Environmental Initiatives

Risk Impacts and Management

We analyze the degree to which risks affect our business activities, taking into consideration the characteristics of our business and the environment in which we operate, in accordance with our Risk Management Regulations, and manage risks within the framework of the Sustainability Promotion Committee. Each division identifies all risks, including climate change-related and nature-related risks, and a committee comprised of managers from each division (the Division Manager Council) categorizes and lists these risks and evaluates them according to the level of frequency of occurrence, level of impact, and level of control. For each assessed risk, the Sustainability Promotion Committee discusses fundamental solutions in terms of such aspects as causes, prediction, training, and prevention of recurrence. Through this, the Company takes measures to prevent risks. Risks are assessed on an annual basis.

We have established a system and structure to identify risks; assess them based on factors such as their frequency of occurrence, impact, and level of control; and respond to those risks. Material risks are reviewed annually.

With regard to our dependence and impact on nature, we have identified survey areas by focusing on the objective and qualitative importance of direct operations and value chain upstream operations, and evaluated their risks. Based on our Sustainable Procurement Policy formulated in June 2024 (and revised in July 2025), we are working with suppliers to reduce environmental impact.

In addition, we introduced an internal carbon pricing (ICP) system in April 2024 to quantitatively assess climate change risks. In our capital investment plans for low-carbon and decarbonization facilities, we make use of ICP (3,000 yen/Mt-CO_2) to convert costs and use this as a metric for investment decisions.

Strategy 1: Climate Change

In recent times, large-scale wildfires and floods, attributed to climate change, have been occurring across the globe, and the impact of climate change on our society is becoming more serious by the year. The international community is accelerating efforts to build a decarbonized society, and companies are also being asked to provide meaningful support for these endeavors.

The Company also sees addressing climate change as an important challenge, and is committed to reducing the amount of greenhouse gas emissions it will generate in FY2030 by 23% compared to FY2020. We have also defined products that contribute to solving environmental issues and improving the environment throughout their life cycles as “environmental contribution products,” and have established a policy of actively offering these products to the market. Furthermore, we have set a KPI for the ratio of sales of environmental contribution products to total sales, and are engaging in Company-wide efforts in this area.

To promote understanding among stakeholders regarding our activities and enhance our corporate value, we will continue to disclose climate change-related information, such as progress reports on GHG emission reductions, the amount of waste generated and environmentally hazardous substances emitted, and the ratio of sales of environmental contribution products.

Scenario Analyses, Risks, and Opportunities

The 1.5°C scenario*1

In this scenario, aggressive measures will be taken to combat climate change to keep the increase in temperatures in 2100 over temperatures at the time of the Industrial Revolution to around 1.5°C. In this scenario, climate change measures are strengthened and transition risks in terms of policy-driven regulations, markets, technology, and reputation are heightened.

*1: The RCP2.6 scenario, with reference made to information provided by the Inter-Governmental Panel on Climate Change (IPCC) and International Energy Agency (IEA), the parameters for estimating the impact of climate change is used to set.

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

Transition risks and opportunities were studied based on a decarbonization scenario in which various regulations are introduced in connection with the transition to a low-carbon economy with an eye towards attaining the 1.5°C target.

In a decarbonization scenario (1.5°C), we can assume that prices will rise and expenses will increase as carbon taxes are introduced by governments intent on strengthening environmental regulations and demand for renewable energy rises, and that resource procurement costs will go up as global warming measures are taken on a global scale.

On the other hand, we believe that business opportunities will increase as research and development is spurred on by the rise in innovation for decarbonization in our growth areas of electronic ceramic materials and functional materials such as conductive adhesives for RFID tags, by the increase in demand for our environmental contribution products. In addition, the Company regards the reduction of CO_2 emissions generated by our production processes as an important issue and is working on reducing CO_2 emissions by leveraging renewable energy sources and adopting decarbonization technologies at our production sites.

As for procurement, we aim to continue to engage in stable procurement practices and reduce CO_2 emissions tied to raw materials by communicating with our suppliers.

The 4°C scenario*2

In this scenario, aggressive measures will not be taken to combat climate change, the temperatures in 2100 will increase by around 4°C over temperatures at the time of the Industrial Revolution. This is a scenario in which physical risks will increase, such as in terms of more devastating natural disasters, rising sea levels, and more extreme weather events.

*2: The RCP8.5 scenario, with reference made to information provided by the Inter-Governmental Panel on Climate Change (IPCC) and International Energy Agency (IEA), the parameters for estimating the impact of climate change is used to set.

Physical risks and opportunities: Progressive warming scenario (4°C)

In terms of physical risks and opportunities, there is a major risk of a shutdown of business activities or disruption of supply chains as natural disasters occur due to extreme weather anomalies.

Natural disasters are difficult to forecast and if one were to occur, it is possible that we will sustain massive damage if, for example, our production sites are affected or there is a leak of chemical substances. In order to avoid a stoppage of operations due to a damaged facility or leak of chemical substances, we will need to make capital investments informed by disaster countermeasures, which we assume will lead to increased production costs. This trend will be amplified in the progressive warming scenario (4°C).

In order to deal with climate change risks and other aspects of major disasters, we have set up a specialized committee and formulated a BCP (Business Continuity Plan) system on a company-wide basis to minimize the impact on our business activities even in an emergency. We will continue to promote ongoing improvements to our BCP system.

■ Risks and Opportunities

The Company’s risks and opportunities under the 1.5°C and 4°C climate change scenarios are presented below.

◎: Large impact ○: Somewhat large impact △: Negligible impact

	Items corresponding to climate change risks and opportunities		Changes in the wider world	Possible scenario	Risk	Opportunity	Timing of occurrence
1.5°C climate change scenario	Transition risks and opportunities	Policies, laws, and regulations	Tightening of regulations governing GHG emissions and environmental considerations	Incurrence of costs to comply with regulations and costs to transition to decarbonization	△		Medium to long term
		Markets and technologies	Introduction of carbon tax and emissions trading	Incurrence of costs to introduce a carbon tax and emissions trading	◎		Medium to long term
			Rapidly promoting the transition to a low-carbon/decarbonized world	Incurrence of costs to make capital investments and convert to renewable energy	△		Short to medium term
			Declarations of carbon neutrality made by industry associations and governments	Promoting CO_2 reductions through the use of renewable energy		○	Short to medium term
			Developing and promoting the spread of decarbonization-related products	Increase in demand for various environmental contribution products downstream and increase in demand for and revenue from products that we provide and that are used as materials for such products		◎	Medium to long term
			Soaring resource prices	Our competitiveness suffers from the rise of overseas companies operating in countries where production can be undertaken on a low-cost basis	△		Long term
				Increase in the costs of procuring raw materials	○		Medium to long term
4°C climate change scenario	Physical risk and opportunities	Reputation	Stricter evaluations of companies that have not yet decarbonized and that are emitting large volumes of CO_2	CO_2 reductions are sought across the entire value chain in downstream industries and demand fluctuates due to initiatives taken by us and our production lines	○	○	Medium to long term
		Chronic	Changes in precipitation and weather patterns (increased rainfall and rising average temperatures)	Ensuring the safety of employees in the face of increased rainfall	△		Long term
				Risk of reduced sales and impairment losses affecting production facilities due to shutdowns or lower production	△		Long term
		Acute	Intensification and increase in the number of extreme weather events (typhoons, wildfires, flooding, and severe storms)	Disruptions in the supply of raw materials due to natural disasters	○		Long term
				Risk of the leakage of chemical substances due to damage caused to production plants	○		Long term
				Incurrence of capital investment costs related to disaster countermeasures at key locations	○		Medium to long term

*Large impact: Impact on business and finances is expected to be exceedingly large
*Somewhat large impact: Impact on business and finances is expected to be somewhat large
*Negligible impact: Impact on business and finances is expected to be negligible
*Short to medium term: Occurrence between now and 2030 is highly probable
*Medium to long term: Occurrence between 2030 and 2050 is highly probable
*Long term: Occurrence from 2050 onward is highly probable