pamphlet was published. ★ Onsite lessons on paper carton recycling were held for leaders of the movement in Korea (in Korea). ★ Provision of collection boxes to 20,000 locations was achieved. ● "Plan 2015 - Action Plan for Recycling of Paper Cartons for Beverages" was established and published. ● The second voluntary action plan for promoting 3R of containers and packaging was announced. (The Beverage Paper Container Recycling Council). ● Certified as PCR of "milk". ★ The 2nd "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Osaka)" ■ "The Milk Carton Recycle Mark Promotion Council" was established.	
	 "Real Story of Paper Carton Recycling"	
2012	● New organizations for operation of COMCEI were started. (General Affairs, Local Organizations, Publicity and Event Committee) ★ The 3rd "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Kyongju, Korea)" ★ Survey on paper carton LCA in Northern Europe ■ "Friendly environment loop forum - Efforts for utilization of renewable energy" ★ Workshop at a commercial facility "Ginza Mitsukoshi" (Tokyo)	
	 Inspection of forestry management practices in Northern Europe	
2013	● A symposium commemorating the 20th anniversary of COMCEI was held. ★ A booklet "Story of Waste" was published. ★ Workshop at a commercial facility "Ario Hashimoto (Sagamihara City)" and "LaLa garden Nagamachi (Sendai City)". ■ Supported "Friendly environment loop - Effects and problems of recycling containers and packaging"	● Review of the Revised Containers and Packaging Recycling Law was started.
	 A symposium commemorating the 20th anniversary of COMCEI was held.	
2014	● Composition analysis of paper cartons in Matsudo City ★ Workshop at a commercial facility "Isetan Matsudo Store (Matsudo City)" and "LaLa garden Nagamachi (Sendai City)". ■ Friendly environment loop forum - Information exchange on activities at welfare organizations associated with milk carton recycling	
2015	● Composition analysis of paper cartons (Machida City) ★ "Milk Carton Recycling - Nationwide Collection of 20 Cases" 4th edition published ★ "Discussion meeting with paper manufacturers associated with paper carton recycling" was held ■ "Friendly environment loop forum - 30th anniversary memorial meeting of JAMRA"	

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

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

*2 Venues of milk carton recycling workshop (2004 to 2015)

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

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

Aomori City Izumikawa Elementary School, Sendai City Shoryo Elementary School, Sukagawa City Abukuma Elementary School, Mito City Akatsuka Elementary School, Chikusei City Ueno Elementary School, Chikusei City Isa Elementary School, Motegimachi Motegi Elementary School, Hagamachi Hagaminami Elementary School, Nogimachi Tomonuma Elementary School, Ota Chuo Primary School, Kawaguchi City Tozukaminami Elementary School, Koshigaya City Obukurohigashi Elementary School, Konosu City Akamidaichiro Elementary School, Ichihara City Chiharadaisakura Elementary School, Noda City Futakawa Elementary School, Shibuya Ward Kakezuka Primary School, Edogawa Ward Shinozakidaini Elementary School, Nishitokyo City Mukoudai Elementary School, Yokohama City Hie Elementary School, Yamato City School Education Study Group, Hiratsuka City Okazaki Elementary School, Hokuto City Mukawa Elementary School, Komagane City Akaho Elementary School, Toyama City Shinjo Elementary School, Kanazawa City Izumino Elementary School, Tarui Cho Iwade Elementary School, Godo Cho Godo Elementary School, Shizuoka City Togendai Elementary School, Hamamatsu City Hamana Elementary School, Nishin City Higashi Elementary School, Nishin City Nishi Elementary School, Minamiise Cho Nantohigashi Elementary School, Nabari City Mihata Elementary School, Osaka City Benten Elementary School, Osaka City Turumachi Elementary School, Kishiwada City Jyoutou Elementary School, Kaizuka City Chuo Elementary School, Amagasaki City Wakaba Elementary School, Nishinomiya City Takagi Elementary School, Oji Cho Ojikita Elementary School, Matsue City Kashimahigashi Elementary School, Hiroshima City Ushitashinmachi Primary School, Hiroshima City Niho Elementary School, Hiroshima City Nukushina Elementary School, Hiroshima City Omachi Elementary School, Fukuyama City Hikino Elementary School, Mitoyo City Matsusaki Elementary School, Mitoyo City Omi Elementary School, Kochi City Kamoda Elementary School, Yoshinogawa City Kamiura Elementary School

COMCEI publications

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

DVD "Milk Pack's Expedition" COMCEI has prepared a detailed DVD version of a website called "Milk Pack'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.



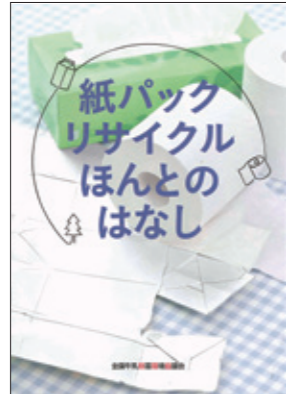
DVD "Milk Pack's Expedition"

"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"



"Real Story of Paper Carton Recycling"

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



"Story of Milk Cartons"

"Recycling Workshop for Creating and Playing with Milk Cartons"
This book is full of ideas such as how to make postcards from handmade paper and how to craft objects out of milk cartons. It is distributed in events such as recycling workshops and Eco-Life Fairs.



Recycling Workshop for Creating and Playing with Milk Cartons

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



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

"Milk Carton Recycling - Nationwide Collection of 20 Cases" 4th edition
Separate collection of paper cartons requires community people's understanding of the recycling and creative ideas in the collection. This case book introduces actual recycling activities carried out by citizen's groups, local governments and various business sectors throughout Japan to assist readers when they are confronted with problems.



"Nationwide Collection of 20 Cases" 4th edition

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.
BF&Package Co., Ltd.
TOKYO PAPER MFG. CO. ,LTD

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

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

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

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

[Ibaraki]
IBARAKI DAIRY PRODUCT INDUSTRY CO., LTD.
TOMOE DAIRY PROCESSING CO., LTD
Ibaraku Co.,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.
KOIWA DAIRY PRODUCTS CO., LTD.
Koshin Milk Products Co,Ltd

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

[Nagano]
YATSUGATAKE MILK Co.,Ltd.
MATSUDA MILK co.ltd
[Niigata]
Niigata-ken Nokyo Milk Co., Ltd.
HARADA Daily Products.CO.,LTD.
Tsukada Milk Products.Co.LTD
Sado Milk Products Ltd.

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

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

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

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

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

[Mie]
Ouchiyama Dairy Agricultural Cooperative

[Kyoto]
HIRAYA MILK
JA Kyoto Rakuno Center

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

[Hyogo]
TAMBA MILK CO.,LTD.
Awajishima Dairy Agricultural Cooperative

[Tottori]
DAISEN Dairy agricultural cooperative

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

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

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

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

[Kagawa]
Shikoku Meiji 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]
kagoshimakenrakunounyuugoukabushikigaisya

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

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

As of the end of October, 2015