

# Reducing the Environmental Impact

We are fostering the reduction of CO<sub>2</sub> emissions by proactively introducing solar panels and LED lights.

## Energy conservation at stores

Since the occurrence of the Great East Japan Earthquake, the energy and environmental policies have been substantially reviewed in Japan.

Against this backdrop, about 90% of CO<sub>2</sub> emitted by Seven & i Holdings is attributable to the use of energy for in-store lightings, store signboards and air conditioning, which are all indispensable for the operation of its stores.

Based on this recognition, Seven & i Holdings has been introducing energy-saving equipment to at the time of opening new stores and refurbishing existing stores, thereby preventing its environmental impact from increasing in proportion to increases in the number and size of their stores.

## Aiming to reduce CO<sub>2</sub> emissions predicted for FY2017 by about 10%

In February 2013, Seven & i Holdings set a target of reducing the CO<sub>2</sub> emissions predicted for FY2017 based on the emissions in FY2011 by about 10%, targeting its nine operating companies in Japan\*.

\*Nine companies: Seven-Eleven Japan, Ito-Yokado, Sogo & Seibu, York-Benimaru, York Mart, SHELL GARDEN, Seven & i Food Systems, Akachan Honpo, and THE LOFT

## Fostering CO<sub>2</sub> emissions reduction by installing solar panels and smart sensor

In particular Seven-Eleven Japan began adopting LED lights for the lighting of store signboards in 2008 and also for the lighting of sales floors at some stores, including refurbished stores in August 2009. Since

Number of Seven-Eleven Japan stores equipped with solar panels



September 2011, the company has been fostering the use of LED lights as standard lights. Also, top lights to take in sunshine and solar panels



Top lights to take in sunshine

are installed on the rooftops of its stores. The number of its stores equipped with solar panels increased from 209 at the end of FY2010 to 1,393 at the end of FY2011 and then to as many as 6,500 in FY2012.

Smart sensors are also attached to the power distribution boards of its stores. By visualizing the use of electricity for store equipment with these sensors, the company identifies and

rectifies the problems related to the use of the equipment, thereby reducing the waste of electricity.



Smart sensors (power consumption measuring instruments used for visualization of power use)

Seven-Eleven Japan also urges

store employees to follow the in-house "10 energy conservation rules" that provide for the cleaning of machines and temperature settings for more energy conservation.

In addition, the company has been increasing the number of eco-friendly stores, in which

a range of devices, such as energy-saving air conditioning systems and circulation ventilation systems are installed. The number of these stores increased to 561 as of the end of May 2013.

6,500

Number of stores equipped with solar panels  
6,500 stores



## Reducing CO<sub>2</sub> emissions at stores

### Opening stores made of wood

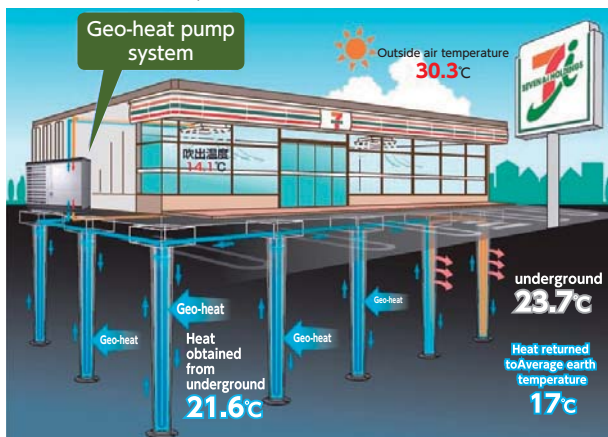
Stores made of wood have smaller CO<sub>2</sub> emissions at the time of their construction than conventional steel-frame stores. Seven-Eleven Japan began opening these stores in FY2009 and the number substantially increased from 45 stores as of the end of the previous fiscal year to 86 stores as of the end of FY2012.

### Making use of geo-heat as natural energy

As a new initiative implemented in FY2012, Seven-Eleven Japan introduced an air conditioning system using geo-heat, which is natural energy stable throughout the year, to four of its stores.

By the use of the system, both the consumption of electricity and CO<sub>2</sub> emissions will be reduced by about 30%.

The company will continue to increase the number of stores equipped with energy-saving devices while also making examinations to implement new measures.



### Reusing construction materials and fixtures from old stores

Seven-Eleven Japan repairs and reuses the shelves and other fixture salvaged from the stores to be rebuilt or to be closed. Also to reduce the construction waste generated from disassembled stores, the company uses reusable steel frames and recyclable sashes as construction materials for new stores.

In the fall of 2010, the company had a whole store disassembled and moved to a new place to open it as a new store. By the end of February 2013, the company removed and rebuilt three stores in total in this manner.

## Reducing CO<sub>2</sub> emissions from logistics operations

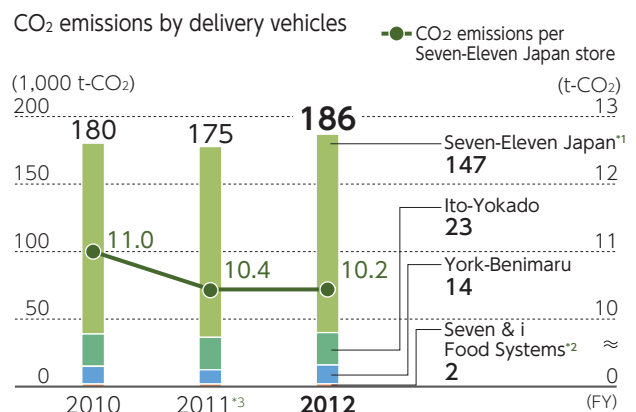
Seven & i Holdings is introducing eco-friendly vehicles and improving fuel efficiency while reducing the frequency of the delivery of goods to its stores. Moreover Seven-Eleven, Ito-Yokado, and York-Benimaru are reviewing the locations of their distribution centers and establishing intermediate centers to deliver various products, including those that need to be kept at different temperatures, all together to their stores. In addition, Seven-Eleven Japan and Ito-Yokado are fostering the introduction of drive data recording terminals to their trucks to give advice to truck drivers based on the data, while holding eco-driving training sessions.

### Fostering the reduction of CO<sub>2</sub> emissions from delivery trucks and distribution centers

Seven-Eleven Japan delivers products to its stores across Japan by using 4,254 vehicles (as of the end of FY2012). In order to foster safe driving and the reduction of environmental impact caused by the delivery, the company introduced a total of 297 hybrid vehicles by the end of FY2012, with the first one being introduced in 2006.

Also at the distribution centers, the introduction of demand controllers has been fostered to monitor and control each facility's use of electricity. As of the end of FY2012, 51 centers out of 147 had the controllers, which have been helping the centers reduce the waste of electricity.

The company will further promote the introduction of the controllers going forward.



\*1 Seven-Eleven Japan's data include CO<sub>2</sub> emissions from the operation of distribution centers.

\*2 This value is for Denny's only

\*3 Some data are missing due to the Great East Japan Earthquake.



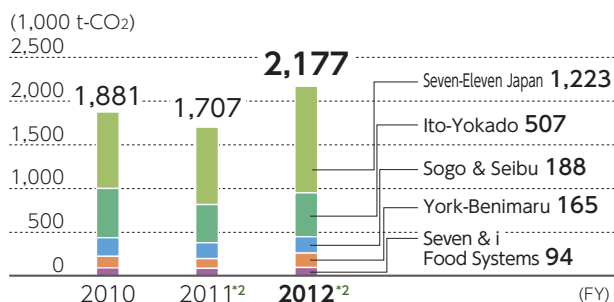
## Attaining an appropriate grasp of environmental impact

Seven & i Holdings has been undergoing third-party examinations for CO<sub>2</sub> emissions from its store operations, thereby appropriately identifying the amount of CO<sub>2</sub> emissions for the evaluation and verification of its environmental impact reduction measures. In FY2011, five Group companies received the examinations and in FY2012 the examination target was expanded to include nine companies\*.

Moreover in FY2012, in order to estimate CO<sub>2</sub> emissions in a more practical manner, we reviewed the Group's standard rules set on the calculation of CO<sub>2</sub> emissions in 2008. We revised the rules mainly to make calculations by using the CO<sub>2</sub> emission coefficients that change every year, as we do in creating the reports to be submitted to the government agencies in line with the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures.

\*Targeted companies: Seven-Eleven Japan, Ito-Yokado, Sogo & Seibu, York-Benimaru, Seven & i Food Systems, York Mart, Akachan Honpo, THE LOFT and SHELL GARDEN

### CO<sub>2</sub> emissions from store operations\*\*



\*1 For the calculation method, please see the data posted at the website.

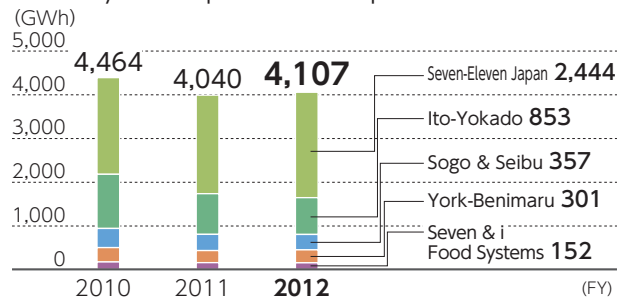
\*2 Verified by an independent organization

### CO<sub>2</sub> emissions from store operations by nine companies for FY2012\*

\*Verified by an independent organization (1,000 t-CO<sub>2</sub>)

Aforementioned five companies	2,177
York Mart	50
Akachan Honpo	20
THE LOFT	21
SHELL GARDEN	6
Total	2,276

### Electricity consumption in store operations



### CO<sub>2</sub> emissions in FY2012\* (1,000 t-CO<sub>2</sub>)

Seven & i Food Systems

96 (4%)

York-Benimaru

187 (8%)

Sogo & Seibu

188 (8%)

2,377  
1,000t-CO<sub>2</sub>

Seven-Eleven Japan  
1,372 (58%)

Ito-Yokado

533 (22%)

\*CO<sub>2</sub> emissions from store operations (2,177,000 t-CO<sub>2</sub>) plus CO<sub>2</sub> emissions caused by the use of energy for transportation and headquarters activities. For the calculation method, please see the data posted at the website.

## Management of CFCs

At Seven & i Holdings stores, devices using CFCs are replaced with those using CFC alternatives at such occasions as when the stores are refurbished. The stores also daily conduct temperature checks on the devices for the early detection of any CFC leakages. The devices using CFCs are disposed of by professional companies in compliance with the law, and the stores receive collection certificates from the companies as the proof of appropriate disposal.

## Measures for waste

Seven & i Holdings has been committed to improving its food recycling rate in recognition of the fact that food accounts for about 60% of the sales of its five major operating companies<sup>\*1</sup>. Also the company is simplifying product packages and reducing the use of disposable plastic bags at the stores to reduce the generation of waste<sup>\*2</sup>, receiving support from customers.

<sup>\*1</sup> Seven-Eleven Japan, Ito-Yokado, Sogo & Seibu, York-Benimaru, and Seven & i Food Systems

<sup>\*2</sup> For the waste generated by each company, please see the Data Section (on page 58 onwards).

## Reducing food waste by a range of methods

Ito-Yokado turns the food residues from its stores into compost and cultivates crops using the compost at its dedicated Seven Farms. The harvested crops are sold directly at neighboring Ito-Yokado stores for the promotion of closed-loop agriculture. As of July 2013, there are nine Seven farms (about 55 hectares in total) across Japan and the number is planned to be increased to 10 by the end of FY2013. (see page 21)

### Closed-loop food recycling system



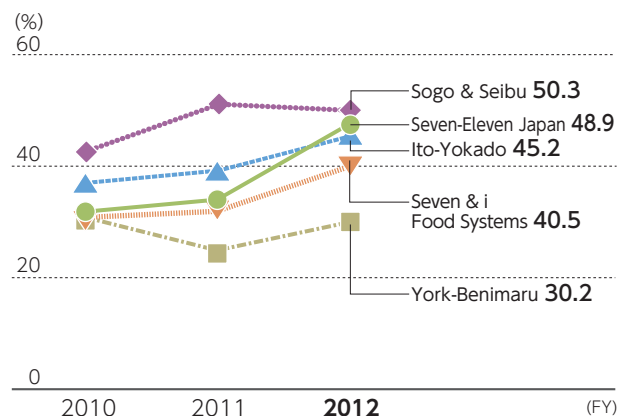
Seven-Eleven Japan collects expired food products to recycle them into energy materials in addition to compost and livestock feed. In FY2012, the company began recycling expired food products at another 535 stores and the

number of stores implementing this initiative increased by 19% from FY2012. Also oil wasted from the in-store cooking process is recycled into materials for livestock feed, industrial products and fuels.

Ito-Yokado introduced a system to treat garbage by using microorganisms in October 2011. This system breaks down garbage into water and carbon dioxide to reduce the amount of waste effectively. (By the end of July 2013, the company had introduced the system to two of its stores.)



### Food waste recycling rate (FY2012)



<sup>\*</sup>For the calculation method, please see the data posted at the website.

## Adopting eco-friendly packages

At Ito-Yokado and York-Benimaru stores, a lot of foodstuffs are processed and cooked, so various efforts are being made to reduce the use of packaging materials as well as to review their materials.

At some stores, for example, blocks of meat are now sold in plastic bags or being vacuum-packed, instead of being sold on trays. Also for packaging of cut fruits, Ito-Yokado uses plant-based plastic as elaboration of packaging materials themselves. Because plant-based plastics are produced without using fossil resources such as oil, the production of the material will not contribute to an increase in the absolute amount of CO<sub>2</sub>, which is said to cause global warming.

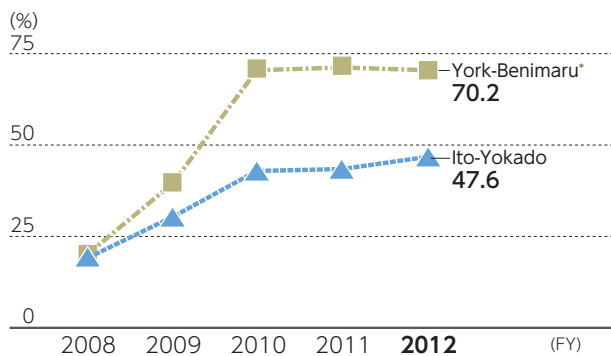
## Reducing the use of disposable plastic bags

At our stores, we are reducing the use of disposable plastic bags by asking customers to bring their own shopping bags to the stores and by discontinuing the free distribution of such bags.

In February 2013, eight Group companies implemented a campaign to reduce the use of disposable plastic bags. For example, Ito-Yokado discontinued the free distribution of the plastic bags at the food floors of all its stores and began selling the bags at the unit price of two yen. Group companies fostered the reduction in the use of disposable plastic bags by posting posters and POP signs and holding events to encourage customers to bring their own shopping bags to the stores.

As a result of continuing this effort, the use of disposable plastic bags decreased by about 15% at eight Group companies in FY 2013. We will reduce the use by about 2,300 tons in weight and by about 14,000 tons in CO<sub>2</sub> equivalent (commensurate with the total amount emitted annually from about 3,000 general households).

Plastic bag turndown rate (food section)



\*For data in and before FY2009, calculations were made based on the number of Eco Stamp cards collected. In FY2010, we changed the calculation method, which is now based on the number of customers who do not accept plastic bags at checkout counters.

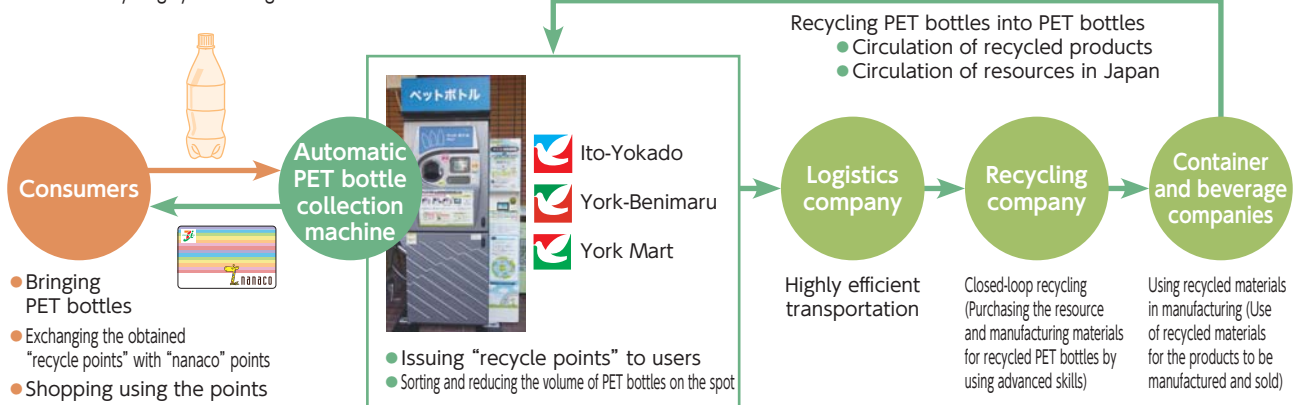
## Installing automatic PET bottle collection machines

Ito-Yokado, York-Benimaru and York Mart installed automatic PET bottle collection machines at their stores (at a total of 220 stores as of the end of August 2013).

Because the machines automatically sort PET bottles and reduce their volume by compressing or crushing, while also removing foreign matter in the sorting process, recycling companies can obtain resources in conditions suitable for recycling. Moreover, because their volume is reduced, stores do not need to spend much labor and backyard space for the bottles. Also logistics companies can transport more bottles at one time, and together with utilizing the transportation routes of Seven & i Holdings, they can achieve highly efficient transportation. Part of the PET bottles thus collected is recycled again into PET bottles. This “closed-loop recycling” system to recycle PET bottles to PET bottles is the first attempt by a major retail chain in Japan to be implemented on a large scale. We plan to increase the number of stores equipped with the automatic collection machines to 230 stores within FY2013. In order to foster PET bottle collection, we provide “recycle points” that can be exchanged with “nanaco” (Seven & i Holdings’ electronic money) points to customers who bring used PET bottles to stores.

At Ito-Yokado and York Mart stores equipped with the machines, PET bottle caps also began to be collected in December 2012. The collected caps are recycled within Japan.

PET bottle recycling system using an automatic collection machine



## Measures to conserve water

Seven & i Holdings companies\* are making daily efforts to reduce their water use while introducing water-saving faucets and other devices and using rainwater.

York-Benimaru has adopted inverter-type pumps to standardize water supply pressures, thereby reducing its water use.

Seven & i Food Systems has asked the cleaners of its uniforms to clean them only by water without using solvents that contain volatile organic compounds (VOC) and other substances that might cause photochemical smog. The water used for the cleaning is purified by microorganisms (by adsorption and decomposition) to be reused as cleaning water.

\*For the water use by the operating companies, please see the Data Section.

## Raising environmental awareness among employees

Seven & i Holdings and the Seven-Eleven Memorial Foundation are encouraging Group employees to participate in environmental activities. For example, the Foundation has been conducting an activity to restore eelgrass\* in Tokyo Bay, and 42 employees participated in it in FY2012. In this activity, employees raise their environmental awareness, being given time to learn about the present problems and the environmental effect of eelgrass.

Moreover, a CSR section has been created in the Group magazine for employees, in which the Group's environmental efforts are regularly introduced.

\*Eelgrass (*Zoster marina*): Seagrass growing in coastal sandy and muddy areas. They provide fish with spawning sites and habitats and also play an important role for water purification.



Participants collected eelgrass seeds and replanted them

## Implementing measures to conserve biodiversity

In addition to environmental activities conducted at stores, we are implementing forest conservation projects both in Japan and abroad to reduce CO<sub>2</sub> emissions and protect biodiversity on a global level.

In Indonesia, we have been implementing the "REDD+" project at Meru Betiri National Park (about 58,000 hectares) in Indonesia since 2010. This project helps to conserve biodiversity and mitigate climate change, while also contributing to improving the lives of local people. We are supporting this project to curb CO<sub>2</sub> emissions from deforestation and forest degradation, which represent one of the factors contributing to climate change; to foster CO<sub>2</sub> absorption by forests; and to secure habitats for diverse living forms.

In Japan, jointly with the Seven-Eleven Japan Memorial Foundation, we launched a project to foster forest improvement in Sakaki Town, Nagano Prefecture in June 2012. In Japan a number of artificial forests are left unattended and these forests are not fulfilling their expected roles such as absorbing CO<sub>2</sub>. We will improve and conserve these forests in a sustainable manner and in harmony with biodiversity conservation by thinning them, clearing brush, and planting different tree species. Wooden materials derived from the forests are used by the Group as materials for stores as well as for office fixtures. We will also develop commercial products by using the materials as a means to foster the effective use of domestic timber. Moreover we regularly conduct a forest improvement activity with the participation of Group employees and owners of Seven-Eleven franchise stores. A total of 262 people participated in the activity, which had been held four times by June 2013.



Employees thinning a forest, and recycling boxes and cartons made by using timber from the thinning



## Provision of environment-friendly products and enlightenment activities

### Green wrapping

Sogo & Seibu sells 97 eco-friendly product items that are assessed by a third-party organization to meet the criteria set independently by the company (as of the end of February 2013). Also, the company proposes “green wrapping” to customers, through which they can make social contributions. Specifically, it is proposed that customers purchase a wrapping ribbon with a leaf-shaped mascot at the unit price of 100 yen (including tax), of which 50 yen will be donated to the tree planting and growing activities. One tree can be planted by donations from the sales of 80 ribbons. Moreover the company asks its customers to choose “simple packaging” when they purchase summer and winter gifts, which leads to the planting of one tree per 4,000 gifts. (As of the end of August 2013, a total of 4,635 trees were planted through this initiative.)



Green wrapping

### Rice cultivated in consideration of environmental conservation and in harmony with nature

Ito-Yokado sells rice cultivated in consideration of environmental conservation and in a harmonious way with nature. The cultivation not only uses less pesticide

and chemical fertilizer but also aims to conserve biodiversity by using rice fields which can be wildlife habitats. The company donates part of the sales for the improvement of the environment of the rice producing areas. In FY2012, it donated about 200,000 yen to the fund for oriental white storks from the sales of Koshihikari Rice Nurturing White Storks, and also donated about 360,000 yen to the the Fund for the Improved Habitat for Japanese Crested Ibis in Sado from the sales of Koshihikari Rice Produced in Sado, Niigata Prefecture, Certified by the “Creating Villages Coexisting with Crested Ibis” Program.

### Green Curtain Project

Under the leadership of the Ministry of the Environment, Sogo & Seibu is fostering the Green Curtain Project at all its stores, in order to reduce CO<sub>2</sub> emissions and the use of electricity in summer. In FY2013, the company held bitter melon planting events at its stores. In the events, children invited from neighboring kindergartens and elementary schools planted bitter melon saplings in the pots installed at the rooftops and front entrances of the stores, thereby increasing their interest in and knowledge about the environment.



A green curtain alleviates strong sunlight



**Seven-Eleven  
Memorial Foundation**



<http://www.7midori.org/>

### Supporting environmental NPOs, anti-global warming activities, and natural environment preservation activities by collecting donations at stores

The Seven-Eleven Memorial Foundation was established in 1993 for Seven-Eleven Japan headquarters and its franchise stores to conduct social contribution activities focusing on the environment together. The money donated by customers through collection boxes installed at the stores is sent to the Foundation together with the donations made by the headquarters of the company. The money is used to support environmental NPOs chosen through a public offering and to conduct activities for mitigating global warming and to protect and conserve the natural environment. In FY2012, a total of 488,447,168 yen was donated by

customers at the stores and a total of 126,206,886 yen was used to give financial support to 139 organizations.

### Example of activities conducted to protect and conserve natural heritage

The Foundation concluded a partnership agreement with Kiritappu Wetland National Trust, an authorized NPO in Hokkaido. Based on this agreement, the Foundation has purchased private land within the wetland to conserve the natural heritage. As of the end of FY2012, it acquired wetland extending over a total of about 409 hectares.