

Response to TCFD Recommendations

Amid climate change issues becoming increasingly serious year by year, it is the responsibility of the Group to continue providing merchandise and services that support the lifestyles of customers even as we face the impact of climate change. The Group's stores in Japan serve more than 22 million customers every day. To fulfill its responsibility to our customers and other stakeholders, the Group will align its approach to the TCFD recommendations, analyze the risks and opportunities presented by climate change, and utilize the analysis to achieve sustainable business management.



Indicators 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.

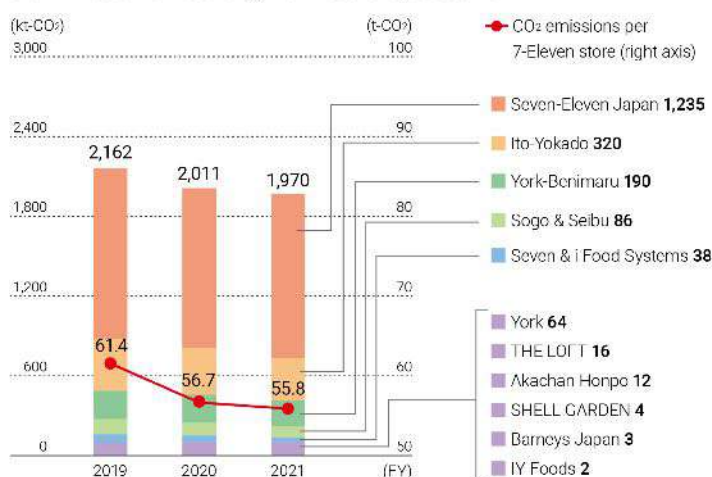
Our specific numerical targets for reducing CO₂ emissions are to reduce CO₂ emissions from the Group's store operations by 50% by 2030 compared to FY2013, and to achieve net zero emissions by 2050. We have also set detailed numerical targets for other themes, and we are promoting initiatives for achieving them and monitoring their progress.

Our scenario analysis, in fiscal year ending February 28, 2022, highlighted the severity of damages that can be caused by natural disasters. In order to curb the risk of natural disasters caused by climate change, we have renewed our determination to limit the temperature increase to 1.5°C by achieving the goals of 『GREEN CHALLENGE 2050』 in collaboration with our stakeholders.

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

[GHG emissions of scope 3 >](#)

CO₂ Emissions Resulting from Store Operations*



* The numbers above the bar graphs are the combined totals 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 Food Systems, and Barneys Japan.

* 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 "the Seven & i Holdings Group-Wide CO₂ Emissions Calculation Manua" established in accordance with the "Act on the Rational Use of Energy"/"Law Concerning the Promotion of the Measures to Cope with Global Warming."

Strategy: Implementation of Scenario Analysis

Scenario analysis assumptions

The Seven & i Group is undertaking scenario analysis to clarify risks and opportunities created by future climate change and develop strategies to reduce the risks and to expand the opportunities.

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. We disclosed the results on our website for the first time in June 2020. In fiscal year ending February 28, 2022, we further deepened our analysis by developing substantive countermeasures and quantified risks and opportunities, in addition to our previous analysis.

In our recent scenario analysis, we examined the impacts of two scenarios as of 2030: a "decarbonization scenario (1.5°C–2.0°C)" and a "warming scenario (2.7°C–4.0°C)." The analysis references multiple scenarios given in the International Energy Agency (IEA)'s World Energy Outlook, including STEPS^{*1}, SDS^{*2}, and NZE2050^{*3}, as well as reports and other forward-looking forecasts published by governments and international agencies.

^{*1} STEPS: Stated Policies Scenario. It is one of the scenarios shown in the World Energy Outlook 2019 by the International Energy Agency (IEA). It reflects decarbonization policies and targets that have been so far publicized.

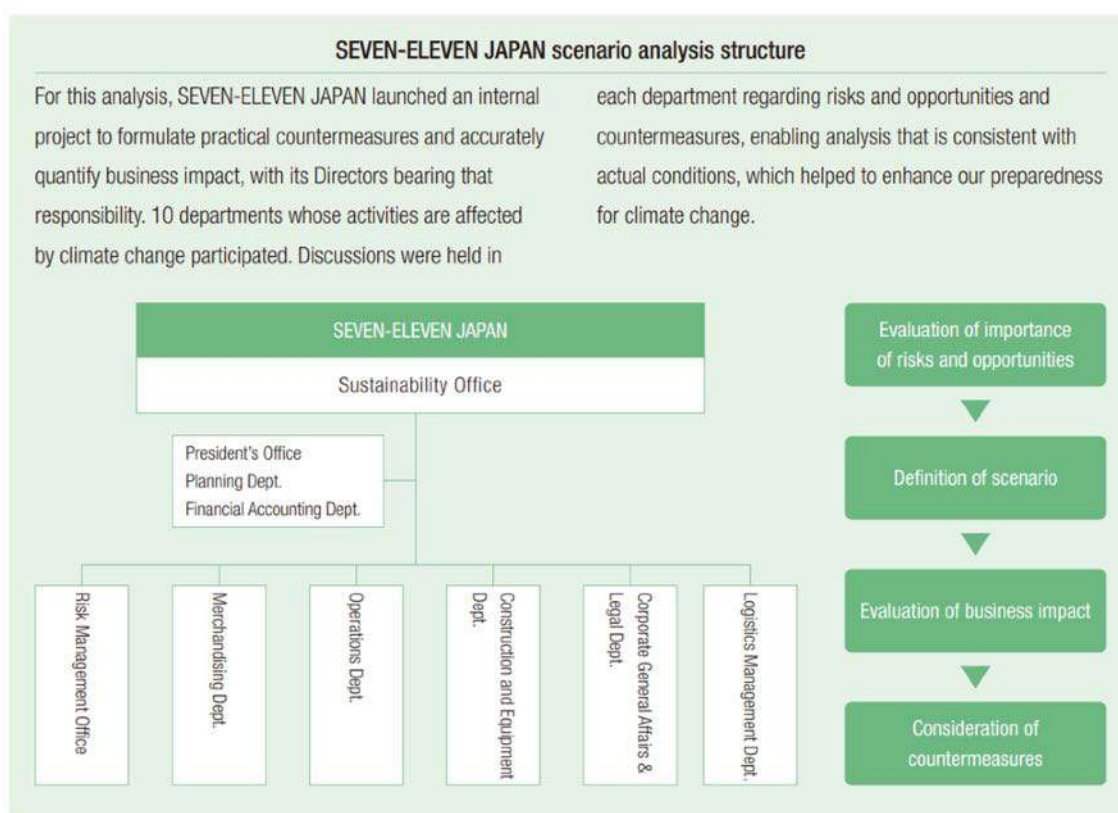
^{*2} SDS: Sustainable Development Scenario. It is one of the scenarios that are used in the IEA's World Energy Outlook 2010 or later. It is a scenario assuming that clean energy policies and investments will increase toward the achievement of the 2° C scenario targeted by the Paris Agreement, and that the energy supply system will progress smoothly toward the achievement of the Sustainable Development Goals.

^{*3} NZE2050 : Net Zero Emissions by 2050. It is one of the scenarios shown in the IEA's World Energy Outlook 2020. It is a scenario that aims at zero emission before 2050 toward the 1.5 scenario beyond the target of the Paris Agreement.

● Analysis assumptions (fiscal year ending February 28, 2022)

Scenario	Decarbonization scenario (1.5°C–2.0°C) / Warming scenario (2.7°C–4.0°C)
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

Scenario analysis structure



Significant Risks and Opportunities

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. The following factors were identified as significant risks and opportunities: carbon price, carbon emissions targets and policies in each country, changes in consumer preferences, extreme weather, and changes in precipitation and weather patterns.

Significant risks and opportunities: business impact assessment and countermeasures

We evaluated qualitatively and quantitatively the impact of the five risks and opportunities that we identified on the business, and developed countermeasures.

■ Significant risks and opportunities from climate change: business impact and countermeasures

◎ = High impact risks and opportunities ○ = Somewhat high impact risks and opportunities

Significant risks and opportunities			Concrete examples	Impact	Scenario	Business risks	Business opportunities	Main countermeasures
Transition risks and opportunities (Decarbonization scenario, 1.5°C–2.0°C)	Policies and regulation	Carbon price	Introduction of carbon tax	Operating cost	• A high carbon tax is introduced and a carbon tax burden is imposed in accordance with CO ₂ emission volume • Increased costs are expected throughout the supply chain	◎		- 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	• Increased electricity expenses due to higher retail electricity prices stemming from the introduction of renewable energy and other factors	◎		- Develop and install energy-saving equipment at stores - Enhance onsite renewable energy installations
		Carbon emissions targets and policies in each country	Fluctuations in shipping fuel costs	Operating cost	• Fuel costs associated with deliveries decrease amid an increasing shift to EV as delivery vehicles		○	- 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	• Costs incurred due to conversion of delivery vehicles to EV in line with tighter regulations and changes in social environment	○		Reduce delivery vehicle fleets by enhancing delivery efficiency
	Reputation	Changes in consumer preferences	Changes in sales due to sales of sustainable merchandise	Sales	• Costs incurred due to conversion of delivery vehicles to EV in line with tighter regulations and changes in social environment		◎	- 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)	Acute	Extreme weather	Damage from natural disasters	Sales / Operating cost	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.	◎	- 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 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	Increased insurance cost related to natural disasters due to increased frequency and intensity of natural disasters	◎	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	Higher raw material costs and increased purchasing costs due to declines in yields and in quality of agricultural, livestock, and marine products	◎	- Disperse production sites of raw materials - Secure stable procurement by expanding procurement from vegetable factories, land-based aquaculture, etc. - Utilize digital technology and AI
			Electricity cost for air conditioning in summer	Operating cost	Higher average temperatures increase electricity use for air conditioning and result in higher electricity fee payments	◎	Develop and install energy-saving equipment at stores

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

(Transition risks and opportunities: decarbonization scenario; Physical risks and opportunities: warming scenario)

(1) Transition risks and opportunities: Decarbonization scenario (1.5°C–2.0°C)

Transition risks and opportunities 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, we estimated the following for the carbon tax, which is projected to have the biggest impact.

For our estimate, we calculated the impact of carbon tax using the assumed tax amount as of 2030 at \$130/ton-CO₂, which is the maximum amount with reference to the IEA’s “World Energy Outlook 2020.” Based on simple calculation, the carbon tax would amount to ¥22.12 billion when CO₂ emissions increase in line with the growth of business activities. However, if we reduce CO₂ emissions by 50% compared to FY2013 levels by 2030 as stated in our environmental declaration 『GREEN CHALLENGE 2050』, we can expect to reduce carbon taxes by ¥11.97 billion to ¥10.15 billion. Furthermore, we expect that this burden will eventually be eliminated by promoting efforts to achieve our 2050 net zero emission target.

● Carbon tax (impact in 2030) Assumption: \$130*/ton-CO₂

Item	Business impact
Carbon tax	¥10.15 billion

* Maximum amount from IEA’s “World Energy Outlook 2020”

(2) Physical risks and opportunities: Warming scenario (2.7°C–4.0°C)

In terms of physical risks and opportunities, 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 the warming 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 ¥11.19 billion.

- **Damage from natural disasters** Assumption: Flood damage to stores in the Tokyo metropolitan area (assuming flooding of the Arakawa River)

Item	Business impact
Store damage, merchandise damage, loss of sales due to closures, restoration cost, etc.	¥11.19 billion

* Estimated based on past flood damage

The increase in raw material cost due to changes in weather patterns, which is expected to have the next largest impact, was estimated as follows. 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.

- **Increase in raw material cost (impact in 2030)** Assumption: Estimated cost increase solely due to lower yields from climate change

Item	Business impact
Raw materials cost increase for rice	¥2.23 billion
Raw materials cost increase for laver	¥1.93 billion
Raw materials cost increase for livestock products (beef, pork, chicken, eggs)	¥1.54 billion

* 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.

(3) Countermeasures to risks and opportunities

Each department discussed and organized approximately 50 countermeasures aimed at mitigating risks and expanding opportunities. Through this discussion, we confirmed that the environmental impact reduction activities being promoted based on 『GREEN CHALLENGE 2050』 are effective measures for both the decarbonization scenario and the warming scenario.

In terms of transition risks, we will significantly reduce our carbon tax burden by achieving the CO₂ emission reduction targets of 『GREEN CHALLENGE 2050』. In addition, by actively promoting energy savings in stores and CO₂ emissions reduction measures such as the installation of solar panels, we will mitigate transition risks such as higher electricity fee payments. Furthermore, we will also work to gain support from our customers by promoting 『GREEN CHALLENGE 2050』 including measures against plastic and sustainable procurement initiatives, thereby expanding opportunities for changes in consumer behavior toward sustainable merchandise and services.

In terms of physical risks, we confirmed that we should actively work to reduce CO₂ emissions in order to achieve the goals of 『GREEN CHALLENGE 2050』. In response to the risk of increase in natural disasters, we will build a system for enabling early recovery from disasters by utilizing our 7view information sharing system to monitor the status of stores in real time. We will also steadily implement measures such as the installation of watertight panels to prevent flooding. By implementing efforts that enhance our preparedness for disasters, we will resume store operations quickly so that we can continue to serve our customers in the local community.

With regard to the rising cost of raw materials, we will promote dispersion of production areas and strengthen cooperation with domestic and overseas suppliers to ensure stability in securing raw materials. For example, we are expanding our procurement from indoor vegetable factories, where stable harvests can be expected regardless of weather conditions. Going forward, we will continue with our efforts to reduce the risks associated with rising raw material cost by collecting information on producers and production areas and utilizing advanced technologies such as digital technology and AI.

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 ending 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 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.

[Climate change countermeasures >](#)

Governance structure related to climate change



● Meetings and roles related to climate change

Meeting	Role	Member	Main activities for FY2020–FY2021
Board of Directors	• 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	Directors Audit & Supervisory Board Members Members include internal and Outside Directors with extensive knowledge and experience in sustainability	Resolved to revise CO2 emission reduction target to 2050 net zero in the environmental declaration 『GREEN CHALLENGE 2050』 (May 2021)
CSR Management Committee	• 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	Chair: Representative Director and President of the Company Members: CSR department managers of Group companies and managers from CSR-related divisions of the Company	• Confirm status of response to TCFD recommendations • Share climate change mitigation and adaptation measures among Group companies
Environment Subcommittee	• Subcommittee of CSR Management Committee • Meet twice a year • Promote response to climate change issues • Promote response to TCFD recommendations	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	Promote activities and share information based on the three initiatives of energy savings, energy generation, and procurement of renewable energy
CO2 Emissions Reduction Team	• Meet as required • Share information among Group companies to reduce CO2 emissions • Implement Groupwide measures	Leader: Executive Officer in charge of Construction Division of a Group company Members: Staff in charge at CSR departments and staff in charge at departments involved in climate change response measures at Group companies	Implement Groupwide measures such as support for solar power generation equipment and joint purchasing of LED lighting

Risk management

Seven & i Holdings has established a comprehensive risk management system with the Risk Management Committee at its core, based on the basic rules for risk management. The risks related to climate change are also managed under this risk management system. Each Group company identifies its own risks twice a year based on the Group's common risk classification, and quantifies them taking into account their degree of impact and likelihood of occurrence. The quantified risks and measures to deal with them are compiled into the risk assessment sheets and submitted to the Corporate Governance Management Department (Risk Management Committee Secretariat) of the Company. 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.

Judgments concerning material risks for the Group are made based on a comprehensive evaluation of factors such as damage occurring when the risk materializes, timing of risk manifestation, degree of impact on the Group's growth strategy, and the status of responses to current risks.

The status of such risk management and judgments concerning material risks are reported annually to the Board of Directors.

Future Responses to TCFD Recommendations

We have deepened our scenario analysis for SEVEN-ELEVEN JAPAN, which accounts for about 60% of the Group's operating income. We believe that our analysis confirms the resilience of the business. Going forward, we will steadily implement measures to address the situation. We will also increase the number of operating companies subject to our analysis, and take the entire supply chain into perspective as we identify risks and opportunities quantitatively, while also developing and implementing practical countermeasures. We will work on initiatives to curb the temperature increase to less than 1.5°C at 2100 in order to leave a prosperous environment of our planet to future generations.