

## Environmental awareness

We address food-related issues, such as food loss reduction and food recycling, and global issues, such as plastic waste in the ocean and climate change, and thereby contribute to the realization of a sustainable society.



### Key Issues

In recent years, global warming is bringing significant changes to the ecosystem around the world. While causing large-scale disasters resulting from severe storms and torrential rainfall of typhoons, global warming has also caused droughts that have led to the depletion of water resources and the consequent emergence of areas where the securing of water and food is very difficult. On the other hand, more than 6 million tons of food that is still good to eat are thrown away annually in Japan. Among the wasted food, about 60 thousand tons are discharged annually by retail businesses, which account for about 1/5 of trade food loss. Moreover, use of plastics for food packaging has become a serious issue as plastics are not naturally degradable and have a serious impact particularly on the marine ecosystem.

### Opportunities and Risks

Climate change due to global warming can cause natural disasters and significant damage to local communities and lead to the depletion of natural resources, such as water and forests. Since such a situation will lead to the unstable supply of raw materials (farm and marine products) that are essential for our business, it can be said that climate change is our long-term risk.

Toward the Construction of a recycling-oriented society, further systematic efforts are required to reduce the consumption of natural resources, environmental burdens, and plastic waste over which international concern has been rising.

### Strategies for Environmental awareness

FamilyMart and UNY have long promoted environmental efforts and accumulated own know-how, particularly in the fields of food loss reduction, food recycling, a reduction of containers, packaging, and plastic shopping bags, and investment in energy-saving equipment for stores. In the future, we will share such know-how within the Group and enhance Group synergy.

For new global issues, such as plastic waste, that have been attracting much interest recently, we will seek a comprehensive approach together with the industry.

### Value creation

The Group that has a store network across the country promotes environmental efforts throughout the supply chain in collaboration with local communities and business partners. The Group will spread more stable and efficient environmental measures through our business, which cover store equipment, sales activities, and beautification of the community environment.

The implementation of strategic measures for increasingly diversifying environmental issues will enable us to fulfill our corporate social responsibility and lead to a reduction in environmental risks associated with group business activities and the creation of new business opportunities. We will contribute to the realization of a sustainable society while developing environmental awareness in communities through our store-driven, community-based efforts.

### Key Performance



#### FamilyMart UNY Holdings Co., Ltd.

- Number of participants in environmental learning programs and events at stores

Approx. **70,000**



#### FamilyMart Co., Ltd.

- Amount of CO<sub>2</sub> reduced by using green packaging for ready-to-eat products

Approx. **4,478** t (side-seal shrink packaging and PLA containers)

## Basic Approach

For the Group that conducts business centering on stores, environmental issues are particularly important since they are closely connected to and have a great impact on our daily lives. Therefore, both FamilyMart and UNY obtained ISO 14001 certification early on and established an environmental management system centering on stores.

In March 1999, all stores and business establishments of FamilyMart obtained ISO 14001 certification and have since promoted the development of environmentally friendly convenience stores in conformance with the environmental management system. At UNY, the head office obtained ISO 14001 certification in 2004, and since 2014, stores have introduced ISO 14001 in a sequential manner. Currently, 147 stores have ISO 14001 certification. For the Group as a whole, about 16,000 domestic stores have the environmental management system in place.


The Group intends to strengthen the ISO 14001-based environmental management system and further promote environmental efforts.

ECO FIRST is a system where the Minister of the Environment certifies environmentally advanced companies that conduct advanced, unique, and industry-leading business activities. In 2008, UNY became the only ECO FIRST-certified company in the general retail industry.




ECO FIRST Mark

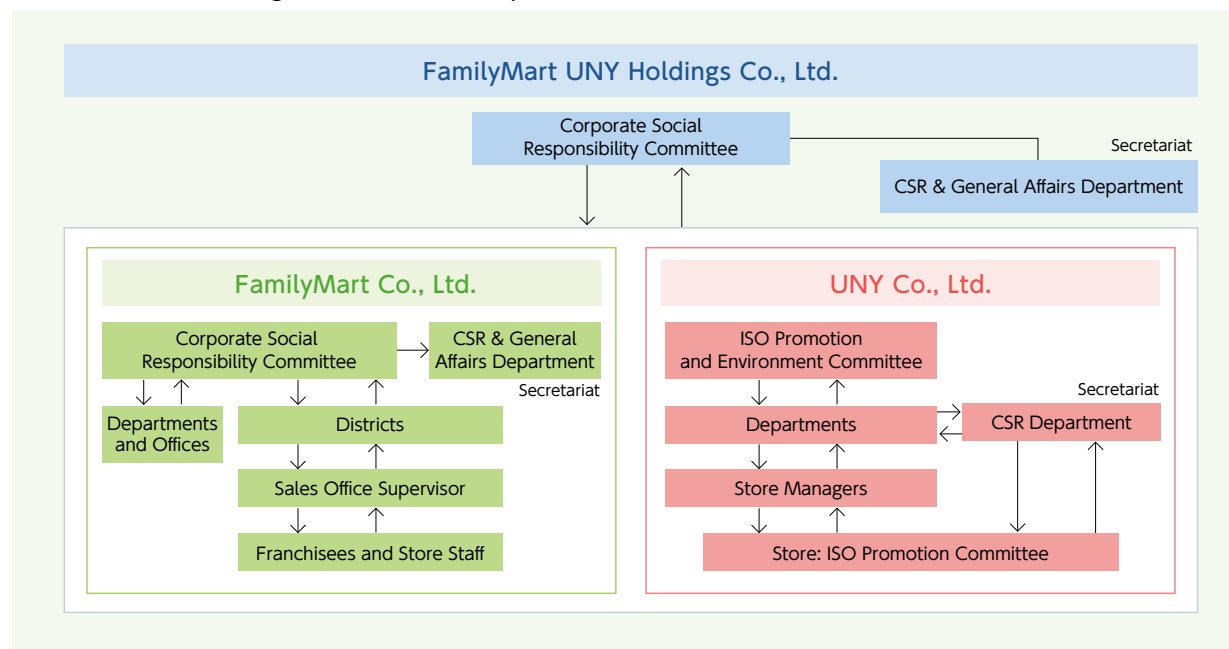
### FamilyMart Environmental Policy (Japanese only)

 [http://www.family.co.jp/company/csr/environmental\\_initiatives/policy.html](http://www.family.co.jp/company/csr/environmental_initiatives/policy.html)

### UNY Environmental Policy (Japanese only)

 <https://www.uny.co.jp/csr/philosophy>

## Environmental Management Promotion System



## Operational Structure

At the Company, the Society & Environment Committee with the CSR & the General Affairs Department as a secretariat has overall control over the environmental management mechanism of the entire Group and operates and promotes the environmental management system in collaboration with the department in charge of environment of each group company.

At FamilyMart Co., Ltd., the Society & Environment Committee of the company implements efforts in collaboration with departments, offices, and districts based on the company's environmental plan. For the maintenance and improvement of the environmental management system at stores, it is essential that each store actively addresses the issue and that

supervisors (SVs) provide consultation to stores.

Supervisors visit stores on a regular basis and communicate guidelines and improvement measures related to the environmental management system to the stores. Store managers report the status of efforts at stores to the supervisors, who then report them to the CSR & General Affairs Department. Thus, the CSR & General Affairs Department keeps track of the efforts of all FamilyMart stores.

At UNY, under the leadership of the ISO Promotion Committee of the company, each store holds an ISO promotion committee meeting chaired by the store manager each month and implements specific measures according to the environmental implementation plan of the store.

## Development of Environmental Awareness

The Group conducts well-crafted environmental education programs to deepen employees' understanding of environmental issues and facilitate their participation in environmental conservation activities within and outside the Company.

In Japan, there are 17,777 employees in total (on a consolidated basis, as of the end of February 2018). In particular, diverse people who vary with age, employment period, and nationality work in the stores. Therefore, in order to raise environmental awareness in the entire Group, it is necessary for us to take different approaches in line with the unique characteristics of each store.

At FamilyMart, supervisors in charge of each store provide environmental education to store managers, and the store managers educate store staff. Through employee training as they began to work, regular e-learning courses, and *eco and social partner*, an environmental education tool for stores, supervisors have deepen their own knowledge and understanding about environmental conservation. Supervisors ensure the dissemination of environmental efforts into stores through promoting environmental communication with store managers and staff by using those education tools and through putting up a panel of the company's environmental policy in the store office areas.

At UNY, environmental education is conducted on a store basis targeting all store employees from the store manager to part-time workers. The environmental education at a store is led by the store manager, and the UNY head office provides manuals and training materials, such as DVDs for environmental education.

## Implementation of Internal Environmental Audits

The Group implements internal environmental audits, for which the head of the Auditor Office takes responsibility, to see if the environmental management system is implemented and managed in an appropriate manner. For this auditing process, different mechanisms are established to suit the unique characteristics of each business company.

At each FamilyMart store, a self-assessment is conducted using an ISO 14001 check sheet that is delivered to employees with the environmental education tool, *eco and social partner*. For the internal environmental audit that is conducted every October, supervisors implement the audit of stores and report the results to the CSR & General Affairs Department. For stores that require improvement, corrective measures are implemented promptly at the stores under the guidance of supervisors.

At UNY, the ISO Promotion Committee keeps track of environmental efforts in the meeting that each store holds once a month. A self-assessment is conducted according to the environmental implementation plan on the items, such as paper, CO<sub>2</sub> emissions, and waste reduction, and the results are reported to the CSR Department at the UNY headquarters.

The CSR Department closely analyzes the assessment results against the environmental implementation plan of each store and provides improvement guidance if necessary. For example, when figures that exceed the effluent standard were found through self-assessment, the CSR Department conducted a thorough investigation into the cause and took appropriate corrective measures, including preventive measures. In principle, an internal environmental audit is conducted once every six months in tune with the environmental management system cycle to drive continuous improvement.

## Results of Internal Environmental Audit

The internal environmental audit in fiscal 2017 found no legal violations related to the environment or serious environmental problems in the Group.

### Number of Internal Environmental Audits implemented

	Headquarters Departments	Bases	Stores
FamilyMart	18	26	15,656* <sup>1</sup>
UNY	16	6	66* <sup>2</sup>

\*1 As of September 2018. All stores except area franchisers.

\*2 As of November 2018

While it has been determined that the minor problems found in some stores do not have a serious impact on the environment at present, the Group has been making collective efforts to address environmental issues and build a continuous improvement culture. Specifically, under close collaboration between the secretariat of each business company and stores, we ensure that improvement measures for each case are examined and that the measures will be put into practice as part of store operations.

Moreover, best practices at stores are accumulated within the Group and shared with other stores as reference cases.

## Efforts to reduce food loss

Toward the realization of a recycling-oriented society, the Group has been making ongoing efforts to reduce waste arising from its business activities. In particular, the Group makes a concerted effort to reduce food loss since food is the core product for its sales activities.

In 2015, the Food Recycling Law was revised and the target of recycling rate for the food retail business was raised to 55%. In response to it, the Group has been reinforcing efforts first to minimize waste generation, including food products, and then to recycle the remaining waste into new resources, such as feed and fertilizers.

With "Do not pollute communities" as its basic approach to store operation, UNY stores have been promoting efforts to reduce food loss through the 3Rs (Reduce, Reuse, and Recycle). In fiscal 2003, the company introduced the waste weighing system to sort waste from stores into 19 categories. In fiscal 2007, the system was installed into all

stores. UNY has clearly defined the locus of responsibility by managing waste by discharge source, such as the sales floor and the specialty shop, and has since continued reducing food loss while analyzing the waste generating factors.

FamilyMart has also been promoting efforts to reduce food loss and recycle food waste. By enhancing the ordering accuracy at stores, the company has reduced wasteful food disposal in the production process at plants and food waste due to the expiration of the sell-by date at stores. The company particularly focuses on waste segregation at stores to facilitate the reuse of waste as resources.

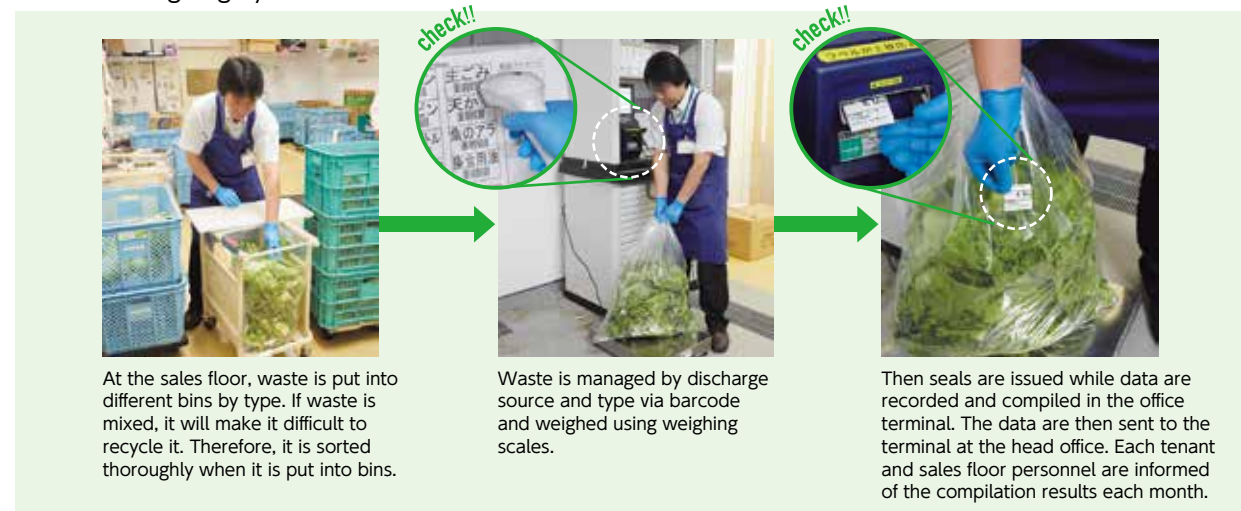
In product development, gas flush packaging, which helps to maintain food freshness longer than conventional packaging, is used for some products in the prepared food series, Mother's Kitchen. The gas flush packaging is a method to minimize oxidation by injecting carbon dioxide and nitrogen into containers. This technology has enabled

FamilyMart to extend the expiration date without damaging the taste or increasing additives.

Moreover, by replacing the conventional cover with top seal packaging with special processing, the company has reduced the use of plastic materials for food containers by 33.6 t annually, which is equivalent to a reduction of 153.7 t of CO<sub>2</sub> per year (estimate at the time of introducing the technology).

The generation of food loss increases not only environmental loads but also the Group's burdens, such as the costs of waste segregation and disposal. With the understanding that in the end, food loss could become a factor that hampers the sustainable and stable supply of food, we will continue our ongoing efforts to reduce food loss/waste.

### Waste Weighing System



Ordering Operations at FamilyMart



Product packaged by gas flush packaging (Mother's Kitchen)

## Food Recycling

Since the enforcement of the Food Recycling Law in 2001, retail companies have promoted efforts to recycle food. The Group was among the first to address food recycling, as exemplified by the recycling business plan of UNY, the first food-recycling loop\* in Japan, certified by the Minister of the Environment, the Minister of Agriculture, Forestry and Fisheries, and the Minister of Economy, Trade and Industry in 2007.

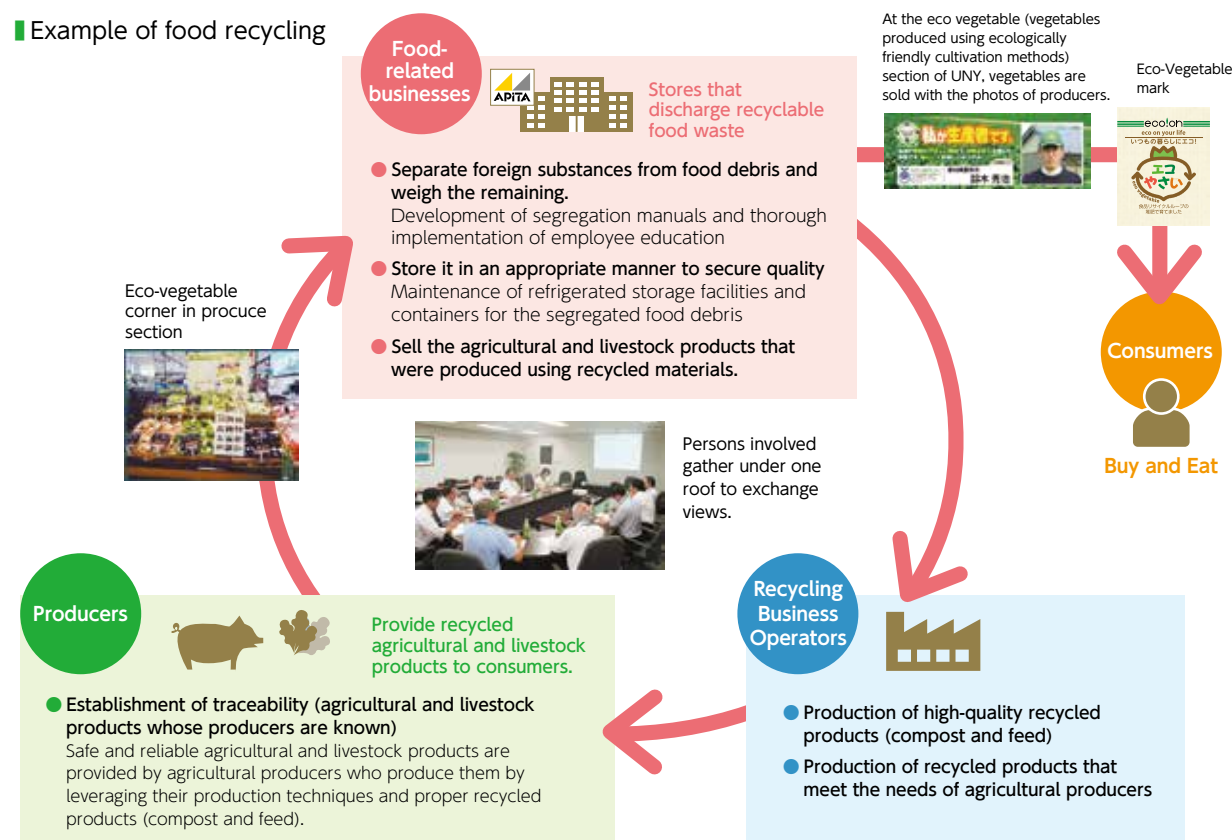
Currently, there are 50 certified food-recycling loops in

Japan, among which 15 loops are operated by the Group (as of the end of December 2018). Particularly after the management integration, the Group has further expanded food recycling efforts toward the maximization of group synergy, such as the participation of FamilyMart in the UNY food-recycling loop, and the number of certified food-recycling loops jointly organized by UNY and FamilyMart has increased from two before the integration to six, an increase by four, in 2018.

In the future, sustainable efforts will be required more than ever before to promote food recycling. The Group will explore such efforts from a long-term perspective while giving due consideration to geographical and economic conditions.

\*It is a mechanism where agricultural and livestock products, which have been produced using fertilizers and feedstuff that were made from recycled food waste discharged from the food business operators, such as retail and restaurant businesses, are sold by such business operators.

### Example of food recycling



## Performance

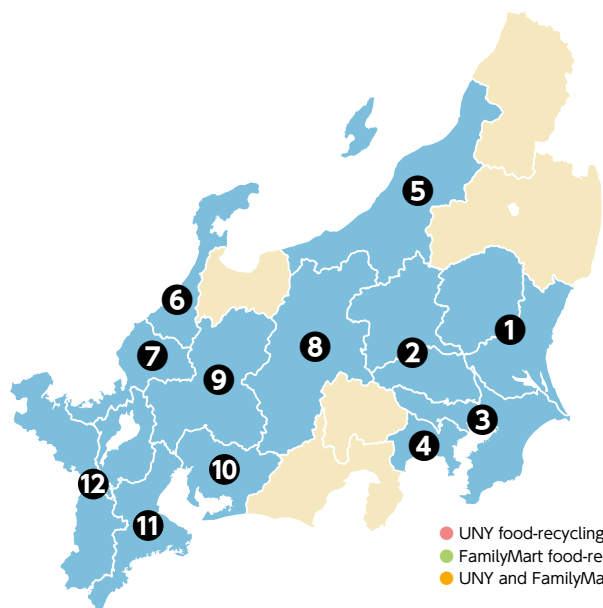
As a result of efforts to reduce food loss in stores toward the realization of a recycling-oriented society, the recycling implementation rate in fiscal 2017 rose to 54.1% at FamilyMart and 80.6% at UNY.

	(Fiscal year)		
FamilyMart	2015	2016	2017
Amount of food waste generated (t)	51,617	82,910	74,207
Recycling implementation rate (%)	50.5	47.0	54.1
Food waste generation unit (amount generated (kg) per sales of 1 million yen)	26.1	27.5	24.6

	(Fiscal year)		
UNY	2015	2016	2017
Amount of food waste generated (t)	18,075	17,453	16,636
Recycling implementation rate (%)	72.9	74.9	80.6
Food waste generation unit (amount generated (kg) per sales of 1 million yen)	31.3	30.4	29.9



## Food-recycling loops of FamilyMart UNY Holdings Co., Ltd.



## ① Ibaraki and Tochigi Pref.

● Mukashinotaihi Co., Ltd.,  
Rainbow Future Co., Ltd.

## ② Saitama and Gunma Pref.

● I'll Clean-Tech Co., Ltd.,  
Kakuya Shoten Co., Ltd.

## ③ Chiba and Tokyo Pref.

● Bright Pig Co., Ltd.,  
Prima Meat Packers, Ltd.,  
Yamazaki Baking Co., Ltd.,  
● Bright Pig Co., ECO FOOD Ltd.

## ④ Kanagawa Pref.

● Takematsu Co., Ltd.,  
Arita Hokku Science Co., Ltd.

## ⑤ Niigata Pref.

● Fuji Industry Co., Ltd.,  
JA (Japan Agricultural  
Cooperatives) Niigata Mirai

## ⑥ Ishikawa Pref.

● TOSMAC-i Co., Ltd.,  
JA Matto

## ⑦ Fukui Pref.

● Fukui Environmental  
Operations Co., Ltd.

## ⑧ Nagano Pref.

● Iida Organic Co., Ltd.,  
JA Minami Shinshu

## ⑨ Gifu Pref.

● Hashimoto Co., Ltd.

## ⑩ Aichi Pref.

● Hirate Industrial Co., Ltd.,  
JA Aichi Economic Confederation  
● D.I.D Co., Ltd.,  
JA Aichi Economic Confederation  
● Chubu Yuki Recycling Co., Ltd.

## ⑪ Mie Pref.

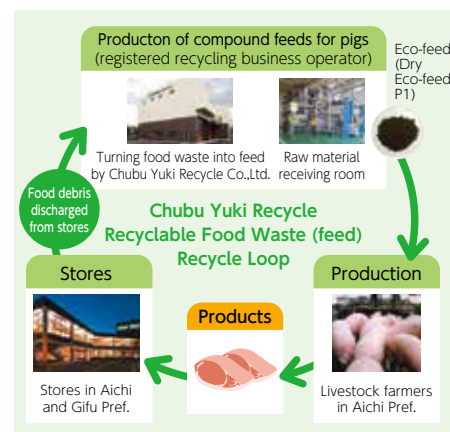
● Sankoh Co., Ltd.,  
Kosonosato Co., Ltd.

## ⑫ Kyoto, Shiga, Nara Pref.

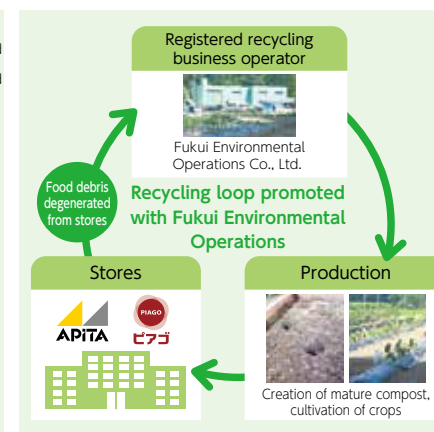
● Kyoto Yukishitsushigen Co., Ltd.

## Effort Examples

## ■ Chubu Yuki Recycle Private Brand Pork (Aichi Pref.)



## ■ Fukui Environmental Operations (Fukui Pref.)



## Message from a producer

**Satoshi Maekawa**, President, Chubu Yuki Recycle Co., Ltd.

Our company built a food recycling for feed facility in Moriyama-ku, Nagoya, and started operation in August 2009. As a recycling partner, we conduct the food recycling for feed business with UNY while strictly observing laws and regulations. All of the feed we produce is sold to feed producers as a raw material for compound livestock feed. The compound livestock feed produced is then sold to pig farmers and chicken farmers in Aichi Pref.

We conduct a product quality inspection on feed on a regular basis. In particular, we have been successfully controlling enterohemorrhagic E. coli O157 and Salmonella by using a heating process, leading to the production of safe and reliable feed products.

Pigs that have been raised with this feed are sold as pork at UNY, completing the recycling loop, which was certified as a recycling business

plan (food-recycling loop) by the Minister of the Environment, the Minister of Agriculture, Forestry and Fisheries, and the Minister of Economy, Trade and Industry in November 2011.

Moreover, since we accept food waste also from FamilyMart stores to recycle it, a food-recycling loop, including FamilyMart, was certified in 2018.

We believe that the food recycling for feed business and the certification of food-recycling loops are the projects that will greatly contribute to improving the feed self-sufficiency rate and the food self-sufficiency rate in Japan. In the future, we as a recycling partner will further promote recycling and contribute to these projects.



## Efforts associated with Containers and Packaging

Reducing greenhouse gas emissions, such as CO<sub>2</sub>, that causes global warming has become a serious global issue. The Group has stores across the country and has been implementing a range of efforts toward the realization of a low carbon society. One of such efforts is to reduce CO<sub>2</sub> emissions by changing product containers and packaging.

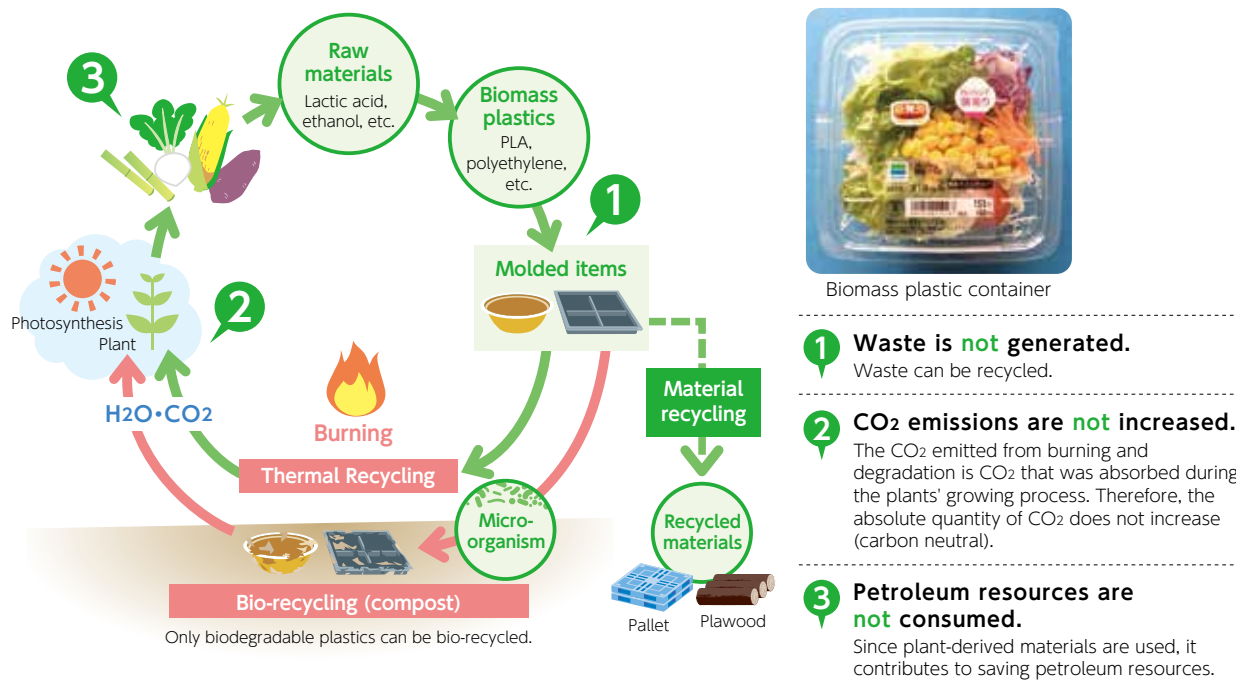
The reuse rate of plastic waste in Japan is about 84%, and it is relatively high compared to other countries in the world. However, since plastics are made from petroleum, they are not fully naturally degradable and possibly emit harmful substances in addition to CO<sub>2</sub> when incinerated or used for heat recovery.

Therefore, the Group not only promotes the recycling of plastics based on the Containers and Packaging Recycling Act, but also uses biomass plastic containers, which will lead to a reduction in CO<sub>2</sub> emissions, for some products. For plant-derived biomass plastics, the amount of CO<sub>2</sub> absorbed when the plant raw materials perform photosynthesis and the amount of CO<sub>2</sub> emitted when the container is disposed of are almost the same, leading to a reduction in the total CO<sub>2</sub> emissions.

UNY has been using biomass plastics for containers and packaging in the vegetable and fruit sections since 2006 and uses bio-polyethylene that is made from sugarcane scrap in the 25% of the raw material for the paid plastic bags. The use of bio-polyethylene will lead not only to reducing CO<sub>2</sub> emissions by 17% compared to petroleum products but also to discouraging the use of a limited petroleum resource.

FamilyMart introduced biomass plastic containers for regular salad products and reduced 24.57 g of CO<sub>2</sub> emissions per salad container and about 2,503 t of CO<sub>2</sub> emissions per year in fiscal 2017. After the introduction of biomass plastic containers in 2007, about 20% of biomass plastic containers in Japan are used by FamilyMart, the

### Environmentally friendly plastics: Environmental cycling of biomass plastics,



highest utilization performance in the retail industry.

Moreover, it has reduced the amount of plastics used by 550 t and the corresponding amount of CO<sub>2</sub> emissions by 1,975 t by changing the lunchbox wrapping method from the conventional full shrink packaging that wraps the entire lunchbox to the side shrink packaging where a film wraps only the area between the lid and the box. In addition, in fiscal 2017, the company expanded the use of plant-derived ink, which has been used for sandwich packaging, to rice

ball and hand-rolled sushi packaging, leading to a reduction of about 100 t of CO<sub>2</sub> emissions per year.

In Europe and some states in the US, regulating the use of plastic products has been considered and the trend toward plastic waste discharge control seems to accelerate internationally. In the future, the Group will continue making improvements on containers and packaging as an effort to be addressed by the entire supply chain.

## Efforts to reduce the use of plastic shopping bags

As part of efforts to reduce containers and packaging, the Group has been promoting a reduction in plastic shopping bags. Reducing plastic bags distributed to customers at the cash register will lead to a reduction in CO<sub>2</sub> emissions and eventually to the prevention of global warming.

To that end, UNY launched a plastic shopping bag reduction campaign in 1989 and has since actively conducted customer awareness raising activities, such as the distribution of My Bags in 2001 and a no plastic shopping bag campaign in 2006. Since 2014, the company expanded the "Stop the distribution of free plastic shopping bags (charging for plastic shopping bags)" campaign to all stores, achieving the plastic shopping bag refusal rate of 85.6% in fiscal 2017. Consequently, compared to fiscal 2007 when the distribution of free plastic shopping bags was discontinued, the use of plastic shopping bags was significantly reduced: the number of plastic shopping bags was reduced to about 1/5, and the amount of recycling implementation commission fee based on the Container and Packaging Recycling Law was reduced to less than 1/2. The company contributes 1 yen per plastic shopping bag purchased to municipalities, and the contributions have been used for various environmental conservation activities. The

amount of money contributed in fiscal 2017 was 26,217,118 yen.

Toward the unified objective of the Japan Franchise Association, of which FamilyMart is a member, "Achievement of the plastic shopping bag refusal rate of 30% by 2020," FamilyMart has been promoting efforts to reduce the use of plastic shopping bags, such as awareness raising activities, including speaking to customers about the use of plastic shopping

bags and putting up posters, the distribution of appropriately sized plastic shopping bags by store employees, and the use of thinner plastic bags that will lead to a reduction in petroleum consumption.

These efforts have resulted in increasing the company's plastic shopping bag refusal rate to 29.1% in fiscal 2017. In the future, the company will make ongoing efforts toward the achievement of the unified objective.

In recent years, efforts to reduce the use of plastic shopping bags have been spreading across the world centering on Europe and business operators are required to implement appropriate measures in accordance with the characteristics of each business category. While the Group conducts consumer awareness campaigns in collaboration with municipalities, it will further reinforce efforts at stores by implementing store employee training and customer awareness raising activities toward the improvement of the plastic shopping bag refusal rate.

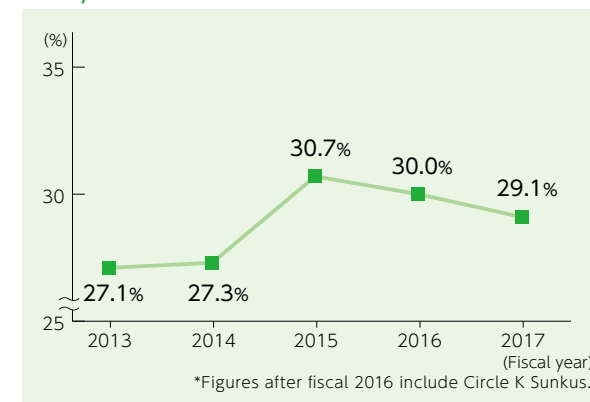
## Changes in the use of plastic shopping bags and the commission fees based on the Containers and Packaging Recycling Law at UNY

Fiscal Year	Number of bags (unit: thousand bags)	Weight (t)	Commission Fee (unit: million yen, incl. tax)
2007	310,559	1,818	297.29
2008	309,222	1,851	279.78
2009	134,678	1,029	222.72
2010	116,749	964	166.55
2011	111,632	851	161.54
2012	110,743	839	148.68
2013	109,528	821	158.04
2014	68,454	616	161.04
2015	63,288	587	135.57
2016	63,572	573	124.89
2017	68,852	548	136.65

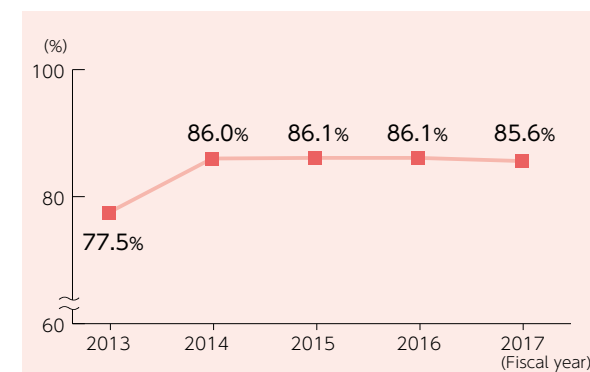
\*The amount of commission fee paid to the Japan Containers and Packaging Recycling Association based on the Containers and Packaging Recycling Act.

## Changes in the plastic shopping bag refusal rate

### FamilyMart



### UNY



Plastic shopping bag reduction poster put up at a FamilyMart store



## Conservation of Biodiversity

### Basic Approach

The Group provides products that enable customers to enjoy all the blessings of nature and that are useful for their daily lives. On the other hand, we recognize that our business activities have impact on biodiversity at all stages of the supply chain, including the procurement of raw materials.

In order for us to provide products in a sustainable manner, we must be able to secure biological resources on a long-term basis. To do so, it is critical for us to give due consideration to the conservation of biodiversity and community activities. We believe that reflecting such a corporate attitude in our business activities will lead to the enhancement of our brand value and the acquisition of support from customers, including environment-oriented consumers.

We address the conservation of biodiversity while making clear what we can do in our business activities, especially the daily operation of stores.

### Specific Efforts

As part of biodiversity conservation efforts, UNY harvests farm and marine produce, raw materials of its products, in an eco-friendly manner as much as possible.

#### ● Atlantic Salmon

In order to protect the clean sea of Norway, the company has built a system to prevent the discharge of wastewater from salmon farms and processing plants. It recycles the wastewater from processing plants into fish oil. The salmon are transported from the northern end of Norway to our stores in Japan without freezing.

#### ● Sustainable Coffee

Coffee, which is grown organically using the shade grown method that leverages a blanket of shade provided by layers of trees in a tropical rainforest, can grow with little water. Since this method also works to protect the soil and plants of the tropical rainforest, it contributes to the conservation of environment for creatures in the cultivated field. Moreover, since large harvest machines cannot be used in the forest, hand harvesting is practiced, which enable the harvesting and shipping of coffee beans without

causing any damage to them.

Organically grown crops are cultivated on farmland where agricultural chemicals or chemical fertilizers are not used for more than two to three years based on predetermined criteria. Compared to conventional farming methods, this method contributes to reducing CO2 emissions since the energy consumption by agricultural machinery can be reduced.

#### ● Fair Trade Ice Cream

In 2017, UNY launched Ben and Jerry's ice cream, the first Fairtrade International-certified ice cream in Japan. The ice cream uses ingredients, such as sugar, vanilla, cocoa, coffee, and bananas, which have been grown organically and certified by the Fairtrade Labelling Organizations International, e.V. (FLO). This ice cream is not only ecologically friendly, but also safe for children to eat.

#### ● ecolon Organic Cotton T-shirts

Since 2007, UNY has been handling t-shirts made from organically grown cotton. High-quality organic cotton that has been harvested in a careful manner is used and provided as t-shirts in lustrous colors that have little down.



Atlantic Salmon



Sustainable Coffee



International Fairtrade Certification Marks



Fair Trade Ice Cream



ecolon Organic Cotton T-shirts

## Development of Environmentally Friendly Stores

To build a society in harmony with nature, the Group promotes the development of environmentally friendly stores.

### In the stores

#### ● CO2 reduction

UNY uses energy-saving LED for indoor and outdoor lighting. Moreover, some stores have adopted a trench heating and cooling system, a geothermal heat-based air-conditioning system, leading to a reduction in power consumption for air conditioning by about 1.8% and the annual CO2 emissions of the stores by about 0.6%. ①

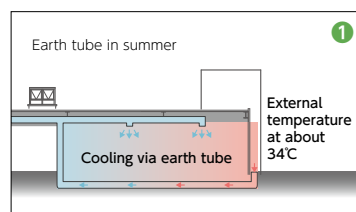
FamilyMart stores have also adopted LED lighting and a system that controls brightness by time or store zone. The demonstration experiment on energy-saving stores that has been conducted since fiscal 2017 showed that the use of highly efficient LED lighting reduced electricity consumption by 8% compared to conventional lighting systems. The highly efficient lighting system has been being introduced into the lighting of new stores since January 2018. ②

In addition, the company has been promoting the introduction of CO2 refrigerant-based refrigerators and freezers, which achieve a reduction in both energy-derived CO2 and chlorofluorocarbons, and as of the end of February 2018, 125 such systems are in operation in 64 stores. ③

#### ● Waste Prevention

UNY has installed recycling stations or trash separation bins to collect recyclable materials that customers dispose of after purchase, such as milk cartons, disposable food trays, aluminum cans, PET bottles, and PET bottle caps. In addition, it provides a waste measuring system, which is used for the separation and weighing of waste from sales floors and tenants, at designated trash disposal places. These efforts are introduced and communicated to customers through posters put up in the stores to raise their awareness of waste separation. ③

In fiscal 2016, FamilyMart standardized the installment of trash bins in the stores to ensure a reduction in waste from stores and the compliance with government rules on waste sorting.



- ① UNY: Structure of a trench heating and cooling system
- ② FamilyMart: LED lighting in a store
- ③ UNY: Recycling station

### Areas around stores

#### ● Consideration to the environment around stores

UNY uses part of power generated by solar power panels installed on store walls or roofs in the stores. As of the end of February 2018, 11 UNY stores are using the solar panels, and 2,083 FamilyMart stores have installed solar power panels. ④

In addition, UNY promotes the greening of store walls to reduce a temperature increase in the building by leveraging high insulation of green walls and to save energy by reducing air conditioning use in the stores. ⑤

Moreover, some UNY stores have installed a rainfall infiltration facility, which reduces the amount of rainfall discharged outside stores by 25% and thereby contributes to the conservation of groundwater and the prevention of floods via the control of river flow rate.

FamilyMart uses LED lighting for facade and other signs, improving energy saving by about 70% compared to fluorescent lighting-based signs. ⑥ FamilyMart has also introduced LED lighting into parking lots at 3,726 stores, as of the end of February 2018. Compared to conventional lighting systems, LED lighting has improved energy saving by about 30%. Besides, LED bulbs and tubes have the life four times longer than that of conventional bulbs and tubes.

The company has installed a fast charger for electric cars at the parking lots of 699 stores (as of the end of February 2018), contributing to the development of the use environment for electric vehicles and PHVs. ⑦



- ④ UNY: Solar power generation
- ⑤ UNY: Use of green walls on the exterior walls of stores
- ⑥ FamilyMart: LED lighting for the sign on the store facade
- ⑦ FamilyMart: Fast charger for electric vehicles

## Promotion of ESD (Education for Sustainable Development)

In order to build a sustainable society, it is essential to provide environmental education to children who will live in the future local communities. Recognizing the significance of this education early on, the Group has continuously provided environmental educational programs that address environmental issues together with young people of the next generation centering on community children.

As a program that leverages brick-and-mortar stores, UNY launched the Ecological Store Expedition program in 2001. This is a program where community children learn environmental efforts by a supermarket and environmentally friendly shopping while exploring in the store. The Ecological Store Expedition program is conducted in the stores across the country as a community and store-based environmental educational program. The program was conducted 96 times in 2017, where 844 children participated.



Children in the Ecological Store Expedition who look for environmentally friendly products

The company also participates in community events actively and since 2007, it has been conducting a course for citizens at the Nagoya Open University of the Environment that was established in collaboration among citizens, citizens' groups, enterprises, schools, universities, and the local government. In the course, participants learn various environmental issues and countermeasures by shopping, and those who completed the course participate actively at UNY events as interpreters.

By using part of the contributions from customers, FamilyMart provides environmental educational programs to young people of the next generation in Japan and overseas and supports them in collaboration with NGOs, NPOs, and community volunteers.

One of the environmental education programs provided by FamilyMart to children in community kindergartens and nursery schools is the "Forest Class: Little Donguri and His Forest Friends" (organized by the National Land Afforestation Promotion Organization). Through various programs in the class, such as a Character Show where children can learn the value of a forest while having fun, Forest Gymnastics where they dance to original music, and the planting of acorn trees, the various roles of forests, and the preciousness of life are communicated to children.

Both UNY and FamilyMart provide a school visit lecture service targeting elementary

school children, junior and senior high school students, and university students, where employees visit schools and teach about our business and related environmental issues, etc.

In fiscal 2017, UNY conducted an environment class for children at stores 297 times, where a total of 9,152 children participated. FamilyMart provided the school visit lecture service and the visit the company program to 952 students in 23 schools.

It is our responsibility to provide support to children so that they can understand the environmental issues in the world and in their intimate environment and work out countermeasures on their own. Such support is essential for the development of local communities. In the future, we will continue communicating to children the significance of facing environmental issues and resolving them together with others through environmental activities at stores and efforts in collaboration with community people.



"Forest Class: Little Donguri and His Forest Friends" held in Niigata pref.



## ● Efforts to contribute to the realization of a low carbon society

### Efforts to reduce greenhouse gases

Kanemi Co., Ltd. actively addresses energy saving at every plant and according to the regular report that the company submitted in fiscal 2017 based on the Law concerning the Act on the Rational Use of Energy (Energy Saving Act), it was categorized as S class, a category of companies with high energy saving performance, for the third consecutive year since the establishment of the business classification system by the Ministry of Economy, Trade and Industry.

One of the specific efforts is the promotion of the use of LED lighting in plants, particularly in dishing up rooms. The shift to LED lighting is conducted on a room-by-room basis since the different illumination levels and colors could affect visual quality. The company makes an effort to promote energy saving without lowering operational quality, such as making a gradual shift to LED lighting starting with sections that have less of an impact in the thermal processing area where there are over 100 lights in a room.

A shift to energy-saving freezers, refrigerators, and air conditioning in plants is conducted in a systematic manner while considering investment efficiency. Almost all boilers have been changed to those with higher gas efficiency in accordance with the Energy Saving Act. For kitchen equipment, such as stir fryers, high-efficiency equipment is being phased in.

Tenant stores in UNY are changing all light fixtures to LED in line with the UNY renovation plan. The head office of Kanemi Co., Ltd. changed the entire lighting system to the LED-based system when it was relocated in 2013.



LED lighting

### Replacement for Freon gas

Generally, Freon gas that causes ozone depletion and global warming is used in commercial refrigerators and freezers. The company, therefore, has been phasing in gases that have less impact on global warming. By starting the replacement with energy inefficient equipment and replacing broken equipment with new non-Freon ones without fixing them, the company promotes efforts toward the realization of a low carbon society.

## ● Efforts toward the realization of a society in harmony with nature

All of the 15 plants of Kanemi Co., Ltd. consume about 200 tons of water per day on average. Water intake equipment is installed on wells in compliance with municipal ordinances and if it is difficult to dig a well, it uses water tanks to utilize a public water supply system, and/or industrial water in order to secure enough water. The company filters water on an as-needed basis to obtain high-quality water.

Since the amount of wastewater discharged per day is over 50 tons, the plants are equipped with wastewater treatment facilities as specified facilities. Even in the regions where a sewer system has been installed, wastewater is first treated before being discharged into the system. When discharging wastewater into rivers, the company does so in compliance with its own effluent standards that satisfy municipal requirements to conserve the ecosystem. These water treatment facilities of 15 plants are managed collectively.

The wastewater treatment facilities maintain the effluent standards even when the plants are operated at full capacity, such as at the time when seasonal campaign products or new products are introduced, by implementing the necessary measures, such as cleaning water-purifier tanks more frequently than usual. In an effort to consider biodiversity, the company will thoroughly manage water resources and effluent in collaboration with management companies to contribute to the realization of a society in harmony with nature.



Water treatment facility