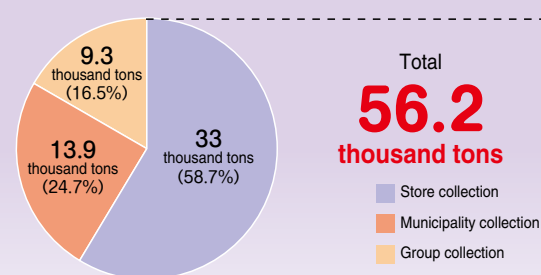


# Recycling Status of Retailers

Many supermarkets collect household-use paper cartons at their storefronts.

Paper cartons put out by households make up approximately 60% of the total volume collected at storefronts by retailers such as supermarkets. Our unique survey of store collection is based on the information provided by the Japan Chain Stores Association, Japan Consumers' Cooperative Union, and others. The total volume of paper collected from storefronts in fiscal 2011 was 33.0 thousand tons, a reduction of 0.6 thousand tons from the previous year. A large quantity of paper cartons have been collected although this was affected to some extent by the Tohoku disaster.

Household paper carton collection volume by collection center (Estimated value)



## We are working on recycling!

### Uny Co., Ltd.

(Head office: Inazawa City, Aichi Prefecture)

#### Activity examples

"Uny" is a chain store operating 227 stores nationwide with a focus on the Tokai area (as of the end of July 2011).

As a result of their efforts carried out based on their "Environmental concept" and "Environmental policy", Uny was certified as an "Eco-First Business" in 2008, a first in the retail industry.

When Uny began collecting various containers in 1998 to reduce and recycle containers and packaging, staff were instructed to also collect paper cartons. Uny installed collection boxes at all their 217 food-handling stores. The volume of containers collected in fiscal 2010 was approximately 622 tons. Products recycled from the collected paper cartons are sold as "Environment-conscious products ecolon".

In order to ensure customers' had a good understanding of their stores' environmental preservation activities, environmental friendly shopping, and ecological handicraft classes. Uny management wanted to add "postcard making from handmade paper" into this program and subsequently, employees ran this workshop with support from COMCEI.

Uny's programs encourage customers to have fun while gaining an interest in environmental issues and to start doing what they can now.



A workshop led by a technical advisor of COMCEI

# Collection status of welfare work places

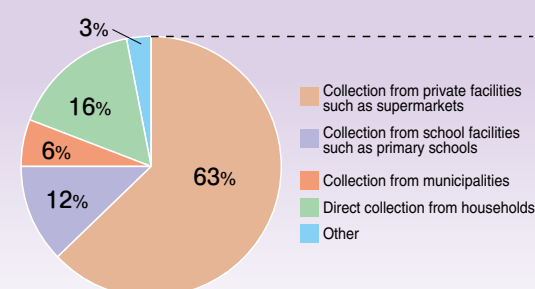
In addition to collecting paper cartons, welfare workplaces are also involved in recycling activities.

Collection by welfare workplaces and citizen's groups is primarily run through private collection boxes at supermarkets. Other than that, facilities at schools such as elementary schools, and collection points run by municipalities and those used by general households are the main source of collected cartons.

Other than these collections, the above-mentioned organizations are promoting paper carton recycling activities, including creation of postcards and bookmarks using recycled paper cartons.

The estimated collection volume was approximately a thousand tons, the same level as the previous year.

Percentage by collection source of paper cartons collected by welfare workplaces and citizen's groups



## We are working on recycling!

### Social welfare corporation - Welfare Village Nanairo Sagyosho

(Aki-gun, Hiroshima Prefecture)

#### Activity examples

"Nanairo Sagyosho" was established as a multifunctional workplace in April 2011 in accordance with the fundamental principles of the Services and Supports for Persons with Disabilities Act, ie: that "each person with a disability can live an independent daily and social life according to their own ability and aptitude". Among other services, the workplace provides nursing and training services such as job assistance.

Their activities include creation and sales of "handmade postcards" based on recycling of paper cartons collected by local supermarkets, elementary schools, and kindergartens. They also produce "handmade postcards" and "lanterns for lantern floating" by making paper from thousands of paper cranes that have been sent to the Hiroshima Peace Memorial from all over Japan. "Handmade postcards" created at Nanairo Sagyosho are also sold in the Hiroshima Peace Memorial Museum in the Peace Memorial Park.



"Water dripping process" used to create handmade postcards



Postcard with folded cranes interwoven

# Collection Status of Municipalities and Voluntary groups



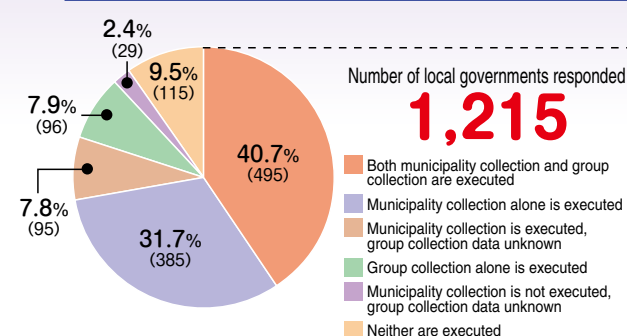
Collection of paper cartons is promoted in about 90% of municipalities in Japan.

Among the 1,742 municipalities in the country, our 2011 survey was conducted in 1,728 of them excluding 14 areas that have been affected by the disaster, and received responses from 1,215 municipalities. The total population of municipalities that responded to the survey made up 89.1% of the total population

In the survey, paper carton collection that is carried out by municipalities and certain associations is categorized as "municipality collection", and that carried out by citizen's groups registered with municipalities is categorized as "group collection".

The execution rates of municipality collection and group collection were about the same as those of the previous year. The municipality collection rate was 80%, and the group collection rate was, excluding cases where no answers were received, 49%. Either municipality collection or group collection was executed in 88% of local governments. In other words, almost 90% of municipalities are helping to collect paper cartons.

Execution rate of municipality collection and group collection



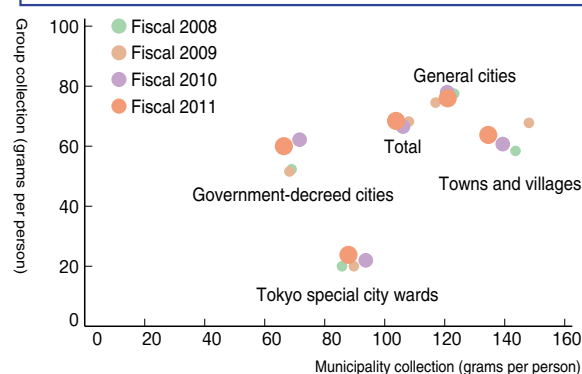
Volume collected through municipality collection and voluntary group collection remain stable.

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 2011, the municipality collection volume was 13.9 thousand tons, and the group collection volume was 8.6 thousand tons. There was no large fluctuation in the collection volume per person since the collection volume in general cities, which share more than 60% of the national population, has remained stable over the past few years. However, one problem is the still low collection rate in government-decreed cities and Tokyo special city wards.

Estimated municipality and group collection volumes by city type

	Total	General cities	Government-decreed cities	Tokyo special city wards	Towns and villages
Municipality collection					
Estimated volume (1,000 tons)	13.9	9.9	1.6	0.8	1.6
Estimated collection ratio by city type	100%	71%	12%	6%	11%
Collection volume per person (grams per person)	109	123	62	93	133
Group collection					
Estimated volume (1,000 tons)	8.6	6.1	1.5	0.2	0.8
Estimated collection ratio by city type	100%	71%	18%	2%	9%
Collection volume per person (grams per person)	67	75	60	23	64
Population by city type (millions)	127	81	26	9	12

Change of municipality collection and group collection by city type

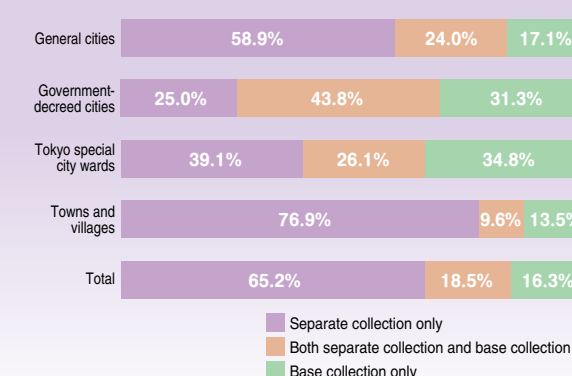


Strict separate collection of paper cartons is implemented in more than 80% of municipalities in Japan.

Used (consumed) paper cartons are collected in two ways in each municipality: separate collection (cartons are collected from separate residential homes or from garbage stations), and base collection.

More than 80% of municipalities employ separate collection procedures for paper cartons. By city type, more than 60% of general cities and towns and villages employ strict separate collection alone. More than 30% of government-decreed cities and Tokyo special city wards employ base collection alone. However, the percentage of the separate collection is gradually increasing.

Ratio of paper carton collection types by city type



## We are working on recycling!

### Nakano Ward, Tokyo

#### Activity examples

Nakano Ward, which is located at the west end of the Musashino Plateau, developed during the Edo Period as a strategic location for goods distribution as well as a supply center for grain and vegetables for citizens. In modern times, the ward's population has increased thanks in part to the opening of a rail route. It has also developed into a residential neighborhood for people who commute to the heart of Tokyo.

Nakano Ward promotes a "Go for zero-trash life" campaign to encourage people to positively utilize recycled products by participating in and cooperating with the resource recycling movement. The ward is now working to encourage residents to reduce their trash by 100 grams per day per person. Nakano Ward calls for citizens to participate in and cooperate with the resource recycling movement. As part of such efforts, its website features a specific objective such as, "Target weight of a milk carton - 30 grams".

Concerning collection of used paper, Nakano switched from ward-initiated collection to group collection in March 2007. 223 organizations are registered for group collection (as of September 2012). Orange flags and curtains featuring the words "Group Collection Storage Site" are used at collection sites. Milk cartons are treated as miscellaneous recyclable paper resources (packaging papers, cake boxes, tissue paper boxes, catalogs, pamphlets, milk cartons, etc.) just like newspapers and cardboard. Some residents' associations specify "used clothes and cloths", "paper cartons" and "aluminum cans" for separate collection. Nakano Ward officials have stated that they also want to begin separate collection of paper cartons in a step-by-step manner.

According to comments from people in Nakano Ward, it is currently difficult for them to carry out separate collection of paper cartons due to the large number of single people living in the ward. As a result, the ward is asking citizens to put out paper cartons along with miscellaneous recyclable papers and magazines.



Recycling workshop hall (Nakano ZERO)



Explanation on making postcards from handmade paper



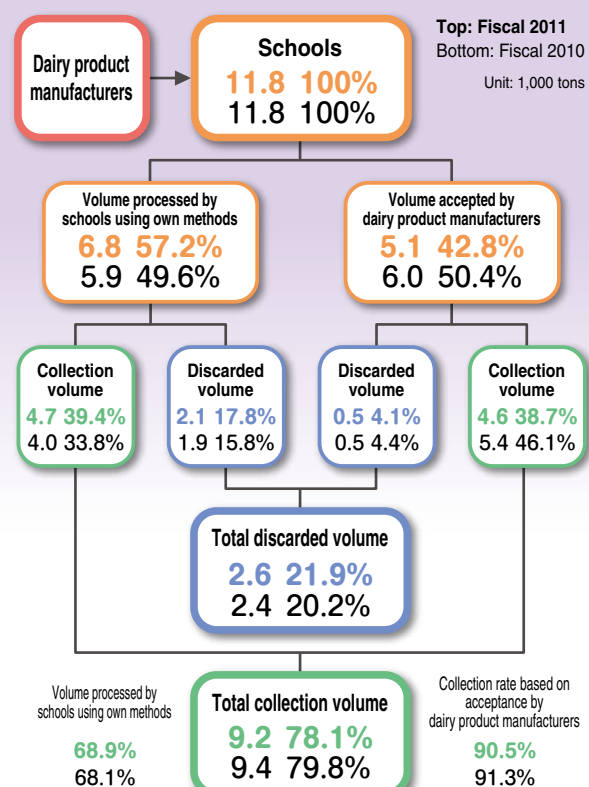
# Recycling Status of Schools

Paper carton collection from households is being positively promoted.

The total collection volume of paper cartons used at schools was 11.8 thousand tons, the same volume as the previous year. Seventy eight percent of this volume, or 9.2 thousand tons, was collected for recycling. The volume of paper cartons processed at schools using own methods has increased in fiscal 2011. About 70% of the collected volume is recycled, and this percentage is increasing.

Paper cartons are reused in the science and mathematic classes in primary schools. Collection of paper cartons from children's homes is also promoted.

## Material flow of milk cartons for schools (Estimated value)



※ Processing by schools using own methods refers to deliver paper cartons directly to local governments or used paper recyclers.  
※ Figures may not add up to total due to rounding.

## We are working on recycling!

### Goudo Cho Goudo Primary School

(Goudo Cho, Anpachi Gun, Gifu Prefecture)

#### Activity examples

Goudo Cho is located in the northwest of the Nobi Plain, specifically on the west bank of the Ibigawa River. Goudo Primary School, which is located in the center of the town, is a historic school established in 1873. The number of children is 511 at this school. In a bounteous environment with newly completed school buildings, the school children are working hard at study and playing sports under the school's educational concept, "Accomplish your aim". They engage in various activities created around the PTA activities and with support from the town's fire company, the chambers of commerce, and the club of elderly people. Recycling and ecological activities are also very popular. Recycling of paper cartons and bottle caps has been incorporated into the integrated study program for more than 10 years. They bring paper cartons from their home every Wednesday, and on a bulletin board, they post the number of paper cartons and the toilet rolls that can be recycled from the paper cartons. They also post the number of vaccine shots that becomes available with recycled caps. This activity is helpful to enhance their recycling awareness. In 2011, they collected approximately 9,000 paper cartons. Additionally, our onsite lessons have set off the idea, after talking with the town office, to resume recycling of 200 ml milk cartons for schools that was suspended three years ago.



Monitoring of power consumption  
(Screen of weekly report graph)



School children welcomed us

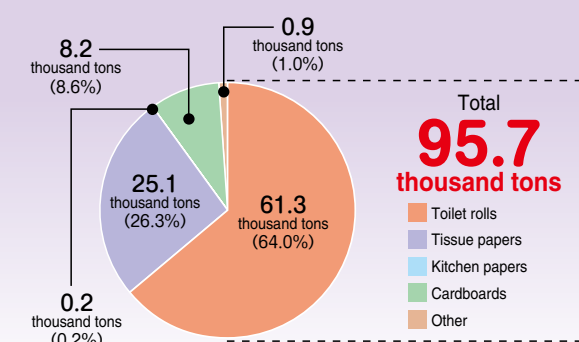
# Recycling Status of Recycled Paper Manufacturers

Use for toilet rolls has greatly increased.

In the 25 recycled paper manufacturers that answered the questionnaire, 19 manufacturers have accepted paper wastes generated by paper carton manufacturers and beverage manufacturers, and paper cartons collected from households and business facilities.

The total volume of accepted paper cartons consisting of domestically collected paper cartons and imported used paper cartons amounted to 119.7 thousand tons. About 80%, i.e. 95.7 thousand tons, were used as recycled paper. The usage volume of toilet rolls has increased to two thirds of the total volume in fiscal 2011. The balance is used for tissue paper, kitchen paper etc.

## Use for recycled products



## We are working on recycling!

### Shinei Paper Manufacturing Company

(Fujinomiya City, Shizuoka Prefecture)

#### Activity examples

Shinei is a recycled paper-based toilet roll manufacturing company established in 1961. It mainly produces coreless products such as "CORELESS" rolls. In addition to paper cartons for beverages, miscellaneous recyclable papers, train tickets, and confidential documents are recycled. Out of about 100 tons of used paper processed every day, they utilize about 50 tons for toilet rolls and pulp about 30 tons to supply to group plants as raw material. They utilize non-paper materials adhered to used paper - approximately 20 tons - as fuel where possible.

In order to produce high-quality strong white toilet rolls, 30% or more of used base paper (raw paper) is sourced from paper cartons for beverages. Used paper is dissolved in a machine, foreign substances and ink are extracted, and the resulting mix is formed into large rolls of paper using a paper machine. Rolls of paper produced in this way are rewound to toilet roll size and then cut to the required width. During this process, if any paper is produced that is not able to be used, it is dissolved again. They exercise ingenuity about the width of toilet rolls to minimize waste.



A group of coreless products



Winding paper machine for recycled pulp