

# CONSIDERATION FOR THE ENVIRONMENT

The OKI Group considers its mission to be responding to increasingly severe climate change and resolving social issues in order to pass on a better global environment to the next generation. Therefore, we consider environment-related business risks and opportunities from the medium- to long-term perspective to promote environmental management. The OKI Group is taking efforts to mitigate environmental impact, such as reducing CO<sub>2</sub> emissions during the production process, as well as provide products and services that contribute to the resolution of environmental issues.

## Information Disclosed According to the Task Force on Climate-related Financial Disclosures (TCFD\*1)

OKI announced its support for the TCFD from a perspective of a positive economic and environmental cycle. Along with systemically managing climate-related risks, opportunities, and countermeasures for them, OKI aims to enhance information disclosure about these efforts.

<b>Governance</b>	<p><b>Roles of managers and director monitoring system for climate-related risks</b></p> <ul style="list-style-type: none"> <li>The President is the chief officer for promoting environmental management, including climate-related risk management. Important matters related to environment are decided at the Management Committee, etc.</li> <li>The Sustainability Promotion Working Group considers issues related to sustainable growth, including climate change, and reports to the Management Committee.</li> <li>Matters that may significantly impact business are reported to the Board of Directors.</li> </ul>
<b>Strategy</b>	<p><b>Scenario analysis for identifying and addressing risks and opportunities</b></p> <ul style="list-style-type: none"> <li>OKI identifies physical and transition risks based on reports related to climate change issued by international institutions and performs scenario analysis that considers the intensification of climate change if temperatures rise 4°C and social changes needed to limit this increase to 1.5°C.</li> <li>As shown on the following page, perspectives of climate change, resource circulation, and prevention of pollution are included in scenario analysis. OKI identifies risks and opportunities based on these scenarios and establishes countermeasures to better respond flexibly to phenomena that could occur in the future. (Regarding the 1.5°C target, see "Indicators/Targets" below and page 43.)</li> </ul>
<b>Risk Management</b>	<p><b>Risk selection/evaluation process</b></p> <ul style="list-style-type: none"> <li>At least once a year, OKI identifies climate change or other recent phenomena to evaluate the impact, frequency, and period of the risks and opportunities that emerge from them in order to determine their importance.</li> </ul> <p><b>Risk management process</b></p> <ul style="list-style-type: none"> <li>OKI considers countermeasures for the above risks and opportunities, developed a Group-wide plan for environmental management, and is implementing this into environmental action plans at each organization and site. The execution status of these plans is checked through internal auditing and revised as needed.</li> </ul> <p><b>Method of integrating comprehensive risk management</b></p> <ul style="list-style-type: none"> <li>Comprehensive risk is managed centrally by the environmental management system of the entire OKI Group under the responsibility of the President. Each business group and the corporate group work together to plan, execute, monitor, and revise this system. OKI has deployed countermeasures in the Group to prevent "common risks" as established by the Risk Management Committee, which manages risks across the entire Group.</li> </ul>
<b>Indicators/Targets</b>	<p><b>Indicators used</b></p> <ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions from business activities in the supply chain including OKI sites (SCOPE1+2, SCOPE3)</li> <li>Environmental contribution net sales</li> </ul> <p><b>SCOPE1,2,3</b></p> <ul style="list-style-type: none"> <li>Entered on ESG data section (see pages 57-58) of this report and on the table published on the website.</li> </ul> <p><b>Targets/results</b></p> <p>&lt;CO<sub>2</sub> emissions (in compliance with SBT*2)&gt;</p> <ul style="list-style-type: none"> <li>FY2030 target: 42% CO<sub>2</sub> emissions*3 reduction at OKI sites and 25% CO<sub>2</sub> emissions*4 reduction at suppliers and from the use of products (compared to FY2020)</li> <li>FY2021 result: 3.1% reduction at OKI sites, 18.1% reduction at suppliers and from the use of products</li> </ul> <p>&lt;Environmental contribution sales&gt;</p> <ul style="list-style-type: none"> <li>Target of 50% of net sales of the entire Group by FY2030. In FY2021, this figure was 31%. (We are enhancing categories and definitions. Please see page 43.)</li> </ul>

\*1 TCFD (Task Force on Climate-related Financial Disclosures): Proposal that suggest the need for companies to disclose information to investors on their response toward climate change  
 \*2 SBT (Science Based Target): Target standard for reducing greenhouse gas emissions in line with the levels required by the Paris Agreement  
 \*3 SCOPE1 (fuel derived) + SCOPE2 (power derived)  
 \*4 Total of SCOPE3 Category 1 (purchased goods and services) and Category 11 (use of sold products), which make up over 67% of SCOPE3 emissions in FY2020

## Strategy Based on Scenario Analysis

As societal changes to limit warming to 1.5°C progress, there will be changes in laws for decarbonization, technological progress, and market needs. We expect that there will be rising demand for OKI's decarbonization solutions. If temperatures rise 3 to 4°C, there will be increased physical risks from

intense disasters due to the impact of climate change. It is possible that severe impact will hit the supply chain, including OKI's own sites. Needs are also expected to rise for disaster information systems that serve to prevent severe damage.

Scenario Analysis				Strategy/Initiatives
Category	Expected Phenomena	Risk/Opportunity	Impact on Future Finances	
1.5°C climate change scenario*1 (transitional risks)	Need for decarbonization increases further and spreads	Risk	<ul style="list-style-type: none"> <li>Loss of sales opportunities due to not meeting energy-saving standards on hardware products and customer demands</li> <li>Response to customer demands for renewable energy usage in the manufacturing process</li> <li>Higher costs stemming from strengthening decarbonization at business sites</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emission reduction targets in compliance with 1.5°C SBT and promotion of the following initiatives</li> <li>Product: Energy-saving for hardware</li> <li>- Set development targets that anticipate stronger regulations</li> <li>- Strengthen R&amp;D and technology development and accelerate commercialization</li> <li>Site: Promotion of the following initiatives for zero CO<sub>2</sub> emissions (ZEB, etc.)</li> <li>- Thorough energy saving: Improve efficiency of production equipment and facilities at sites and streamline all operations</li> <li>- Introduction of renewable energy: Install renewable energy equipment at our sites, enter into contracts for electricity derived from renewable energy, etc.</li> </ul>
		Opportunity	<ul style="list-style-type: none"> <li>Expansion of demand for the following OKI Group products</li> <li>- Decarbonization/energy-saving solutions</li> <li>- Technologies that support the spread of renewable energy</li> <li>- Hardware products that operate on renewable energy</li> </ul>	<ul style="list-style-type: none"> <li>Product: Expansion and creation of environmentally friendly products</li> <li>- Visualize and seek out environmental contribution net sales that utilize IoT and AI</li> <li>- Creation of decarbonization/energy-saving solutions</li> <li>- Support to improve efficiency of customer operations through operations outsourcing</li> <li>- Expansion of hardware products that operate on renewable energy</li> <li>E.g. Zero Energy Gateway</li> <li>- Strengthening of R&amp;D (AI weight reduction, etc.)</li> <li>- Launch of internal decarbonization task force</li> </ul>
4°C climate change scenario*2 (physical risks)	Abnormal weather becomes more frequent and intensifies (increased typhoons/flooding, extreme heat and cold, increased lightning)	Risk	<ul style="list-style-type: none"> <li>Sites/suppliers: Loss of business assets due to disasters at factories and suppliers/suspension of operations/severance of supply chain</li> <li>Site: Equipment breaks due to higher temperatures</li> </ul>	<ul style="list-style-type: none"> <li>Site: Strengthen climate change BCP/BCM</li> <li>- Install water stop boards; lift height of equipment</li> <li>- Devices to stop manufacturing equipment during lightning storms</li> <li>- Redundant air conditioning units for inspection devices</li> <li>Suppliers: Strengthen procurement BCP</li> <li>- Strengthen surveys of climate change risks for suppliers</li> </ul>
		Opportunity	<ul style="list-style-type: none"> <li>Product: Expansion of demand for the OKI Group's advanced disaster prevention/ mitigation solutions (disaster prevention field, maritime field)</li> </ul>	<ul style="list-style-type: none"> <li>Product: Strengthen business deployment through disaster information systems, etc.</li> </ul>
Prevention of pollution through chemicals	Expansion and complication of laws and regulations for substances	Risk	<ul style="list-style-type: none"> <li>Product: Standards violations for chemicals contained in products</li> <li>Site: Pollution due to deterioration of facilities</li> </ul>	<ul style="list-style-type: none"> <li>Product: Strengthen sharing of operations across the entire Group</li> <li>Site: Review facility inspection/exchange standards</li> </ul>
		Opportunity	<ul style="list-style-type: none"> <li>Product: Expansion of demand for efficiency improvement in chemical substance management (manufacturing field)</li> </ul>	<ul style="list-style-type: none"> <li>Product: Deployment of survey systems and analysis services for chemicals in products</li> </ul>
Resource circulation	Strengthening of laws and regulations for oceanic plastics and microplastics	Risk	<ul style="list-style-type: none"> <li>Site: Inflation of waste product disposal costs; refusal to accept from waste disposal companies</li> <li>Product: Risks of resource deprivation; risks of materials supply shortage</li> </ul>	<ul style="list-style-type: none"> <li>Site: Waste reduction</li> <li>- Reuse of plastic packaging</li> <li>- Reduction of percentage of disposed items through improved efficiency in extracting metal materials</li> <li>Product: Recovery and reuse of parts from used products utilizing the wide area certification system for industrial waste</li> </ul>
		Opportunity	<ul style="list-style-type: none"> <li>Product: Expansion of demand for resource-saving products and recycling services</li> </ul>	<ul style="list-style-type: none"> <li>Product: Reduce burden on customers by recovering used products utilizing the wide area certification system for industrial waste</li> </ul>

\*1 See IEA's Sustainable Development Scenario (SDS) and IPCC's SSP1-1.9 and 1-2.6  
 \*2 See IPCC's SSP5-8.5

## CONSIDERATION FOR THE ENVIRONMENT

### Revision of Environmental Vision 2030/2050

Climate change is now at the point of a “climate crisis.” The Sixth Assessment Report released in 2021 by the IPCC (United Nations Intergovernmental Panel on Climate Change) suggests that the CO<sub>2</sub> budget remaining for limiting warming to 1.5°C is likely to be marginal.

In light of this situation, OKI revised the fiscal year 2030 targets in the OKI Environmental Vision 2030/2050, which

sets forth medium- to long-term targets, so as to comply with the science-based targets for reducing greenhouse gas emissions that are in line with the Paris Agreement (SBT). OKI applied for target certification with the secretariat of the SBT initiative, and is considering and promoting a range of initiatives for energy saving and renewable energy use for the achievement of the targets.

#### OKI Environmental Vision 2030/2050 (Overview)

##### 1 Prevention of Global Warming

FY2030: 42% CO<sub>2</sub> emissions\*<sup>1</sup> reduction at OKI sites and 25% CO<sub>2</sub> emissions\*<sup>2</sup> reduction at suppliers and from the use of products (compared to FY2020)

FY2050: Virtually zero CO<sub>2</sub> emissions at OKI sites, virtually zero power consumption by new products

##### 2 Contribution to Achieving SDGs

Through (i) and (ii) below, contribute to achieving the targeted reductions in environmental impact set out by the 2030 SDGs

(i) Generate innovative products and services and provide solutions conducive to resolving a wide range of environmental issues

(ii) Realize innovative technologies for manufacturing and creating things in the supply chain, including workplaces



\*1 SCOPE1 (fuel derived) + SCOPE2 (power derived)

\*2 Total of SCOPE3 Category 1 (purchased goods and services) and Category 11 (use of sold products)

OKI Environmental Vision 2030/2050

<https://www.oki.com/en/eco/management/vision.html>

### For the Creation and Penetration of Environmentally Contributing Products

In fiscal year 2019, OKI began tallying net sales of environmentally contributing products for their penetration and creation, including products to address climate change. The net sales of environmentally contributing products in fiscal year 2021 was ¥110.3 billion, which represents 31% of the net sales of the entire Group.

In calculating net sales, we reestablished the OKI Group’s

criteria for environmentally contributing products (definitions and classifications) and developed Group procedures for their registration. OKI prescribed these criteria as an internal regulation that is also a checklist, so that developers in the company foster a common understanding of the relationship between products and the environment, leading to the creation and penetration of environmentally contributing products.

<b>Criteria for Environmentally Contributing Products</b>	<ul style="list-style-type: none"> <li>Reduces causes of environmental impact or damages from environmental deterioration (qualitative and quantitative)</li> <li>Mitigates damage from climate change (qualitative)</li> <li>Streamlines management of environmental impacts (qualitative and quantitative)</li> </ul>				
<b>Contribution Area</b>	Decarbonization, resource saving/waste reduction, chemicals management/pollution prevention, etc.				
<b>Contribution Method</b>	<p>Direct contribution from using the product. Indirect contribution from streamlined operations through the use of the product is also acceptable.</p> <table border="1"> <tr> <td><b>Direct</b></td> <td>Direct contribution from using the product Ex) Product’s power saving technology, building energy management system: contributes to energy saving “DPS Core” disaster prevention information system: contributes to preventing and mitigating the effects of extreme weather and other disasters</td> </tr> <tr> <td><b>Indirect</b></td> <td>Indirect contribution from streamlined operations through the use of the product Ex) “LocoMobi” ITS service: collects and analyzes road information → alleviates road congestion → reduces fuel consumption → decarbonization</td> </tr> </table>	<b>Direct</b>	Direct contribution from using the product Ex) Product’s power saving technology, building energy management system: contributes to energy saving “DPS Core” disaster prevention information system: contributes to preventing and mitigating the effects of extreme weather and other disasters	<b>Indirect</b>	Indirect contribution from streamlined operations through the use of the product Ex) “LocoMobi” ITS service: collects and analyzes road information → alleviates road congestion → reduces fuel consumption → decarbonization
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Please see “OKI Eco Products” and “OKI Eco Solutions” on our website for details about environmentally friendly products.

<https://www.oki.com/en/eco/product/ecoprod.html>

<https://www.oki.com/en/eco/product/ecosolu.html>

### R&D for an Environment that “Looks toward the Future”

The OKI Group is conducting R&D that is strongly aware of contributions to the environment. Of the themes addressed in the R&D department, we place particular focus on themes such as those in the chart below while remaining engaged in the traditional themes. There are nine technological themes that directly contribute to the environment, such

as power-saving and resource-saving in ICT equipment like servers, as well as 18 technological themes that indirectly contribute to reducing environmental impact through the use of digital technology. OKI is also conducting activities to search for new business opportunities that solve environmental issues.

Themes	Direct/Indirect	Outline
<b>Laser vibration sensing technology</b>	Direct	Technology that uses laser light to sense machinery and equipment vibrations without contact. By branching and connecting to numerous optical sensor heads with optical fiber, a single device can measure the vibration of multiple pieces of machinery and equipment spread out across a large facility and contribute to efficient predictive maintenance.
<b>Zero-energy IoT technology</b>	Direct	Power-saving IoT technology that does not require communications/power lines through the combination of solar power generation and wireless communications. It is an easy-to-install compact and lightweight structure designed for Japan’s sunny environment and is capable of year-round operation. By connecting various sensors, it contributes to disaster prevention/mitigation, such as monitoring of structures in mountains and monitoring of embankment slopes and check dams.
<b>Delivery route optimization technology</b>	Indirect	Technology that contributes to CO <sub>2</sub> emission reductions by splitting deliveries to destinations through the optimization of delivery routes, reducing the number of vehicles and shortening the travel distance/time.
<b>Remote work support technology</b>	Indirect	Technology that contributes to limiting travel by connecting workers at factories and other sites via communications and enabling remote work guidance. Based on the work being performed, it is installed with video and audio technologies, such as head-mounted display and wearable camera, as well as a system for providing intuitive work instructions using gestures.
<b>Behavioral change technology</b>	Indirect	Technology that recommends environmentally friendly behaviors through a smartphone or other devices at timings suited to the individual, such as purchasing actions that lead to food loss reduction and the habitual use of stairs. It predicts an individual’s behavioral tendencies and makes recommendations at their most optimal timing.

### Water Consumption Reduction Targets and Water Shortage Risk Responses

The OKI Group consumed 1.72 million m<sup>3</sup> of water in fiscal year 2021. Production sites accounted for approximately 95% of this amount, with approximately 90% used at production sites in Japan and approximately 5% at overseas production sites. In fiscal year 2021, water intake/consumption in water-stressed areas was 45,000 m<sup>3</sup>, or about 3% of the Group’s total water consumption, and the risk of water shortage is considered to be low at present. (Water stress is defined as baseline water stress of “high level” or higher in Aqueduct’s Water Risk Atlas and is evaluated periodically.)

Believing that the impact of climate change will be felt through water in general, OKI set the Group’s overall water consumption reduction target for fiscal year 2022 at “absolute reduction of 0.2% or more compared to fiscal year 2021” in preparation for future water shortage risks. We plan to reduce consumption by continuously setting targets based on the results of fiscal year 2022 and other factors.

At production sites in Japan, for example, water used in production processes is neutralized and detoxified using chemicals before being discharged. Today, in many cases, these sources of water are groundwater, which is abundant

in Japan due to its geographical environment. Nevertheless, mindful of the aforementioned future water shortage risks associated with climate change, we began setting targets for reducing water consumption in fiscal year 2022, mainly at sites with large water withdrawals.

At the factories in Thailand, where the risk of water shortage is high, almost no water is used in the production process because the factories are assembly plants. However, considering the scarcity of water resources in the region, we have been setting water consumption reduction targets and will continue to do so. In preparation for water shortages, one of our factories in Thailand has agreed to cooperate with an industrial park in dealing with water shortages. Groundwater will be provided by the industrial park in the first stage of water shortage, and after the prescribed number of days, recycled water will be provided in the second stage. The plant will not use this water for production from the viewpoint of conductivity of water quality and, as a rule of the factory, use it only for the daily life needs of employees, such as toilets and cafeterias, in consideration of production quality.

Please see “Environmental Conservation” on our website for details about initiatives and data.

<https://www.oki.com/en/eco/>