Society/Labor

# Materiality 3 Promoting a Decarbonized Society

#### Promoting a Decarbonized Society

Self-evaluation  $\bigcirc$ : Achieved  $\triangle$ : Measures started but not yet achieved

Governance

Targets for Fiscal Year 2030	What Nikon Needs to Do	Related SDGs	Scope	Targets for Fiscal Year 2022	Results for Fiscal Year 2022	Self- Evaluation
	Improve manufacturing facilities and production processes and promote decarbonization		Nikon Group	• Reduce Scope 1 and Scope 2 greenhouse gas emissions by 31.6% compared to fiscal year 2013	• Reduced Scope 1 and Scope 2 greenhouse gas emissions by 33.8% compared to fiscal year 2013	0
<ul> <li>Reduce greenhouse gas emissions (Scope 1 and Scope 2) by 71.4% compared to fiscal year 2013</li> <li>Achieve renewable energy adoption refer to 20%</li> </ul>	Promote eco-office and diverse work styles to achieve a decarbonized workstyle     Accelerate renewable energy		Nikon Group	<ul> <li>Achieve a renewable energy adoption rate of 9% or higher in electricity used for business activities</li> </ul>	Renewable energy share of electricity used for business     activities: 22.3%	0
<ul> <li>Reduce greenhouse gas emissions</li> <li>(in three of 15 Scope 3 categories—</li> </ul>	adoption • Visualize the environmental impact in each process within products' lifecycles and implement new environmental initiatives barnessing	7,13	Nikon Group	<ul> <li>Reduce environmental impact by making effective use of the LCA methodology</li> <li>Create eco-friendly products</li> </ul>	<ul> <li>Continued to expand the range of product models subject to LCA calculation (100% for new products)</li> <li>Approximately 82% of new products certified as eco-friendly products</li> </ul>	0
purchased goods and services, upstream transportation & distribution, and use of sold products) by 31% compared to the fiscal year 2013	<ul> <li>expertise</li> <li>Downsize cargo, promote modal shift and establish a transportation system requiring minimal energy</li> </ul>	Ni Gr	Nikon Group	• Reduce greenhouse gas emissions in distribution by 10% compared to fiscal year 2019	• Reduced greenhouse gas emissions in distribution by 28% compared to fiscal year 2019	0
	<ul> <li>Require procurement partners to formulate and pursue greenhouse gas reduction targets</li> </ul>		Nikon Group	<ul> <li>Complete understanding of CO<sub>2</sub> emissions for main procurement partners who account for 80% of procurement costs</li> </ul>	<ul> <li>Completed understanding of CO<sub>2</sub> emissions for main procurement partners who account for 81% of procurement costs</li> </ul>	0

# **Reduction of Greenhouse Gas in the Supply Chain**

### Setting Science-Based Targets and Signing Up to the Business Ambition for 1.5°C Initiative

The Nikon Group has established greenhouse gas emission reduction targets as part of our Medium-Term Environmental Goals concerning Realizing a Decarbonized Society, which is a part of the Nikon Long-Term Environmental Vision. In recent years, the impact of climate change has become more apparent, and the trend toward decarbonization in society has picked up speed. With this in mind, in February 2021 Nikon revised Scope 1 and Scope 2 greenhouse gas emissions reduction target from 26% to 71.4% (compared to fiscal year 2013). This new target was certified in April 2021 by the Science Based Targets (SBT) initiative<sup>\*1</sup> as conforming to the criteria for helping to keep the average global rise in temperature within 1.5°C . We are considering revisions to this target based on the requirements set by the SBT Initiative.

In March 2021, we also expressed our support for the Business Ambition for 1.5°C initiative launched by the UN Global Compact, the SBT Initiative, and We Mean Business<sup>\*2</sup>. This initiative encourages companies to set scientifically based greenhouse gas reduction targets for reducing greenhouse gas emissions to net zero by 2050 to keep the average global temperature rise within 1.5°C compared to pre-industrial levels. Going forward, Nikon will further accelerate its initiatives to support decarbonization.

### The Nikon Group's Science Based Targets (SBT)

Target year: Fiscal year 2030

- Reduce Scope 1 and Scope 2 greenhouse gas emissions 71.4% compared to fiscal year 2013
- Reduce Scope 3 greenhouse gas emissions (purchased products and services; transportation and delivery (upstream); and use of company products sold) by 31% compared to fiscal year 2013



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



### Greenhouse Gas Emissions Across Our Supply Chain

The Nikon Group calculates greenhouse gas emissions in the entire supply chain in accordance with the Greenhouse Gas Protocol (GHGP).

Governance

In fiscal year 2022, Scope 1 emissions were 34,668 tons- CO<sub>2</sub>e and Scope 2 emissions were 140,199 tons- CO<sub>2</sub>e. With these results, we achieved the Nikon Group target of reducing Scope 1 and Scope 2 emissions by 31.6% compared to fiscal year 2013 ultimately reducing CO<sub>2</sub> emissions by 33.8%. Our measures centered on expanding renewable energy sources resulted in reductions at a more steady pace than planned. Our Scope 3 results were 716,958 tons-CO<sub>2</sub>e emissions. We reduced emissions volume year on year, mainly due to fluctuations in operations. Although current emissions are lower than targets for fiscal year 2030, the impact of COVID-19 infections and other factors are still apparent. Further, we assume emissions could increase due to business fluctuations in the future, so we intend to remain vigilant in our efforts to reduce emissions.

We will continue to engage in detailed energy conservation and expansion of renewable energy based on the Nikon Medium-Term Environmental Goals, pursuing reductions in line with the path to limit the global temperature increase to 1.5°C or less. In the long term, we will reduce Scope 1, 2, and 3 GHG emissions to 10% or less and neutralize the remaining emissions to achieve carbon neutrality by fiscal 2050.

With particular regard to Scope 1 and 2 emissions, we established a task force under the Environmental Subcommittee in April 2022 to discuss ways to reduce emissions in order to achieve Nikon' Medium-Term Environmental Goals. In fiscal year 2022, we assessed and incorporated the impact of GHG emissions in our emissions reduction plan under the new Medium-Term Management Plan.

<sup>\*1</sup> Science Based Targets (SBT) initiative

The SBT initiative is a collaboration between CDP, an international NGO working on environmental issues such as climate change, the United Nations Global Compact, World Resources Institute, and the World Wide Fund for Nature. The initiative targets achieving the Paris Agreement-mandated objective of holding the increase in the global average temperature to below 2°C above pre-industrial levels. It certifies the CO<sub>2</sub> emission reduction targets of companies that are in line with emissions reduction scenarios based on scientific facts.

<sup>\*2</sup> We Mean Business

A platform run by international organizations, think tanks, NGOs, and other organizations that are engaged in encouraging companies and investors to adopt measures to combat global warming.

Nikon Long-Term Environmental Vision and Medium-Term Environmental Goals ( $\Rightarrow$  p.051)

#### • Changes in Greenhouse Gas Emissions Across the Entire Supply Chain



Nikon Group Profile

#### Percentage of Greenhouse Gas Emissions Across the Supply Chain (Fiscal Year 2022)



# Initiatives to Reduce Greenhouse Gas Emissions in Products

### Environmental Impact Assessment Using the LCA Methodology

Nikon calculates  $CO_2$  emissions in each phase of a product's lifecycle by conducting evaluations of our environmental impact using the Life Cycle Assessment (LCA) methodology. These evaluations are carried out for a range of products, including some of our most popular models. Results show that there are large  $CO_2$  emissions in the raw material procurement phase for imaging products and in the use phase for products in FPD and semiconductor lithography systems, as well as industrial metrology. From this, we understand that it is important for us to make improvements at these phases, and we are therefore incorporating this into new product development.

#### Percentage of CO<sub>2</sub> Emissions Throughout the Product Lifecycle for Major Nikon Products



### CO<sub>2</sub> Reduction Measures for Products

For imaging products, we have the highest amount of  $CO_2$  emissions at the raw material procurement phase. We are therefore focusing on making camera bodies smaller and lighter, as well as reducing their number of parts. The NIKKORZ 17-28mm f/2.8 full-frame/FX format ultra-wide-angle zoom lens is approximately 31% lighter in weight, 32% smaller in volume, and has 46% fewer parts than the NIKKOR Z14-24mm f/2.8 S, an equivalent ultra-wide-angle zoom lens. As a result, we reduced  $CO_2$  emissions over the product life cycle per unit by approximately 46%.



NIKKOR Z 17-28mm f/2.8

# Promoting CO<sub>2</sub> Reductions with our Procurement Partners

Governance

The Nikon Group encourages major procurement partners to reduce  $CO_2$  as one of the assessment categories within our environmental management system.

When conducting our environmental assessment during fiscal year 2022, we requested approximately 170 companies to establish a system to reduce their  $CO_2$  emissions. When necessary, we provided guidance on the calculation of Scope 1 and Scope 2  $CO_2$  emissions.

During fiscal year 2023, we intend to participate in the CDP Supply Chain Program<sup>\*1</sup> and request our major procurement partners to disclose information. We will reduce CO<sub>2</sub> emissions throughout the supply chain by understanding Scope 1, Scope 2, and Scope 3 emissions, not only for

#### ourselves, but also for our procurement partners.

\*1 CDP Supply Chain Program: An information disclosure program conducted by CDP, an international NGO working in climate change and other environmental fields. Member companies that disclose information on climate change, water, forests, etc., through CDP use this platform platform to request environmental information disclosure from their suppliers.

Promoting Green Procurement (> p.105)

## Initiatives to Reduce Greenhouse Gas Emissions at Business Facilities

### Changes in CO<sub>2</sub> Emissions from Energy Consumption and Changes in Energy Consumption

By striving to improve product development and production processes and make production equipment more efficient, the Nikon Group is making a serious effort to reduce CO<sub>2</sub> emissions derived from energy consumption. We are also implementing energy-saving measures and adopting renewable energy. CO<sub>2</sub> emissions from the energy consumption of the Nikon Group in Japan and Group manufacturing companies outside Japan for fiscal year 2022 amounted to 156,594t-CO<sub>2</sub>, down 10.7% year on year. Emissions per unit of sales improved significantly due to higher sales resulting from a recovery in business performance. Going forward, we will take further measures to reduce CO<sub>2</sub> and cut our emissions.

#### Changes in CO<sub>2</sub> Emissions from Energy Consumption



Nikon Group in Japan
 Group manufacturing companies outside Japan
 Emissions intensity per unit of sales

- \*1 The following values were used for CO<sub>2</sub> conversion factors.
- [Electricity]

Japan: CÓ<sub>2</sub> emission factors without adjustment for each electric power utility noted in the "List of Basic Emissions Factors by Electric Power Utility" specified in the Act on Promotion of Global Warming Countermeasures UK: Residual mix

USA: NERC regional residual mix

Other countries: International Energy Agency (IEA) factors for the respective country [City gas]

Japan: Gas company-specific factors under the guidance document for Periodic Report pursuant to the Act on the Rational Use of Energy (Energy Conservation Act), were multiplied by the values given in Appended Table 2 of the "List of Calculation Methods and Emissions Factors for Calculation, Reporting and Announcement Systems" specified in the Act on Promotion of Global Warming Countermeasures and 44/12

UK: Factors from the Report on Greenhouse Gas

Other countries: Equivalent values to a typical Japanese gas company

[Heat and other fuels]

Factors noted in the "List of Calculation Methods and Emissions Factors for Calculation, Reporting and Announcement Systems" specified in the Act on Promotion of Global Warming Countermeasures

- \*2 The above factors were also used for the calculation of CO<sub>2</sub> emissions according to marketbased criteria for Scope 1 and Scope 2 in p.064.
- \*3 Emissions have been calculated using the Basic Emission Factors, subtracting the renewable energy portion from total energy consumption.
- Values in Data Index assured by third party

#### Changes in Energy Consumption



Governance

Nikon Group in Japan
 Group manufacturing companies outside Japan
 Emissions intensity per unit of sales

\* The following values were used for calorific-value conversion factors.

[Electric power] Factors given in the guidance document for the Periodic Report pursuant to the Act on the Rational Use of Energy (Energy Conservation Act) [Citv cas]

Japan: Gas company-specific factors under the guidance document for the Periodic Report pursuant to the Act on the Rational Use of Energy (Energy Conservation Act) UK: Values calculated from the factors for the Report on Greenhouse Gas

Other countries: Equivalent values to a typical Japanese gas company

[Heat and other fuels] Factors given in the guidance document for the Periodic Report pursuant

- to the Act on the Rational Use of Energy (Energy Conservation Act)
- Values in Data Index assured by third party

#### Contents/Editorial Policy Message from the President

### **Utilizing Renewable Energy**

The Nikon Group pursues renewable energy as an effort to reduce greenhouse gas emissions from business facilities. Our goal is to increase the ratio of renewable energy to electricity consumption to at least 30% by fiscal year 2030 through in-house power generation, electricity plans, renewable energy certificates, and other means. As a result of our efforts, we achieved 22.3% in fiscal year 2022, meeting both our fiscal year target and the target for fiscal year 2025. We are currently reviewing our targets as we aim to expand and accelerate the use of renewable energy further. We will continue our efforts as we consider renewable energy additionality<sup>\*1</sup> and sustainability to contribute to the wider adoption of renewable energy in society.

#### Renewable Energy as a Share of Electric Power Consumption



### Joining RE100

Nikon joined RE100\*, an international initiative seeking to have companies source 100% renewable energy for electricity used in business activities. We aim to switch to 100% renewable energy-derived electricity used in the Group's business activities by fiscal year 2050, and we plan to work actively alongside other RE100 member companies to foster the development of the renewable energy market and to encourage governments in this area.

Run as a partnership by the Carbon Disclosure Project (CDP) and The Climate Group (an NPO focused on activities in response to climate change), RE100 is an international initiative with participation from companies all over the world.



#### The Nikon Group's Roadmap for Adoption of Renewable Energy



Switch to renewable energy for electricity in business facilities
 Purchase Green Power Certificates, etc.

### CO<sub>2</sub> Emissions from Non-Energy Consumption and Other Greenhouse Gas Emissions

Governance

For fiscal year 2022,  $CO_2$  emissions from non-energy sources<sup>\*1</sup> and other greenhouse gas<sup>\*2</sup> totaled 12,358t- $CO_2e$ , accounting for 7.3% of the greenhouse gas emitted by Nikon and Group manufacturing companies. Of these gas, HFCs contained in detergents used in the manufacturing process constituted the largest category at 7.1%.

The Nikon Group is working to establish alternative technologies while implementing chemical substance management thoroughly in accordance with the Hazardous Chemical Substance Guideline in order to reduce CO<sub>2</sub> emissions from non-energy sources and other greenhouse gas.

\*1 CO<sub>2</sub> generated by fire extinguishers, sprays, waste incineration, etc. \*2 Other greenhouse gas: CH4 , N2O, HFCs, PFCs, SF6, NF3

#### Breakdown of Greenhouse Gas Emissions from Nikon and Group Manufacturing Companies



the equipment based on these checks. After the equipment has been installed, its energy use is monitored, and its performance is managed compared to the forecast. Furthermore, a range of energy saving initiatives are ongoing at each business facility, including switching over to energy saving lights, using motion sensor-equipped lighting, and working to make air conditioning equipment and office machinery more efficient.

### Initiatives for Commuting and Company Vehicles

All Nikon Group business facilities are making efforts to adopt fuel-efficient, environmentally-friendly vehicles such as hybrid cars as company vehicles. In December 2021, Nanjing Nikon Jiangnan Optical Instrument Co., Ltd. (China) switched two employee shuttle buses from gasoline-powered to electric vehicles. In November 2022, Nikon began using a fuel cell vehicle for use as a company car. Many business facilities are also working to mitigate environmental impact from their employees' commute, through means like encouraging employees to utilize car sharing, cycle to work, and actively use public transport.

Governance

**Conserving Energy at Business Facilities** 

When planning new equipment installation at all Nikon

Group business facilities, one important process is energy

saving checks, and determining whether or not to install

Corporate Citizenship Activities

#### Breakdown of CO₂ Emissions from Non-Energy Consumption and Other Greenhouse Gas Emissions at B

Nikon Group Profile

 Other:

 2.86%

 (breakdown below)

 • CO<sub>2</sub> emissions from non-energy consumption: 0.24%

 • CH<sub>4</sub>: 1.05%

 • N<sub>2</sub>O: 0.51%

 • PFCs: 0.01%.

 • SF<sub>6</sub>: 1.04%

 • NF<sub>3</sub>: No emissions

Values in Data Index assured by third party

### **Greenhouse Gas Reduction Measures at Business Facilities**

Reducing Greenhouse Gas Emissions Through More Efficient Product Development

By continuing to strive for further improvement and evolution in the core technologies that underpin our manufacturing operations, the Nikon Group is able to enhance the efficiency of development and production operations and raise quality standards. In turn, we also reduce our environmental impact by achieving reductions in energy consumption and the generation of waste.

Optical technologies, one of the core technologies of the Nikon Group, is supported by optical glass with high performance and quality. The development and manufacturing processes for optical glass use high temperatures from melting furnaces and require repeated experiments, which leads to high energy consumption and a large amount of waste. The Nikon Group has therefore focused attention on how we approach quality engineering. In order to achieve significant efficiency gains in the development and manufacturing processes for optical glass, Nikon has worked to improve evaluation methods, use simulations to reduce the number of experiments, shorten lead times, and improve the accuracy of our stamping (metalworking). As a result, the Nikon Group has achieved significant reductions in energy consumption, greenhouse gas emissions, and waste emissions, leading to a greatly reduced impact on the environment. The simulations and technical data established in these measures have been applied and extended to the development and manufacturing processes of other lens materials, thereby helping to further reduce environmental impact.

#### Contents/Editorial Policy Message from the President

Nikon's Sustainability

Business Activity

Environment

#### Main Energy-Saving Initiatives at Business Facilities

Energy-Saving Initiative	Initiative Content			
Adjusting design and development	Reducing experiments and prototyping through effective use of AI, CAE, and external technical information			
Conserving energy in production equipment	Integrating and replacing production equipment, and making existing equipment more energy- efficient			
Enhancing productivity	Improving conformity rates through IE analysis, optimizing work flow lines and production spaces, and automating production			
Upgrading transformer equipment	Switching over to highly efficient receiving and transformer equipment			
Adjusting utilization of transformer equipment	Integrating transformers, reducing electricity consumption from equipment on standby, and switching equipment off when not in use			
Upgrading air conditioning equipment	Improving cooling efficiency and streamlining equipment footprint through replacement of cooling and refrigeration equipment, reducing power consumption by replacing motors			
Adjusting air conditioning usage	Optimizing temperature and humidity settings and scheduling usage periods			
Reducing heat dissipation and heat absorption loss	Insulating piping and exterior walls, optimizing heat exchangers, integrating piping and bypasses			
Adjusting building facilities	Upgrading to insulating window glass and energy-saving elevators			
Conserving energy in lighting	Switching over to LED lights, adjusting the spacing of lights, and adjusting brightness			
Conserving energy in vacuums and compressed air equipment	Switching over to highly efficient pumps, adopting bypassing for piping, optimizing pressure, and optimizing pump operation controls			
Adjusting water usage	Improving the efficiency of water pumps installed in receiving tanks and optimizing piping			
Upgrading company vehicles	Purchase environmentally friendly vehicles (electric vehicles, fuel cell vehicles, etc.)			
Improving driving practices for company vehicles	Achieving energy-efficient driving through training to optimize driving styles and making use of driving recorder analysis			

Business Activity Environment

# Initiatives to Reduce Greenhouse Gas Emissions in Distribution

### Understanding Greenhouse Gas Emissions in Distribution

Nikon Group products are manufactured in facilities located mainly in Asia and sold worldwide. We use this information to understand the distribution routes, transportation volumes, and greenhouse gas emissions involved, working to reduce emissions during distribution.

In fiscal year 2022, greenhouse gas emissions in distribution amounted to 837.1t-CO<sub>2</sub> in Japan and 24,574.1t-CO<sub>2</sub> for international shipments and logistics outside Japan. The Nikon Group outperformed our target of reducing emissions by 10% compared to fiscal year 2019, ultimately reducing greenhouse gas emissions by 53%.

#### Greenhouse Gas Emissions from Distribution in Japan, International Shipment and Distribution Outside Japan



### Initiatives to Reduce Greenhouse Gas Emissions in Distribution

**Promotion of Modal Shifts** 

The Nikon Group promotes modal shifts\* in order to reduce environmental impact, shifting the main mode of delivery from air to marine transport.

In fiscal year 2022, the Healthcare Business Unit continued modal shift of import cargo from Nanjing Nikon Jiangnan Optical Instruments Co., Ltd. The Imaging Business Unit and Nikon Vision Co., Ltd. switched the transportation of certain products to ocean freight.

In addition, the Imaging Business Unit reduced greenhouse gas emissions by transporting repair parts stored in Japan to Thailand by ocean freight.

#### \* Modal shift

This term is normally used to refer to a shift to a different method of transport in order to reduce the impact on the environment.

#### **Environmentally-Friendly Transportation**

As well as gradually shifting over to the use of environmentally-friendly vehicles with low fuel consumption for delivery trucks, etc., the Nikon Group is also working to promote eco-driving (fuel-efficient driving) by holding regular seminars for drivers.

We also recognize the importance in taking measures in the upstream stages of the product lifecycle in order to achieve more efficient transportation. Planning departments in each business unit have lent their expertise to help incorporate considerations from product design stages to transport loading. The Imaging Business Unit modified cushioning materials and made packaging boxes more compact. Nikon Vision Co., Ltd. now provides operation manuals online. The Industrial Metrology Business Unit improved packaging functionality while limiting package sizes. And the Healthcare Business Unit is conducting drop tests and other measures toward downsizing boxes for certain accessories. We implement appropriate load size management for truck transport in Japan to reduce the number of trucks on the road.

Governance

# **Disclosures in Accord with the TCFD Recommendations**

### Climate Change-related Disclosures in Accord with the TCFD Recommendations

In 2017, the Task Force on Climate-related Financial Disclosures (TCFD), established by the Financial Stability Board (FSB), released a final report titled *Recommendations of the Task Force on Climate-related Financial Disclosures*. Nikon announced support for the TCFD Recommendations in November 2018 and is promoting information disclosure based on these.

#### Governance

 Organizational governance of climate-related risks and opportunities –

Initiatives	<ul> <li>The Sustainability Committee, chaired by the representative director and president, identifies risks and opportunities, and discusses strategies, indicators, targets, and performance. After these discussions, the committee decides whether to make decarbonization-related investments.</li> <li>The Environmental Subcommittee under the Sustainability Committee examines risks and opportunities related to climate change, drafts strategies and indicators/targets, and manages progress.</li> <li>The Convortee Sustainability Department implements Group-wide climate-related responses based on decisions of the Sustainability Committee.</li> <li>Reports are made on the Sustainability Committee's activities to the Board of Directors at least once a year.</li> <li>The Board of Directors manages and supervises the adequacy, effectiveness, and related risks in connection with climate change and other environmental activities</li> </ul>
Fiscal Year 2022 Progress	<ul> <li>The Sustainability Committee met four times, and the Environmental Subcommittee met two times, deliberating and deciding matters related to climate change response</li> </ul>

Environmental Governance (> p.055)

#### Strategy

 Actual potential impact of climate-related risks and opportunities on business, strategy, and financial planning –

Initiatives	<ul> <li>Set Promoting a Decarbonized Society as a materiality</li> <li>Conduct climate change scenario analyses to identify risks and opportunities (see p.072)</li> <li>Incorporate sustainability initiatives, including measures addressing climate change, in the Medium-Term Management Plan</li> <li>Incorporate evaluations considering sustainability initiatives, including climate change initiatives, in officer remuneration</li> </ul>
Fiscal Year 2022 Progress	<ul> <li>Considered the adoption of renewable energy to achieve the Nikon Medium-Term Environmental Goals</li> <li>Analyze risks and opportunities related to climate change</li> <li>Verify the impact of business growth on GHG emissions over the period covered by our Medium-Term Management Plan</li> </ul>

Nikon Long-Term Environmental Vision and Medium-Term Environmental Goals (+ p.050)

#### **Risk Management**

 Integrated risk management of the processes used to identify, assess, and manage climaterelated risks –

Governance

Initiatives	<ul> <li>The Risk Management Committee manages our risks on a Group-wide basis, while the Sustainability Committee uses its expertise to identify and assess environmental risks, including those from climate change, discussing how to respond</li> <li>Matters discussed and approved by each committee are reported to the Board of Directors</li> <li>Identified and established awareness of potential impact value for identified risks, alongside other potential factors, in a financial simulation of the medium-term management plan</li> </ul>
iscal Year 2022 Progress	<ul> <li>Conducted a risk identification survey and compiled a risk map presenting results by scale of impact and probability of occurrence.</li> <li>These were provided as feedback to relevant departments in order to share recognition of risks facing the entire company.</li> <li>Reflected identified risks in the Environmental Action Plan, etc., rolling these out throughout the Group</li> </ul>

Environment-Related Risk Management System (> p.058)

#### **Metrics and Targets**

Metrics and targets used to assess and manage climate-related risks and opportunities –

Greenhouse gas emissions (Scopes 1, 2, and 3) and renewable energy usage for electricity for fiscal year 2022 were as follows. We will continue to strive for the achievement of carbon neutrality by fiscal year 2050, in line with the Nikon Medium-Term Environmental Goals.

In order to monitor the actual status of our suppliers, we will participate in the CDP supply chain program and begin collecting information on Scope 3 emissions in fiscal year 2023.

Metrics	Targets	
Scope 1, 2 reduction rate	Fiscal Year 2030: 71.4%	
(compared to fiscal year 2013)	Fiscal Year 2023: 36.5%	
	Fiscal Year 2030: 31%	
Reduction in three Scope 3 categories (purchased products and services; transportation and delivery (upstream); and use of company products sold) (compared to fiscal year 2013)	Fiscal Year 2023: • Reduce environmental impact by making effective use of the LCA methodology • Create at least 50% eco-friendly products	
Denoughle operation rate	Fiscal Year 2030: 30%	
Renewable energy adoption rate	Fiscal Year 2023: 25%	

#### Scope 1+2 Emissions



 Scope 3 Emissions (Three Categories: Purchased Products and Services, Transportation and Delivery (Upstream), and Use of Company Products Sold)



#### Renewable Energy as a Share of Electric Power Consumption



#### **Climate Change Scenario Analysis**

Governance

The Nikon Group conducts analysis of climate-related risks and opportunities by comprehensively considering a number of factors, such as, the characteristics of business, the location conditions of production sites and business facilities, the recent degree and frequency of natural disasters due to climate change, industry trends, trends in related laws and regulations, representative concentration pathway (RCP) scenarios used in the IPCC climate change forecasts, as well as survey results and scenarios carried out by external research institutes. As such, we identify and evaluate risks under the 2°C and 4°C scenarios.

The Nikon Group recognizes that under the 2°C scenario there would be a tightening of, for example, greenhouse gas emission regulations and greater market demands accompanying these regulations. Under the 4°C scenario there would be an increase in natural disasters, such as floods, and a rise in temperatures. But under any scenario we recognize that there will be changes in energy technology and costs with a wider transition to renewable energies. The Nikon Group is therefore taking measures to adapt to climate change as a business strategy in consideration of the financial impact these scenarios will have. The Nikon Group will continue to carry out and improve its scenario analysis going forward.

#### Climate Change Risks Faced by the Nikon Group

#### [Financial impact] High: 10 billion yen or more, Medium: 1 to 10 billion yen, Low: 1 billion yen or less

[Urgency] High: Within 3 years, Medium: 3 to 10 years, Low: Later than 10 years

		Risks Faced by the Nikon Group	Financial Impact	Urgency	Response
	An increase in typhoons, floods, and other weather-related disasters could disrupt supply/operations or reduce asset values due to damage to major production sites (Japan, Thailand, etc.) and supplier sites, disruption of logistics networks, and other factors. In addition, a rise in sea levels may increase the probability of these risks.		High	Medium	<ul> <li>Promoting Total Supply Chain Management activities</li> <li>Promoting Business Continuity Management (BCM)</li> </ul>
Physical risks (acute and chronic)	A rise in average equipment. In particular, st unreasonably di	temperatures could lead to increased electricity costs due to increased load on cooling and other air conditioning rict temperature controls required in manufacturing and transporting precision equipment may become ficult, or management costs may increase.	Small	Low	Promoting aggressive energy-saving activities
	Long-term changes in precipitation patterns, as well as droughts, could constrain the use of water resources and adversely affect operations.			Low	Reducing water withdrawal     Promoting water resource recycling
Transition risks	Policies and regulations	<ul> <li>Introduction or expansion of carbon pricing policies, such as carbon taxes, could increase Nikon's operating costs if applied to us.</li> <li>In addition, purchase prices may increase if these are applied to suppliers.</li> <li>Changes in national energy policies where we have business sites could lead to higher electricity prices, which would increase operating costs and purchasing costs.</li> </ul>	High*	Medium	<ul> <li>Reducing greenhouse gas emissions through promotion of energy conservation and adoption of renewable energy</li> <li>Reducing greenhouse gas emissions through modal shifts and improved distribution routes</li> <li>Requiring suppliers to reduce greenhouse gas emissions</li> </ul>
	Technologies	<ul> <li>Failure to reduce emissions during product use and shift to low-carbon manufacturing methods and materials could result in reduced sales opportunities.</li> </ul>	High	Low	<ul> <li>Reducing greenhouse gas emissions through promotion of energy conservation and adoption of renewable energy</li> <li>Improving energy-saving performance for products</li> <li>Creating new materials and manufacturing methods</li> </ul>
	Markets/ Reputation	<ul> <li>Failure to adequately meet customers' decarbonization requirements could result in reduced sales opportunities.</li> <li>Inadequate response to decarbonization could damage our evaluations/reputation and affect stock price and sales.</li> </ul>	Medium	Low	Reducing greenhouse gas emissions through promotion of energy conservation and adoption of renewable energy     Promoting proactive information disclosure

\* Specific example: Carbon tax system in the Netherlands

In 2021, the Netherlands began levying a carbon tax equivalent to 30 Euros per ton of greenhouse gas emissions, targeting manufacturing firms and other firms in the industrial sector.

This carbon tax is set to increase by 10 Euros every year, and by 2030 it is expected to have risen to 125 Euros per ton of emissions.

A similar trend toward the introduction of carbon taxes can be seen in other countries in Europe.

While the Nikon Group's business areas do not currently fall within the scope of such carbon taxes, there is a possibility that the scope of applicability may be extended in the future.

For instance, the Nikon Group's manufacturing companies in Europe had total annual greenhouse gas emissions of around 1,300 tons in fiscal year 2020. If these companies were to become subject to carbon taxes and no measures were taken to reduce emissions, the Group could face an annual carbon tax bill of around 162,500 Euros.

#### Climate Change Opportunities for the Nikon Group

[Applicable period] Short-term: Within 3 years, Medium-term: 3-10 years, Long-term: Later than 10 years

Opportunities for the Nikon Group	Applicable Period
<ul> <li>Rising evaluation of Nikon by consumers, institutional investors, and others for our technologies and business activities (as follows) contributing to a decarbonized society could lead to increased sales and higher stock prices.</li> <li>Increase energy efficiency in society with additive manufacturing and fine processing using optics</li> <li>Additive processing contributing to longer product lifespans through repair of existing parts, etc.</li> <li>Robots with sophisticated hands and eyes and device manufacturing processes, that enhance manufacturing efficiency</li> <li>Longer lasting light sources and more durability in our products, that contribute to a healthy global environment</li> <li>Image production technologies that contribute to a society where people connect transcending time and space and real and virtual.</li> </ul>	Short- to long- term
Achieving efficiency in production processes and distribution, as well as carrying out energy-saving activities, could reduce future carbon taxes and energy costs.	Short- to long- term
Total Supply Chain Management, a practice designed to prepare for physical risks, and improvements in our BCM could make our business structure more robust.	Short-term