# 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 $CO_2$ 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
- HIROSHIMA KENMA K.K.
- NORITAKE RECYCLE CENTER CO., LIMITED
- NORITAKE TCF CO., LTD.
- NORITAKE GARDEN CO., LIMITED
- NORITAKE ITRON CORPORATION
  Omiya Office/ Ouchiyama Office
- NIPPON RESIBON CORPORATION
  Miyoshi Plant, Noto Plant

**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 $CO_2$ emission

### Initiatives to Reduce $CO_2$ Emissions

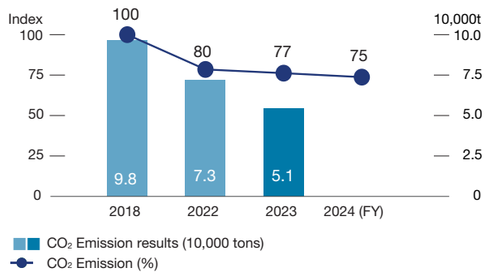
In order to transition to a low-carbon society and achieve net zero $CO_2$ emissions, the Group has set long-term targets of reducing $CO_2$ emissions (Scope1, 2) by 50% by FY2030 (compared to the FY2018 level) and achieving net zero emissions by FY2050. In order to reduce $CO_2$ emissions toward achieving 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 $CO_2$ 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 $CO_2$ emissions by 2050.

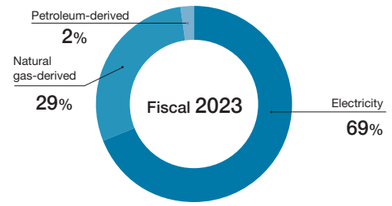
### $CO_2$ emissions results

In FY2023, the second year of our 12th Three-Year Environmental Action Plan, we achieved our target of reducing $CO_2$ emissions by 48% compared to FY2018 through initiatives like introducing renewable energy and rationalizing production process.

**$CO_2$ Emission results (Scope1・2)**



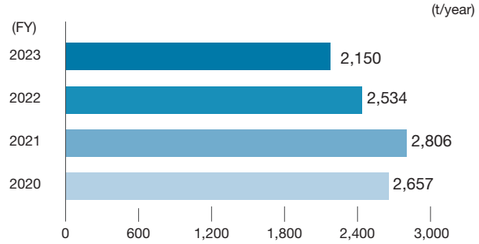

**$CO_2$ emissions ratio by energy type**




In addition, Noritake continuously monitors the amount of logistics transport in order to achieve efficient logistics. In fiscal 2023, our $CO_2$ emissions were 2,150 tons with 12.08 million ton-kilometers of logistics transport.

**$CO_2$ emissions from logistics and transport**

NORITAKE CO., LIMITED (non-consolidated)



## 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.

### $CO_2$ emissions throughout the supply chain

Total of Scope 1 to 3

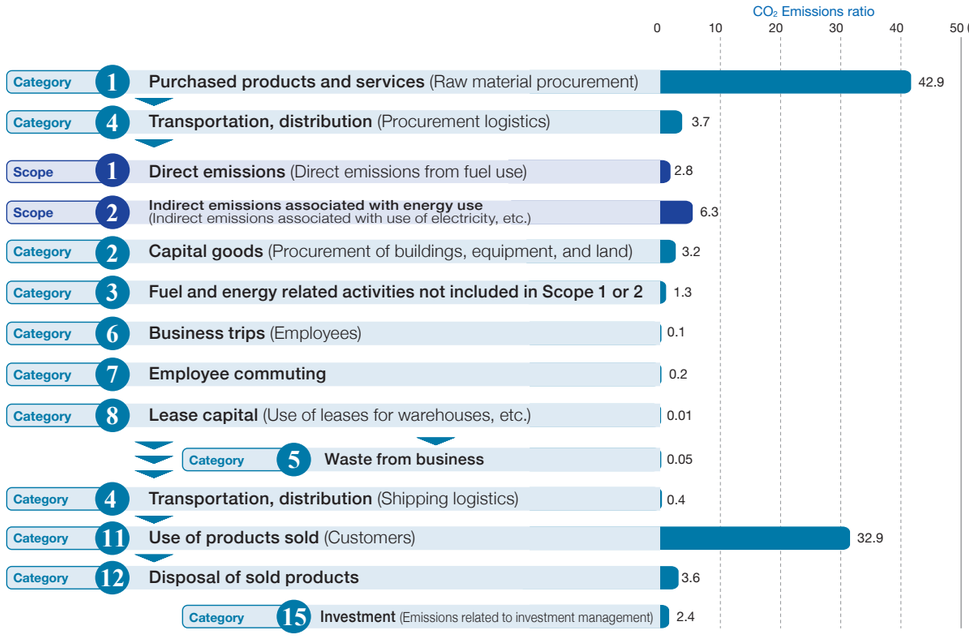
**560 kilotons**

**Scope 1**: Direct company emissions

**Scope 2**: Indirect emissions associated with energy use (use of purchased electricity and heat)

**Scope 3**: Other indirect emissions (categories 1 to 8, 11, 12 and 15)

### $CO_2$ Emissions ratio




## 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 by quality improvement in conjunction with our manufacturing enhancement activities.

## 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.

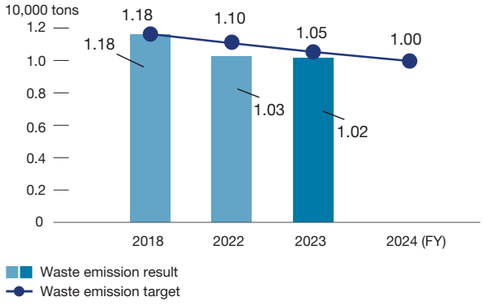
### Recycling process of used industrial grinding wheels


## Waste emission result

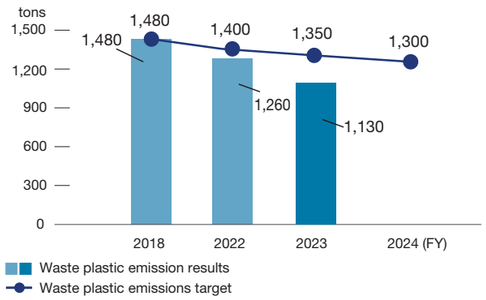
In FY2023, the second year of our 12th Three-year Environmental Action Plan, we achieved an actual output of 10,200 tons with respect to the target of 10,500 tons or less waste emissions including at overseas sites.

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

### Waste emission result




### Waste plastic emission results (Japan)



## Environmentally Conscious Initiatives

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

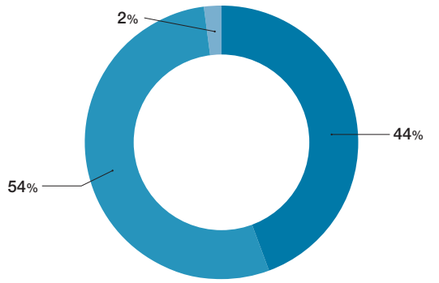
We conduct pollution control activities and chemical substance management to prevent chemicals and other substances from contaminating rivers and soil, and to ensure that there are no adverse health effects on people.

We are developing products and services with the aim of achieving a 10% or higher ratio of net sales of environmentally-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 | Scope1&2: Embodiment of measures | $CO_2$ emissions: 77,000 tons or less At least 20% less than FY2018 level | $CO_2$ emissions: 75,000 tons or less At least 23% less than FY2018 level | $CO_2$ emissions: 73,000 tons or less At least 25% less than FY2018 level |
| | | Scope 3: Creation of a foundation | 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 Plastic waste at Japan sites: 1,400 ton or less | Waste disposals: 10,500 tons or less Plastic waste at Japan sites: 1,350 ton or less | Waste disposals: 10,000 tons or less Plastic waste at Japan sites: 1,300 ton or less |
| | Product measures | Environmentally-friendly products | Net sales ratio: 10% or more | Net sales ratio: 10% or more | Net sales ratio: 10% or more |
| Strengthen foundation of activities | 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 | Scope1&2: Embodiment of measures | $CO_2$ emissions 51,000 tons 48% reduction (compared to FY 2018) | ○ |
| | | Scope 3: Creation of a foundation | Scope 3 aggregate review | ○ |
| | Resource recycling measures | Reduce waste | Waste disposals: 10,200 tons | ○ |
| | | | Plastic waste at Japan sites: 1,130 tons | ○ |
| | Product measures | Environmentally-friendly products | Net sales ratio: 9% | △ |
| Strengthen foundation of activities | 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.

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

<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

In 2030, it is assumed that in the 2°C or 1.5°C scenarios, there will be a significant impact on societal changes due to policy transitions, while in the 4°C scenario, there will be a greater focus on physical impacts such as weather-related events. In light of this, our Group has examined risks and opportunities based on two scenarios: the “risks related to the transition towards a low-carbon society” which would occur during the progression to the 2°C or 1.5°C scenario, and the “risks related to the physical impacts associated with climate change” which would arise if the global fails to achieve adequate climate change mitigation measures and reaches the 4°C scenario.

| | | | Item | Outline | | Results of Business Impact Assessment in 2030 | Magnitude of Risks |
|---|---|---|---|---|---|---|---|
| Risks | Transition Risks | Policies and Regulations | Increase in $CO_2$ 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, $CO_2$ emissions costs are added to operating costs | 2°C or 1.5°C scenario | 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 $CO_2$ emissions, customers may end up leaving if we are unable to reduce $CO_2$ 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 | 4°C scenario | 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 |

| | | | Item | Outline | | Results of Business Impact Assessment in 2030 | Magnitude of Opportunities |
|---|---|---|---|---|---|---|---|
| Opportunities | Related to Transition Risks | Energy | Develop a competitive advantage by reducing $CO_2$ emissions | As taxes are incurred on fuel combustion and electricity use following the introduction of carbon taxes, reducing $CO_2$ emissions leads to a reduction in operating costs | 2°C or 1.5°C scenario | 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 $CO_2$ 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 |
| | | 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 |
| | Physical risk | Resilience | Supply chain resilience | Create supply chain resilience with appropriate measures and response, despite the increase in disasters | 4°C scenario | 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 |

| | | | Risks | | Opportunities | Response Measures |
|---|---|---|---|---|---|---|
| Transition Risks | Policies and Regulations | | Increase in $CO_2$ emissions costs due to introduction of carbon taxes and carbon emissions restrictions | Convert to opportunity | Energy: Develop a competitive advantage by reducing $CO_2$ emissions | ・Reduce $CO_2$ 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<br>・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<br>- Sell electronic components capable of reducing $CO_2$ emissions when using products, and ceramic cores designed for use with hydrogen-ammonia combustion turbines<br>- Promote sales of energy-saving devices and development of facilities like hydrogen-ammonia combustion furnaces<br>- Promote sales of products that use materials with a low environmental impact, or products capable of reducing $CO_2$ emissions by increasing grinding efficiency<br>- Sell tableware made with less virgin material, such as those using recycled materials<br>- Research and development of fuel cell-related materials and hydrogen production-related materials<br>- Research and development of CCUS-related products |
| | | | | | Market: Tap into decarbonization demand by developing and selling new products in new environment-friendly markets | |
| | Market | | Rising energy costs | Convert to opportunity | Resources Efficiency/ Energy: Limit operating costs by responding to rising energy costs | ・Promote energy conservation by revising production efficiency<br>・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 | Products and Services: Increase in associated products as ZEVs become more widespread | ・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: Enhance "Noritake" brand power based on environmentally conscious image | ・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 |
| Physical Risks | Acute | | Suspended operations due to natural disasters | Risk Reduction Measures | Resilience: Supply chain resilience | ・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<br>・Continue to enhance the Risk Management System throughout the Noritake Group |
| | Chronic | | Suspended operations caused by high tides as sea levels rise | | | |
| | Chronic | | Increase in heatstroke | 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 |

## Risk Management

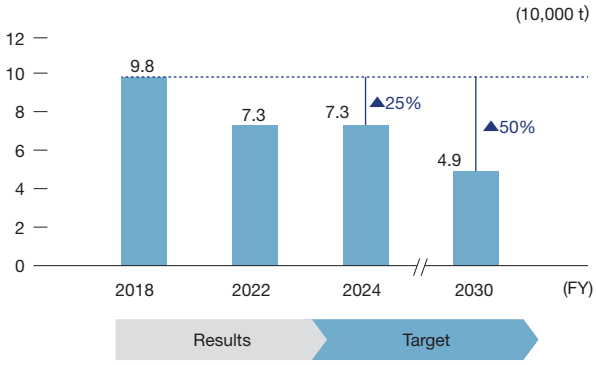
In regard to risks related climate change, a taskforce established in 2022 analyzed, assessed and reported to the Board of Directors.

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 $CO_2$ emissions by 2050, the Noritake Group has set targets to reduce its $CO_2$ emissions (Scope 1 and 2) to 73,000 tons by FY2024 (25% reduction from FY2018) and to 49,000 tons by FY2030 (50% reduction from FY2018). We will also review the method to calculate $CO_2$ 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 $CO_2$ 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