Addressing Climate Change (TCFD)

Climate Change Scenario Establishment and Information Disclosure

The effects of climate change are becoming increasingly serious and climate change is considered to be a contributing factor in the frequent abnormal weather patterns and natural disasters currently occurring. Together, these events are impacting the supply chain for food, which is the foundation of the value provided by the Nichirei Group. We recognize the importance of appropriately responding to risks posed by shifts in the external environment caused by climate change. At the same time, we are considering and preparing multiple scenarios in which climate change could give rise to business opportunities. To this end, we are assessing climate change scenarios with respect to the four aspects of the recommended framework put forward by the Task Force on Climate-related Financial Disclosures (TCFD): governance, strategy, risk management, and metrics and targets. By conducting appropriate disclosures of relevant information, we hope to continue building a constructive dialogue with our stakeholders. It is in line with these ideas and because we support its recommendations that, in June 2020, we announced our participation in the TCFD Consortium. The Group has positioned climate change initiatives as one of the material matters for achieving its vision for long-term management goals toward 2030. As such, we are actively promoting initiatives to help resolve social issues related to climate change.

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

1 Governance

In October 2019, we began analyzing climate change scenarios as an interdepartmental Group project, headed by the president, and are reviewing the scenarios across the Nichirei Group. Following discussion and review by the Group Environmental Protection Committee in May 2020, the Board of Directors approved low-carbon policies as a long-term environmental goal in June and disclosed them in August of the same year.

In October 2020, the director, executive officer responsible for implementing climate change strategies was appointed as project head. The project reviewed and analyzed climate change scenarios in relation to water-related risks arising from abnormal weather, which, out of the risks identified in FY2020, would have a particularly significant financial impact on the Group. Following discussion and review by the Group Environmental Protection Committee in May 2021, the Board of Directors approved goals (measures and KPIs) for water-related risks as one of the Nichirei Group material measures in June and disclosed those measures and KPIs in August of the same year.

The director, executive officer in charge reports at least once a year on the progress of the initiatives at Board of Directors meetings. Relevant strategies, goals and plans are revised as appropriate on the basis of these reports.

FY2021–2022 Project Organization

Project name	Project for the Analysis of Climate Change Scenarios
Project head	Director, Executive Officer
Project leader	General Manager, Technology Management
Department in charge	Technology Management
Departments participating in the project	Group Communication
Controlling committee	Group Environmental Protection Committee (meets twice annually)
Reports to Board of Directors	At least once a year

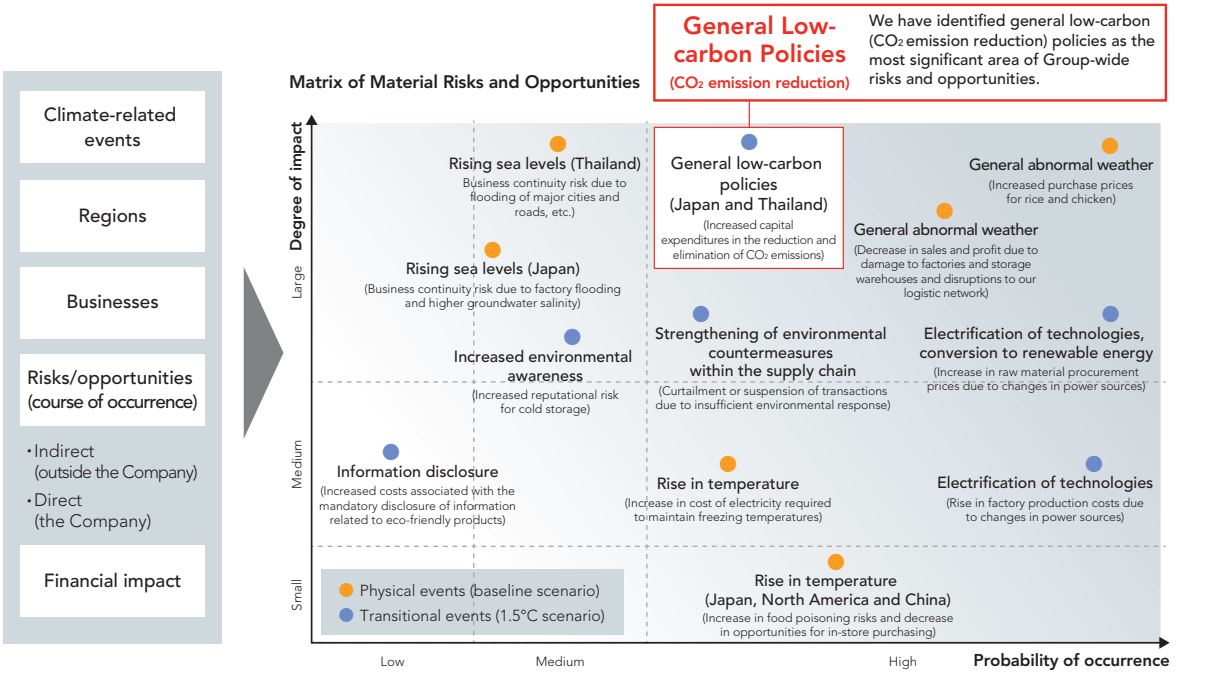
2 Strategy

Identification of Material Risks and Opportunities

Worldwide, the Nichirei Group is developing a range of food-centered businesses that it expects will be impacted by climate change in various ways. We are conducting scenario analyses of how climate change might affect our business activities. We hope to better quantify the risks and opportunities identified in order to incorporate appropriate responses in our management strategy. In this way, we aim to become a sustainable corporate group.

FY2021 We assessed the material risks and opportunities of the Nichirei Group based on two climate change scenarios, and identified general low-carbon policies (CO_2 emission reduction) as the most significant area of Group-wide risks and opportunities. We established long-term CO_2 reduction goals and launched initiatives.

Initiatives to Reduce Environmental Impact ▶Pages 62–63



FY2022 Selection of water-related risks arising from abnormal weather, which is a risk common to both the foods and logistics businesses.

Material Risks and Opportunities by Business and Scenario

Business			Risks	
Foods Business	Chicken	Baseline scenario	General abnormal weather	・Reduction of agricultural and dairy production, and steep rise in purchase prices due to deterioration in quality ・Difficulty in obtaining raw materials and production delays due to logistic network disruptions
	Rice			
	Shrimp		Flooding, rising sea levels	・Reductions in production efficiency and volume and submerged aquafarms
	Vegetables, marine products, and meat and poultry products			・Submerged agriculture farms, aquafarms and processing factories ・Difficulty in obtaining raw materials and production delays due to supply chain disruptions
	Common	1.5°C scenario	Low-carbon policies	・Increased cost for measures for converting to renewable energy and equipment electrification, elimination of emissions
			Environmental countermeasures within the supply chain	・Curtailment of transactions; higher cost of measures such as the maintenance of global certifications
Logistics Business		Baseline scenario	General abnormal weather	・Damage to refrigerated warehouses and logistics centers
				・Difficulty securing human resources in disaster risk areas
		1.5°C scenario	Low-carbon policies	・Opportunity loss caused by the slow increase of investment in natural refrigerants and the slow adoption of technological platforms such as electrical and low-carbon vehicles

Risks common to both the Foods and Logistics businesses

Business		Opportunities	
Foods Business	Baseline scenario	Changes in weather patterns	・Increased demand for frozen and processed foods
	1.5°C scenario	Strengthening of environmental countermeasures within the supply chain	・Increased demand for ethical products that are compliant with the Sedex platform and are created using globally certified raw materials
			・Increased demand for the curtailment of food loss within the supply chain through the development of eco-friendly products and technological development
		Increased environmental awareness	・Development and expansion of demand for products created using sustainable raw materials
Logistics Business	Baseline scenario	General abnormal weather	・Increase in sales resulting from customer base expansion achieved through strengthened disaster countermeasures and greater resilience
	1.5°C scenario	Modal shift	・Cost reduction achieved through a modal shift that improves transportation efficiency
		Increased environmental awareness	・Increase in number of business partners due to higher evaluations as a company that actively discloses information related to environmental countermeasures

Note: The bioscience business is characteristically resistant to impact from climate change-related events. Accordingly, we have not currently identified any material factors in our bioscience business based on the FY2021 Group climate change scenarios.

FY2022

Climate Change Scenarios in Relation to Water-Related Risks Arising from Abnormal Weather

	(1) Risk of Future River Flooding		(2) Risk of Future Rising Sea Levels (Tidal Flooding)	
	Description	Results	Description	Results
Assessment criteria	The location criterion is the scale of rainfall assumed to result in flooding according to the hazard maps of municipalities in the region where the facility is located. The assessment is conducted based on predicted rainfall amounts.	When creating hazard maps for regions where the facilities are located, **three facilities in Japan** were found in locations where the number of rainfall events exceeding the anticipated maximum rainfall amount was expected to be around the same as the current number of rainfall events or potentially higher in the future.	For facilities in areas with either no risk or unknown risk of flooding according to the municipal hazard map of the region where they are located, an assessment was conducted of the risk of flooding assuming the occurrence of a typhoon on the scale of the Ise Bay Typhoon, one of the most destructive typhoons in Japanese history, and future rising sea levels (set at 1 meter by the Japan Meteorological Agency in *Climate Change in Japan 2020*).	**39 of the 145 facilities** were in flood areas according to municipal hazard maps. • **No facilities overseas** • Based on an Ise Bay Typhoon-scale typhoon and rising sea levels, a simple calculation was performed for the facilities outside of flood areas according to municipal hazard maps or in areas for which hazard maps had not been prepared (106 facilities). As a result, **27 facilities** were found to be in flood areas when rising sea levels were not considered, and **32** when rising sea levels associated with climate change were considered.
Facilities to be assessed	21 facilities in Japan (8 plants and 13 refrigerated warehouses)		145 facilities in Japan 1 facility overseas	
Facility selection criteria	• Facilities located in regions where hazard maps have been prepared • Food factories with large production volume • Refrigerated warehouses (distribution centers) in areas with high base flood elevation according to current hazard maps • Selected to avoid overrepresentation of certain regions		• All facilities in Japan, and facilities where significant financial risk and distance from the coast were considered (Thailand: Chicken production facility)	

3 Risk Management

Nichirei is a global operator of food-related businesses. Accordingly, we ensure that appropriate divisions manage the impact of a variety of risks (including climate change-related risks encountered through business activities) on business management from a holistic perspective, employing both rational and optimal methods. The risks are also discussed and reviewed by the Group Risk Management Committee, which is chaired by the president.

We believe that risks associated with climate change scenarios are major and could impact the entire Group. Thus, the Group Environmental Protection Committee, chaired by the president, reviews both physical and transition risks twice a year, based on information gleaned from relevant reports and experts' advice. In addition, at least once a year the director, executive officer supervising environmental management reports to the Board of Directors.

We hope to better quantify the risks and opportunities identified in order to incorporate appropriate responses in our management strategy. In this way, we aim to become a sustainable corporate group.

(3) Risk of Future Shortages of Water Resources	
Description	Results
Based on actual rainfall amounts during past droughts, an assessment was conducted based on predicted rainfall amounts using annual rainfall of 700 millimeters as the criteria.	**Three facilities** were found to be in areas where the number of rainfall events below an annual rainfall amount of 700 millimeters was expected to be the same as the current number or potentially higher in the future.
21 facilities in Japan 3 facilities overseas	Note: This review is a simple assessment based on expected rainfall amounts and does not include the impact of social conditions (such as water intake). It also does not take into account transfers of water between watersheds. Such factors are important in water resource assessments, and therefore must be included when conducting a detailed assessment.
• The 30 facilities in Japan with the largest water intake quantity and the facilities overseas with the highest financial risk were selected (Thailand: Chicken production facility)	

Financial Impact

- We regularly review the financial impact of water-related risks arising from abnormal weather and with respect to our business continuity plan. (BCP).
- The 2018 Japan floods caused some flooding and damage from storm surges at refrigerated warehouses in western Japan.
- In the future, we will work on climate change scenarios for each raw material.

4 Indicators and Targets

Nichirei Group Materiality ▸Pages 12–13

We have set forth climate change initiatives as one of our material matters and have established the indicators and targets below for our key initiatives.

Group Measures: Promote reduction of CO_2 emissions per unit of production and utilization of renewable energy at food factories and logistics centers, and disclose information based on the TCFD recommendations.

Group KPI: 50% reduction in CO_2 emissions (compared with FY2016; Scope 1 and 2 in Japan)