

# Harmony with the Environment



NORITAKE GARDEN

In order to "achieve a sustainable society," the Noritake Group has acquired certification under the international standard ISO14001 at our major domestic business sites and promotes environmental activities such as developing environment-friendly products and taking countermeasures on global warming. In particular, as a measure against global warming, we believe that the use of renewable energy has a significant effect on the reduction of greenhouse gases, and we have installed solar power generation facilities at our domestic offices, including Noritake Garden.

The report "9. Harmony with the Environment" (P31 to 39) was created using data from the following group companies.

- NORITAKE CO., LIMITED
- NORITAKE COATED ABRASIVE CO., LTD.
- 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 SCG PLASTER CO., LTD.
- PT. NORITAKE INDONESIA
- NORITAKE TAIPEI CO., LTD.
- NORITAKE LANKA PORCELAIN (PVT) LIMITED



Noritake Garden (Biotope)

### Environmental Policies

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.

#### Aim

The Noritake Group as a whole will make efforts to promote voluntary environmental protection activities, — actively work to reduce the environmental burdens and risks that occur in our business activities, and aim to contribute to global environmental protection. In addition, we will strive for co-prosperity with our stakeholders by implementing environmental management that balances environmental protection and generating business profits.



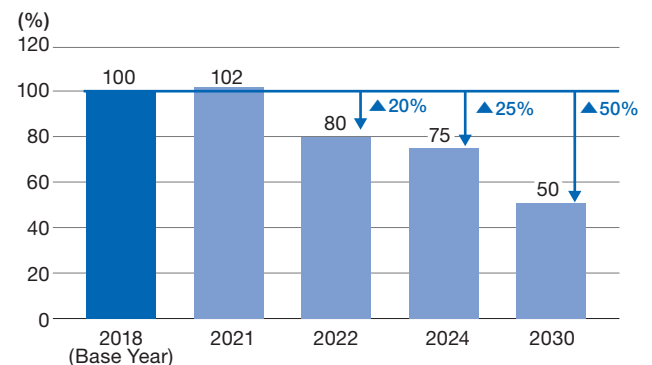
Solar power generation equipment (MIYOSHI SITE)

#### Initiatives toward carbon neutrality

The Noritake Group has formulated a medium- to long-term CO<sub>2</sub> emission plan in order to promote efforts to achieve carbon neutrality.

Under the 12th Three-year Environmental Action Plan, which began in FY2022, we aim to reduce emissions by more than 25% from the base year (2018) by 2024 through energy conservation at facilities and the use of renewable energy. In addition, in order to transition to a low-carbon society and achieve net zero CO<sub>2</sub> emissions by 2050, we are considering the introduction of future technologies that will lead to carbon neutrality. In addition, we will promote the development of infrastructure for initiatives throughout the supply chain, aiming to halve CO<sub>2</sub> emissions by 2030.

#### CO<sub>2</sub> Emissions (Scope 1 and 2)



## 11th Three-year Environmental Action Plan (fiscal 2019 to fiscal 2021 plan and fiscal 2021 results)

Activity item		Plan (fiscal 2019 to fiscal 2021)	Results (Fiscal 2021)	Evaluation
Environmental management system	ESG Initiatives	Achievement of environmental management based on the Group management system	Establishment of an environmental management system	○
	Environmental activities at overseas plants	Promoting environmental activities at each overseas office	Promoting environmental activities in line with the actual conditions	△
Countermeasures for global warming	[Domestic] Reduce greenhouse gas emissions	Per unit of production: reduce by 1% or more compared to previous fiscal year	Per unit of production: reduce by 3% compared to previous fiscal year	×
	[Global] Reduce greenhouse gas emissions	Per unit of production: reduce by 2% or more compared to previous fiscal year	Per unit of production: reduce by 10% compared to previous fiscal year	○
Resource recycling measures	[Domestic] Reduce landfill waste generation	Per unit of production: reduce by 4% or more compared to previous fiscal year Recycling rate: 85% or more	Per unit of production: reduce by 20% compared to previous fiscal year Recycling rate: 89%	○ ○
	[Global] Reduce waste	Per unit of production: reduce by 3% or more compared to previous fiscal year	Per unit of production: Increased by 14% compared to previous fiscal year	×
Pollution measures	Respond to use of prohibited substances	Reduce devices that use specified mercury and specified CFCs	Updated devices that use specified mercury and specified CFCs	○
	Chemical substance management under PRTR regulations Compliance with chemical substance regulations	Reduce use of chemical substances subject to PRTR regulations Continuous monitoring of chemical substance regulation	Implemented plan to reduce use of chemical substances subject to PRTR Continuous monitoring of chemical substance regulation	○ ○
Product measures	Environmentally-friendly products	Net sales ratio: 11% or more	Net sales ratio: 10%	△
	Enhance green procurement	Continue operation of Green Procurement Guidelines	Continue operation of Green Procurement Guidelines	○
Environmental communications	Practice of environmental education	Expand environmental education	Implementation of specialized training for managers and persons in charge	○
	Disclose information to stakeholders	Issue of integrated reports and disclose information through our website	Continued issuance of integrated reports	○

## 12th Three-year Environmental Action Plan (fiscal 2022 to fiscal 2024)

Activity item			Fiscal 2022 Plan	Three-year Environmental Action Plan (to FY2024)
Achieving carbon neutrality • 2030 50% less CO <sub>2</sub> emissions than in FY2018 • 2050 Achieve net zero emissions	Countermeasures against 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: 72,000 tons or less At least 25% less than FY2018 level
		Creation of a foundation for Scope 3	Understand 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: 10,000 tons or less Amount of plastic waste at Japan sites: 1,300 ton or less
	Product measures	Environmentally-friendly products	Re-evaluate environment-friendly products	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
	Pollution measures	Chemical substance management	Perform chemical substance management study	Create chemical substance management system
	Strengthen human resource development	Fostering promoters of environmental initiatives	Introduce management training/ CN training	Management training/CN training

## Management system

### Environmental Management System organizational structure

We have established an environmental protection promotion system having the president as the Environmental Protection Supervisor.

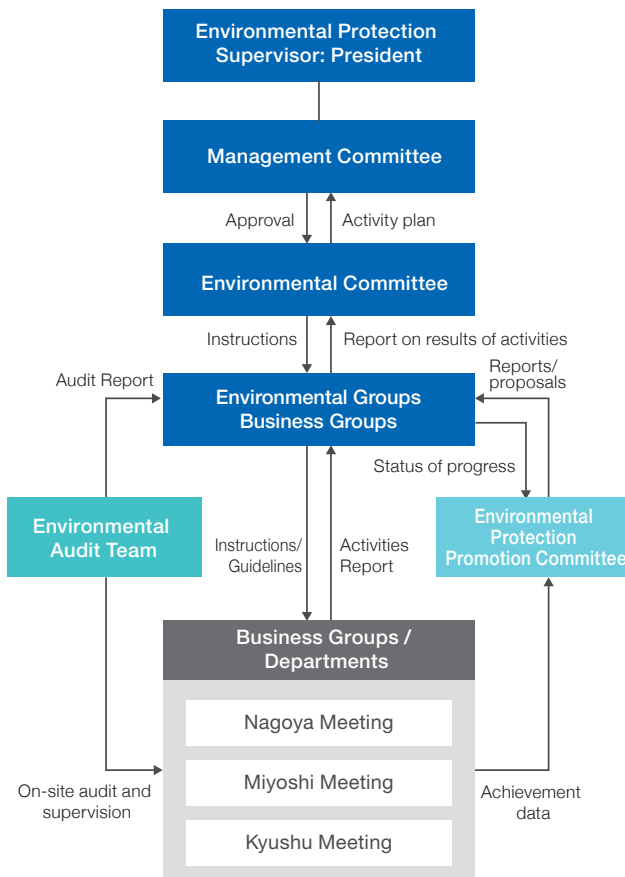
The Environmental Committee, chaired by the company President and with members comprising managers in charge of each business, deliberates the activity plan based on the results of the activities and approves unified guidelines for environmental protection promotion activities at the Management Conference.

For environmental protection activities in each business, Environmental Groups chaired by managers in charge of business are established in each Business Group to plan initiatives and manage progress in line with business activities.

Our Environmental Protection Promotion Committee convenes on a regular basis to plan and manage environmental protection activities and evaluate the results of activities.

In addition, in order to operate the Environmental Management System in cooperation with each region, we hold "ISO Meetings" in various locations.

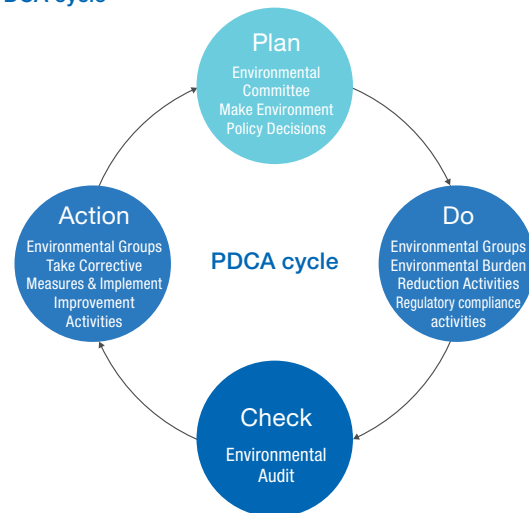
### Environmental management organization and structure



### Operation of Environmental Management System

In efforts to appropriately implement environmental management, we have established an Environmental Management System based on the international standard ISO14001 and are continuously promoting environmental protection activities. We have received ISO14001 certification from a third-party organization at all domestic production sites.

#### PDCA cycle



### ISO14001 certified offices (Situation as of March 2022)

#### NORITAKE CO., LIMITED (JQA-E-90071 was obtained in 1997)

**NORITAKE CO., LIMITED**  
Head Office, Miyoshi Site, Kamori Plant, Komaki Plant, Minato Plant, Matsusaka Plant, Yasu Plant, Kurume Plant, Imari Plant

**ZEN NORITAKE CO., LTD.**      **NORITAKE ITRON CORPORATION**  
Omiya Office/Ouchiyama Office

**HIROSHIMA KENMA K.K.**  
**NORITAKE RECYCLE CENTER CO., LIMITED**      **NORITAKE COATED ABRASIVE CO., LTD.**  
Head Office/Noto Plant

**NORITAKE TCF CO., LTD.**  
**NORITAKE GARDEN CO., LIMITED**

#### KCM (JSAE393 was obtained in 2001)

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

In addition to the above, 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 systems considering the regional characteristics of each country, such as laws and regulations.

## Management system

### Results of fiscal 2021 group environmental supervision

In order to properly promote environmental protection activities, the Environmental Audit is conducted every year by the Environmental Protection Promotion Committee.

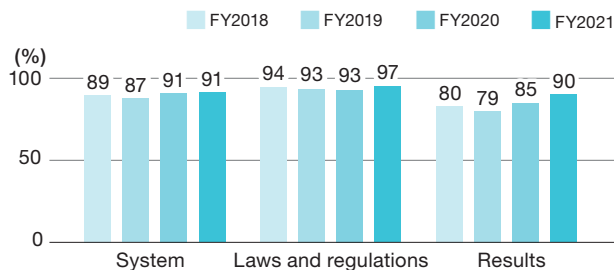
The Audit investigates the status of implementation of environmental activities at all plants and evaluate the results. In particular, in order to prevent environmental pollution, it focuses on on-site confirmation of production processes and facilities. In addition, by conducting this Audit, we are working to resolve problems and issues related to environmental burden reduction activities, and to help improve the overall system.

The Environmental Audit in fiscal 2021 evaluated the results of the environmental burden reduction activities in the Environmental Management System, legal and regulatory management, and the 11th Three-year Environmental Action Plan.

As a result, we were able to confirm that the Environmental Management System is being operated based on the established procedures. Regulatory management rating increased by four points from the previous year, confirming that our compliance management system is firmly established and duly functioning. We also confirmed that the environmental burden reduction activity rating improved by 15 points compared to the previous year, confirming that the company is proceeding in accordance with its Three-year Environmental Action Plan.

However, the integration of core business issues and environmental issues, which is necessary to promote more effective environmental activities, is slow, and this is a priority issue for the 12th Three-year Environmental Action Plan starting in the current fiscal year.

#### Average score rate for each audit item



Environmental internal audit

### Environmental communications

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

Furthermore, 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.



In-house environmental education

### Regulatory compliance and complaints

#### Regulatory compliance and complaints

In fiscal 2021, there were no deviations or complaints regarding environmental regulations or standard values. In addition, there were no penalty or lawsuits from the supervisory authorities regarding the environment.

#### Devices containing PCB

For equipment containing PCB, we proceed with appropriate disposal in accordance with relevant laws.

## Reduce environmental burden

### Overall picture of environmental burden (Scope 3)

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.

Noritake calculates greenhouse gas emissions based on the international standard Scope 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.

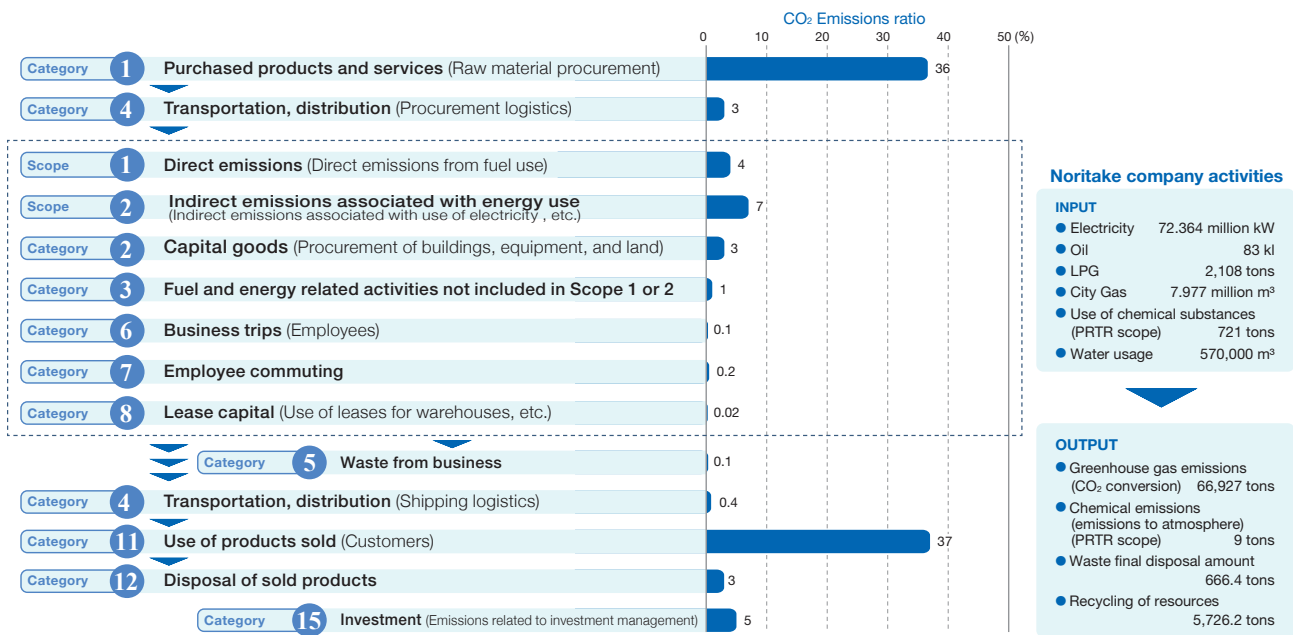
### CO<sub>2</sub> emissions throughout the supply chain

Total of Scope 1 to 3 **62.7 million tons**

**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)



### Pollution measures

#### Pollution control activities

In order to reduce the risk of environmental pollution caused by chemical substances, it is important to reduce the use of substances that adversely affect the environment as much as possible and to prevent dispersal and leakage through proper storage and handling.

In the 11th Three-year Environmental Action Plan, we aimed to reduce the impact of harmful chemicals on the environment, strengthened the management of chemical substances, and promoted the reduction of chemical substances used.

#### 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 harmful 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.

## Reduce environmental burden

### Countermeasures for global warming

#### Global warming countermeasure activities

The Noritake Group is working to reduce greenhouse gases that cause global warming. In our 11th Three-year Environmental Action Plan, we worked to reduce greenhouse gas emissions per production volume by 1% or more compared to the previous year. In order to reduce greenhouse gases, we actively promoted the reduction of energy consumption by adopting energy-saving facilities while working to increase productivity.

We are also taking measures to counter global warming by expanding the use of renewable energy. We operate solar power generation facilities at six domestic business sites, thus using their land in reducing annual CO<sub>2</sub> emissions by 1,600 tons or more.

#### Efforts to reduce greenhouse gas emissions

The Industrial Products Group is working to improve the thermal efficiency of heating furnaces as an initiative to reduce greenhouse gas emissions.

By attaching a heat shield sheet to the outer circumference of the firing furnace to suppress heat dissipation from the furnace, thermal efficiency has been improved and annual gas consumption has been reduced by approximately 12.5%. As a result, we are contributing to a reduction of about 29 tons of CO<sub>2</sub> emissions per year.

#### Endorsement of TCFD\* recommendations

In August 2022, Noritake became a supporter of the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations established by the Financial Stability Board (FSB).

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 goal, and aims to achieve a "sustainable society" through its business activities. In order to fulfill our responsibilities to our customers and other stakeholders, we will identify risks and opportunities and consider countermeasures in accordance with the TCFD recommendations and reflect them in our management.



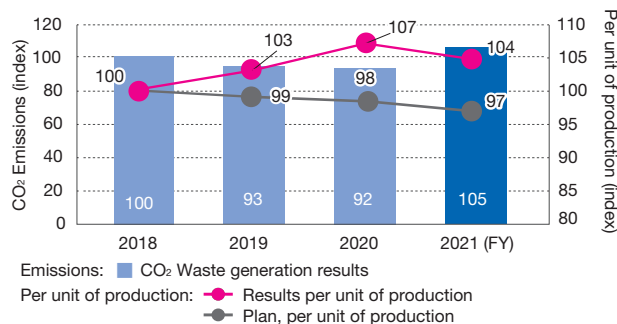
Disclosure based on TCFD Recommendations  
<https://www.noritake.co.jp/company/csr/esg/environment/tcfd/>

**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.

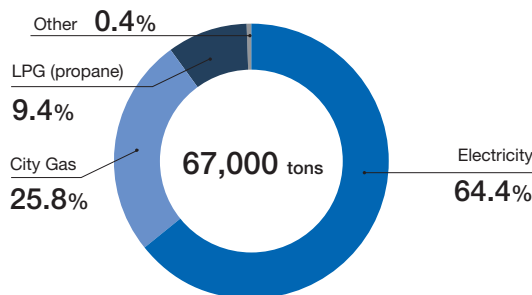
#### CO<sub>2</sub> emission results (Japan)

During FY2021, the final year of the 11th Three-year Environmental Action Plan, our continuous efforts to improve quality and increase productivity linked with manufacturing activities resulted in a reduction in production-based CO<sub>2</sub> emissions by approximately 3%.

##### CO<sub>2</sub> Waste generation results



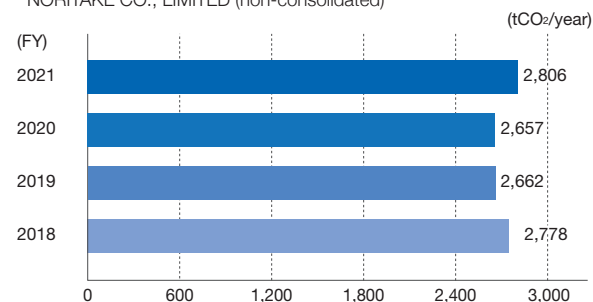
##### CO<sub>2</sub> emissions ratio by energy type



In addition, Noritake continuously monitors the amount of logistics transport in order to achieve efficient logistics. In fiscal 2021, our CO<sub>2</sub> emissions were 2,806 tons with 15.76 million ton-kilometers.

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

NORITAKE CO., LIMITED (non-consolidated)



## Resource recycling measures

### Resource recycling activities

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.

During our 11th Three-year Environmental Action Plan period, we operated with a target of reducing the amount of waste sent to landfill per production volume by 4% or more compared to the previous fiscal year in order to promote resource recycling. In addition, as a main initiative, we promoted the recycling of waste that was previously sent to landfill.

### Noritake Recycling Center initiatives

Industrial grinding wheels, Noritake's main business, are consumable products, and are disposed of in landfills as industrial waste after use. This has been a major issue in terms of the effective use of resources.

In order to recycle the industrial grinding wheels that we sell, the Noritake Recycling Center collects about 500 tons of used vitrified grindstones annually.

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

#### Recycling process of used industrial grinding wheels

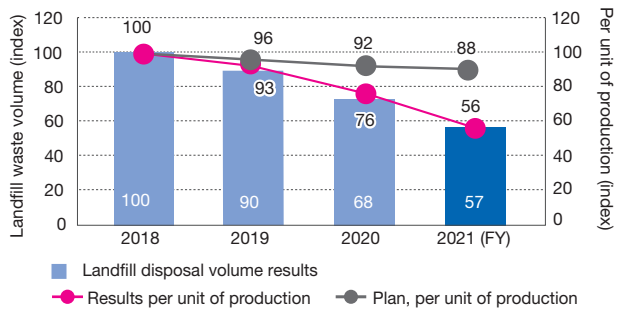


### Waste emission result (Japan)

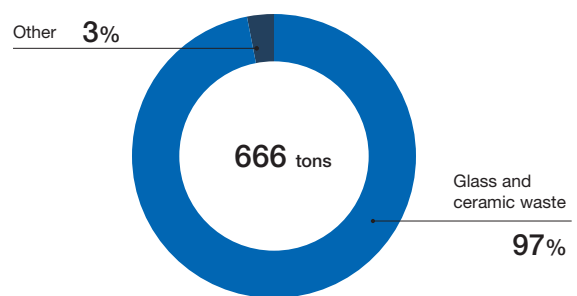
In fiscal 2021, the final year of our 11th Three-year Environmental Action Plan, we continued to promote the reduction of waste by reducing the defect rate, and the recycling of resources by reviewing disposal methods. We succeeded in reducing the amount of waste sent to landfill per production volume by approximately 20%.

In addition, as a result of promoting recycling, we were able to recycle 89% of all waste generated.

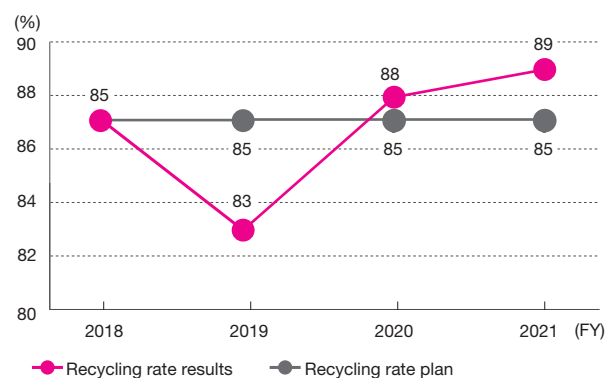
#### Landfill disposal volume results



#### Landfill disposal volume rate by waste type



#### Trend in recycling rate



### Initiative for biodiversity



In order to realize the "sustainable society" that the Noritake Group is aiming for, we are promoting initiative for biodiversity aimed at preserving nature and ecosystems. We are promoting the greening activity of our business sites, and the "Noritake Garden" adjacent to our headquarters provides an environment where wild birds and insects can flourish.



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, all wastewater from the process is collected so that they do not spread into rivers and other areas, and some process wastewater such as washing water is recycled.



Wastewater processing equipment



Wastewater processing equipment

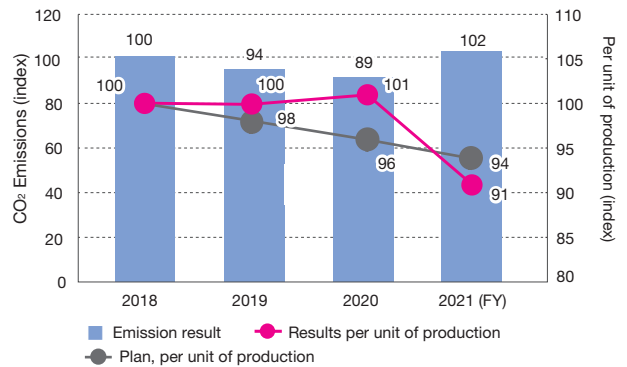
### Initiatives at overseas sites



The Noritake Group is working to reduce its environmental impact at overseas production sites as we expand our overseas business. As part of the 11th Three-year Environmental Action Plan, we established and actively pursued global targets for the reduction of greenhouse gases and other unwanted substances.



#### Trend in CO<sub>2</sub> emissions (global)



#### Trend in landfill waste (global)

