

Response Based on TCFD Recommendations



Introduction: Our Vision of Society

Our Group has various points of contact with customers, including food, clothing, housing, and financial services. We have about 22,800 stores in Japan, which are visited by more than 22.2 million people every day. Our business rests on the pedestal of our position as part and parcel of the daily lives of customers. To make local communities sustainable, we have identified, as material issues,^{*1} social issues that should be solved in a priority manner through our main businesses. In our Medium-Term Management Plan 2021–25,^{*2} we have committed ourselves to the promotion of sustainable management.

[*1 Seven & i Group Material Issues >](#)

[*2 Medium-Term Management Plan 2021–25 >](#)

Among the material issues, through our Response to Climate Change (3. Realize decarbonization, circular economy, and society in harmony with nature, through environmental efforts), we will undertake initiatives to prepare for and prevent climate change that threatens the daily lives of customers and local communities, such as natural disasters, which are increasing in number, and the procurement of product raw materials, which is becoming increasingly unstable. To accelerate these initiatives on material issues, in May 2019 we issued the “GREEN CHALLENGE 2050” environmental declaration,^{*3} which outlines a roadmap for the society we are aiming for in the years 2030 and 2050.

[*3 “GREEN CHALLENGE 2050” environmental declaration >](#)

In this environmental declaration, we have set medium- to long-term goals in four fields—reduction of CO₂ emissions, measures against plastic, measures against food loss/waste and for organic waste recycling, and sustainable procurement—toward a transition to three forms of society, namely, a decarbonized society, a circular economy, and a society in harmony with nature.

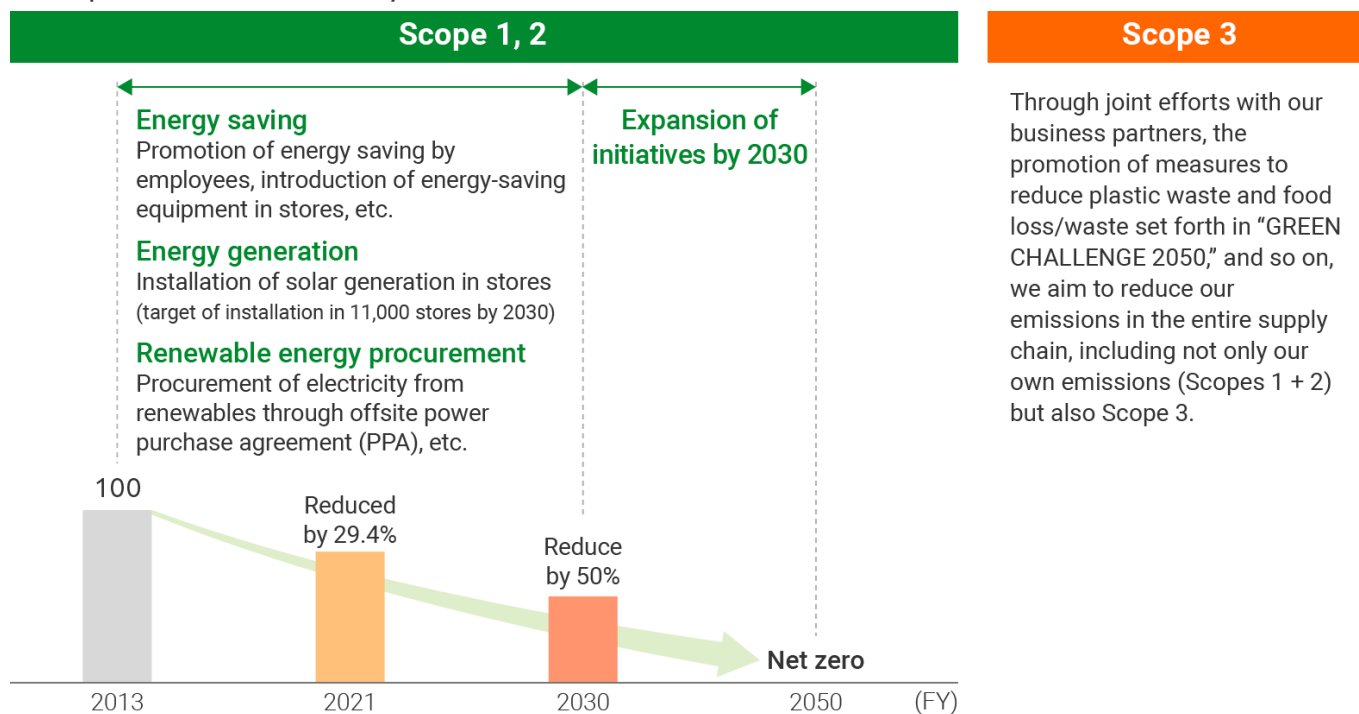
In scenario analyses in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we have identified the climate-change risks and opportunities relating to the realization of a transition to these three forms of society expected as of 2030 by business entity. We are studying measures to reduce the risks and maximize the opportunities and are promoting the linkage of these measures with management strategy. For details on analysis results, strategies based on these results, governance related to climate change, our risk management structure, and so on, please see the relevant sections on this page.

Transition Plan

Our Group announced the “GREEN CHALLENGE 2050” environmental declaration in 2019. In this declaration, we outlined a roadmap toward reducing CO₂ emissions from our store operations in Japan to net zero in 2050 and also our aim to reduce CO₂ emissions in the entire supply chain, including Scope 3. To promote these initiatives, we have incorporated environmental investment (expansion of solar panels, introduction of energy-saving equipment, etc.) in our management strategy in the Medium-Term Management Plan 2021–25.

We are scheduled to periodically update the roadmap relating to CO₂ emissions to take account of scientific progress, regulations, and so forth. (Targets were revised upward in 2020 and 2021.)

Roadmap toward a decarbonized society



Energy saving

Promotion of energy saving by employees, introduction of energy-saving equipment in stores, etc.

Energy generation

Installation of solar generation in stores (target of installation in 11,000 stores by 2030)

Renewable energy procurement

Procurement of electricity from renewables through offsite power purchase agreement (PPA), etc.

Expansion of initiatives by 2030

Through joint efforts with our business partners, the promotion of measures to reduce plastic waste and food loss/waste set forth in “GREEN CHALLENGE 2050,” and so on, we aim to reduce our emissions in the entire supply chain, including not only our own emissions (Scopes 1 + 2) but also Scope 3.

TCFD-Related Background and Future Implementation Plans

The Seven & i Group expressed our agreement with the TCFD recommendation in August 2019 and also joined the TCFD Consortium, established so that companies, financial institutions, and others can work together to promote initiatives. In FY2019–21 we implemented a scenario analysis targeting domestic convenience store operations (Seven-Eleven Japan) and disclosed the analysis results, enabling us to gain certain suggestions regarding risks peculiar to the convenience store operations. In the fiscal year ended February 28, 2023, as a domestic operation with the same geographical conditions, we implemented a scenario analysis of the superstore operations (Ito-Yokado, York-Benimaru, York) and disclosed the results. In the fiscal year ending February 28, 2024, judging that we could go ahead with an analysis of our overseas operation more effectively and efficiently by effectively utilizing the results of the scenario analyses in our domestic operations, we are in the process of promoting a scenario analysis of 7-Eleven, Inc.

Furthermore, as an initiative relating to natural capital, we have expressed our agreement with the principles of the Taskforce on Nature-related Financial Disclosures (TNFD), and we participated in the TNFD Forum and the Corporate Engagement Program of the Science Based Targets Network (SBTN) in January and February 2023, respectively. We are promoting preparations for analysis and disclosure based on the TNFD framework.

Business unit	FY2019 to FY2021	FY2022	FY2023
Seven & i Group	<ul style="list-style-type: none"> Endorsed the TCFD recommendations Conducted scenario analysis (Domestic CVS business) 	<ul style="list-style-type: none"> Updated disclosure content (Website / Management Report) 	<ul style="list-style-type: none"> Disclose transition plans (Website) Disclose results of analysis (Website / Management Report)
Domestic convenience store operations	<ul style="list-style-type: none"> Deepened analysis in FY2021 		<ul style="list-style-type: none"> Update scenario analysis and check progress on countermeasures
Superstore operations	<ul style="list-style-type: none"> Made first disclosure 	<ul style="list-style-type: none"> Conducted scenario analysis (Based on results of analysis of domestic CVS business) 	<ul style="list-style-type: none"> Update scenario analysis and check progress on countermeasures
Overseas convenience store operations (7-Eleven, Inc.)			<ul style="list-style-type: none"> Continue conducting scenario analysis (Based on results of analysis of domestic CVS business and superstore operations)
Financial services	<ul style="list-style-type: none"> Endorsed the TCFD recommendations 	<ul style="list-style-type: none"> Conducted scenario analysis Made first disclosure (Seven Bank website) 	<ul style="list-style-type: none"> Disclose results of analysis (Seven Bank) (Integrated Report/Annual Report, Securities Report, website)

Below we explain the four disclosure categories recommended by the TCFD in the order of metrics and targets, strategy, governance, and risk management.

Metrics and Targets Related to Climate Change

In May 2019, the Group formulated its environmental declaration “GREEN CHALLENGE 2050.” In “GREEN CHALLENGE 2050,” we have set the following specific themes: reduction of CO₂ emissions, measures against plastic, measures against food loss/waste and for organic waste recycling, and sustainable procurement. The goals are to achieve decarbonization, circular economy, and society in harmony with nature.

Toward the Paris Agreement’s goal for the world of limiting global warming to 1.5°C compared with pre-industrial levels, we have set the numerical targets of reducing CO₂ emissions stemming from the Group's store operations to 50% compared with the FY2013 level in 2030 and to achieve net zero emissions in 2050. We have also set detailed numerical targets for other themes, and we are promoting initiatives for achieving them and monitoring their progress.

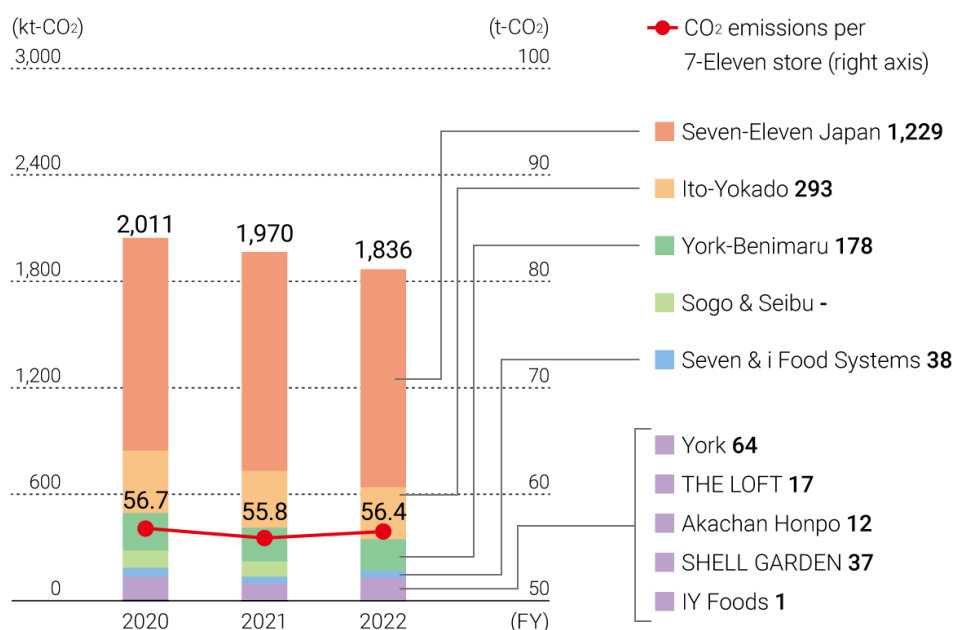
In the scenario analysis for each business entity, the substantial scale of damage due to natural disasters has become clear. Already in Japan as well, abnormal weather conditions are occurring, such as increases in localized torrential rain and typhoon damage, and many local governments have issued climate emergency declarations. In order to curb the risk of natural disasters caused by climate change, once again we renew our determination to collaborate with local communities and other stakeholders to make efforts to limit global warming to 1.5 degrees Celsius compared with pre-industrial levels by achieving the targets of “GREEN CHALLENGE 2050.”

[State of progress of “GREEN CHALLENGE 2050” by each of the four fields >](#)

[Environmental data of the Group and operation companies >](#)

[GHG emissions of scope 3 >](#)

CO₂ Emissions Resulting from Store Operations*



* The figure in the top portion of the bar graph for FY2020 is the total for the following 12 companies: Seven-Eleven Japan, Ito-Yokado, York Benimaru, York, Life Foods, SHELL GARDEN, IY Foods, Sogo & Seibu, Akachan Honpo, THE LOFT, Seven & i Foods Systems, and Barneys Japan

* The figure in the top portion of the bar graph for FY2021 is the total for the following 11 companies: Seven-Eleven Japan, Ito-Yokado, York Benimaru, York, SHELL GARDEN, IY Foods, Sogo & Seibu, Akachan Honpo, THE LOFT, Seven & i Foods Systems, and Barneys Japan

* The figure in the top portion of the bar graph for FY2022 is the total for the following nine companies: Seven-Eleven Japan, Ito-Yokado, York Benimaru, York, SHELL GARDEN, IY Foods, Akachan Honpo, THE LOFT, and Seven & i Foods Systems

* York-Benimaru includes the stores and the merged Life Foods factory.

* For the Group company calculation conditions, please see the data posted on the website.

*Calculated based on the Seven & i Holdings Environment-Related Data Calculation Report Manual stipulated in accordance with the Act on Rationalizing Energy Use and the Act on Promotion of Global Warming Countermeasures

Strategy: Implementation of Scenario Analysis

Scenario analyses based on the TCFD recommendations are implemented at the business entities of our Group. The latest analysis results and response measures for each business entity can be viewed at the following websites:

• [Domestic Convenience Store Operations \(Seven-Eleven Japan\)](#) >

• [Superstore Operations \(Ito-Yokado, York-Benimaru\)](#) >

*Our superstore operations were reorganized in September 2023, with York merging into Ito-Yokado

• [Financial Services \(Seven Bank\)](#) > *Announced on the Seven Bank website

The following is a summary of scenario analysis results until the fiscal year ended February 28, 2023. We publicize the climate-change risks and opportunities that are important for our Group.

Analysis assumptions

Scenario	Decarbonization scenario (1.5°C–2.0°C) / Warming scenario (2.7°C–4.0°C)
Analysis scope	In addition to the physical impact on stores, the analysis will cover costs in store operations and merchandise supply chain issues (raw materials, factories manufacturing merchandise, merchandise shipping) that significantly affect store operations, and customer behavior
Target year	Impact as of 2030

In scenario analyses at each business entity, mindful that the 1.5°C target has become the mainstream worldwide, we implemented analyses consistent with this 1.5°C target. Specifically, we set two scenarios, a “decarbonization scenario (1.5°C–2.0°C)” and a “warming scenario (2.7°C–4.0°C),” with reference to reports on future forecasts and other materials issued by governments and international organizations, including STEPS*¹, APS*², and NZE2050*³, indicated in the World Energy Outlook of the International Energy Agency (IEA). We analyzed the impact of climate change taking account also of predicted business growth rates as of 2030.

*1 STEPS: Stated Policies Scenario. It is one of the scenarios shown in the IEA’s World Energy Outlook 2019 and reflects decarbonization policies and targets that had been publicized so far.

*2 APS: Announced Pledges Scenario. This scenario assumes that all climate-related commitments made by governments announcing long-term targets of net zero emissions are fulfilled in full and on time.

*3 NZE2050 : Net Zero Emissions by 2050. It is one of the scenarios shown in the IEA’s World Energy Outlook 2020. Surpassing the Paris Agreement target, this scenario aims for net zero CO₂ emissions before 2050 toward achievement of the 1.5°C goal.

Significant transition risks and countermeasures: Decarbonization scenario (1.5°C–2.0°C)

Significant transition risk: The carbon tax impact

Transition risks were considered based on the decarbonization scenario in which various regulations and other measures are introduced to achieve the 1.5°C target. Of these, for each business entity we analyzed the impact of the carbon tax through the introduction of carbon pricing, which is projected to have the biggest impact. The following is an explanation of the expected impact on the domestic convenience store operations and superstore operations.

Carbon tax impact (2030)

Item	Business impact
Total of two operations	¥20.0 billion
Domestic convenience store operations	¥12.6 billion
Superstore operations	¥7.4 billion

Assumption: Carbon tax: \$135/ton-CO₂ (Maximum amount given in the IEA’s World Energy Outlook 2022)

• Foreign exchange rate: ¥131.62/\$ (Rate used in financial statements for the term ended February 2023)

For our estimate, with reference to the IEA’s World Energy Outlook 2022, we calculated the impact of carbon tax at the maximum amount of \$135/ton-CO₂ as of 2030. By putting our shoulders to the wheel to promote initiatives based on the targets outlined in our “GREEN CHALLENGE 2050” environmental declaration, we can substantially reduce the carbon tax burden in 2030. Furthermore, by achieving net zero CO₂ emissions, we expect that eventually the carbon tax burden will be eliminated altogether.

Main countermeasures for a decarbonization scenario

As approximately 90% of the Group's CO₂ emissions are attributable to electricity use from store operations, the three initiatives of energy savings, energy generation, and procurement of renewable energy are being pursued to reduce emissions. We also aim to reduce emissions throughout the supply chain, including Scope 3 emissions.

(1) Energy savings

Reduction of electricity use through employees' efforts to save energy and the adoption of energy-saving equipment

(2) Energy generation

The generation and use of renewable energy through onsite solar panels; solar panels have been installed at more than 8,000 Group stores and will be installed in 11,000 Group stores by 2030.



Test store for saving, generating. And storing energy (7-Eleven Misato Hikonari 2-chome store)



Rooftop solar panels (Ario Ichihara store)

After reducing CO₂ emissions as much as possible through energy savings and energy generation, we will use procurement of renewable energy from offsite sources to further reduce emissions.

(3) Procurement of renewable energy

We are expanding cooperation with various electric power companies, including an offsite power purchase agreement (PPA) with the Hokuriku Electric Power Group.



News releases other information related to countermeasures

[2023.6 Seven-Eleven to start full-scale demonstration test of new energy-efficient stores equipped with advanced facilities to save, generate, and store energy \(in Japanese\) >](#)

[2023.4 Beginning demonstration test with supply chain companies on reducing CO₂ emissions through the use of renewable energy \(in Japanese\) >](#)

[2023.2 Signing of “agreement on promoting carbon neutrality and cooperation in the event of a large-scale power outage due to a natural disaster” using York-Benimaru stores in Nasushiobara City, Tochigi Prefecture \(in Japanese\) >](#)

[2022.6 Hokuriku Electric Power Group and Seven-Eleven Japan held a ceremony to mark the completion of the Hokuden BEST Technoport Fukui Solar Power Plant, a project for the local production and local consumption of renewable energy \(in Japanese\) >](#)

For more details of our initiatives, refer to the Seven & i website.

[Climate Change Countermeasures >](#)

[Supply Chain Management >](#)

Significant physical risks and countermeasures: Warming scenario (2.7°C–4.0°C)

Significant physical risks: Damage from natural disasters

In terms of physical risks, natural disasters caused by extreme weather pose the greatest risk. It is difficult to predict when and where natural disasters will occur, and once they do, they can cause extensive damage. We are basing countermeasures for each business on the premise that weather phenomena such as heavy rainfall will occur with greater frequency and intensity and cause increasingly worse natural disasters such as flooding, so we estimate the impact of losses due to store and merchandise damage, loss of sales due to store closures, restoration costs, etc., to inform those countermeasures.

Impact on Seven-Eleven Japan stores (domestic convenience store operations)

Assumption: The amount of damage is estimated for flood damage to stores in the Tokyo metropolitan area (assuming flooding of the Arakawa River) as of 2030

* Estimated based on past flood damage

* To ascertain the extent of damage, estimates are made without considering insurance coverage

Item	Business impact
Store damage, merchandise damage, loss of sales due to closures, restoration cost, etc.	¥11.2 billion

Impact on Ito-Yokado and York-Benimaru (superstore operations)

Assumption: The amount of damage as of 2030 is estimated assuming a disaster of similar scale to 2019 (Typhoon No. 19).

* Estimates are based on actual damage from the 2019 disaster and forecasts of an increased frequency of disasters and floods

* To ascertain the extent of damage, estimates are made without considering insurance coverage

Item	Business impact
Store damage, merchandise damage, loss of sales due to closures, restoration cost, etc.	¥5.5 billion

Main countermeasures to damage from natural disasters

Seven & i Holdings will strive to quickly reopen its stores and establishments in the event of a natural disaster as part of enhanced disaster response to continue serving as regional relief bases for local customers offering infrastructure, evacuation locations, etc. The following measures are being taken to address the increasing risk of natural disasters.

- Establish early recovery systems (such as 7VIEW)
- Continue operations in the event of a disaster with “Phase Free (a concept of securing an adequate quality of life, regardless of phases such as daily life and emergencies)” facilities, including improved performance of storage batteries and preparation of fuel reserves for emergency supply delivery
- Create a strategy and stores that anticipates flooding (preventing flood damage by expanding the installation of watertight panels and guard pipes)
- Establish disaster-resilient logistics bases and supply networks
- Develop disaster bases utilizing store infrastructure through disaster management agreements, etc.



7VIEW (system for sharing information in the event of a disaster)

Number of comprehensive alliance agreements with local governments (by operating company)

	As of the end of February 28, 2021	As of the end of February 28, 2022	As of the end of February 28, 2023
Seven-Eleven Japan	194	223	230
Ito-Yokado	56	79	78
York-Benimaru	10	11	14
York Mart	4	4	4
Seven & i Food Systems	3	3	3
Total	267	320	329

News releases related to countermeasures, etc.

[2023.2 Signing of “agreement on promoting carbon neutrality and cooperation in the event of a large-scale power outage due to a natural disaster” using York-Benimaru stores in Nasushiobara City, Tochigi Prefecture \(in Japanese\) >](#)

[Initiatives as Social Infrastructure \(7VIEW: Seven-Eleven Japan website\) \(in Japanese\) >](#)

[Disaster Assistance \(Seven & i website\) >](#)

[We shall not forget: 10 years after the Great East Japan Earthquake \(Seven & i website\) \(in Japanese\) >](#)

Significant physical risks: Increase in raw material cost due to changes in weather patterns

Assuming that climate change will lower harvest yields for raw materials and increase the purchase price accordingly, we foresee a significant financial impact on our business entities. For both domestic convenience store and superstore operations, the raw materials selected for analysis were chosen on the basis of the composition of purchase price and availability of future information. (Targets of analysis will be expanded in the future.)

Item	Business impact
Domestic convenience store operations Raw materials cost increase for rice, laver, and livestock products	¥5.7 billion

Assumption: Estimated increases in raw material costs as of the fiscal year ending February 28, 2031 due solely to lower yields resulting from climate change

* Yield changes are estimated from data provided by the Ministry of Education, Culture, Sports, Science and Technology; the Ministry of the Environment; the Japan Meteorological Agency; the National Institute for Environmental Studies; the National Agriculture and Food Research Organization, etc.

Main countermeasures to increase in raw material costs due to changes in weather patterns

Under our environmental declaration “GREEN CHALLENGE 2050,” we set sustainable procurement as a specific theme—ensuring that food ingredients used in our original products are guaranteed sustainable, and we are taking the following measures with our suppliers to work toward a society that is in harmony with nature.

- Expand the lineup of eco-certified marine products (MSC, ASC, MEL, etc.) and eco-certified agricultural products (GAP, etc.)
- Disperse and consolidate production sites of raw materials
- Utilize digital technology and AI
- Ensure stable procurement through the expansion of raw material procurement from weather-resistant sources, such as vegetable factories, land-based aquaculture, etc.



Indoor vegetable factory exclusively for Seven-Eleven Sagamihara Vegetable Plant by Prime Delica Co., Ltd.

News releases related to countermeasures, etc.

[2023.7 “Mirai Deli” products will be launched nationwide on July 14 offering sustainable raw material procurement and new product value \(in Japanese\) >](#)

[Mirai Deli website \(in Japanese\) >](#)

[2022.10 Seven & i Holdings obtains MSC/ASC CoC certification and begins selling certified seafood processed in-store at 461 stores in its three superstore companies \(in Japanese\) >](#)

[Sustainable Procurement of Raw Materials >](#)

Business opportunities and main countermeasures for both scenarios

Business opportunities for the decarbonization scenario

In this scenario, we see changes in consumer awareness as a business opportunity. As consumers develop a strong interest in sustainable products and services in line with government policy and trends toward carbon neutrality, we believe that our current efforts will lead to opportunities and further accelerate those efforts. The following initiatives being promoted under our environmental declaration “GREEN CHALLENGE 2050” are good examples.

• **Initiatives in consideration of the environment with “Seven Premium”**

“Seven Premium,” the private brand for the entire Group, is engaged in developing products that are both high in quality and environmentally friendly. We are actively promoting eco-friendly products at the Group’s stores to generate awareness of such products and create opportunities for customers to consider the environment with us in a way that may lead to action.

[2023.6 Promoting environmental initiatives with the “Seven Premium” \(in Japanese\) >](#)

• **Initiatives to reduce CO₂ emissions**

As electric vehicles (EVs) become more common on the roads in the decarbonization scenario, we believe that offering EV charging services at a greater number of Seven-Eleven and superstore parking lots will create more customer traffic. The Seven & i Group has installed approximately 2,800 chargers for EVs and plug-in hybrid vehicles (PHVs) as of the end of February 2022, and we plan to further expand this fee-based charging service in the future.



Ito-Yokado parking lot

• **Initiatives for measures against plastic**

We believe that converting the containers and packaging used for our original products to environmentally friendly materials and promoting PET bottle collection and recycling will attract public attention and create more customer traffic. Taking measures against plastic is one of the initiatives specified in our environmental declaration “GREEN CHALLENGE 2050.” We have set targets to convert the containers and packaging used for our original products (including Seven Premium) to 50% environmentally friendly materials by 2030 and 100% by 2050, thereby reducing the burden on the environment from waste plastic.

[Introduction of Environmentally Friendly Packaging \(Seven & i website\) >](#)

For the collection of plastic PET bottles, 3,174 collection machines have been installed at Seven-Eleven convenience stores and superstores as of the end of February 2023, and the equivalent of approximately 470 million PET bottles were collected in the fiscal year ended February 28, 2023. The collected bottles are recycled into new PET bottles and other products in Japan through a “closed-loop” recycling system.

	FY2019	FY2020	FY2021	FY2022
Amount recovered (tons)	9,740	8,700	10,800	12,400
Number installed (Units)	820	1,001	2,098	3,174



• **Initiatives for sustainable procurement**

We are expanding our lineup of sustainable products that have acquired official certifications such as MSC, ASC, and MEL certifications for marine products and GAP certification for agricultural products, which we hope will attract public attention and create more customer traffic.

As part of developing a society in harmony with nature, an ideal stated in our environmental declaration “GREEN CHALLENGE 2050,” we have set targets for sustainable procurement. The Group aims to guarantee the sustainability of the food ingredients used in our original products (including Seven Premium) to a rate of 50% by 2030 and 100% by 2050.

In addition to promoting the acquisition of GAP certification* in cooperation with producers, for example, Ito-Yokado and York-Benimaru also sell private label vegetables such as “Fresh Foods with Traceability” (Ito-Yokado) and “Mitsuboshi Agricultural Products” (York-Benimaru), which deliver select, domestically-sourced vegetables grown with guaranteed safety, reliability, and deliciousness. These efforts are designed to disclose information about safe, environmentally sound products—who produces them, where, and with what motivations.

* Good Agricultural Practice (GAP) is a certification given to producers who engage in sustainability efforts in agriculture, awarded through third-party inspection.



Number of employees in the Seven & i Group with JGAP instructor qualifications

	FY2021	FY2022
No. of employees with JGAP instructor qualifications	62	139

* Total for JGAP fruits and vegetables and livestock

* Employees of Seven-Eleven Japan, Ito-Yokado, York-Benimaru, Seven & i Food Systems, IY Foods, and Seven & i Holdings

Sales of Ito-Yokado's "Fresh Foods with Traceability"

	FY2019	FY2020	FY2021	FY2022
Amount of sales* (billion yen)	22.8	24.6	24.3	24.8

* Approximate figures

[Sustainable Procurement of Raw Materials \(Seven & i website\)](#) >

Business opportunities for the warming scenario

In this scenario, we see changes in customer preferences and consumer behavior due to rising temperatures as business opportunities in the following ways.

- Consumers' heightened awareness of disaster mitigation will increase demand for disaster preparedness products
- Increased sales of products that people wish to have in hot weather (cooling products)
- The frequency of outings will decrease caused in hot weather, so e-commerce services such as delivery business and Net Supermarkets will flourish



Ito-Yokado Net Supermarket, Shin-Yokohama Center (opened in August 2023)

Governance Related to Climate Change

The Seven & i Group considers the issue of climate change to be one of the most important issues to be tackled across the Group companies. We have therefore established a governance structure centered on the CSR Management Committee and supervised by the Board of Directors.

The Board of Directors receives reporting from the Sustainability Development Department that is a secretariat for the CSR Management Committee on our efforts for sustainability including climate change issues at least once a year, supervises their progress and the status of achieving the goal, and reviews our policies and efforts as appropriate. In December 2020 and May 2021, the Board of Directors made a resolution to revise our CO₂ emission reduction target in our environmental declaration "GREEN CHALLENGE 2050" to 50% by 2030 and zero emission by 2050 in line with current international trends aiming at the 1.5 °C target and the decision of the Government of Japan for the net zero goal in 2050. In addition, we have added a target of reducing CO₂ emissions set in the environmental declaration "GREEN CHALLENGE 2050" that was formulated in May 2019 to the key performance indicator (KPI) for stock-based compensation as a non-financial indicator in compensation of Directors since fiscal year ended February 28, 2021.

* For the target level of the amount of CO₂ emissions for each fiscal year as the KPI for the stock-based compensation, it will be the target level for each fiscal year calculated based on the assumption of the actual amount of emission for the fiscal year ended February 28, 2019 to be equally reduced for each fiscal year to achieve the target level for the fiscal year ending February 28, 2031 (reducing emissions from Group store operations by 50% compared to the fiscal year ended February 28, 2014).

The CSR Management Committee, chaired by Representative Director and President of Seven & i Holdings, meets twice a year, attended by CSR managers from Group companies (Representative Director and President, etc.) and managers from related divisions at Seven & i Holdings. Under the CSR Management Committee, the Environment Subcommittee has been established as a subcommittee to deal with climate change issues. The Environment Subcommittee consists of managers from the environmental departments of operating companies. In addition, when we announced the environmental declaration “GREEN CHALLENGE 2050” in May 2019, we established CO₂ Emissions Reduction Team to create innovations across the Group to reduce CO₂ emissions. This team is headed by executive officers or higher from responsible departments at our main operating companies.

The CSR Management Committee receives reports on trends in indicators related to climate change issues, such as CO₂ emissions, and on initiatives mainly for mitigation measures. The Committee approves measures implemented by the subcommittees and each group company, and provides necessary advice. The progress of such sustainability-related initiatives, including those related to climate change, is reported to the Board of Directors at least once a year.

[Sustainability promotion framework >](#)

Governance structure related to climate change



● Meetings and roles related to climate change

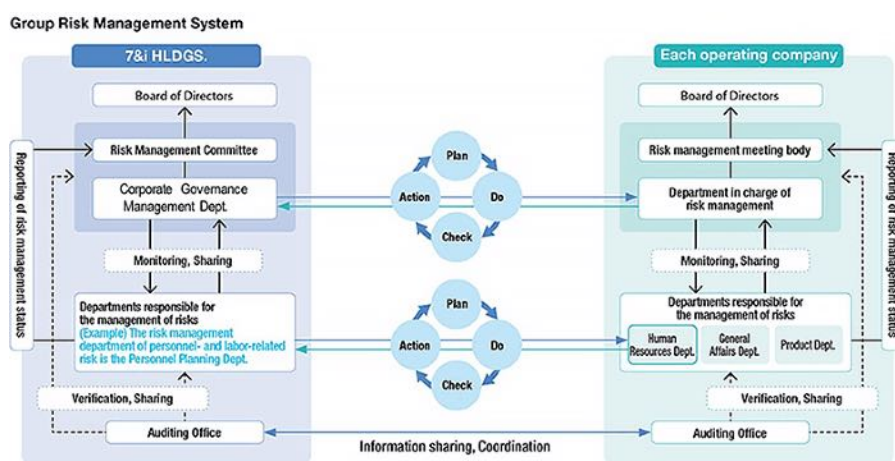
Meeting	Role	Member
Board of Directors	<ul style="list-style-type: none"> Receive reports at least once per year regarding progress on climate change issues and achievement of targets; supervise efforts Review and decide on policies and important matters 	<ul style="list-style-type: none"> Directors Audit & Supervisory Board Members <p>Members include internal and Outside Directors with extensive knowledge and experience in sustainability</p>
CSR Management Committee	<ul style="list-style-type: none"> Meet twice a year Share trends in climate change-related indicators (such as CO₂ emissions), and mitigation and adaptation measures Approve and advise on initiatives implemented by the Environment Subcommittee and Group companies 	<ul style="list-style-type: none"> Chair: Director and President of the Company Members: CSR managers from Group companies (Representative Director and President, etc.) and managers from CSR-related divisions of the Company
Environment Subcommittee	<ul style="list-style-type: none"> Subcommittee of CSR Management Committee Meet twice a year Promote response to climate change issues Promote response to TCFD recommendations 	<ul style="list-style-type: none"> Chair: Executive Officer in charge of Sustainability Development Department of the Company Members: CSR department managers and managers of departments involved in climate change response measures at Group companies

Risk Management

Seven & i Group has established a risk management system with the Risk Management Committee at its core, based on the basic rules for risk management. Each Group company identifies its own risks based on the Group's common risk classification and the risk assessment sheets, and assess them both quantitatively and qualitatively taking into account their degree of impact and likelihood of occurrence. The risks and measures to deal with them are reported to the Risk Management Committee. The risk assessment sheets include risks related to climate change such as CO₂ emission regulations.

The Risk Management Committee, which meets twice a year, comprehensively identifies the Group's risk situation based on the risk assessments and countermeasures submitted by each company, and continuously monitors its risk management system and countermeasures*2. The status of such risk management and judgments concerning material risks are reported annually to the Board of Directors.

*1 Group risk management system (excerpt from Risk Factors in the Seven & I website)



*2 PDCA for risk management (excerpt from Risk Factors in the Seven & I website)



Future Responses to TCFD Recommendations

Going forward, we will update our scenario analyses in line with the state of the world and increase the number of operating companies subject to analysis, both domestically and overseas. We will take into account the entire supply chain as we continue to quantitatively identify risks and opportunities and develop and implement practical countermeasures.

We will work on initiatives to limit the global temperature increase to less than 1.5°C by 2100, thereby leaving a prospering planetary environment to future generations.

[Domestic Convenience Store Operations \(Seven-Eleven Japan\) >](#)

[Superstore Operations \(Ito-Yokado, York-Benimaru\) >](#)

* Our superstore operations were reorganized in September 2023, with York merging into Ito-Yokado.

[Financial Services \(Seven Bank\) >](#)

*Presented on the Seven Bank website

Domestic Convenience Store Operations Strategy (Scenario Analysis)

Operating Company: Seven-Eleven Japan

In October 2019, the Group participated in the "Project to Support Climate Risk / Opportunity Scenario Analysis in Accordance with TCFD" of the Ministry of the Environment. The analysis covered the domestic store management of Seven-Eleven Japan, which accounts for about 60% of the Group's operating income (as of 2019). We disclosed the results on our website for the first time in June 2020. In fiscal year ended February 28, 2022, we further deepened our analysis by developing substantive countermeasures and quantified risks and opportunities, in addition to our previous analysis.

Scenario Analysis Assumptions

- **Analysis assumptions** (fiscal year ended February 28, 2022)

Scenario	Decarbonization scenario (1.5°C–2.0°C) / Warming scenario
Relevant project	Operation of Seven-Eleven Japan stores in Japan
Analysis scope	In addition to the physical impact on stores, the analysis will cover costs in store operations and merchandise supply chain issues (raw materials, factories manufacturing merchandise, merchandise shipping) that significantly affect store operations, and customer behavior
Target year	Impact as of 2030

In this scenario analysis, mindful that the 1.5°C target has become the mainstream worldwide, we implemented analyses consistent with this 1.5°C target. Specifically, we set two scenarios, a “decarbonization scenario (1.5°C–2.0°C)” and a “warming scenario (2.7°C–4.0°C),” with reference to reports on future forecasts and other materials issued by governments and international organizations, including STEPS,*1 SDS,*2 and NZE2050,*3 indicated in the World Energy Outlook of the International Energy Agency (IEA). We analyzed the impact of climate change as of 2030.

*1 STEPS: Stated Policies Scenario. This scenario reflects decarbonization policies and targets that have been so far publicized.

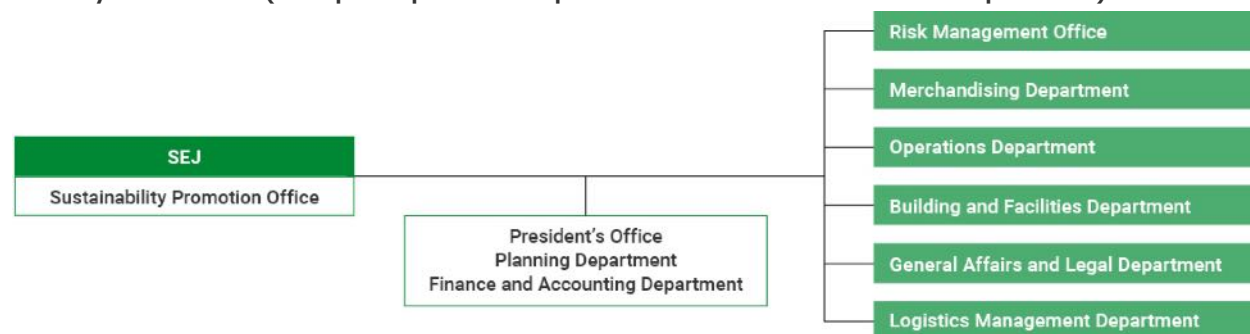
*2 SDS: Sustainable Development Scenario. This scenario assumes that clean energy policies and investments will increase toward the achievement of the 2°C scenario targeted by the Paris Agreement, and that the energy supply system will progress smoothly toward the achievement of the Sustainable Development Goals.

*3 NZE2050 : Net Zero Emissions by 2050. Surpassing the Paris Agreement target, this scenario aims for net zero CO₂ emissions before 2050 toward achievement of the 1.5°C goal.

Scenario Analysis Structure

For this analysis, Seven-Eleven Japan launched an internal project to formulate practical countermeasures and accurately quantify business impact, with its directors bearing that responsibility. 10 departments whose activities are affected by climate change participated. Discussions were held in each department regarding risks and opportunities and countermeasures, enabling analysis that is consistent with actual conditions, which helped to enhance our preparedness for climate change.

- **Analysis structure (with participation of department heads and other duties supervisors)**



Significant Risks and Opportunities, and Countermeasures

Approximately 160 risks and opportunities were submitted as a result of discussions within each department regarding specific risks and opportunities that could affect Seven-Eleven Japan's business. The assessment referenced each risk and opportunity presented in the TCFD recommendations as well as international standards such as SASB. We examined the magnitude of the impact of these risks and opportunities on financial aspects such as sales and profits, as well as strategic aspects such as store operations and merchandise procurement. With carbon emissions targets and policies in each country (including the introduction of carbon pricing), changes in consumer preferences, increases in the severity and incidence of extreme weather events, and changes in precipitation and weather patterns, as the items for significant risks and opportunities, we qualitatively and quantitatively evaluated the various impacts on the business of these factors and formulated countermeasures for each.

Approximately 50 countermeasures were designated and classified following repeated discussions at respective departments, for the reduction of risks and expansion of opportunities with regards to countermeasures. Through these discussions, we confirmed that activities to reduce environmental loads being promoted based on the "GREEN CHALLENGE 2050" are effective for both the decarbonization scenario and the warming scenario.

Listing of Seven-Eleven Japan's risks and opportunities, and countermeasures

◆ Transition risks and opportunities (Decarbonization scenario, 1.5°C–2.0°C)

Significant risks and opportunities	Concrete examples	Impact	Scenario	Business risks	Business opportunities	Main countermeasures	
Policies and regulation targets and policies in each country	Carbon emissions	Introduction of carbon pricing	Operating cost	<ul style="list-style-type: none"> • A high carbon tax is introduced and a carbon tax burden is imposed in accordance with CO₂ emission volume • Increased costs are expected throughout the supply chain 	○		<ul style="list-style-type: none"> • Promote the reduction of CO₂ emissions through “GREEN CHALLENGE 2050” • Support our business partners in their efforts to save energy and expand the use of renewable energy
		Fluctuations in retail electricity prices	Operating cost	<ul style="list-style-type: none"> • Increased electricity expenses due to higher retail electricity prices stemming from the introduction of renewable energy and other factors 	○		<ul style="list-style-type: none"> • Develop and install energy-saving equipment at stores • Enhance onsite renewable energy installations
		Fluctuations in shipping fuel costs	Operating cost	<ul style="list-style-type: none"> • Fuel costs associated with deliveries decrease amid an increasing shift to EV as delivery vehicles 		○	<ul style="list-style-type: none"> • Increase adoption of EV and other environmentally friendly vehicles • Improve fuel efficiency through implementation of eco-driving training based on data acquired from in-vehicle computers • Reduce delivery vehicle fleets by enhancing delivery efficiency
		Supporting the adoption of EV as delivery vehicles	Operating cost	<ul style="list-style-type: none"> • Costs incurred due to conversion of delivery vehicles to EV in line with tighter regulations and changes in social environment 	○		<ul style="list-style-type: none"> • Reduce delivery vehicle fleets by enhancing delivery efficiency

Significant risks and opportunities		Concrete examples	Impact	Scenario	Business risks	Business opportunities	Main countermeasures
Reputation	Changes in consumer preferences	Changes in sales due to sales of sustainable merchandise	Sales	• Changes in sales due to sales of sustainable merchandise		○	<ul style="list-style-type: none"> • Introduce environmentally friendly containers and packaging and promote plastic bottle collection and recycling, based on "GREEN CHALLENGE 2050" • Expand sales of sustainable merchandise, including the introduction of certified raw materials, based on "GREEN CHALLENGE 2050"

◆Physical risks and opportunities (Warming scenario, 2.7°C–4.0°C)

Significant risks and opportunities		Concrete examples	Impact	Scenario	Business risks	Business opportunities	Main countermeasures
Acute	Increases in severity, frequency, etc. of extreme weather events	Damage from natural disasters	Sales / Operating cost		○	<ul style="list-style-type: none"> Increased frequency and intensity of natural disasters; increased losses due to store and merchandise damage caused by natural disasters, loss of sales due to store closures, restoration costs, etc. 	<ul style="list-style-type: none"> Utilize 7view to build a system enabling information gathering and early recovery in the event of a disaster Prevent flood damage by expanding the installation of watertight panels and guard pipes Continue operations in the event of a disaster with “Phase Free (a concept of securing an adequate quality of life, regardless of phases such as daily life and emergencies)” facilities, including improved performance of storage batteries Prepare fuel reserves for emergency supply delivery
		Insurance cost related to natural disasters	Operating cost	<ul style="list-style-type: none"> Increased insurance cost related to natural disasters due to increased frequency and intensity of natural disasters 	○		<ul style="list-style-type: none"> Mitigate losses using various damage prevention measures
Chronic and	Changes in precipitation and weather patterns	Price fluctuations of raw materials for agricultural, livestock, and marine products	Operating cost	<ul style="list-style-type: none"> Higher raw material costs and increased procurement costs due to declines in yields and in quality of agricultural, livestock, and marine products 	○		<ul style="list-style-type: none"> Disperse production sites of raw materials Secure stable procurement by expanding procurement from vegetable factories, land-based aquaculture, etc. Utilize digital technology and AI
		Increased average temperatures	Operating cost	<ul style="list-style-type: none"> Higher average temperatures increase electricity use for air conditioning focused on the summer months and result in higher electricity fee payments 	○		<ul style="list-style-type: none"> Develop and install energy-saving equipment at stores

*The scenario with the larger impact was referred to in assessing each business impact.

(1) Significant transition risks and countermeasures: Decarbonization scenario (1.5°C–2.0°C)

We considered the transition risks and opportunities based on the decarbonization scenario in which various regulations and other measures are introduced to achieve the 1.5°C target. Of these, we estimated the following regarding the impact of the carbon tax system due to the introduction of carbon pricing, which is projected to have the biggest impact.

Significant transition risk: Impact of the carbon tax system

Item	Business impact
Carbon tax (2030)	¥12.6 billion

Assumption: Carbon tax: \$135/ton-CO₂

(Maximum amount given in the IEA's World Energy Outlook 2022)

• Foreign exchange rate: ¥131.62/\$ (Rate used in financial statements for the term ended February 2023)

In the fiscal year ended February 28, 2022, we calculated the estimated maximum amount of impact from a carbon tax using the assumed tax amount as of 2030 at \$130/ton-CO₂, with reference to the maximum amount in the IEA's World Energy Outlook 2020. The impact of the carbon tax was estimated at ¥22.1 billion based on a simple calculation, assuming CO₂ emissions increase in line with the growth of business activities.

We went on in the fiscal year ended February 28, 2023 to re-estimate the financial impact of the carbon tax based on the IEA World Energy Outlook 2022, with the carbon tax as of 2030 set at \$135/ton-CO₂. This resulted in an estimate of ¥27.5 billion based on a simple calculation assuming CO₂ emissions increase in line with the growth of business activities. However, if we reduce CO₂ emissions to 50% in 2030 (compared to FY2013 levels) as per the target defined in our "GREEN CHALLENGE 2050" environmental declaration, this will reduce carbon taxes by ¥14.9 billion to ¥12.6 billion. Furthermore, we expect that the impact of the carbon tax will eventually be eliminated by promoting efforts to achieve our 2050 net zero emission target.

◆Main countermeasures

We will significantly reduce our carbon tax burden and transition risks such as higher electricity fee payments through efforts to achieve reductions in CO₂ emissions. As approximately 90% of the Group's CO₂ emissions are attributable to electricity use from store operations, the three initiatives of energy savings, energy generation, and procurement of renewable energy are being pursued to reduce emissions. We also aim to reduce emissions throughout the supply chain, including Scope 3 emissions.

Seven-Eleven Japan is focusing the following main activities.

1 Energy savings

Reduction of electricity use through employees' efforts to save energy and the adoption of energy-saving equipment

2 Energy generation

The generation and use of renewable energy through onsite solar panels (solar panels have been installed at 8,823 stores as of the end of February 2023)

We are now in the process of testing various types of equipment related to energy savings, energy generation, and energy storage to reduce CO₂ emissions at Seven-Eleven stores to determine their suitability and effectiveness for more widespread deployment. In June 2023 we initiated a full-scale demonstration test at the 7-Eleven Misato-Hikonari 2-chome store with the goal of reducing the amount of electricity purchased by approximately 60% and CO₂ emissions by approximately 70% compared to FY2013 levels.

We will continue with this project to minimize CO₂ emissions at stores by deploying equipment that saves, generates, and stores energy, and we will procure and utilize renewable energy from offsite sources to even further reduce CO₂ emissions.

- (2023.6)[Seven-Eleven to start full-scale demonstration test of new energy-efficient stores equipped with advanced facilities to save, generate, and store energy_\(in Japanese\)](#)



7-Eleven Misato Hikonari 2-chome store (test store for saving, generating, and storing energy)

3 Procurement of renewable energy

We are expanding cooperation with various electric power companies, including an offsite power purchase agreement (PPA) in three locations.



Offsite PPA with the Hokuriku Electric Power Group

News releases related to countermeasures, etc.

- (2022.6)[Hokuriku Electric Power Group and Seven-Eleven Japan held a ceremony to mark the completion of the Hokuden BEST Technoport Fukui Solar Power Plant, a project for the local production and local consumption of renewable energy_\(in Japanese\)](#)

For more details of Seven-Eleven initiatives, refer to the Seven-Eleven website links.

- [Reduced CO₂ Emissions](#)

(2) Significant physical risks and countermeasures: Warming scenario (2.7°C–4.0°C)

Significant physical risks: Impacts of natural disasters

Item	Business impact
Store damage, merchandise damage, loss of sales due to closures, restoration cost, etc.	¥11.2 billion

Assumption: The amount of damage is estimated for flood damage to stores in the Tokyo metropolitan area (assuming flooding of the Arakawa River) as of 2030

* Estimated based on past flood damage. To ascertain the extent of damage, estimates are made without considering insurance coverage

In the warming scenario, natural disasters caused by extreme weather pose the greatest risk. It is difficult to predict when and where natural disasters will occur, and once they do, they can cause extensive damage. Currently, the occurrence of extreme weather such as heavy rainfall that cause disasters are increasing due to global warming, and this trend would become even more pronounced under this scenario. Based on the extent of damage caused by past disasters, we have estimated the flood damage to stores in the Tokyo metropolitan area, where the greatest damage would be expected. Based on hazard maps from the Ministry of Land, Infrastructure, Transport and Tourism, if the Arakawa River were to flood by five meters or more, the resulting damages including store damage, merchandise damage, loss of sales due to closures, and restoration cost, would amount to ¥11.2 billion.

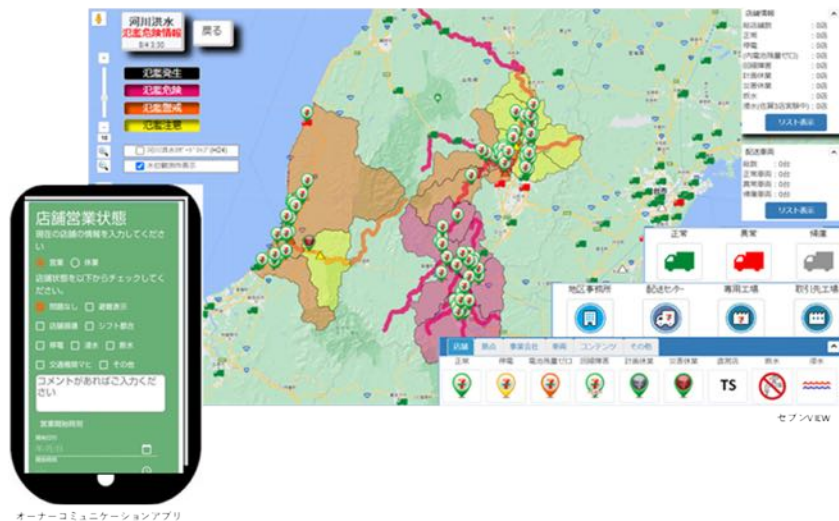
◆Main countermeasures to impacts of natural disasters

We will strive to quickly reopen its stores and establishments in the event of a natural disaster as part of enhanced disaster response to continue serving as regional relief bases for local customers offering infrastructure, evacuation locations, etc. The following measures are being taken to address the increasing risk of natural disasters.

- Establish early recovery systems (such as the proprietary disaster management system 7VIEW)
- Prevent flood damage by expanding the installation of watertight panels and guard pipes
- Continue operations in the event of a disaster with “Phase Free (a concept of securing an adequate quality of life, regardless of phases such as daily life and emergencies)” facilities, including improved performance of storage batteries
- Prepare fuel reserves for emergency supply delivery

7VIEW

• [7VIEW refers to our disaster prevention and impact reduction measures for us to “be prepared” to protect our customers, local communities, and employees at franchise stores \(in Japanese\)](#)



7VIEW (system for sharing information in the event of a disaster)

Significant physical risks: Increase in raw material cost

Item Business impact	Item Business impact
Raw materials cost increase for rice	¥2.2 billion
Raw materials cost increase for laver	¥1.9 billion
Raw materials cost increase for livestock products (beef, pork, chicken, eggs)	¥1.6 billion

Assumption: Estimated increases in raw material costs as of the fiscal year ending February 28, 2031 due solely to lower yields resulting from climate change

* Yield changes are estimated from data provided by the Ministry of Education, Culture, Sports, Science and Technology; the Ministry of the Environment; the Japan Meteorological Agency; the National Institute for Environmental Studies; the National Agriculture and Food Research Organization, etc.

The increase in raw material cost due to changes in weather patterns, which is expected to have the next largest impact, was estimated. The scope was set based on the composition of purchase amount: rice, laver, and livestock products (beef, pork, chicken, and eggs). Assuming that climate change will lower harvest yields and increase the purchase price accordingly, we estimate that the increase will total ¥5.7 billion. However, this estimate does not include impacts such as those related to imports. Therefore, we assume that the actual amount will be several times larger and are considering countermeasures to address this.

◆Main countermeasures for increase in raw material cost

Under our environmental declaration “GREEN CHALLENGE 2050,” we set sustainable procurement as a specific theme—ensuring that food ingredients used in our original products are guaranteed sustainable, and are working toward a society that is in harmony with nature. Below are representative initiatives which we are undertaking for stable procurement as countermeasures for Increase in raw material cost.

- Disperse production sites of raw materials
- Ensure stable procurement through the expansion of raw material procurement from weather-resistant sources, such as vegetable factories, land-based aquaculture, etc.
- Utilize digital technology and AI



Indoor vegetable factory exclusively for Seven-Eleven
Sagamihara Vegetable Plant by Prime Delica Co., Ltd.

News releases related to countermeasures, etc.

- [2023.7“Mirai Deli” products will be launched nationwide on July 14 offering sustainable raw material procurement and new product value \(in Japanese\)](#)

For more details of Seven-Eleven initiatives, refer to the Seven-Eleven website links.

- [Sustainable Procurement](#)

(3)Business opportunities and main countermeasures for both scenarios

Business opportunities for the decarbonization scenario

In this scenario, we see changes in consumer awareness as a business opportunity. As consumers develop a strong interest in sustainable products and services in line with government policy and trends toward carbon neutrality, we believe that our current efforts will lead to opportunities and further accelerate those efforts. The following initiatives being promoted under our environmental declaration “GREEN CHALLENGE 2050” are good examples.

◆ **Initiatives to reduce CO₂ emissions**

As electric vehicles become more common on the roads in the decarbonization scenario, we believe that offering electric vehicle (EV) charging services at a greater number of Seven-Eleven parking lots will create more customer traffic.

We have installed chargers for EVs and plug-in hybrid vehicles (PHVs) in some stores, and plan to further expand this in the future. We provide a fee-based charging service, with the initiative aimed at increasing the convenience of the commercial facilities and establishing a pattern for using EVs and PHVs of charging these while shopping. It also aims to contribute to the realization of a decarbonized society by promoting the spread of environment-friendly, next-generation cars.

◆ **Initiatives for measures against plastic**

We believe that converting the containers and packaging used for our original products to environmentally friendly materials and promoting PET bottle collection and recycling will attract public attention and create more customer traffic. Taking measures against plastic is one of the initiatives specified in our environmental declaration “GREEN CHALLENGE 2050.” We have set targets to convert the containers and packaging used for our original products (including Seven Premium) to 50% environmentally friendly materials by 2030 and 100% by 2050, thereby reducing the burden on the environment from waste plastic.



For the collection of plastic PET bottles, 2,956 collection machines have been installed at Seven-Eleven convenience stores (as of the end of July 2023). The collected bottles are recycled into new PET bottles and other products in Japan through a “closed-loop” recycling system.



For more details of Seven-Eleven initiatives, refer to the Seven-Eleven website links.

- [Development of Eco-Friendly Merchandise](#)
- [Reduction of Petroleum-Derived Plastics](#)

◆Initiatives for sustainable procurement

We believe that expanding our product lineup of certified agricultural and fishery products, as well as our sustainable products with sustainability guarantees will attract the interest of customers and provide an opportunity to increase footfall at our stores. Seven-Eleven Japan is working on the development of a new series of “Mirai Deli” products that use raw materials that ensure sustainability by reducing environmental impact and realizing stable production through technological progress. As the first step, we have developed a “plant-based protein” that will reduce greenhouse gas emissions such as CO₂ generated when importing and raising livestock. We plan to sell products that adopt “factory vegetables” that enable stable supply without being affected by climate change at stores nationwide from July 2023.



みらいに向けた取り組みの商品はこのマークが目印です！

News releases related to business opportunities

- [2023.7 “Mirai Deli” products will be launched nationwide on July 14 offering sustainable raw material procurement and new product value \(Mirai Deli website\) \(in Japanese\).](#)

For more details of Seven-Eleven initiatives, refer to the Seven-Eleven website link.

- [Sustainable Procurement](#)

Superstore Operations Strategy (Scenario Analysis)

Operating Companies: Ito-Yokado, York-Benimaru

*Our superstore operations were reorganized in September 2023, with York merging into Ito-Yokado.

In the fiscal year ended February 28, 2023, we conducted a scenario analysis for the Seven & i Group's three superstore operations of Ito-Yokado, York-Benimaru, and York. For this analysis, an organizational framework for the scenario analysis was created within each of the three superstore companies, with management and the major departments relating to climate change taking part, toward the aim of formulating substantial countermeasures and accurately quantifying business impacts. By discussing the risks, opportunities, and countermeasures at each department we have facilitated analyses aligned to actual situations, thereby improving our capacity to respond to climate change.

Scenario Analysis Assumptions

Analysis assumptions (fiscal year ended February 28, 2023)

Scenario	Decarbonization scenario (1.5°C–2.0°C) / Warming scenario(2.7°C–4.0°C)
Relevant project	Operation of Ito-Yokado, York-Benimaru, and York stores in Japan
Analysis scope	In addition to the physical impact on stores, the analysis will cover costs in store operations and merchandise supply chain issues (raw materials, factories manufacturing merchandise, merchandise shipping) that significantly affect store operations, and customer behavior
Target year	Impact as of 2030

In this scenario analysis, mindful that the 1.5°C target has become the mainstream worldwide, we implemented analyses consistent with this 1.5°C target. Specifically, we set two scenarios, a “decarbonization scenario (1.5°C–2.0°C)” and a “warming scenario (2.7°C–4.0°C),” with reference to reports on future forecasts and other materials issued by governments and international organizations, including STEPS,*1 APS,*2 and NZE2050,*3 indicated in the World Energy Outlook of the International Energy Agency (IEA). We analyzed the impact of climate change as of 2030.

*1 STEPS: Stated Policies Scenario. This scenario reflects decarbonization policies and targets that have been so far publicized.

*2 APS: Announced Pledges Scenario. This scenario assumes that all climate-related commitments made by governments announcing long-term targets of net zero emissions are fulfilled in full and on time.

*3 NZE2050 : Net Zero Emissions by 2050. Surpassing the Paris Agreement target, this scenario aims for net zero CO₂ emissions before 2050 toward achievement of the 1.5°C goal.

Significant Risks and Opportunities, and Countermeasures

Many of the respective risks and opportunities were identified as a result of discussions within each department of three superstore companies regarding specific risks and opportunities that could affect the superstore operations. The assessment referenced each risk and opportunity presented with reference to the case studies and various reports analyzing the domestic convenience store business in the fiscal year ended February 28, 2022. We examined the magnitude of the impact of these risks and opportunities on financial aspects such as sales and profits, as well as strategic aspects such as store operations and merchandise procurement. With carbon emissions targets and policies in each country, changes in consumer preferences, increases in the severity and incidence of extreme weather events, and changes in precipitation and weather patterns as the items for significant risks and opportunities, we qualitatively and quantitatively evaluated the various impacts on the business of these factors and formulated countermeasures for each.

Listing of three superstore companies' risks and opportunities, and countermeasures

◆ Transition risks and opportunities (Decarbonization scenario, 1.5°C–2.0°C)

Significant risks and opportunities		Concrete examples	Impact	Scenario	Business risks	Business opportunities	Main countermeasures
Policies and regulation	Carbon emissions targets and policies in each country	Introduction of carbon pricing	Operating cost	<ul style="list-style-type: none"> A high carbon tax is introduced, with a carbon tax burden imposed in accordance with CO₂ emissions volumes, increasing the costs associated with store operations, etc. 	○		<p>Below are the main CO₂ emissions reduction measures being promoted (“GREEN CHALLENGE 2050” environmental declaration)</p> <ul style="list-style-type: none"> Promote energy saving in stores; introduce energy-saving equipment and facilities (including reviews of in-store lighting levels, temperature levels of refrigeration and freezer units and facilities, replacement with LED lighting) Promote the use of renewable energy in stores (solar power, offsite power purchase agreements (PPA), biomass power generation, etc.) Reduce food residue collection and transport costs and CO₂ emissions through the introduction of garbage processors

Policies and regulation	Carbon emissions targets and policies in each country	Introduction of carbon pricing	Operating cost	<ul style="list-style-type: none"> Increased costs due to the imposition of carbon tax burdens at each stage of the supply chain, with an emphasis on fuel costs for delivery (procurement, products, packaging materials, store construction equipment, sales, logistics, etc.) Increased investment costs for the transition to using EVs as delivery vehicles toward the achievement of a low-carbon society 	○	<ul style="list-style-type: none"> Support our business partners in their efforts to save energy and expand the use of renewable energy Increase use of EV and other environmentally friendly vehicles Promote logistics efficiency and green measures (including reviews of delivery systems, joint deliveries, modal shifts, expansion of drop-off/doorstep deliveries, etc.) Reduce procurement costs through promotion of local consumption of local production 		
		Fluctuations in retail electricity prices	Operating cost	<ul style="list-style-type: none"> Increased electricity retail prices accompanying the transition to energy saving and efficiency measures Increased costs originating in the supply chain (procurement, products, packaging materials, store construction equipment, sales, logistics, etc.) 	○	<ul style="list-style-type: none"> Promote energy saving in stores, introduce energy-saving facilities and equipment Support the introduction of energy-saving equipment and facilities for business partners 		
		Expanded use of EVs	Operating cost	<ul style="list-style-type: none"> Increased costs from the installation and maintenance of EV chargers in store parking lots 	○	<ul style="list-style-type: none"> Prepare for increase in the number of paying customers from expansion of EV charging services in store parking lots 		
			Sales	<ul style="list-style-type: none"> Increased incentive to visit stores accompanying EV charging services in store parking lots 	○			

Reputation	Changes in consumer preferences	Changes in sales due to sales of sustainable merchandise	Sales	<ul style="list-style-type: none"> • Increased interest among consumers in sustainable products, resulting in increased turnover from sales of products that cater to this interest • Increased interest among consumers in sustainable services, resulting in increased incentive to visit stores and improved reputation through initiatives such as resource renovation and recycling 	○	<ul style="list-style-type: none"> • Expand range of certified raw materials (including organic agricultural products, certified marine products) (“GREEN CHALLENGE 2050” target of Sustainable Procurement) • Bolster product lineup of meat alternatives including soy meat • Introduce environmentally friendly containers and packaging including non-tray and label-less packaging and promote plastic bottle collection and recycling (“GREEN CHALLENGE 2050” target of Measures against Plastic) • Introduce shopping baskets made from recycled materials
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◆Physical risks and opportunities (Warming scenario, 2.7°C–4.0°C)

Significant risks and opportunities		Concrete examples	Impact	Scenario	Business risks	Business opportunities	Main countermeasures
Acute	Increases in severity, frequency, etc. of extreme weather events	Damage from natural disasters	Operating cost	<ul style="list-style-type: none"> Increased frequency and intensity of natural disasters resulting in increased damage costs due to store and merchandise damage caused by flooding from heavy rains and typhoons; loss of sales due to store closures, restoration costs; and costs associated with ensuring employee safety, etc. Stock shortages and lost opportunities due to damage to supply chains, including production sites and logistics networks Increased investment costs for disaster prevention and preparedness countermeasures 	○		<ul style="list-style-type: none"> Create a strategy and stores that anticipates flooding that anticipates flooding (preventing flood damage by expanding the installation of watertight panels and guard pipes) Establish disaster-resilient logistics bases and supply networks Develop disaster bases utilizing store infrastructure through disaster management agreements, etc. (evacuation locations for local residents) Continue operations in the event of a disaster with “Phase Free (a concept of securing an adequate quality of life, regardless of phases such as daily life and emergencies)” facilities, including improved performance of storage batteries Prepare fuel reserves for emergency supply delivery Ensure water supplies during emergencies by means of the introduction of well water (Ito-Yokado)
		Increased trust and sales through improved resilience	Sales	<ul style="list-style-type: none"> Consumers’ heightened awareness of disaster mitigation will increase demand for disaster preparedness products 		○	<ul style="list-style-type: none"> Expand lineups of emergency supplies and disaster preparedness goods, stockpiled goods, and easy/ready-to-eat foodstuffs
		Insurance cost related to natural disasters	Operating cost	<ul style="list-style-type: none"> Increased insurance cost related to natural disasters due to increased frequency and intensity of natural disasters 	○		<ul style="list-style-type: none"> Mitigate losses using various damage prevention measures

Chronic	Changes in precipitation and weather patterns	Price fluctuations of raw materials for agricultural, livestock, and marine products	Operating cost	<ul style="list-style-type: none"> Higher raw material costs and increased procurement costs due to declines in yields and in quality of agricultural, livestock, and marine products 	○	<ul style="list-style-type: none"> Disperse and consolidate production sites of raw materials Ensure stable procurement through the expansion of raw material procurement from weather-resistant sources, such as vegetable factories, land-based aquaculture, vegetable breeding, etc. and certified raw material Utilize digital technology and AI Expand lineup of frozen and processed foods resistant to the influence of climate
		Increased average temperatures	Operating cost	<ul style="list-style-type: none"> Increased electricity use for air conditioning and refrigeration and freezing units and facilities focused on the summer months with resultant increase in electricity fee payments due to higher average temperatures 	○	<ul style="list-style-type: none"> Promote energy saving in stores, introduce energy-saving facilities and equipment Reduce winter months operating costs, including for heating and snow removal (York-Benimaru: Cold regions) Increase store footfall in winter months (York-Benimaru: Cold regions)
				Sales	<ul style="list-style-type: none"> Decreased store footfall due to decreased frequency of outings caused by hot weather 	○
		Creation of new sales opportunities and expansion of sales opportunities	Sales		<ul style="list-style-type: none"> Increased demand in the delivery business and e-commerce services 	○
				<ul style="list-style-type: none"> Changes in customer preferences due to rising temperatures 	○	

*The scenario with the larger impact was referred to in assessing each business impact.

* Some items are limited according to location and store size.

(1) Significant transition risks and countermeasures: Decarbonization scenario (1.5°C–2.0°C)

We considered the transition risks and opportunities based on the decarbonization scenario in which various regulations and other measures are introduced to achieve the 1.5°C target. Of these, we estimated the following regarding the impact of the carbon tax system due to the introduction of carbon pricing, which is projected to have the biggest impact.

Significant transition risk: Impact of the carbon tax system

Item	Business impact
Carbon tax (2030)	¥7.4 billion

Assumption: Carbon tax: \$135/ton-CO₂ (Maximum amount given in the IEA’s World Energy Outlook 2022)

• Foreign exchange rate: ¥131.62/\$ (Rate used in financial statements for the term ended February 2023)

For our estimate, with reference to the IEA’s World Energy Outlook 2022, we calculated the impact of carbon tax at the maximum amount of \$135/ton-CO₂ as of 2030. The total of three superstore companies’ carbon taxes was estimated at ¥10.7 billion based on a simple calculation, assuming CO₂ emissions increase in line with the growth of business activities. However, if we reduce CO₂ emissions to 50% in 2030 (compared to FY2013 levels) as per the target defined in our “GREEN CHALLENGE 2050” environmental declaration, this will reduce carbon taxes by ¥3.3 billion to ¥7.4 billion. Furthermore, we expect that the impact of the carbon tax will eventually be eliminated by promoting efforts to achieve our 2050 net zero emission target.

◆Main countermeasures

We will significantly reduce our carbon tax burden and transition risks such as higher electricity fee payments through efforts to achieve reductions in CO₂ emissions. As approximately 90% of the Group’s CO₂ emissions are attributable to electricity use from store operations, the three initiatives of energy savings, energy generation, and procurement of renewable energy are being pursued to reduce emissions. We also aim to reduce emissions throughout the supply chain, including Scope 3 emissions.

Superstore Operations are focusing the following main activities.

1 Energy savings

Reduction of electricity use through installation of energy-saving equipment as well as employees’ efforts to save energy (reviews of in-store lighting levels, temperature levels of refrigerators and freezers, and replacement with LED lighting)



Reach-in cases that keep cold air in (York Mart)



Cleaning the filters on a refrigerator case (York Mart)

2 Energy generation

Solar panels have been installed at 23 Ito-Yokado stores (including 9 York stores) and 42 York-Benimaru stores (as of the end of February 2023).

3 Procurement of renewable energy

We are expanding cooperation with various electric power companies, including an offsite power purchase agreement (PPA).



Ario Ichihara store



York-Benimaru Ohiramachi store

News releases related to countermeasures, etc.

· 2023.2 [Signing of “agreement on promoting carbon neutrality and cooperation in the event of a large-scale power outage due to a natural disaster” using York-Benimaru stores in Nasushiobara City, Tochigi Prefecture \(in Japanese\)](#)

(2) Significant physical risks and countermeasures: Warming scenario (2.7°C–4.0°C)

Significant physical risks: Impacts of natural disasters

Item	Business impact
Store damage, merchandise damage, loss of sales due to closures, restoration cost, etc.	¥5.5 billion

Assumption: A disaster of similar scale to 2019 (Typhoon No. 19)

* Estimates are based on actual damage from the 2019 disaster and forecasts of an increased frequency of disasters and floods. To ascertain the extent of damage, estimates were made without considering insurance coverage.

In the warming scenario, natural disasters caused by extreme weather pose the greatest risk. It is difficult to predict when and where natural disasters will occur, and once they do, they can cause extensive damage. Currently, the occurrence of extreme weather such as heavy rainfall that cause disasters are increasing due to global warming, and this trend would become even more pronounced under this scenario.

Based on the extent of damage caused by past disasters, and assuming “a disaster of comparable scale to that experienced in the fiscal year ended February 29, 2020, when a planned closure was implemented due to Typhoon No. 19 (Typhoon Hagibis),” which can be expected to result in both serious and widespread damage, the total amount of damage, including store damage, merchandise damage, loss of sales due to closures, and restoration costs, is estimated at a total of ¥5.5 billion for the three superstore companies. It should also be noted that while the probability of disasters and flooding is lower than in this scenario, natural disasters precipitated by extreme weather events are also considered to be a particularly significant risk in the decarbonization scenario, with the total extent of damage estimated at ¥4.6 billion and the impact being assessed.

◆Main countermeasures to impacts of natural disasters

We will strive to quickly reopen its stores and establishments in the event of a natural disaster as part of enhanced disaster response to continue serving as regional relief bases for local customers offering infrastructure, evacuation locations, etc. The following measures are being taken to address the increasing risk of natural disasters.

- Establish early recovery systems
- Create stores that anticipates flooding (expanding the installation of watertight panels and tide barrier)
- Continue operations in the event of a disaster with “Phase Free (a concept of securing an adequate quality of life, regardless of phases such as daily life and emergencies)” facilities, including improved performance of storage batteries
- Prepare fuel reserves for emergency supply delivery
- Develop disaster bases utilizing store infrastructure through disaster management agreements, etc.

Number of comprehensive alliance agreements with local governments (by operating company)

	As of the end of February 28, 2021	As of the end of February 28, 2022	As of the end of February 28, 2023
Ito-Yokado	56	79	78
York-Benimaru	10	11	14
York Mart	4	4	4
Total	267	320	329

(Alliances with local governments) Initiatives of Ito-Yokado

- July 13, 2022 Supplies provision drill, Funabashi City, Chiba Prefecture
- September 3, 2022 Joint comprehensive disaster drill, Shinagawa-ku and Tokyo Metropolis
- November 5, 2022 Exhibition at disaster prevention fair, Asaka City, Saitama Prefecture
- November 4, 2022 Conclusion of agreement on the supplies provision in the event of a major disaster* with Akabane Fire Station, Tokyo Fire Department
- December 1, 2022 Conclusion of agreement on facilities use in the event of flooding with Ageo City, Saitama Prefecture
- February 14, 2023 Conclusion of an agreement on supplies provision in the event of a major disaster* with Tama Fire Station, Tokyo Fire Department

*Agreement relates to the supply of foodstuffs, daily necessities, and other essentials to firefighters engaged in rescue and relief operations in disaster-affected areas in the event of a major disaster.



Agreement signing ceremony with Tama Fire Station, Tokyo Fire Department Joint comprehensive disaster drill, Shinagawa-ku and Tokyo Metropolis

(Alliances with local governments) Initiatives of York-Benimaru

- 2023.2 [Signing of “agreement on promoting carbon neutrality and cooperation in the event of a large-scale power outage due to a natural disaster” using York-Benimaru stores in Nasushiobara City, Tochigi Prefecture \(in Japanese\).](#)



Related website link

- [We shall not forget: 10 years after the Great East Japan Earthquake \(in Japanese\).](#)

Significant physical risks: Increase in raw material cost

The increase in raw material cost due to changes in weather patterns, which is expected to have the next largest impact, was estimated. Based on the composition of purchase amounts and the availability or otherwise of future data, “rice, tomatoes, and pork” were selected as the raw materials to be subject to the first-year analysis in the superstore operations (with plans to extend the scope of analyses going forward).

The increase in the purchase amounts was estimated assuming that climate change impacts will result in reduced yields* and that the purchase amounts would increase accordingly. This clarified that the impacts for the procurement of “rice, tomatoes, and pork” can be expected to become pronounced mainly under the warming scenario. Furthermore, for raw material procurement, both the “change in weather patterns,” and the aforementioned “carbon tax system” as well as the “increase in natural disasters” can be expected to have contingent impacts, with various countermeasures being considered and implemented in light of this fact.

* Yield changes are estimated from data provided by the Ministry of Education, Culture, Sports, Science and Technology; the Ministry of the Environment; the Japan Meteorological Agency; the National Institute for Environmental Studies; the National Agriculture and Food Research Organization, etc.

◆Main countermeasures for Increase in raw material cost

Under our environmental declaration “GREEN CHALLENGE 2050,” we set sustainable procurement as a specific theme—ensuring that food ingredients used in our original products are guaranteed sustainable, and are working toward a society that is in harmony with nature. Below are representative initiatives which we are undertaking for stable procurement as countermeasures for Increase in raw material cost.

- Disperse and consolidate production sites of raw materials
- Ensure stable procurement through the expansion of raw material and certified raw material (marine and agricultural product) procurement from weather-resistant sources, such as vegetable factories, land-based aquaculture, etc.
- Utilize digital technology and AI
- Expand lineup of frozen and processed foods resistant to the influence of climate

Agricultural products

In addition to promoting the acquisition of GAP certification* in cooperation with producers at respective companies, we also sell private label vegetables such as “Fresh Foods with Traceability” (Ito-Yokado) and “Mitsuboshi Agricultural Products” (York-Benimaru), which deliver select, domestically-sourced vegetables grown with guaranteed safety, reliability, and deliciousness. These efforts are designed to disclose information about safe, environmentally sound products—who produces them, where, and with what motivations.

* Good Agricultural Practice (GAP) is a certification given to producers who engage in sustainability efforts in agriculture, awarded through third-party inspection.



Vegetables sales floor (Ito-Yokado)

Number of employees in the Seven & i Group with JGAP instructor qualifications

	FY2021	FY2022
No. of employees with JGAP instructor qualifications	62	139

* Total for JGAP fruits and vegetables and livestock

* Employees of Seven-Eleven Japan, Ito-Yokado, York-Benimaru, Seven & i Food Systems, IY Foods, and Seven & i Holdings

Sales of Ito-Yokado’s “Fresh Foods with Traceability”

	FY2019	FY2020	FY2021	FY2022
Amount of sales* (billion yen)	228	246	243	248

* Approximate figures

Marine products

Seven & i Group is working to sell products for which sustainability is guaranteed, such as those certified by the MSC*1 and ASC,*2 to pass on the rich blessings of the sea to future generations.

In October 2022, the Group acquired Chain of Custody (CoC) certification—a standard for the distribution and management of certified nature and environmentally friendly marine products—from the international non-profit organizations the Marine Stewardship Council (MSC) and the Aquaculture Stewardship Council (ASC). The CoC certification system is used to attest that seafood that has been certified by MSC and ASC as having been produced with consideration to the natural environment has been properly managed without being mixed with non-certified seafood through all the processes of production, processing, and distribution. Obtaining the CoC certification has additionally enabled us to sell MSC and ASC certified seafood processed in-store at the Group’s supermarkets as certified products. Before this, seafood which had been certified by MSC and ASC s sold in Group supermarkets had been limited to a few products processed outside stores, such as fish roe. Under the current CoC certification, meanwhile, sashimi (raw fish) and sliced/filleted products processed in Group supermarkets, including Seven Premium Fresh, the mainstay of our seafood range, can now also be retailed as certified products.

Further, to fulfill our responsibility as a retail business that connects producers and customers, we are also focusing on conveying the value of these products and the producers’ desires to customers through our stores and websites.

*1 Marine Stewardship Council (MSC) certification is a standard for marine products of natural origin relating to sustainable fisheries properly managed with consideration to marine resources and the environment.



*2 Aquaculture Stewardship Council (ASC) certification is a standard for aquaculture products farmed under a responsible aquaculture industry model which takes into account both workers and local communities, in addition to endeavoring to prevent pollution of the natural environment and the overuse of resources.



News releases related to countermeasures, etc.

・ 2022.10 [Seven & i Holdings obtains MSC/ASC CoC certification and begins selling certified seafood processed in-store at 461 stores in its three superstore companies \(in Japanese\).](#)

(3) Business opportunities and main countermeasures for both scenarios

Business opportunities for the decarbonization scenario

In this scenario, we see changes in consumer awareness as a business opportunity. As consumers develop a strong interest in sustainable products and services in line with government policy and trends toward carbon neutrality, we believe that our current efforts will lead to opportunities and further accelerate those efforts. The following initiatives being promoted under our environmental declaration “GREEN CHALLENGE 2050” are good examples.

◆Initiatives to reduce CO₂ emissions

As electric vehicles become more common on the roads in the decarbonization scenario, we believe that offering EV charging services at a greater number of superstore parking lots will create more customer traffic. The two superstore companies have installed approximately 2,373 chargers for EVs as of the end of June 2023.



◆ Initiatives for measures against plastic

We believe that converting the containers and packaging used for our original products to environmentally friendly materials and promoting PET bottle collection and recycling will attract public attention and create more customer traffic.

Taking measures against plastic is one of the initiatives specified in our environmental declaration “GREEN CHALLENGE 2050.” We have set targets to convert the containers and packaging used for our original products (including Seven Premium) to 50% environmentally friendly materials by 2030 and 100% by 2050, thereby reducing the burden on the environment from waste plastic. At Ito-Yokado, York-Benimaru, and York, we have devised sales methods for fresh food and delicatessen items that reduce the amount of containers and packaging used, such as selling by weight or selling individual loose items. In our delicatessen items sales areas, we are increasingly using paper bags rather than plastic containers for selling items such as croquettes and deep-fried chicken. In some other stores, some products sold in fresh meat sales areas have adopted the method of packing meat for sale in plastic bags without a polystyrene tray.



Related news releases, etc.

- 2022.3 [Measures against plastic at Ito-Yokado \(in Japanese\)](#)

Collection machines of plastic PET bottles have been installed at 2,935 superstores and Seven-Eleven convenience stores as of July 21, 2023. The collected bottles are recycled into new PET bottles and underwear in Japan through a “closed-loop” recycling system.



Related website link

- [The process of turning plastic bottles collected at the Group’s stores into “underwear” \(in Japanese\)](#)

◆Initiatives for sustainable procurement

We are expanding our lineup of sustainable products that have acquired official certifications such as MSC, ASC, and MEL certifications for marine products and GAP certification for agricultural products, including private label vegetables such as Ito-Yokado's "Fresh Foods with Traceability" and York-Benimaru's "Mitsuboshi Agricultural Products," which we hope will attract public attention and create more customer traffic.

Business opportunities for the warming scenario

In this scenario, we see changes in customer preferences and consumer behavior due to rising temperatures as business opportunities in the following ways.

- Consumers' heightened awareness of disaster mitigation will increase demand for disaster preparedness products
- Increased sales of products that people wish to have in hot weather (cooling products)
- The frequency of outings will decrease caused in hot weather, so e-commerce services such as delivery business and Net Supermarkets will flourish

◆Roll out of disaster preparedness aisles on sales floors

Disaster preparedness aisles are being rolled out at Ito-Yokado stores in line with the growing awareness among customers of the importance of disaster preparedness.



◆Ito-Yokado Net Supermarket, Shin-Yokohama Center

In August 2023, the Ito-Yokado Net Supermarket, Shin-Yokohama Center was opened to cater to the home delivery needs of customers, which are expanding year on year. This is a large-scale base serving an area which encompasses approximately 30 surrounding Ito-Yokado stores and which delivers within a 30km radius of the center itself.



Refer here for more details of responses to climate change by superstores.

- Ito-Yokado website: [CSR—Social and Environmental Initiatives \(in Japanese\)](#)
- York-Benimaru website: [CSR Report 2022 \(in Japanese\)](#) *Refer to Material Issue 3