6. Responding to Climate Change (Addressing the TCFD Recommendations)

Nissha Group publicly endorsed the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD) in January 2022.

The Task Force on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board (FSB) at the request of the G20 to examine climate-related disclosures and financial institutions' responses. The TCFD's final report, published in June 2017, recommends that companies take measures to understand and address climate change-related risks and opportunities as a management issue. The need for disclosure in line with the framework of the TCFD recommendations is clearly stated in the June 2021 revision of Japan's Corporate Governance Code, and analysis of the financial impact of risks and opportunities related to climate change on business is becoming an essential part of ESG disclosure.

Using the framework of the TCFD recommendations, we have analyzed the financial impact of risks and opportunities related to climate change on our business. The details of our analysis are outlined below.

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

6-1 Governance

The Nissha Group views climate change issues from both a long-term perspective (backcasting from 2030) and a short- to medium-term perspective, and manages them using the following system.

■ Management from a long-term perspective

The Nissha Group has defined Sustainability Vision (long-term vision) that shows where we want to be by the year 2030. We aim to create social value by providing products and services that contribute to solving social issues and to achieve a 30% reduction in total CO_2 emissions by 2030 (compared to 2020) with a view of becoming carbon-neutral by 2050.

To accelerate this initiative, the Group has established a Sustainability Committee, chaired by the President and CEO and vice-chaired by the Director of the Board, Executive Vice President in charge of Sustainability. The Sustainability Committee manages the material issues (materialities) resolved by the Board of Directors. The Committee monitors progress by receiving quarterly reports on material issues from business organizations and divisions and the ESG Task Force, and reports annually to the Board of Directors. The Board of Directors discusses the content of the report and makes observations as necessary.

In addition to reporting progress to the Sustainability Committee, the ESG Task Force, which handles particularly important material issues, discusses the company's response to climate change with the President and CEO and the Director of the Board, Executive Vice President in charge of sustainability on a quarterly basis.

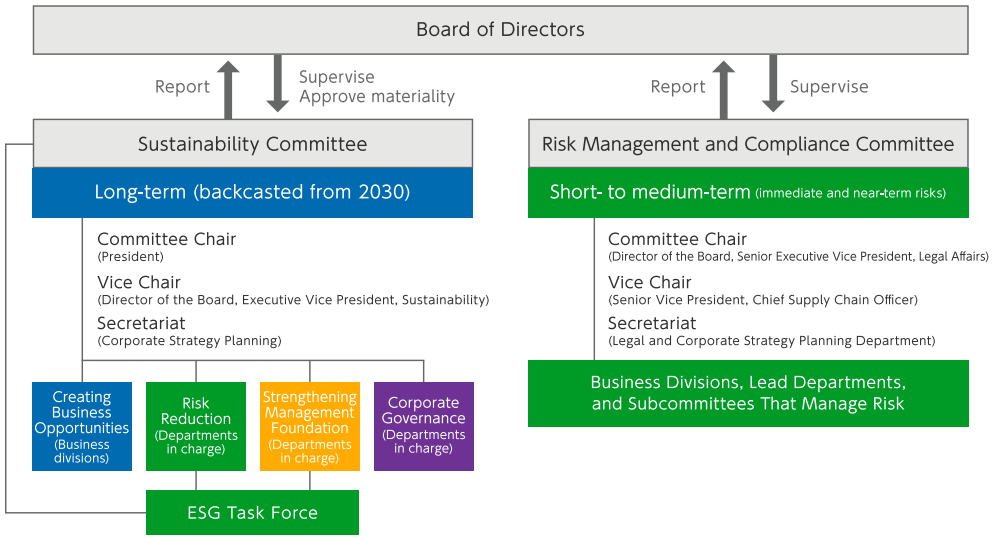
Important strategic and financial decisions concerning our response to climate change are made by the President and CEO within the scope of his authority.

■ Management from a short- to medium-term perspective

The Group has established a Risk Management and Compliance Committee, chaired by the Director of the Board, Senior Executive Vice President in charge of legal affairs and vice-chaired by the Senior Vice President, Chief Supply Chain Officer, in order to centrally manage risks that may jeopardize business operations from a short- to medium-term perspective. The Risk Management and Compliance Committee manages important risks that are identified, evaluated, and selected from a company-wide perspective. The Committee monitors progress on a quarterly basis based on reports from the subcommittees and divisions that manage such risks, and reports on its activities to the Board of Directors once a year. The Board of Directors discusses the content of the reports and makes observations as necessary.

We have selected Continuity of Business Activities" as one of the significant climate change risks. The Business Continuity Management Subcommittee, which manages such risks, formulates and updates emergency preparedness based on the most recent potential natural disasters and response plans for when a disaster occurs, and reports its activities to the Risk Management and Compliance Committee. The President and CEO and the Senior Executive Vice President in charge of legal affairs monitor the content of such reports and give instructions as necessary.

Management structure



6-2 Strategy

We have conducted a scenario analysis of the impact of future climate change on our business operations, based on the framework recommended by the TCFD.

This year's analysis targets the Devices business, which accounts for about half of the Group's net sales.

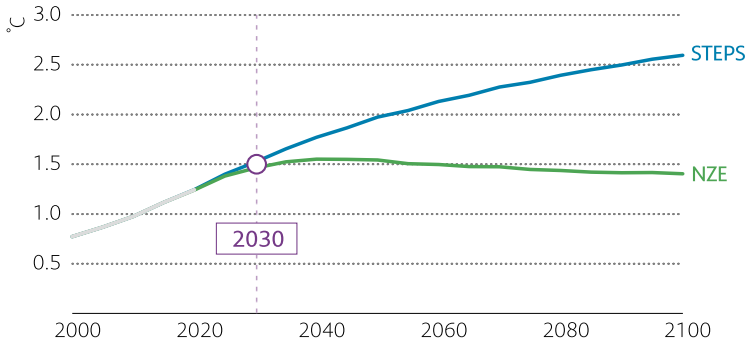
(1) Scenario analysis assumptions

- Scenario analysis time horizon: consider transition and physical risks and opportunities as of 2030
- Scenario analysis target business: Devices business
- Assumed scenario: referred to two scenarios from the International Energy Agency (IEA), the "Net Zero Emissions by 2050 (NZE)[*1] scenario" (1.5° C scenario) and the "Stated Policies scenario (STEPS)[*2]" (3° C scenario)

*1 NZE: a scenario in which the world decarbonizes and achieves virtually zero CO_2 emissions in 2050. It is called the "1.5 ℃ scenario" because the average temperature increase as of 2100, compared to pre-industrial times, will be between 1.3 and 1.5 ℃ .

*2 STEPS: a scenario in which countries implement their stated current specific policies on decarbonization and no additional decarbonization-related policies are introduced. It is called the "3 ℃ scenario" because the average temperature increase as of 2100, compared to pre-industrial times, will be between 2.4 and 2.8 ℃.

Temperature rise in 2100 under each scenario



Source: created internally based on the IEA World Energy Outlook, 2021

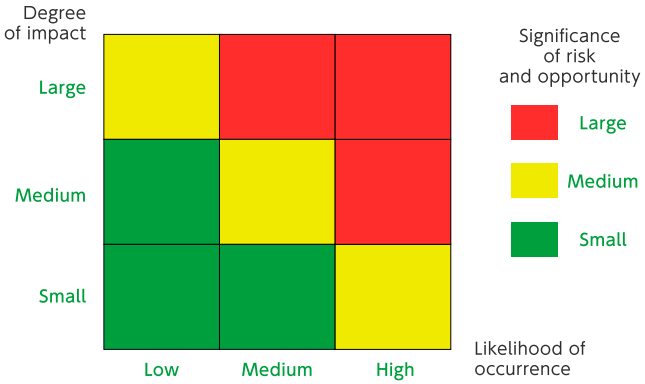
We believe that we can visualize many climate change-related risks and opportunities by using the 1.5℃ scenario in which regulations are tightened and zero CO_2 emissions are achieved by 2050, and the 3℃ scenario in which no additional policies are introduced and climate change measures do not progress.

Under the two scenarios referenced from the IEA, the physical risks in 2030 are assumed to be the same for both the 1.5℃ and 3℃ scenarios, since the temperature increase in 2030 is about 1.5℃ in both scenarios and there is no significant difference between the two. Therefore the size of the risk between the two scenarios is not distinguished.

(2) Scenario analysis process

Scenario analysis was conducted using the following process:

(i) Consider significant climate-related risks and opportunities for the Devices business
(ii) Consider and create scenarios
(iii) Assess risks and opportunities based on the scenarios (Risks and opportunities are assessed on the two axes of "likelihood of occurrence" and "degree of financial impact," and the results are described below as "magnitude of risk" and "magnitude of the opportunity.")
(iv) Consider countermeasures



(3) Results of risk analysis

Major risks related to climate change, our response to those risks, and the magnitude of the risks in each scenario are analyzed in the table on the right.

Based on the above analysis, we have concluded that the following three climate change risks will have a large impact on our business.

Results of risk analysis

Type		Changes in the external environment	Risks to Nissha	Risk magnitude 3℃	Risk magnitude 1.5℃	Countermeasures
Transition risks	Policies and regulations	Introduction or strengthening of carbon taxes	Cost of procuring energy and raw materials derived from fossil fuels increase	Small	Large	- Reduce CO_2 emissions by conserve energy through improved productivity and introduction of renewable energy - Investigate and study alternatives to raw materials that contribute to reducing our environmental impact
		Establishment of carbon emission quotas	Electricity costs increase due to the introduction of renewable energy	Small	Medium	- Reduce electricity consumption through energy conservation by productivity improvement
			Cost of reducing CO_2 emissions in logistics (procurement and shipping) increases	Small	Small	- Study trends in the logistics industry and consider shifting to transportation methods that emit less CO_2
		Tightening restrictions on the use of specific substances and technologies	Restrictions on use of specified CFCs and their substitutes used at production bases increase capital investment costs	Medium	Medium	- Research technology trends to enable compliance with regulations
	Technologies	Transition to materials and technologies with lower environmental impact	Costs increase in order to replace product packaging materials	Small	Small	- Investigate alternative materials that can reduce costs while maintaining the quality of packaging materials
			Net sales decrease due to replacement of our products for competitor low-carbon products	Medium	Medium	- Develop low-carbon products with lower environmental impact
			Net sales decline due to lost business opportunities resulting from delays in development of low-carbon technologies	Medium	Medium	- Promote the development of low-carbon technologies
	Markets	Increase in requests from customers to reduce CO_2 emissions	Net sales decline due to lost business opportunities caused by insufficient responses to customer requests	Medium	Large	- Conserve energy through improved productivity and reduce CO_2 emissions through the introduction of renewable energy
	Reputation	Growing importance of ESG evaluation in customers' supplier selection	ESG evaluation declines due to delays in addressing climate-related issues, etc. and we are not chosen as a supplier resulting in a decline in net sales	Small	Medium	- Enhance climate change initiatives
Physical risks	Acute	Intensifying weather disaster	Suspension of factory operations caused by the flooding affects shipments resulting in a decrease in net sales	Medium		- Improve and strengthen BCP - Establish a system to support affected sites
			Costs increase as a result of damage to own assets such as buildings, equipment, and inventories due to flooding	Large		
			Suspension of supply of raw materials and parts due to disasters at suppliers impact our factory operations and shipments, resulting in a decrease in our net sales	Medium		- Improve and strengthen BCP - Rebuild supply chain

[Transition risks]

(i) Increase in energy use at production bases and raw material procurement costs due to the introduction or strengthening of carbon taxes (1.5° C scenario)

(ii) Loss of business opportunities caused by insufficient responses to customer requests to reduce CO_2 emissions (1.5° C scenario)

[Physical risks]

(iii) Costs increase as a result of damage to own assets such as buildings, equipment, and inventories due to flooding (both 3° C scenario and 1.5° C scenario)

As measures to address (i) and (ii), we are reducing power consumption by streamlining production at our production bases and improving the energy efficiency of our production and infrastructure facilities, and we are gradually switching to renewable energy for electricity supplied by power companies. We will continue to promote reductions in emissions while verifying the cost and effectiveness of such reductions.

As a countermeasure for (iii), the Group has established a Business Continuity Plan (BCP) to prepare for emergencies such as natural disasters and pandemics, and to respond should such emergencies occur. We regularly conduct BCP drills in which management participates, to verify the effectiveness and prepare for disaster risks, including weather disasters, so that we are able to put the safety of human life first and foremost, minimize damage, and promptly restart our businesses.

Based on our analysis using the above scenarios, our Devices business has taken measures to address risks we believe will have a significant impact with respect to climate change and we believe that the business is resilient to climate change.

Results of opportunity analysis

Type	Changes into the external environment	Opportunities to Nissha	Opportunity magnitude		Countermeasures
			3℃	1.5℃	
Market	New markets and growing needs due to climate change Arrival of a hydrogen-based society	Demand for Fuel Cell Vehicles (FCVs) expands	Medium	Medium	- Develop and expand sales of products for the mobility market (such as hydrogen detectors*1) that contribute to reducing the environmental impact
Market	Changes in the automobile market Increase in Electric Vehicles (EV) sales	Growing demand for EVs equipped with touch sensors*2	Small	Large	- Develop and expand sales of touch sensors for vehicles
Products and services	Increased demand for products that contribute to reducing GHG emissions	Increase in sales opportunities for gas sensor modules for refrigerant detection*3 that contribute to reducing GHG emissions	Large	Large	- Develop and expand sales of gas sensor modules for refrigerant detection

*1 Hydrogen Detector
A device produced by Nissha FIS, a member of our group, to detect hydrogen gas leaks. In addition to the installation in fuel cell vehicles, demand is expected to grow in areas such as household fuel cell systems and infrastructures such as hydrogen pipelines and hydrogen stations.

*2. Touch sensor for automobiles
Our touch sensors are used in industrial devices and automobiles as well as mobile phones and game consoles. Film-based material provides high visibility and a narrow frame while being thin, light, unbreakable, and bendable. These features enable us to provide touch sensors for curved surfaces and large displays that meet next-generation automotive design demands.

*3. Gas sensor modules for refrigerant detection
A gas sensor produced by Nissha FIS. Refrigerants widely used in household air conditioning units today have low ozone depletion potential and global warming potential, but leak detection is necessary as they are slightly flammable. We believe that our Group's gas sensors can contribute to both safety and the prevention of global warming.

(4) Results of opportunity analysis

Based on our awareness that responding appropriately to the impact of climate change will create business opportunities, we have analyzed the magnitude of the opportunities in each scenario as shown in the table on the above.

Based on the above analysis, we have concluded that the following two items will have a large impact on our climate change opportunities.

(i) Increase in net sales of automotive products due to expansion of EV market (1.5° C scenario)

(ii) Increase in sales opportunities for gas sensor modules for refrigerant detection due to the increase in demand for products that contribute to reductions in GHG emissions (both 3° C scenario and 1.5° C scenario)

We have identified the expansion of our business targeting the mobility market as one of the priority markets for achieving our Sustainability Vision, and we are working to enhance products that contribute to reducing our environmental impact as a strategy to expand our business.

We intend to reflect the growing demand for products that contribute to reducing our environmental impact in our business strategy obtained from our scenario analysis results, such as EV market expansion and reduction of GHG emissions.

6-3 Risk Management

The Group's Sustainability Committee and Risk Management and Compliance Committee each assess and manage risks related to climate change from a long-term perspective and a short- to medium-term perspective, through the following process.

■ Risk Management by the Sustainability Committee

To realize our Sustainability Vision (long-term vision), we have identified items of particular importance as materialities, which we are working on by setting specific strategic items, key performance indicators, and action items backcasting from 2030 as a starting point.

Materialities are evaluated from the 4 perspectives of, Creating Business Opportunities, Risk Reduction, Strengthening Management Foundation, and Corporate Governance, using the two axes of "importance to society and stakeholders", and "importance to Nissha". The identified issues and their positioning within the Group are discussed by the Sustainability Committee, and materialities are identified through deliberations and resolutions by the Board of Directors.

We have identified the following material issues relating to climate change from the perspectives of risk reduction and creating business opportunities.

	Materiality	Related SDGs
Risk reduction	Responding to climate change	
Creating business opportunities	Contribute to the safety and comfort of transportation and logistics, and the reduction of environmental impact	
	Promotion of circular economy	

The ESG Task Force is responsible for activities related to risk reduction. The ESG Task Force works based on key performance indicators and action items approved by the Sustainability Committee and reports the state of its activities to the Sustainability Committee on a quarterly basis.

Activities related to creating business opportunities are handled by the business organization. The business organization reports to the President and CEO at monthly meetings (business reviews), at which the President and CEO confirms the progress of business strategies based on key performance indicators and gives instructions on necessary action.

The Sustainability Committee discusses the formulation of the Medium-term Business Plan and the Rolling Plan and reports its activities annually to the Board of Directors, and utilizes these in the formulation of these plans as necessary.

Refer to 3-4 Promotion Framework for Sustainability / 3-5 Materialities (Key Issues) and KPIs

■ Risk Management by the Risk Management and Compliance Committee

The Risk Management and Compliance Committee selects risks by carrying out risk assessments over the entire Group and selecting from both a business activity perspective and a company-wide perspective. From the business activity perspective, hearings are held with related departments and subcommittees, and, after assessing them based on the frequency of these risks occurring and the severity of their impact, an assessment is made that also takes into account control activities to suppress them happening. Then, assessing them from a company-wide perspective in order to work to integrate the risks selected from a business activities perspective with management strategies, the significant risks are selected.

In principle, the Committee holds a general meeting once a year to select significant risks.

The Committee has selected "business continuity plans" as a key climate change risk. The Business Continuity Management Subcommittee, which manages such risks, works to mitigate risks based on key performance indicators and action items approved by the Risk Management and Compliance Committee, and reports the state of its activities to the Risk Management and Compliance Committee.

6-4 Indicators and Targets

We have defined total CO_2 emissions as an indicator for assessing and managing risks related to climate change. Our Sustainability Vision aims for a 30% reduction in CO_2 emissions in 2030 (compared to 2020), with a view to achieving carbon neutrality by 2050.

In the next fiscal year and beyond, we will consider establishing and publishing indicators and targets to assess and manage climate change-related business opportunities.

Nissha Group CO_2 Emissions Volumes (Scope 1, 2)

(Unit: t-CO_2)

	FY2019*1	FY2020	FY2021
Scope 1	26,603	20,853	24,206
Scope 2	152,399	103,351	101,048
Scope 1 + 2	**179,002**	**124,204**	**125,244**

* We are currently in the process of calculating Scope 3 and we will continue to monitor and disclose major emissions.

*1. CO_2 emissions calculations up until the fiscal year ended December 2019 are calculated using a fixed emission coefficient. We have adopted the GHG Protocol "Scope 2 Guidance" in the fiscal year ended December 2020 and we calculate emissions using market criteria for domestic bases and location criteria for overseas bases.

6-5 Finally

The Nissha Group views sustainability as an initiative toward the achievement of sustainable growth and development for both the company and society. To achieve sustainability, we consider social issues to be business opportunities. It is important not only that we leverage our strengths to provide products and services that help resolve social issues on an ongoing basis, but also that we strengthen the management foundation underpinning our business activities, reduce risks that could hamper business continuance, and promote governance to ensure these are all carried out appropriately.

Addressing climate change is positioned as one of the most important of the many social issues, and we believe that contributing to resolving this issue through our business activities will provide enormous business opportunities for the Group. Meanwhile, although the transition and physical risks associated with climate change are significant, we believe that their impact on our finances will be limited if sufficient measures are taken to address the risks we have identified through our analysis.

Our analysis based on the TCFD recommendations was conducted on the Devices business, which currently accounts for half of the Group's net sales. Going forward we will expand the scope of our analysis to include more businesses.