

# Contribute to the Global Environment

~Reducing environmental impact~

## Basic approach

In order to achieve a "sustainable society," the Noritake Group actively works to reduce the environmental impacts and risks that occur from our business activities. In addition, we will strive for co-prosperity with our stakeholders by implementing management that balances reducing environmental impacts and generating business profits.

### Noritake Group Environment Policy

The Noritake Group, as a company that manufactures products based on its founding spirit of "Good Quality, Export and Co-prosperity," positions the preservation of the global environment as an important management issue, and is contributing to the achievement of a "sustainable society" through its business activities.

1. We will strive to develop and provide environmentally-friendly products and services.
2. We will endeavor to reduce environmental burden in all processes of our business activities. In particular, we will strive to achieve the goals set for the reduction of CO<sub>2</sub> generation, resource saving, waste reduction, and recycling, and to manage hazardous substances appropriately.
3. We will build Environmental Management System from a global perspective and strive to reduce environmental burdens continually.
4. We will comply with environmental laws, regulations, and other requirements.
5. We will disclose information about our environmental activities and enhance our communication activities with stakeholders.

### Disseminating information inside and outside the company

In order to promote the reduction of environmental impacts throughout the company, it is important for each person, from management to new employees, to correctly recognize environmental issues and to raise awareness. Therefore, in addition to providing environmental education by qualification, we regularly disseminate information on environmental activities through our in-house newsletter. We also provide specialized education for personnel who require specialized knowledge such as laws and regulations.

Meanwhile, in order for as many people as possible to understand the Noritake Group's approach to the environment, we disseminate information in this report and on our website.

## Environmental Management System organizational structure

Under the supervision of the "Sustainability Management Committee" chaired by the President, the "Environment Committee" deliberates activity plans and state of progress, and provides unified guidelines for environmental protection promotion activities.

The "Environment Committee" also selects members for each group and business unit, to plan initiatives and manage progress in line with business activities.

## Operation of Environmental Management System

The Noritake Group has established an Environmental Management System based on the international standard ISO14001 and is continuously promoting environmental protection activities.

### ISO14001 certified offices (situation as of March 2024)

#### NORITAKE (acquired JQA-E-90071 in 1997)

- NORITAKE  
Head Office, Miyoshi Site, Kamori Plant, Komaki Test & Shipment Center, Minato Plant, Matsusaka Plant, Yasu Plant, Kurume Plant, Imari Plant
- ZEN NORITAKE CO., LTD.  
Head Office
- NORITAKE ITRON CORPORATION  
Omiya Office/  
Ouchiyama Office
- HIROSHIMA KENMA K.K.  
Ouchiyama Office
- NORITAKE RECYCLE CENTER CO., LIMITED
- NIPPON RESIBON CORPORATION  
Miyoshi Plant, Noto Plant
- NORITAKE TCF CO., LTD.
- NORITAKE GARDEN CO., LIMITED

#### KCM CORPORATION (acquired JSAE393 in 2001)

- KCM CORPORATION  
Head Office/Head Office Plant
- KYORIX MIE CO., LTD.  
Mie Plant

#### NORITAKE SCG PLASTER CO., LTD. (acquired TH13/7360 in 2006)

#### NORITAKE LANKA PORCELAIN (PVT) LIMITED (acquired ESC-01183 in 2015)

Overseas offices are also establishing Environmental Management Systems to promote environmental protection activities in the same way as in Japan. They are setting up environmental protection systems considering the laws and regulations of each country.

## Reduction of CO<sub>2</sub> emission

### Initiatives to Reduce CO<sub>2</sub> Emissions

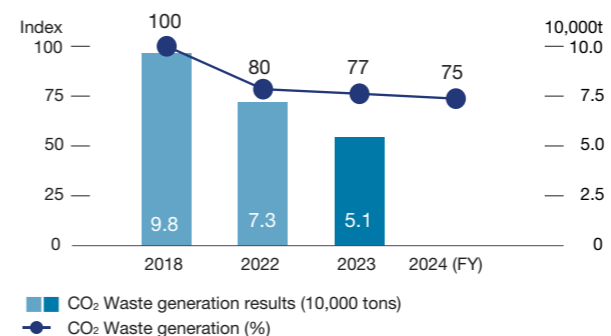
In order to transition to a low-carbon society and achieve net zero CO<sub>2</sub> emissions, the Group has set long-term targets of reducing CO<sub>2</sub> emissions (Scope1, 2) by 50% by FY2030 (compared to the FY2018 level) and achieving net zero emissions by FY2050. In order to reduce CO<sub>2</sub> emissions toward achieving this target, we are actively promoting the utilization of renewable energy by adopting energy-saving facilities while working to increase productivity.

We also operate solar power generation facilities at seven domestic and three overseas business sites, making use of their premises in reducing annual CO<sub>2</sub> emissions by 3,000 tons or more. We will continue to promote the introduction of solar power generation facilities in order to achieve net-zero CO<sub>2</sub> emissions by 2050.

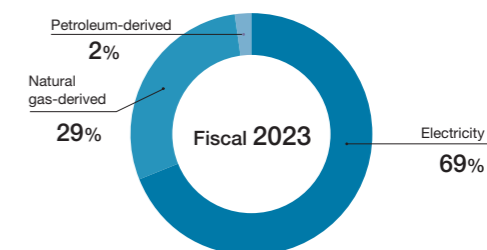
### CO<sub>2</sub> emissions results

In FY2023, the second year of our 12th Three-Year Environmental Action Plan, we achieved our target of reducing CO<sub>2</sub> emissions by 48% compared to FY2018 through initiatives like introducing and rationalizing renewable energy.

### CO<sub>2</sub> Waste generation results (Scope1·2)

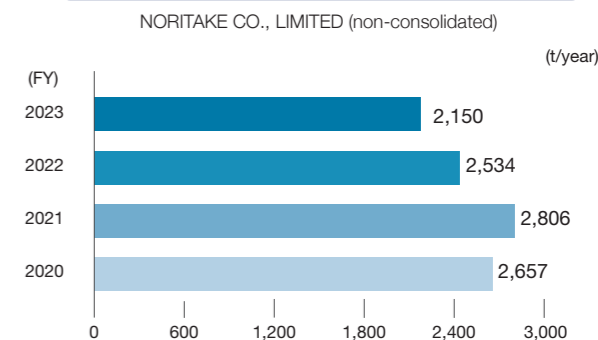


### CO<sub>2</sub> emissions ratio by energy type



In addition, Noritake continuously monitors the amount of logistics transport in order to achieve efficient logistics. In fiscal 2023, our CO<sub>2</sub> emissions were 2,150 tons with 12.08 million ton-kilometers of logistics transport.

### CO<sub>2</sub> emissions from logistics and transport

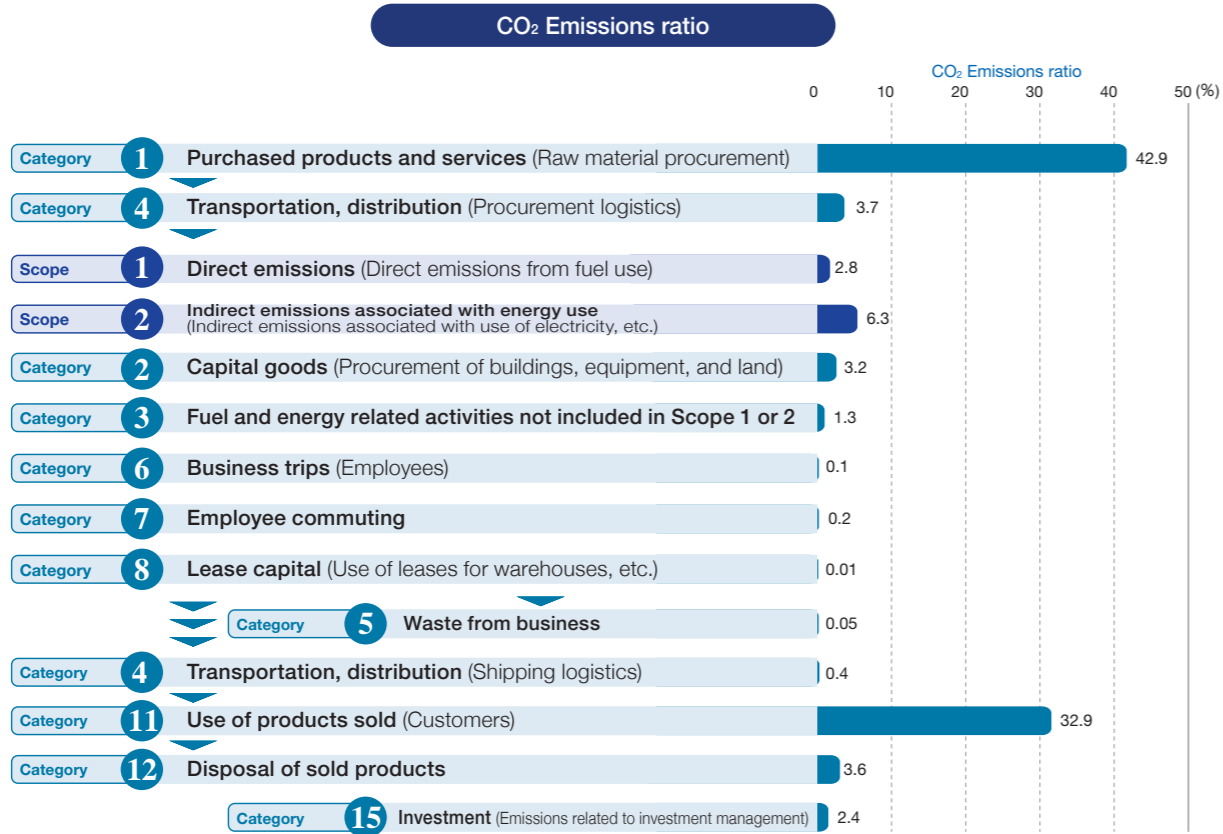
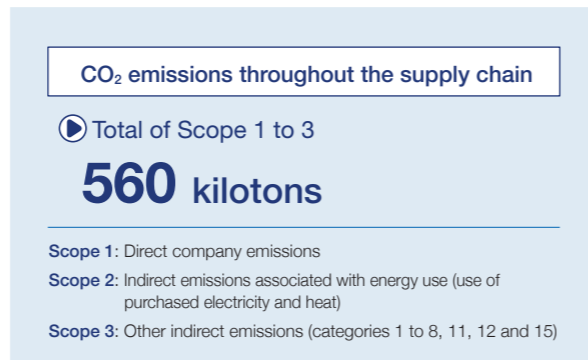


Overall picture of environmental burden

We are working to reduce environmental burden more effectively by monitoring the overall environmental burden of the entire product life cycle from raw material procurement to disposal after product use.

The Noritake Group calculates greenhouse gas emissions in line with international standards Scope 1 to 3, and uses them as an activity indicator.

\* Calculation method  
 \* Calculated in accordance with the Ministry of the Environment and Ministry of Economy, Trade and Industry's "Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain Ver 2.0."  
 \* Categories 9, 10, 13, and 14 out of the 15 categories of Scope 3 were excluded from the calculation because they are not applicable.



Reducing waste

We understand that doing our utmost to reduce the generation of waste in our business activities is critical to making effective use of limited resources. At the Noritake Group, we undertake to reduce waste in conjunction with our manufacturing enhancement activities and quality improvement.

Noritake Recycling Center initiatives

Industrial grinding wheels are one of Noritake's core products, many of which are disposed of in landfills as industrial waste after use.

To address this, Noritake has been working on initiatives to effectively utilize and recycle these used grinding wheels.

The Noritake Recycle Center collects approximately 250 tons of used vitrified grinding wheels annually.

The collected grinding wheels are crushed, classified, and then reborn as products such as abrasive materials and heat-resistant materials.

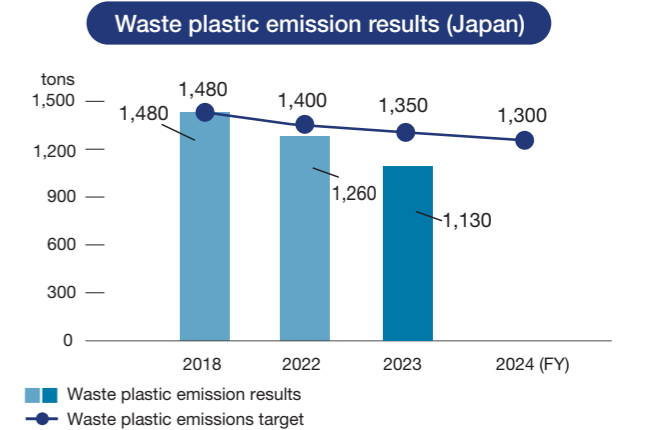
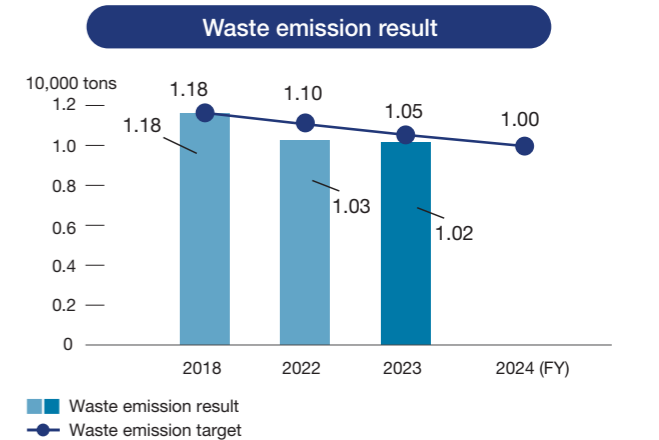
Recycling process of used industrial grinding wheels



Waste emission result

In FY2023, the second year of our 12th Three-year Environmental Action Plan, we achieved an actual output of 10,200 tons with respect to the target of 10,500 tons or less waste emissions including at overseas sites.

In Japan, we also achieved the target of 1,350 t of less waste plastic emissions, by achieving results of 1,130 t.



**Environmentally Conscious Initiatives**

The Noritake Group is focusing on manufacturing activities for environmentally friendly products and services.

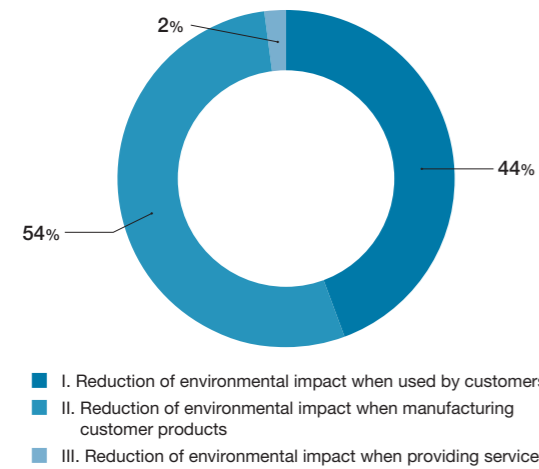
We conduct pollution control activities and chemical substance management to prevent chemicals and other substances from contaminating rivers and soil, and to ensure that there are no adverse health effects on people.

We are developing products and services with the aim of achieving a 10% or higher ratio of net sales of environment-friendly products in FY2024.

**Environmentally-friendly products**

The target ratio of net sales for FY2023, the second year of our 12th Three-year Environmental Action Plan was 10%, and we achieved 9%.

**Breakdown of ratio of environmentally-friendly products**



**Chemical substance management**

We conduct chemical substance management that meets environmental-related laws for the Noritake Group. Chemical substance management consists of two parts: Screening and approval rules to control new use of hazardous chemical substances, and monitoring the amount of chemical substances used and transferred. In this way, we are visualizing the conditions of chemical substances used and working to reduce the use and emission of hazardous substances.

We also issue and operate the "Chemical Contamination Prevention Control Standard" that uniquely defines the structural standards and inspection standards of related facilities for the storage and use of harmful chemical substances, and we are striving to prevent the dispersal and leakage of chemical substances.

**Initiative for biodiversity**

In order to realize the "sustainable society" that the Noritake Group is aiming for, we are advancing the greening of our business sites as part of our efforts to promote biodiversity and aim for the preservation of nature and ecosystems. In addition, at Noritake Garden, adjacent to our headquarters, we are creating an environment conducive to birds, insects, and other wildlife, and conducting regular surveys to monitor the ecosystem.



Noritake Garden (Biotope)

**Water resource conservation**

In order to conserve important water resources, the Noritake Group strives to prevent pollution of rivers and other areas properly managing wastewater from its production processes. In factories that generate a large amount of waste liquid, wastewater from the process is collected so that hazardous substances do not spread into rivers and other areas, and some wastewater is recycled as washing water.

**12th Three-year Environmental Action Plan (FY2022 to FY2024 plan)**

Activity item			Fiscal 2022 Plan	Fiscal 2023 Plan	Fiscal 2024 Plan
Reducing environmental impact	Countermeasures for global warming	Embodiment of Scope 1 and Scope 2 measures	CO <sub>2</sub> emissions: 77,000 tons or less At least 20% less than FY2018 level	CO <sub>2</sub> emissions: 75,000 tons or less At least 23% less than FY2018 level	CO <sub>2</sub> emissions: 73,000 tons or less At least 25% less than FY2018 level
		Creation of a foundation for Scope 3	Understand Scope 3 system	Examine Scope 3 system	Establish calculation method for Scope 3 emissions
	Resource recycling measures	Reduce waste	Waste disposals: 11,000 tons or less Amount of plastic waste at Japan sites: 1,400 ton or less	Waste disposals: 10,500 tons or less Amount of plastic waste at Japan sites: 1,350 ton or less	Waste disposals: 10,000 tons or less Amount of plastic waste at Japan sites: 1,300 ton or less
Strengthen foundation of activities	Product measures	Environmentally-friendly products	Net sales ratio: 10% or more	Net sales ratio: 10% or more	Net sales ratio: 10% or more
	Strengthening of subcommittee system	Continual improvement of management system	Implement/ Improve internal auditing Continue ISO14001 certification	Implement/ Improve internal auditing Continue ISO14001 certification	Implement/ Improve internal auditing Continue ISO14001 certification
	Pollution measures	Chemical substance management	Perform chemical substance management study	Examine chemical substance management system	Create chemical substance management system
Strengthen human resource development	Fostering promoters of environmental initiatives	Introduce management training/CN training	Introduce management training/CN training	Introduce management training/CN training	

**FY 2023 Results**

Activity item			Fiscal 2023 Results	Evaluation
Reducing environmental impact	Countermeasures for global warming	Embodiment of Scope 1 and Scope 2 measures	CO <sub>2</sub> emissions 51,000 tons 48% reduction (compared to FY 2018)	○
		Creation of a foundation for Scope 3	Scope 3 aggregate review	○
	Resource recycling measures	Reduce waste	Waste disposals: 10,200 tons Amount of plastic waste at Japan sites: 1,130 tons	○
Strengthen foundation of activities	Product measures	Environmentally-friendly products	Net sales ratio: 9%	△
	Strengthening of subcommittee system	Continual improvement of management system	Implement/Improve internal auditing Continue ISO14001 certification	○
	Pollution measures	Chemical substance management	Understanding the history of chemical substance use	○
Strengthen human resource development	Fostering promoters of environmental initiatives	Introduce management training/ CN training	○	



### Disclosure based on TCFD Recommendations

In August 2022, Noritake announced its endorsement of the Task Force on Climate-Related Financial Disclosures (TCFD\*) recommendations established by the Financial Stability Board (FSB).

Since its founding, Noritake has operated its business under the basic philosophy of "contributing to society through business." We recognize the protection of the global environment, a major issue for society, to be one of our most important management issues. In line with TCFD recommendations, we identify risks and opportunities, consider countermeasures, and incorporate them into our management strategies.

#### Governance

Under the Sustainability Management Committee, chaired by the President, the Environmental Committee leads the Noritake Group's initiatives related to climate change. The Committee formulates unified guidelines for environmental protection activities, promotes these initiatives, manages progress, and implements corrective measures as necessary.



<Disclosure based on TCFD Recommendations>  
<https://www.noritake.co.jp/company/csr/esg/environment/tcfd/>

**TCFD** TCFD stands for Task Force on Climate-Related Financial Disclosures and was established in December 2015 by the Financial Stability Board (FSB) at the request of the G20. In June 2017, the TCFD released a report recommending the disclosure of information on risks and opportunities related to climate change, and companies and institutions around the world have endorsed the recommendations.

#### Strategy

The outlook for society with a major impact of transitioning policies under a 2°C or 1.5°C scenario is expected to worsen due to greater physical impact such a weather under the 4°C scenario. In light of this, the Noritake Group examined the risks and opportunities based on the two scenarios of the "risks of transitioning to a low-carbon society" under a 2°C or 1.5°C scenario, and the "risks related to the physical impacts of climate change" under a 4°C scenario where global measures to address climate change are not achieved.

		Item	Outline	Results of Business Impact Assessment in 2030	Magnitude of Risks	
Risks	Transition Risks	Policies and Regulations	Increase in CO <sub>2</sub> emissions costs due to introduction of carbon taxes and carbon emissions restrictions	As taxes are incurred on fuel combustion and electricity use following the introduction of carbon taxes, CO <sub>2</sub> emissions costs are added to operating costs	Increase in operating costs due to the introduction of carbon tax or rising tax rates	Medium to High
		Technology/Market	Respond decarbonization upstream in the supply chain and materials shortages	In addition to the increasing need for selecting materials with a lower environmental impact, the emergence of new demand associated with decarbonization causes supply shortages for existing applications of materials	Increase in procurement costs due to revising materials and suppliers	High
		Technology/Market	Decrease in product market due to decarbonization downstream in the supply chain/Late development of environment-friendly products	With customers demanding further reductions in CO <sub>2</sub> emissions, customers may end up leaving if we are unable to reduce CO <sub>2</sub> emissions at our own production plants, or we are late in developing environment-friendly products	Customers leaving due to slow response is directly related to decreasing product sales	High
		Market	Rising energy costs	Increase in energy costs as various other companies procure renewable energy	Increase in operating cost due to rising renewable energy unit costs	Low to Moderate
		Market	Decrease in demand for internal combustion engine-related demand	Decrease in demand for internal combustion engines-related products with customers finding alternatives to ICE vehicles as ZEVs become more widespread	Decrease in sales of internal combustion engine-related products due to ZEVs becoming increasingly widespread	High
		Reputation	Impact on the "Noritake" brand due to a late environmental response	Stakeholders evaluate the company based on the state of environmental response, as with increased pressure from society to adapt to decarbonization	Responding too late as all of society focuses on addressing decarbonization will lead to a decline in reputation	Medium to High
	Physical Risks	Acute	Suspended operations due to natural disasters	Suspended operations at sites impacted significantly by rain and strong wind in particular	The extent of damage at Noritake Group sites is expected to be limited due to their locations. On the other hand, there is the risk that stoppages at suppliers may impact business	Low to Moderate
		Chronic	Suspended operations caused by high tides as sea levels rise	Suspended operations at sites where high tides in particular may easily cause stoppages	The extent of damage at sites is expected to be limited due to high tides, even at sites located closest to the coast	Low to Moderate
		Chronic	Increase in heatstroke	Increase in operating costs due to the drop in health and safety standards following the increase in heatstroke at plants	The probability of significant increases in heatstroke at plants is expected to be low	Low to Moderate

2°C or 1.5°C scenario

4°C scenario

		Item	Outline	Results of Business Impact Assessment in 2030	Magnitude of Opportunities	
Opportunities	Related to Transition Risks	Energy	Develop a competitive advantage by reducing CO <sub>2</sub> emissions	As taxes are incurred on fuel combustion and electricity use following the introduction of carbon taxes, reducing CO <sub>2</sub> emissions leads to a reduction in operating costs	Responding leads to a competitive advantage over competitor companies by limiting operating costs	Medium to High
		Resilience	Create competitive advantage with appropriate management of materials or suppliers	Create supply chain resilience by considering switching to materials with a low environmental impact, and appropriately managing the diversity of suppliers	Responding directly leads to a reduction in procurement costs or differentiation from competitors	Medium to High
		Products/Services	Tap into decarbonization demand by developing and selling environment-friendly products	Increase in demand for products with lower CO <sub>2</sub> emissions than current	Increase sales by selling low environmental impact products to customers	High
		Market	Tap into decarbonization demand by developing and selling new products in new environment-friendly markets	Increase opportunities to provide new products with a higher demand in a low-carbon society	Increase sales with product development and sales as new environment-related markets open up	High
		Resources Efficiency/Energy	Limit operating costs by responding to rising energy costs	Limit operating costs with resource-saving and energy-saving initiatives, and effective use of renewable energy, despite rising energy costs	Responding leads to a competitive advantage over other companies by limiting operating costs by a certain amount	Low to Moderate
		Products and Services	Increase in associated products as ZEVs become more widespread	Increase in the market related to semiconductors, electronic components and batteries	Growth in sales following increased demand in products as ZEVs become widespread	High
	Physical risk	Products and Services	Enhance "Noritake" brand power based on environmentally conscious image	Increase in evaluation by stakeholders and brand power as a company through development and sales of environment-friendly products	Increase in corporate value with more environmentally conscious image	Medium to High
		Resilience	Supply chain resilience	Create supply chain resilience with appropriate measures and response, despite the increase in disasters	Responding leads to a competitive advantage over competitor companies by limiting losses in the event of disasters	Low to Moderate
		Resilience	Increase in health and safety standards	With temperatures continuing to rise, health and safety standards are increasing by advancing measures and responses for employees such as treatment for heatstroke	Responding leads to a competitive advantage over competitor companies by limiting the drop in health and safety standards	Low to Moderate

2°C or 1.5°C scenario

4°C scenario

		Risks	Opportunities	Response Measures			
Risks	Transition Risks	Policies and Regulations	Increase in CO <sub>2</sub> emissions costs due to introduction of carbon taxes and carbon emissions restrictions	Convert to opportunity	Energy	Develop a competitive advantage by reducing CO <sub>2</sub> emissions	• Reduce CO <sub>2</sub> emissions by further promoting energy-saving and resource-saving efforts, introducing renewable energy, and implementing fuel conversion that are already in place
		Technology/Market	Respond decarbonization upstream in the supply chain and materials shortages	Risk Reduction Measures	Resilience	Create competitive advantage with appropriate management of materials or suppliers	• Develop framework and systems for supplier management, such as creating Purchasing Guidelines • Promote efficient use of resources with resource recycling measures that are already in place
		Technology/Market	Decrease in product market due to decarbonization downstream in the supply chain/Late development of environment-friendly products	Convert to opportunity	Products/Services	Tap into decarbonization demand by developing and selling environment-friendly products	• Accelerate development and sales of environment-friendly products and new products - Sell electronic components capable of reducing CO <sub>2</sub> emissions when using products, and ceramic cores designed for use with hydrogen-ammonia combustion turbines - Promote sales of energy-saving devices and development of facilities like hydrogen-ammonia combustion furnaces - Promote sales of products that use materials with a low environmental impact, or products capable of reducing CO <sub>2</sub> emissions by increasing grinding efficiency - Sell tableware made with less virgin material, such as those using recycled materials - Research and development of fuel cell-related materials and hydrogen production-related materials - Research and development of CCUS-related products
		Market	Rising energy costs	Convert to opportunity	Market	Tap into decarbonization demand by developing and selling new products in new environment-friendly markets	• Promote energy conservation by revising production efficiency • In addition to increasing the use of existing solar power generation equipment, accelerate the use of renewable energy sources by installing more solar power generation equipment
		Market	Decrease in demand for internal combustion engine-related demand	Occurs simultaneously	Resources Efficiency/Energy	Limit operating costs by responding to rising energy costs	• Expand businesses related to semiconductors, electronic components and batteries, as the market for associated products increases as ZEVs become more widespread
		Reputation	Impact on the "Noritake" brand due to a late environmental response	Convert to opportunity	Products and Services	Increase in associated products as ZEVs become more widespread	• Set environmental targets and clarify initiatives that are easy-to-understand for investors and the market, such as disclosing information based on TCFD Recommendations or developing and selling environment-friendly products • Hold training for safety verifications and evacuations as necessary, as the extent of damage at Noritake Group sites is expected to be limited due to their locations
	Physical Risks	Acute	Suspended operations due to natural disasters	Risk Reduction Measures	Resilience	Supply chain resilience	• Continue to enhance the Risk Management System throughout the Noritake Group
		Chronic	Suspended operations caused by high tides as sea levels rise	Risk Reduction Measures	Resilience	Increase in health and safety standards	• Promote risk management throughout the entire Noritake Group, such as controlling office temperatures or encouraging rehydration efforts from the perspective of health and safety
		Chronic	Increase in heatstroke	Risk Reduction Measures	Resilience	Increase in health and safety standards	

## Risk Management

A taskforce established in 2022 analyzes, assesses and reports to the Board of Directors the management of risks related to climate change.

The Risk Management Committee, newly established in 2024, will analyze and evaluate climate change and all other risks surrounding our Group, identify key risks, and manage efforts to avoid or mitigate them.

## Indicators and Targets

In order to transition to a low-carbon society and to achieve net-zero CO<sub>2</sub> emissions by 2050, the Noritake Group has set targets to reduce its CO<sub>2</sub> emissions (Scope 1 and 2) to 73,000 tons by fiscal 2024 (25% reduction from fiscal 2018) and to 49,000 tons by fiscal 2030 (50% reduction from fiscal 2018). We will also review the method to calculate CO<sub>2</sub> emissions from companies in the supply chain other than our Group companies (Scope 3), and set targets and examine the approach to achieve them.

### Scope1, 2 (company's CO<sub>2</sub> emissions) reduction plan



The details reported in "Contribute to the Global Environment" on P43 to 48 were created using data from the following group companies.

- NORITAKE CO., LIMITED
- NIPPON RESIBON CORPORATION
- ZEN NORITAKE CO., LTD.
- HIROSHIMA KENMA K.K.
- KCM CORPORATION
- KYORIX MIE CO., LTD.
- NORITAKE ITRON CORPORATION
- NORITAKE TCF CO., LTD.
- NORITAKE GARDEN CO., LIMITED
- NORITAKE RECYCLE CENTER CO., LIMITED
- NORITAKE ABRASIVES(SUZHOU) CO., LTD.
- NORITAKE SA (THAILAND) CO., LTD.
- DIA RESIBON (THAILAND) CO., LTD.
- NORITAKE SCG PLASTER CO., LTD.
- PT. NORITAKE INDONESIA
- NORITAKE TAIPEI CO., LTD.
- NORITAKE LANKA PORCELAIN(PVT) LIMITED