Kyuden Group TNFD Report 2023 - English Version (tentative translation) -

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0. Introduction

0.1. Kyuden Group's View on Natural Capital

The regional economy and lifestyle of Kyushu are supported by the abundant natural capital of Kyushu, and without the development of Kyushu, there would be no development of the Kyuden Group. As a corporate group that generates environmental impacts through its business activities, the Kyuden Group recognizes its responsibility to earnestly address environmental conservation. Although our own facilities may sometimes be damaged by heavy rain and strong winds, we believe that natural capital, which includes water resources nurtured by abundant rainfall and rich nature, and biodiversity, is a crucial pillar that supports the business activities of the Kyuden Group, serving as an energy source for hydroelectric power generation, among other things.

Kyushu's Rich Natural Capital and Kyushu Electric Power

Kyushu is located in the southwestern part of the Japanese archipelago, covering an area of about 47,000 square kilometers, accounting for about 11% of Japan's total area. Kyushu is surrounded by the sea with the ria coast on the northwestern part, and a rich fishing ground and the calm inland sea of the Ariake Sea. The main power sources of Kyushu Electric Power, nuclear power (36%) and thermal power (36%), are located on land facing the sea, where cooling water is taken from the sea and discharged into the sea. Furthermore, Kyushu has a relatively warm climate within Japan, and the introduction of renewable energy using its abundant natural resources is advancing. Solar power generation is also popular due to the abundant sunshine. Kyushu's rivers flow mostly from mountains and are abundant in water quantity. Kyushu Electric Power utilizes these abundant water resources for hydroelectric power generation. In almost the center of Kyushu, there is Mount Aso known for its caldera, and there are active volcanoes such as Unzen in the west and Kirishima and Sakurajima in the south, where abundant geothermal energy exists as energy. Kyushu Electric Power has installed geothermal power plants to utilize these energies (geothermal power generation in Kyushu accounts for about 40% of geothermal power generation in Japan).

Kyushu is a region rich in natural resources, but on the other hand, it is also a region where there is a certain degree of natural risk such as volcanoes, typhoons, and earthquakes. From the south, moist monsoons blow from the Pacific Ocean, causing heavy rainfall, particularly during the rainy season and typhoons, with heavy rainfall from early summer to autumn, and Kyushu is a pathway for typhoons.

Under the Kyuden Group Environmental Charter, which is a guideline for harmonizing business activities and the environment (environmental management), the Kyuden Group is working toward the realization of a sustainable society by implementing measures for global environmental conservation and coexistence with the local environment. Under the "Mid-term ESG Promotion Plan" formulated according to "Environmental Activity Plan", which are the medium- to long-term basic policies for steadily advancing environmental management that harmonizes business activities and the environment, we have been working on solving regional issues through co-creation with the regional community and conserving biodiversity and forest management. When forming facilities, we strive to harmonize with the surrounding environment by implementing appropriate environmental assessments according to the characteristics of the facilities and the region, and we also comply with laws and agreements with the region when operating facilities, and work on initiatives for global environmental conservation and coexistence with the local environment.

Globally, there is increasing attention to efforts toward natural capital, including the new global biodiversity targets, the "Kunming-Montreal Biodiversity Framework," adopted in Canada in December 2022. Therefore, we conduct a trial disclosure of information, referencing the TNFD Nature-related Risk and Opportunity Management and Disclosure Framework Final Draft Beta v0.4 and the guidance for electric utilities, and carried out an analysis on risks and opportunities related to natural capital in our business activities. Going forward, we will continue to assess the impact on and dependence on natural capital, as well as the risks, in our business activities. By doing so, we aim to contribute to the transition to a "Nature Positive Economy" and continuously work on improving the trust of our stakeholders.

The scope of the trial information disclosure conducted this time covers the "domestic electricity business" of the Kyuden Group, including "thermal power generation (coal & LNG)", "nuclear power generation", "hydroelectric power generation", "geothermal power generation" (Kyushu Electric Power Co., Ltd.), and "power transmission and distribution business" (Kyushu Electric Power Transmission and Distribution Co., Ltd.). In the future, we plan to revise the content based on the framework of TNFD Framework v1.0, among other things, and also assess areas that were excluded this time, such as overseas electricity businesses and non-electricity businesses such as urban development, with the aim of enhancing information disclosure in line with the TNFD framework.

Environmental action policies

Kyushu Electric Power Group Environmental Charter: Aiming for Environmentally Friendly Corporate Activities

The Kyushu Electric Power Group will strive for the realization of a sustainable society and the preservation of the global environment, as well as coexistence with the local environment from a global perspective.

1. Striving for appropriate responses to global environmental issues, we promote the effective use of resources, and carry out business activities that will contribute to the future.

2. In cooperation with society, we will engage in environmental activities aimed at realizing a rich local environment.

3. We aim to be a corporate group that is trusted by our customers by promoting environmental conservation awareness.

4. We will actively disclose environmental information and develop communication with society.

Revised in June 2018

1. Governance and Risk Management

1.1. The Governance Structure of Kyuden Group Regarding Natural Capital

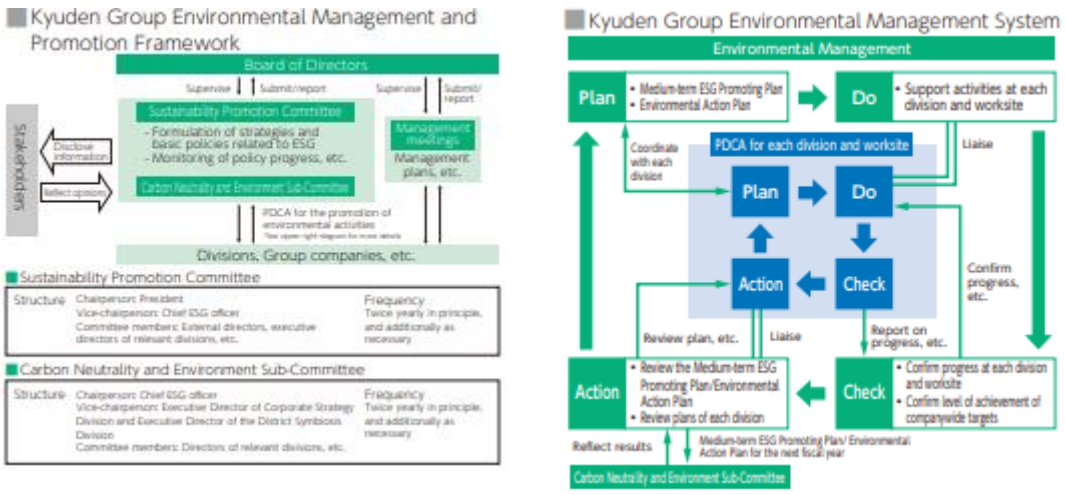
In order to promote initiatives of ESG, including natural capital, the Kyuden Group established the "Sustainability Promotion Committee" in July 2021 under the supervision of

the Board of Directors, with the president as the chairman. This committee formulates strategies and basic policies related to ESG in general (identifying materiality), deliberates on specific measures, manages the progress of measures implementation, and deliberates and supervises strategies and risks related to climate change. The results of the deliberations of the Sustainability Promotion Committee, which is held at least twice a year, are promptly reported to the Board of Directors, which supervises all activities related to ESG.

In addition, under this committee, a "Carbon Neutral and Environmental Subcommittee" has been established, chaired by the ESG officer, to discuss environmental issues in general, including natural capital, from a more specialized perspective. This "Carbon Neutral and Environmental Subcommittee" conducts management reviews on environmental management, and reflects the results of the deliberations in the overall environmental management system of the Kyuden Group. The "Action Plan for Achieving Carbon Neutrality", which includes upward revisions of the 2050 goals and 2030 management targets (environmental targets) that the Kyuden Group aims for and was announced in November 2021, was decided by the Board of Directors after discussions in the Carbon Neutral and Environmental Subcommittee, and the Sustainability Promotion Committee.

In the Kyuden Group, we have established an environmental management system incorporating the concept of ISO14001, which we previously obtained certification for in five model offices, and are promoting environmental activities efficiently and effectively. The environmental management system, under top management, formulates and implements and checks and reviews concrete action plans for environmental management, such as the "Mid-term ESG Promotion Plan" and the "Environmental Activity Plan". We are striving for continuous improvement by steadily turning the PDCA cycle through continuous management reviews in the Carbon Neutral and Environmental Subcommittee.

Figure: Governance Structure Diagram for Natural Capital of the Kyuden Group



In regard to "Integration with other sustainability challenges," one of the six general requirements mentioned in TNFD Nature-related Risk and Opportunity Management and Disclosure Framework Final Draft Beta v0.4, the Kyuden Group is committed to preventing and mitigating potential negative impacts on human rights related to our business activities, as well as promoting business activities that respect human rights, with the aim of contributing to a sustainable society and improving the corporate value of the Kyuden Group. Specifically, we implement human rights due diligence under the "Kyuden Group Human Rights Policy" and have identified five items to be prioritized as "significant human rights risks," including "discrimination (including gender gap)," "environmental pollution, destruction," and "inappropriate restrictions on the rights of local residents," and we are considering and implementing measures such as education and training and supplier surveys. We are also promoting initiatives in natural capital conservation while considering human rights risks. Additionally, we ask our business partners to comply with the "Sustainable Procurement Guidelines," which include items related to environmental and biodiversity conservation, such as reducing greenhouse gas emissions, reducing harmful emissions into the atmosphere, and water management, as well as items related to human rights and labor, such as the prohibition of forced labor and child labor.

1.2. Integration of Management Processes for Nature-related Risks to Total Organizational Risk Management

We believe that nature-related risks in the Kyuden Group are managed by compliance with laws, regional agreements, and our own standards. In power plant operations, high-quality management is achieved at each power plant, and regulatory values defined by laws, regional agreements, etc. are complied with through environmental assessments at the time of site selection, and monitoring during operations.

In thermal power plants, each plant has an agreement with the local government and operates in compliance with the standard values stipulated in the agreement for air pollution (SOx, NOx, soot, dust), water pollution (cooling water, residual chlorine, wastewater treatment wastewater (pH, COD, SS, normal hexane extract substance content, nitrogen content, phosphorus content), ash treatment wastewater (pH, SS, transparency)), noise and vibration, and odor.

In nuclear power plants, each plant has a safety agreement with the local government and thoroughly manages air pollution (emission concentration of nitrogen oxides) and water pollution, and radioactive substances. The radiation dose in the vicinity of the nuclear power plant is continuously monitored and measured, and the data is published in real time on the

website. In addition, the radioactivity contained in environmental samples such as soil, seawater, agricultural products, and marine products is measured regularly, and no effects due to the operation of the nuclear power plant have been observed to date. The radiation dose received by people in the vicinity of the nuclear power plant is less than 0.001 millisievert per year, significantly less than the legal dose limit of 1 millisievert per year and the target value of 0.05 millisievert per year set by the former Nuclear Safety Commission.

In hydroelectric power plants, in addition to operating appropriately in compliance with various related laws such as the River Act, we are implementing various measures against potential impacts on ecosystems such as sediment deposition and water quality changes while striving for coexistence with the local community.
In geothermal power plants, each plant has a regional agreement with the local government, and has memorandums regarding water quality (pH, arsenic, chloride ions) of river water, arsenic in river soil, hourly injection volume of reduction wells, changes in groundwater level, surface hydrogen sulfide concentration, surface soil hydrogen ion concentration, and noise control measures, operating to minimize the impact on natural capital due to pollution.

2. Impact and dependence related to natural capital

2.1. Approach

We implemented an assessment of the impact on natural capital and dependence on ecosystem services, as well as the evaluation of risks related to natural capital, using the LEAP approach of TNFD Nature-related Risk and Opportunity Management and Disclosure Framework Final Draft Beta v 0.4, referring to already published guidelines and tools.
Firstly, using ENCORE, a global data-based evaluation tool, we analyzed the impact on natural capital and dependence on ecosystem services of our direct operations and fuel procurement.

Figure: Heatmap on 'Impacts' (ENCORE version)

		Natural capital-related										
		Impact										
Power generation types	Process	Land modification			Direct collection		Climate change	Pollution				Other
		Land areas	Fresh water areas	Marine areas	Water	Other than water	Greenhouse gas	Air	Water areas	Waste	Waste	Noise/Light
Thermal Power (coal)	Fuel procurement	Very High	High	-	Very High	-	High	High	High	High	High	High
	Power generation	-	High	-	Very High	-	High	High	Middle	Middle	High	High
Thermal Power (LNG)	Fuel procurement	High	High	Very High	Very High	-	High	High	High	High	High	High
	Power generation	-	High	-	Very High	-	High	High	Middle	Middle	High	High
Nuclear Power	Fuel procurement	Very High	High	-	Very High	-	High	High	High	High	High	High
	Power generation	-	High	-	Very High	-	High	High	Middle	Middle	High	High
Hydropower	Power generation	Very High	Very High	-	Very High	-	High	-	High	High	-	-
Geothermal Power	Power generation	-	-	-	Very High	-	High	-	High	High	-	High
Transmission & Distribution		Middle	-	-	-	-	High	-	Middle	-	-	-

Figure: Heatmap on 'Dependencies' (ENCORE version)

		Natural capital-related								
		Dependence								
Power generation types	Process	Supply service		Adjustment service					Foundation service	
		Surface water supply	Ground water supply	Making contaminants less harmful	Climate adjustment	Filtering contaminants	Flood prevention	Corrosion prevention	Maintaining water flow	Maintaining water quality
Thermal Power (coal)	Fuel procurement	High	High	-	High	-	-	Middle	High	-
	Power generation	Very High	Middle	Very Low	Very Low	Low	Middle	Low	Middle	Low
Thermal Power (LNG)	Fuel procurement	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Low	-	-
	Power generation	Very High	Middle	Very Low	Very Low	Low	Middle	Low	Middle	Low
Nuclear Power	Fuel procurement	High	High	-	High	-	-	Middle	High	-
	Power generation	Very High	Middle	Very Low	Very Low	Low	Middle	Low	Middle	Low
Hydropower	Power generation	Very High	Middle	Very Low	Very High	Very Low	High	High	Very High	Low
Geothermal Power	Power generation	Middle	Very High	Very Low	Very Low	Very Low	Middle	Low	Middle	Low
Transmission & Distribution		-	-	-	High	-	Very High	High	-	-

We conducted an assessment of the impact on natural capital and dependence on ecosystem services by analyzing the state of nature in the areas where our facilities are located using the KBA database, which maps important areas for biodiversity conservation, and comparing the evaluation results of environmental-related data and ENCORE with the data we own. The evaluation was conducted in five stages (Very High, High, Middle, Low, Very Low) following ENCORE, taking into account differences in location and business characteristics, compliance with laws and agreements with the region, and operations based on our own standards.

In Kyushu, earthquakes and tsunamis caused by earthquakes are considered to be geological

events that have a significant impact on natural capital and business. There are areas with a predicted earthquake occurrence rate of over 3% within 30 years, such as the "Fukuchiyama Fault Zone", "Kego Fault Zone", "Hinagu Fault Zone", and "Unzen Fault Group", and areas with a risk of a major earthquake occurring on the coast, such as the Hyuga-nada Sea (about 80% for M7.0-7.5), the Nankai Trough (70-80% for M8-9 class), and the Akinada-Iyonada-Bungo Strait (about 40% for M6.7-7.4). Considering these risks, we have set up a section on earthquakes and tsunamis to evaluate their impact on our finances.

2.2 Evaluation Results of the Impacts and Dependencies Related to Natural Capital

Based on the above evaluation criteria, Kyushu Electric Power and Kyushu Electric Power Transmission and Distribution have created a heatmap of the impact on natural capital and dependence on ecosystem services as follows. Overviewing the entire supply chain of Kyushu Electric Power and Kyushu Electric Power Transmission and Distribution, this heatmap indicates the hotspots of the impact on natural capital and the dependence on ecosystem services in their businesses. For natural disasters, we assumed events that have occurred in the past approximately 30 years or events that are likely to occur in the next 30 years.

Figure: Heatmap on 'Impacts' (Kyushu Electric Power Co and Kyushu Electric Power Transmission and Distribution version)

		Natural capital-related										
		Impact										
Power generation types	Process	Land modification			Direct collection		Climate change	Pollution				Other
		Land areas	Fresh water areas	Marine areas	Water	Other than water	Greenhouse gas	Air	Water areas	Waste	Waste	Noise/Light
Thermal Power (coal)	Fuel procurement	Very High	High	-	Very High	-	High	High	High	High	High	High
	Power generation	-	Low	Low	Low	-	Very High	Low	Low	Low	Low	Low
Thermal Power (LNG)	Fuel procurement	High	High	Very High	Very High	-	High	High	High	High	High	High
	Power generation	-	Low	Low	Low	-	Middle	Low	Low	Low	Low	Low
Nuclear Power	Fuel procurement	Very High	High	-	Very High	-	High	High	High	High	High	High
	Power generation	-	Low	Low	Low	-	Very Low	Low	Low	Low	Low	Low
Conventional Hydropower	Power generation	Middle	Low	-	Low	-	Very Low	-	Low	Low	-	-
Pumped Storage	Power generation	Low	Low	-	Low	-	Very Low	-	Low	Low	-	-
Geothermal Power	Power generation	-	-	-	Low	-	Very Low	-	Low	Low	-	Low
Transmission & Distribution		Low	-	-	-	-	Very Low	-	Low	-	-	-

Figure: Heatmap on 'Dependencies' (Kyushu Electric Power Co and Kyushu Electric Power Transmission and Distribution version)

		Natural capital-related								
		Dependence								
Power generation types	Process	Supply service		Adjustment service					Foundation service	
		Surface water supply	Ground water supply	Making contaminants less harmful	Climate adjustment	Filtering contaminants	Flood prevention	Corrosion prevention	Maintaining water flow	Maintaining water quality
Thermal Power (coal)	Fuel procurement	High	High	-	Very Low	-	-	Middle	High	-
	Power generation	Low	-	Very Low	Very Low	Low	Low	Low	Low	Low
Thermal Power (LNG)	Fuel procurement	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Low	Very Low	-
	Power generation	Low	-	Very Low	Very Low	Low	Low	Low	Low	Low
Nuclear Power	Fuel procurement	High	High	-	Very Low	-	-	Middle	High	-
	Power generation	Low	-	Very Low	Very Low	Low	Very Low	Low	Low	Low
Conventional Hydropower	Power generation	High	-	Very Low	Very Low	Very Low	High	High	High	Low
Pumped Storage	Power generation	Low	-	Very Low	Very Low	Very Low	High	High	Low	Low
Geothermal Power	Power generation	Low	-	Very Low	Very Low	Very Low	Low	Low	Low	Low
Transmission & Distribution		-	-	-	High	-	Low	Low	-	-

Figure: Heatmap related to earthquakes and tsunamis (Kyushu Electric Power and Kyushu Electric Power Transmission and Distribution version)

		Other factors
Power generation types	Process	Earthquakes / Tsunamis
Thermal Power (coal)	Fuel procurement	Very Low
	Power generation	High
Thermal Power (LNG)	Fuel procurement	High
	Power generation	High
Nuclear Power	Fuel procurement	Very Low
	Power generation	Very Low
Conventional Hydropower	Power generation	High
Pumped Storage	Power generation	High
Geothermal Power	Power generation	Low
Transmission & Distribution		High

2.2.1. Evaluation Results of the Impact on and Dependence on Natural Capital in the Thermal Power Generation Business

■ Fuel procurement (coal, LNG) in the thermal power generation business

For the impact on natural capital due to coal procurement, we rated land modification - terrestrial and direct collection - water as "very high (Very High)", land modification - freshwater, climate change - greenhouse gases (GHG), pollution - atmosphere, pollution - water, pollution - soil, pollution - waste, invasive species - noise/light pollution as "high (High)". For dependence on ecosystem services, we rated supply services - surface water provision, supply services - groundwater provision, and foundational services - maintenance of water flow as "high (High)". On the other hand, for the regulation service - climate regulation, ENCORE based on global data rated it as "high (High)", but after carefully examining the literature cited in ENCORE, we did not find a dependence on local climate (temperature, humidity, wind speed) adjustment services, so we rated it as "very low (Very Low)". For coal in fiscal 2022, we import 81% from Australia, 11% from Canada, 6% from the United States, and 2% from other countries.

For the impact on natural capital due to LNG procurement, we rated land modification - marine and direct collection - water as "very high (Very High)", land modification - terrestrial, land modification - freshwater, climate change - greenhouse gases (GHG), pollution - atmosphere, pollution - water, pollution - soil, pollution - waste, other - noise/light pollution, earthquakes/tsunamis as "high (High)". For LNG in fiscal 2022, we import 68% from Australia, 16% from Russia, 13% from Indonesia, and 3% from other countries.

■ Thermal power generation business (coal, LNG)

For the impact on natural capital due to the power generation business (coal, LNG) of the thermal power generation business, ENCORE based on global data rated direct collection - water as "very high (Very High)", land modification - freshwater, climate change - greenhouse gases (GHG), pollution - atmosphere, pollution - waste, other - noise/light pollution as "high (High)". Also, for the dependence on ecosystem services, supply service - surface water provision was rated as "very high (Very High)".

On the other hand, we use seawater as cooling water in the thermal power generation business, and limit the temperature difference between the discharged cooling water and the intake water to within 7° C, which is set in agreement with the local area. We also carry out deep water intake and underwater discharge to quickly match the temperature of the discharged cooling water to the same as the surrounding seawater. We have assessed that the impact on natural capital from direct water intake and land modification in fresh and marine water regions is 'low'. This is due to our efforts to reduce consumption by adhering to permitted water intake for power generation use according to laws and regulations, and by recycling

during the operation of power plants. Additionally, the water risk in the Kyushu region, as evaluated by WRI Aqueduct (3.0), is at most “Low-Medium”.

The emission of greenhouse gases (GHG) differs between coal-fired and LNG-fired power generation. According to the Central Research Institute of Electric Power Industry's report "Lifecycle CO2 Emissions of Various Power Sources in Japan", the direct carbon dioxide emissions from burning fuel to generate electricity per kilowatt-hour (kWh) are as follows: coal-fired power: 864g-CO2/kWh, LNG-fired power: 476g-CO2/kWh. Therefore, Kyushu Electric Power has rated the impact of GHG emissions from coal-fired power generation on natural capital as "Very High". The impact on natural capital from LNG-fired power, compared to coal-fired power, was rated as "Middle".

Regarding air pollution, waste, noise/light pollution, Kyushu Electric Power has generally rated the impact on natural capital and local residents from their thermal power generation business as "Low". Kyushu Electric has agreements with municipalities for each of its thermal power plants. These agreements stipulate measures against air pollution (SOx and NOx emissions, emission concentration, etc.), water pollution (treatment of wastewater and ash), noise pollution, etc., to minimize the impact on natural capital. Industrial waste, such as coal ash generated by thermal power generation, is properly treated and recycled in accordance with disposal plans. In cases where the emission of pollutants exceeding the standard values or a large amount of industrial waste could potentially have a significant impact on natural capital beyond regulatory and agreement limits, the power plant operation is halted or output is reduced in advance.

In Kyushu, there is a risk of earthquakes and tsunamis, and the possibility of damage or shutdown of thermal power plant facilities due to earthquakes or tsunamis is taken into account. The impact of earthquakes and accompanying tsunamis has been rated as "High".

2.2.2 Evaluation Results of the Impact and Dependence on Natural Capital in Nuclear Power Generation Business

■ Fuel Procurement (Uranium) in Nuclear Power Generation Business

Regarding the impact on natural capital due to uranium fuel procurement, "Land alteration - terrestrial" and "Direct extraction - water" were rated as "Very High", while "Land alteration - freshwater", "Climate change - GHG", "Pollution - air", "Pollution - water", "Pollution - soil", "Pollution - waste", "Other - noise/light pollution" were rated as "High". The dependence on ecosystem services was rated as "High" for "Provisioning services - surface water supply" and "Provisioning services - groundwater supply". On the other hand, regarding "Regulating services - climate regulation", it is rated as "High" based on global data in ENCORE, but after scrutinizing the literature cited in ENCORE, no dependence on local climate (temperature,

humidity, wind speed) regulation services was confirmed, so it was rated as "Very Low". As for uranium in fiscal 2022, it is being imported from Namibia (85%) and Australia (15%).

■ Nuclear Power Generation Business

In terms of the impact on natural capital due to nuclear power generation, the global data-based ENCORE evaluates the direct extraction - water as "very high", land alteration - freshwater, climate change - greenhouse gases (GHG), pollution - air, pollution - waste, and others - noise/light pollution as "high".

On the other hand, similar to thermal power generation, nuclear power generation mainly uses seawater for cooling, and the use of freshwater is extremely limited. Also, for nuclear power plants that use freshwater, efforts are made to reduce consumption by adhering to the permitted water usage based on laws and regulations and by recycling during plant operation. As the water risk in the Kyushu region is rated as "Low-Medium" at most according to the evaluation by WRI Aqueduct (3.0), we assessed that the impact on natural capital due to direct water extraction and land alteration in freshwater and marine areas is "low".

Regarding the emission of greenhouse gases (GHGs), according to the report by the Central Research Institute of Electric Power Industry "Lifecycle CO2 Emissions of Various Power Generation Technologies in Japan", nuclear power generation has no CO2 emissions from the combustion of power generation fuel (direct) per kWh, so Kyushu Electric Power evaluated the impact of GHG emissions from nuclear power generation on natural capital as "very low".

In terms of air pollution, waste, and noise/light pollution, the nuclear power business operated by Kyushu Electric Power has a safety agreement (including a memorandum) with local governments for each nuclear power plant, thoroughly managing air pollution, radioactive substances, and noise. Radioactive substances have a significant impact on natural capital and local residents, so measures are taken to reduce the impact on surrounding residents in accordance with the Nuclear Reactor Regulation Law. The radiation level in the vicinity of nuclear power plants is continuously monitored and measured, and the data is published in real time on the Kyushu Electric Power's website. In addition, we regularly measure the radioactivity contained in environmental samples such as soil, seawater, agricultural products, and marine products, and so far, no environmental impact has been observed from the operation of nuclear power plants. The radiation dose received by people in the vicinity of nuclear power plants is less than 0.001 millisieverts per year, which is significantly below the legal dose limit of 1 millisievert per year and the target value of 0.05 millisieverts per year set by the former Nuclear Safety Commission. In addition, the radioactive waste generated from nuclear power plants is low-level radioactive waste with low radiation levels, such as water and replaced parts, which is generated from operation and work. These low-level radioactive

wastes are in gaseous, liquid, and solid forms. Gases and liquids are processed in the waste treatment equipment within the power plant, and are released into the atmosphere and the sea after confirming that the concentration of radioactive substances is sufficiently lower than the national standards set for safety. Low-level radioactive waste in liquid or solid form that is not released due to its concentration of radioactive substances is processed into a solid form, packed into drums, and stored securely in a storage facility within the power plant premises. After that, those that can be buried are transported to and disposed of at the Low-Level Radioactive Waste Disposal Center in Rokkasho Village, Aomori Prefecture. As for high-level radioactive waste, it is a glass-solidified high-radiation liquid that is generated when spent fuel generated at nuclear power plants is reprocessed at a reprocessing plant. This waste has a high level of radioactivity for a very long period of time, and after being cooled for 30 to 50 years at places like the High-Level Radioactive Waste Storage Management Center of Japan Nuclear Fuel Ltd. (in Rokkasho Village, Aomori Prefecture), it will eventually be safely disposed of in a stable geological formation deeper than 300 meters underground. Taking all of these into account, the impact of the nuclear power business operated by Kyushu Electric Power on natural capital in terms of air pollution, waste, and noise/light pollution was evaluated as "low".

In Kyushu, there is a risk of earthquakes and tsunamis, but the new regulatory standards have strengthened the design standards for earthquake and tsunami resistance, reliability of power sources, cooling equipment, etc. in order to prevent the simultaneous loss of safety functions of nuclear power plants due to common factors such as earthquakes and tsunamis. In addition, measures were required to respond to situations beyond the assumptions of the design, such as measures against serious accidents. Taking these into consideration, the impact of earthquakes and accompanying tsunamis was evaluated as "very low".

2.2.3. Evaluation Results of the Impacts and Dependence on Natural Capital in Hydropower Business (General Hydropower, Pumped Storage)

Regarding the impact on natural capital by the hydropower business, ENCORE, based on global data, rates land alteration - terrestrial & freshwater and direct extraction - water as "Very High", climate change - greenhouse gases (GHG), pollution - water, and pollution - soil as "High". For the degree of dependence on ecosystem services, dependence on water-related services such as provisioning services - surface water provision, regulating services - climate regulation, and supporting services - water flow maintenance is rated as "Very High", while regulating services - flood prevention & erosion prevention is rated "High" by ENCORE.

At Kyushu Electric Power, we have not built any new power plants or dams that would have a major impact on terrestrial and freshwater ecosystems in the past 15 years. When developing

hydropower, we carry out appropriate measures such as environmental assessments and strive to minimize the impact on ecosystems. Therefore, for general hydropower, we evaluated land alteration - terrestrial as "Middle" because some are built in KBA(Key Biodiversity Areas), but we evaluated land alteration - freshwater in general hydropower and land alteration - terrestrial & freshwater in pumped storage as "Low".
For direct extraction - water, the WRI Aqueduct (3.0) evaluation shows that the water risk in the Kyushu region is at most "Low-Medium", and since we operate in compliance with various laws and regulations such as the River Law, we evaluated it as "Low".
Regarding the emission of greenhouse gases (GHG), according to the Central Research Institute of Electric Power Industry report "Lifecycle CO2 Emissions of Various Power Sources in Japan", hydropower does not emit any carbon dioxide from the combustion of power generation fuel (direct) per 1 kWh, so we at Kyushu Electric Power evaluated the impact of greenhouse gases (GHG) from hydropower (general hydropower, pumped storage) on natural capital as "Very Low".
For pollution - water and pollution - soil, we evaluated it as "Low" since we are making various efforts to deal with potential impacts on ecosystems such as sediment deposition and water quality changes while coexisting with the local community.
In the case of hydropower (general hydropower), a certain amount of water is necessary, so regarding the dependence on ecosystem services, we rated provisioning services - surface water provision and supporting services - water flow maintenance as "High". In the case of hydropower (pumped storage), where water is circulated and used between the upper and lower ponds by repeating pumping and power generation, we rated provisioning services - surface water provision and supporting services - water flow maintenance as "Low".
In addition, hydropower (general hydropower & pumped storage) facilities are located in mountainous areas and within rivers, making them susceptible to the effects of floods and earthquakes. Therefore, we evaluated the dependence on regulating services - flood prevention function & erosion prevention function as well as the impacts of earthquakes and tsunamis as "High". Regarding the regulating services - climate regulation, while ENCORE based on global data rates it as "Very High", we judged the dependence on local climate (temperature, humidity, wind speed) regulation services to be minor compared to the above-mentioned provisioning services - surface water provision, etc., and therefore rated it as "Very Low" for both general hydropower and pumped storage.

2.2.4 Evaluation Results of the Impacts and Dependence on Natural Capital in Geothermal Power Business

Regarding the impact on natural capital by the geothermal power business, ENCORE, based

on global data, rates direct extraction - water as "Very High", the emissions of climate change - greenhouse gases (GHG), pollution - water & soil, and others - noise/light pollution as "High". Also, due to the method of power generation, the dependence on groundwater provision is rated as "Very High" by ENCORE.
Geothermal power primarily uses condensate water extracted from the ground for cooling, and the use of river water is extremely minimal. For freshwater extraction, the WRI Aqueduct (3.0) evaluation also rates the water risk in the Kyushu region as at most "Low-Medium". Moreover, river water used for cooling is discharged back into the river after considering the impact on water temperature and ecosystems, and groundwater extraction is carried out within a range that does not deplete the groundwater. Hence, we evaluated the impact of direct water extraction on natural capital as "Low".
Regarding the emission of greenhouse gases (GHG), according to the Central Research Institute of Electric Power Industry report "Lifecycle CO2 Emissions of Various Power Sources in Japan", geothermal power does not emit any carbon dioxide from the combustion of power generation fuel (direct) per 1 kWh, so we at Kyushu Electric Power evaluated the impact of greenhouse gases (GHG) from geothermal power on natural capital as "Very Low".
We also operate in a way that minimizes the impact on natural capital from water & soil pollution, noise/light pollution. Each geothermal power plant has agreements with local governments and regions, and we operate in a way that minimizes the impact on natural capital from water quality (ph, arsenic, chloride ion), arsenic in river soil, reduction well (injection volume per hour, change in groundwater level), surface hydrogen sulfide concentration, surface soil hydrogen ion concentration, and noise. If pollutants exceeding the standard values are discharged, the operation of the power plant itself is stopped, minimizing the impact on natural capital and local residents. Therefore, we evaluated the impact of water & soil pollution and noise/light pollution caused by geothermal power business as "Low".
In addition, we judged the impact of earthquakes and tsunamis on geothermal power plants to be small and rated it as "Low".

2.2.5. Evaluation Results of the Impacts and Dependence on Natural Capital in Transmission and Distribution Business

Regarding the impact on natural capital by the transmission and distribution business, ENCORE, based on global data, rates the emissions of greenhouse gases as "High". Also, for the degree of dependence on ecosystem services, regulating services - flood prevention is rated as "Very High", and the dependence on regulating services - erosion prevention & climate regulation is rated as "High" by ENCORE.
In terms of greenhouse gas emissions, the Kyuden Group recovers 99.5% of the sulfur

hexafluoride emitted from substations, etc., and we evaluated the impact on natural capital as "Very Low". Also, for water pollution, which ENCORE based on global data rates as "Middle", since the transmission and distribution lines of Kyushu Electric Power Transmission and Distribution are basically installed on land, the impact of waste heat on water areas was evaluated as "Low". There are some submarine cables, such as a 60,000-volt transmission line extending 53 km, which connects the Goto Islands in Nagasaki Prefecture and the Kyushu mainland (Goto Interconnection Facilities). For the Goto Interconnection Facilities, we conduct environmental monitoring such as water quality surveys and biological surveys to evaluate the impact of submarine drilling and cable laying (installation of artificial objects), and we have confirmed that there is no impact on the marine environment during and after construction. Regarding the dependence on ecosystem services, we evaluated regulating services - flood prevention & erosion prevention as "Low" because we do not select unstable locations where landslides or flooding are expected when selecting tower installation sites. For regulating services - climate regulation, we evaluated it as "High", as per the evaluation by ENCORE based on global data, because there may be power outages due to broken or fallen power poles or broken power lines caused by fallen trees due to strong winds from typhoons on the distribution facilities.
In addition, for earthquakes and tsunamis, we assumed the Nankai Trough Earthquake (70% to 80% probability of an earthquake of magnitude 8 to 9) and evaluated it as "High".

2.3. Evaluation Results of Natural Capital Related Risks

Based on the evaluation results of the impacts on natural capital and the dependence on ecosystem services, we conducted a classification of risk categories for items that were evaluated as having a large degree of impact or dependence ("High" or "Very High"), and evaluated the financial impacts. Specifically, we organized the evaluation target items into physical risks (acute risks, chronic risks) and transition risks (reputation risks, regulatory risks, market risks, technology risks) as defined by TNFD, and evaluated the financial impacts for each. The financial impact was evaluated in three levels: Level I: less than 1 billion yen, Level II: 1 billion to 10 billion yen, Level III: more than 10 billion yen.

Risks based on categories indicated in TNFD Beta v.0.4

			Risk Category	Risk Type	Risk Overview	Impacts on Finances	Financial Impact
Thermal Power	Coal	Fuel procurement	Physical risk	Acute risk	Landfalls, land subsidence, and fires occur due to the modification of land areas caused by mining operations.	Worsening finances due to rising global costs of coal.	Level II
				Chronic risk	Degradation and division of terrestrial ecosystems, invasions by non-native species, and adverse effects on local plant life and plant environments due to the modification of land areas caused by mining operations. Exhaustion of aquifers due to excessive water use during mining. Hindering mining operations due to increased severity and frequency of droughts. Greenhouse gas emissions due to mining operations, toxic emissions in the atmosphere, adverse impacts on plant life and soil, and changing ecosystems due to species migration.		
			Transition risk	Legal and regulatory risk	Burden arising from countermeasure costs for each chronic risk associated with mining.		
					Burden arising from carbon costs with respect to indirect greenhouse gas emissions, including the process of coal mining.		

			Risk Category	Risk Type	Risk Overview	Impacts on Finances	Financial Impact
Thermal Power	Coal	Power generation	Physical risk	Acute risk	Damage to thermal power plant facilities and shutting down of power plants due to an earthquake or tsunami.	Restoration costs and costs related to securing alternative power sources.	Level II
				Chronic risk	Greenhouse gas emissions due to operation.	Rising unit costs for coal-fired thermal power generation in the case that surcharges and taxes are introduced, and increased fuel costs due to switching using LNG thermal power.	Level III
			Transition risk	Legal and regulatory risk	Cost burden in respect of greenhouse gases emitted during operation in the case that surcharges and taxes are introduced in order to regulate the operation of coal-fired thermal power plants. The operation of coal-fired thermal power plants is regulated.		
	LNG	Fuel procurement	Physical risk	Acute risk	Operation of gas fields is stopped due to exhausting water. Negative environmental impact due to accidental spillage of toxic substances. Negative impact on rare organisms in surrounding areas due to accidental contamination. Earthquake or tsunami damage to LNG shipping facilities, thereby making shipping not possible.	Worsening finances due to rising global costs of LNG. Note that we have been procuring LNG through long-term contracts from multiple projects to suppress any impact to a certain degree.	Level II
				Chronic risk	Adverse impacts on land, fresh water, and marine ecosystems. Plant life living at the bottom of bodies of water and fresh water plants die due to contamination. Negative impact on rare Level II organisms in surrounding areas due to accidental contamination. Polluting the surrounding environment without appropriately disposing of waste.		
			Transition risk	Legal and regulatory risk	Local government order to shut down operations to procurement sources of the Company due to toxic emissions.		

			Risk Category	Risk Type	Risk Overview	Impacts on Finances	Financial Impact
Power Generation	LNG	Thermal Power	Physical risk	Acute risk	Damage to thermal power plant facilities and shutting down of power plants due to an earthquake or tsunami.	Restoration costs.	Level II
Nuclear Power	Fuel procurement		Physical risk	Acute risk	Landfalls, land subsidence, and fires occur due to the modification of land areas caused by uranium mining.	Worsening finances due to rising global costs of uranium. Since the price of uranium in proportion to the cost of nuclear power generation is low, and the likelihood of there being an impact large enough to have a financial impact is also low, the financial risk of uranium was judged to be a legal and regulatory risk.	Level II
				Chronic risk	Degradation and division of terrestrial ecosystems, invasions by non-native species, and adverse effects on local plant life and plant environments due to the modification of land areas caused by mining operations. Exhaustion of aquifers due to excessive water use during mining. Hindering mining operations due to increased severity and frequency of droughts. Greenhouse gas emissions due to mining operations, toxic emissions in the atmosphere, adverse impacts on plant life and soil, and changing ecosystems due to species migration.		
			Transition risk	Legal and regulatory risk	Burden arising from carbon costs with respect to indirect greenhouse gas emissions, including the process of uranium mining.		
Hydroelectric Power			Physical risk	Acute risk	Damage to hydroelectric power plant facilities and shutting down of power plants due to flooding or earthquakes.	Restoration costs and costs related to securing alternative power sources.	Level II
Transmission & Distribution			Physical risk	Acute risk	Falling trees and similar caused by strong winds during a typhoon damaging or bringing down utility poles and snapping power lines, leading to power outages.	Restoration costs.	Level II
					Damage to facilities, particularly in the Oita and Miyazaki areas, due to a Nankai megathrust earthquake, causing wide-scale power outages.	Restoration costs.	Level III

[Financial impact evaluation criteria]

Level I: Less than ¥1 billion; Level II: ¥1 billion to ¥10 billion; Level III: ¥10 billion or more

2.3.1 Evaluation Results of the Risks of Thermal Power Generation

■ Fuel procurement (coal) in thermal power generation

Among the physical risks, acute risks include landslides and subsidence of land due to land modification accompanying mining operations, and the occurrence of fires. Chronic risks include deterioration and fragmentation of terrestrial ecosystems due to land modification accompanying mining operations, invasion of alien species, negative effects on regional vegetation and vegetation environment, depletion of aquifers due to excessive water use in mining, increased severity and frequency of drought affecting mining operations, greenhouse gas emissions due to mining operations, release of toxic substances into the atmosphere, negative effects on vegetation and soil, and changes in ecosystems due to species movement. Among the transition risks, regulatory risks include the cost of measures against each item of chronic risk in mining and the burden of carbon costs for greenhouse gas emissions including the coal mining process.

These risks may negatively affect finances due to a potential global rise in coal prices. In this case, although a change in the coal price would automatically change the selling price through the fuel cost adjustment system, there is a cap on the adjustment amount for regulatory fees, which could lead to a deterioration in profits, thus the impact on finances is evaluated as Level II.

■ Power generation (coal) in thermal power generation business

Among the physical risks, acute risks include the destruction and shutdown of thermal power plant facilities due to earthquakes and tsunamis (however, public disasters do not occur). Chronic risks include the emission of greenhouse gases due to the operation of thermal power generation. Among the transition risks, regulatory risks include the introduction of levies or taxes to regulate the operation of coal-fired power plants, and the cost burden for greenhouse gases emitted during operation.

In the event of facility damage due to an earthquake or tsunami, it is believed that restoration costs and the cost of securing alternative power sources would occur, so the impact on finances is evaluated as Level II.

Other risks that may impact finances include the increase in coal-fired power generation costs if levies or taxes are introduced, and the increase in fuel costs due to substitution with LNG power generation, so the impact on finances is evaluated as Level III.

■ Fuel Procurement (LNG) in Thermal Power Generation

Among the physical risks, acute risks include the stoppage of gas field operations due to water depletion caused by LNG mining, negative environmental effects due to accidental leakage of toxic substances, negative impact on scarce creatures around due to accidental leakage of

pollutants, and destruction of LNG shipping facilities or inability to ship due to earthquakes and tsunamis. Chronic risks include negative effects on terrestrial, freshwater, and marine ecosystems, death of benthic plants and freshwater plants due to pollutant emissions, negative impact on scarce creatures around due to accidental leakage of pollutants, and pollution of the surrounding environment due to improper waste disposal. Among the transition risks, regulatory risks include the possibility that local governments may issue stop-work orders to our suppliers because they have emitted harmful substances.
These risks may deteriorate the balance of payments due to a global rise in LNG prices. However, since our company procures LNG from multiple projects under long-term contracts, the impact on finances is considered to be mitigated to a certain extent, and the impact on finances is evaluated as Level II.

■ Power Generation (LNG) in Thermal Power Generation

Among the physical risks, acute risks include the destruction and shutdown of thermal power plant facilities due to earthquakes and tsunamis. (However, public disasters do not occur. In the case of the new Oita power plant and Oita LNG terminal, countermeasures have been implemented because there was a risk of LNG leakage due to earthquakes and tsunamis.)
In the event of this risk, the cost of restoring damaged facilities may be incurred, so the impact on finances is evaluated as Level II.

2.3.2 Evaluation Results of the Risks of Nuclear Power Generation

■ Fuel procurement in nuclear power generation

Among the physical risks, acute risks include landslides and subsidence of land due to land modification accompanying uranium mining, and the occurrence of fires. Chronic risks include deterioration and fragmentation of terrestrial ecosystems due to land modification accompanying mining operations, invasion of alien species, negative effects on regional vegetation, depletion of aquifers due to excessive water use in mining, increased severity and frequency of drought affecting mining operations, greenhouse gas emissions due to operations, release of toxic substances into the atmosphere, negative effects on vegetation and soil, and changes in ecosystems due to species movement. Among the transition risks, regulatory risks include the burden of carbon costs for greenhouse gas emissions including the uranium mining process. These risks may affect finances due to a potential global rise in uranium prices, but since the proportion of uranium prices in nuclear power generation costs is small, the possibility of having a significant impact on financial effects is low. Therefore, the financial impact is evaluated with regulatory risks, and the impact on finances is evaluated as Level II.

2.3.3. Evaluation Results of the Risk of Hydropower Generation

Among the physical risks, the acute risks include damage or stoppage of hydropower plant facilities caused by floods or earthquakes. If this risk materializes, it is assumed that the cost of restoration and the cost of securing alternative power sources will be incurred, hence the impact on finance is evaluated as Level II.

2.3.4. Evaluation Results of the Risk or Transmission and Distribution Business

Among the physical risks, the acute risks include power outages due to broken and fallen power poles or severed power lines caused by falling trees from strong typhoon winds, and large-scale power outages due to damage to facilities in the Oita and Miyazaki areas caused by the Nankai Trough earthquake.

If damage to power poles and lines occurs due to falling trees from strong typhoon winds, it is assumed that restoration costs will be incurred, hence the impact on finance is evaluated as Level II. If facility damage occurs due to the Nankai Trough earthquake, it is assumed that restoration costs will be incurred, hence the impact on finance is evaluated as Level III.

3. Opportunities Related to Natural Capital

We believe that it is important to promote regional coexistence, decarbonization, and a circular economy in order to protect natural capital, including biodiversity. On the other hand, as mentioned above, we believe that the rich natural capital of Kyushu is a crucial pillar supporting the business activities of the Kyuden Group. Therefore, in order for the Kyuden Group to continue to develop sustainably, it is important to protect the natural capital of Kyushu by promoting regional coexistence, decarbonization, and a circular economy. In recent years, we believe that the importance of these initiatives in society can be seen as an opportunity for our company.

From the perspective of regional coexistence, the Kyuden Group is not only dedicated to environmental conservation activities in Kyushu, but also puts a lot of effort into environmental education in the region. For example, in the "Q Den Future School," we provide opportunities to nurture a love for nature through various "learning" and "experiences," mainly for children.

The company-owned forest (4,447 ha mainly in Oita Prefecture) that we have maintained as a water source conservation forest plays the role of a forest that nurtures ecosystems and water, and it is used as a field for experiential environmental education such as the production of FSC® certified materials, thinning, and forest observation.

Regarding our company-owned forests, we have joined the "30 by 30 Alliance," which

contributes to the global target for biodiversity, "30 by 30 Target," and applied for the certification review of "Nature Coexistence Sites" recognized by the Ministry of the Environment as areas where biodiversity is conserved through private efforts.
In addition, we are aiming to create forests that serve as bases for environmental education and community interaction, and we are implementing the "Kyuden Mirai Forest Project," which works towards carbon neutrality with children and local residents. We have launched this project throughout Kyushu, starting with tree planting activities and environmental education in "Isahaya Kyuden Mirai Forest" (Isahaya City, Nagasaki Prefecture).
As environmental conservation activities, we have revived the traditional practice of "controlled burning" in The Kuju Bogatsuru Marshlands area to maintain the wetland and prevent turning into forest, which preserves a rare ecosystem. We have also carried out activities to eradicate invasive plant species that threaten the ecosystem of rare plants and protect the vegetation of "Miyamakirishima" (The Kuju Bogatsuru Marshlands is registered in the Ramsar Convention as " Kuju Bogatsuru and Tadewara-shitsugen ").
We have also constructed a salmon land-based farm using the premises of the Buzen Power Station (Buzen City, Fukuoka Prefecture). We aim to contribute to the stable supply of domestic seafood by aiming for a salmon farm with an annual production capacity of about 3,000 tons, which we have named "Mirai Salmon."
In terms of decarbonization, the Kyuden Group is implementing the "Support and Utilization Project for J-Credit Creation Using Forest Resources". This project supports the creation of J-credits from forests owned by local governments and others, and we are implementing it throughout Kyushu, including in Hisayama Town, Fukuoka Prefecture, Kusu Town, Oita Prefecture, and Kumamoto Prefecture.
Regarding the circular economy, we established "Circular Park Kyushu Co., Ltd." in partnership with Nakadai Holdings Co., Ltd. on July 26, 2023, in order to realize the concept of "Circular Park Kyushu," which will make the site of the Sendai Power Station a hub for resource recycling. Currently, we are preparing for the resourcing business that recycles waste from companies and communities, and the solution business that conducts joint research and demonstration experiments using the networks of industry, academia, and government. After the start of operations in April 2024, we will first work on building a system for resource recycling from production to disposal within the Kyuden Group, and then expand the knowledge gained in building the system to other companies and organizations to lead resource recycling and decarbonization in Kyushu.
We have recognized the value of these community-based activities by analyzing them from the perspective of TNFD. In the future, we will further promote our activities towards each target of the 2030 global targets of the "Kunming-Montreal Biodiversity Framework," which

is a new global target for biodiversity, and contribute to the transition to a "Nature Positive Economy."

Efforts towards each target of the 2030 Global Targets of the Kunming-Montreal Biodiversity Framework

	target	Contents	Relationship with the Kyuden Group	Status	Remarks (applicable initiatives at the Company, etc.)
(1) Reduce threats to biodiversity	1	Place all regions under participatory, integrative and biodiversity-conscious spatial planning and/or effective management processes	○	Working on	Management of Kyuden-owned forests (water source conservation forests) by Kyushu Forestry Co., Ltd., a group company (ESG Data Book 2023p20) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf
	2	Bring 30% of areas of degraded ecosystems under effective recovery	○	Working on	Joined the 30 by 30 Alliance (ESG Data Book 2023p20) https://policies.env.go.jp/nature/biodiversity/30by30alliance/documents/117872.pdf
	3	At least 30% of land and sea will be protected areas and OECM (30 by 30 target)	○	Working on	Joined the 30 by 30 Alliance (ESG Data Book 2023p20) https://policies.env.go.jp/nature/biodiversity/30by30alliance/documents/117872.pdf Applying for certification of a site in harmony with nature (ESG Data Book 2023p20)
	4	Ensure emergency management actions to significantly reduce extinction risk and minimize conflict between humans and wildlife	○	Working on	Implementation of environmental assessments (ESG Data Book 2023p17,18) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf
	5	Prevent overfishing, etc., and make the use of wild species sustainable, safe, and legal.	—		
	6	Reduce the introduction and retention rate of invasive alien species by more than 50%	○	Working on	Implementation of environmental assessments (ESG Data Book 2023p17,18) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf As an activity of the Kyuden Mirai Foundation, rare plant protection activities in the Bogatsuru wetland (alien species "Himejoon") Disinfected) https://kyuden-mirai.or.jp/environment/detail/106
	7	Halving excess nutrients flowing into the environment, halving the overall risk of pesticides and highly hazardous chemicals, and preventing and reducing plastic pollution	○	Working on	Proper disposal of waste (ESG Data Book 2023p22) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf Commercialization of Circular Park Kyushu (ESG Data Book 2023p22) https://www.circular-park.jp/
	8	Minimize the impact of climate change on biodiversity through solutions that utilize nature and approaches that utilize ecosystems	○	Working on	Promotion of renewable energy (ESG Data Book 2023p9~11) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf Maximizing the use of nuclear power generation and thermal power plants with high thermal efficiency on the premise of ensuring and safety (ESG Data Book 2023p13) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf

	target	Contents	Relationship with the Kyuden Group	Status	Remarks (applicable initiatives at the Company, etc.)
(2) Meeting people's needs	9	Make the management and use of wild species sustainable and bring social, economic and environmental benefits to people	○	Working on	Implementation of environmental assessments (ESG Data Book 2023p17,18) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf "Kyuden Mirai no Mori Project" (ESG Data Book 2023p19) as an activity of the Kyuden Mirai Foundation https://kyuden-mirai.or.jp/environment/planting/
	10	Agriculture, aquaculture, fisheries and forestry areas are managed sustainably, contributing to the resilience of production systems, long-term efficiency and productivity, and food security.	○	Working on	J-Credit Creation Support and Utilization Project (ESG Data Book 2023p16) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf https://www.kyuden.co.jp/environment_japan credit_index.html FSC® (Forest Stewardship Produced certified timber by the Council® (Forest Stewardship Council) and Headquartered in Germany (ESG Data Book 2023p20) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf Salmon farming business (Fish Farm Mirai LLC) (ESG Data Book 2023p49) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf
	11	Restoring, sustaining and strengthening nature contributions (NCPs) through nature-based solutions/ecosystem-based approaches	○	Working on	"Environmental conservation activities in the Bogatsuru wetland area" (ESG Data Book 2023p19) as an activity of the Kyuden Mirai Foundation https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf
	12	Increase the area, quality, access, and benefits of green and hydrophilic spaces in urban areas, and ensure urban planning that takes biodiversity into consideration	○	Working on	Greening project by group company Kyushu Forestry Co., Ltd., https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf Greening behind the electric building (head office building)
	13	Take benefit-sharing measures for genetic resources and digital sequence information (DSI) and promote a significant increase in profit sharing in accordance with access and benefit-sharing (ABS) documents	—		

	target	Contents	Relationship with the Kyuden Group	Status	Remarks (applicable initiatives at the Company, etc.)
(3) Implementation and mainstreaming tools and solutions	14	Ensure the integration of the diverse value of biodiversity into policies and policies, regulations, plans, development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, where necessary, national accounts	○	Working on	Implementation of environmental assessments (ESG Data Book 2023p17,18) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf
	15	Business operators, especially large companies and financial institutions, will take measures to ensure that biodiversity-related risks, dependence on and impacts on biodiversity are assessed and disclosed, and information necessary for sustainable consumption	○	Working on	Compliant with TNFDv1.0 and further improvement of disclosure content
	16	Enabling sustainable consumption choices with the right information and reducing our global footprint by halving food waste, significantly reducing overconsumption, and significantly reducing waste generation	○	Working on	Making the most of thermally efficient thermal power plants (ESG Data Book 2023p13) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf
	17	Establish measures for biosafety, handling of biotechnology and its benefit sharing.	—		
	18	Identify, abolish, or reform incentives (such as subsidies) harmful to biodiversity, reduce at least $500 billion annually, and expand incentives beneficial to biodiversity	—		—
	19	Mobilizing $200 billion annually from all sources, increasing international funding from developed to developing countries to $20 billion annually by 2025 and $30 billion annually by 2030	—		
	20	Strengthen capacity building and development, as well as access to and transfer of technology.	—		
	21	Make the best available data, information and knowledge available to decision makers, practitioners and the general public	○	Working on	Publication of the Kyuden Group ESG Data Book https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf
	22	Ensure participation in decision-making related to biodiversity in women and girls, children and youth, persons with disabilities, indigenous peoples and local communities	○	Working on	Conducted human rights due diligence based on the Kyuden Group Human Rights Policy, identified five items such as "discrimination (including gender gap)" and "inappropriate restriction of the rights of local residents" as "important human rights risks" that should be prioritized, and examined and implemented countermeasures. (ESG Data Book 2023p60~62) https://www.kyuden.co.jp/library/pdf/en/ir/esg/2023/r7h6nmcf.pdf
	23	Ensure gender equality through gender-responsive approaches, including recognition of women's and girls' rights to land and natural resources and their participation at all levels	○		

4. Indicators and goals required to be disclosed at TNFD

TNFD has core global indicators that recommend disclosure regarding land modification, pollution, direct extraction, etc., in terms of impact and dependence. The current indicators of impact and dependence are as follows.

Impact and dependency indicators (TNFD beta v.0.4 core indicators)

Category	Indicator	References, etc.
Climate change	Amount of Scope 1, 2, and 3 greenhouse gas (GHG) emissions	Supply Chain GHG Emissions (Scopes 1, 2, and 3) (ESG Data Book 2023 p. 71)
Changes in land/fresh water/sea usage	Degree of change in land/fresh water/sea usage by ecosystem and business activity	Land: land area of power generation and switching facilities (Annual Securities Report FY2022 pp. 43-47)
		Fresh water: Usage amounts of tap water and water for power generation (ESG Data Book 2023 p. 77)
		Sea: Used as cooling water at power plants; no data available on usage amounts
Pollution/ removing pollution	Total amount of contaminants released into the soil by type	Essentially, no contaminants are released into the soil from our facilities
	Wastewater amount and concentration of major contaminants in wastewater by type	Wastewater amount (ESG Data Book 2023 p. 77)
		Appropriate disposal of wastewater carried out at wastewater disposal facilities located at each power plant
	Total amount of toxic waste generated by type	PCB disposal amount (ESG Data Book 2023 p. 75)
	Total amount of toxic substances excluding carbon dioxide by type	(ESG Data Book 2023 p. 72, 73)

Category	Indicator	References, etc.
Using/com-plementing resources	Total collection and consumption amounts of water from water-stressed regions	Usage amount of water for power generation (ESG Data Book 2023 p. 77) * Kyushu has been recognized as a region with a relatively low level of water risks by using the Aqueduct tool
	Trends in number of high-risk natural products procured from the land/sea/fresh water by category	Procurement sources and procured amounts of fuel (coal, LNG, uranium) (ESG Data Book 2023 p. 26)
	Amount of natural products procured from priority ecosystems by category and ratio thereof	(Future examination)

In addition, the Kyuden Group has set goals from the perspectives of climate change, environmental management promotion, circular society formation, supply chain management enhancement, and stakeholder engagement enhancement as goals related to natural capital at this time.

Natural capital-related targets

	Subject	Target
Climate change (Carbon Neutral Vision 2050 p. 1, ESG Data Book 2023 p. 8)	Carbon neutral	· Achieving carbon neutrality by 2050
	Supply chain greenhouse gas emissions (Scopes 1, 2, and 3)	· 60% reduction in greenhouse gas emissions by 2030 compared to FY2013, and 65% reduction in domestic businesses
Promotion of environmental management (ESG Data Book 2023 p. 5)	Promoting environmental management	· Violations of law and regulations: Zero
Establishment of a circular society (ESG Data Book 2023 p. 5)	Appropriate management and disposal of industrial waste	· Recycling rate (excl. coal ash): 98% or higher (plastic waste: 90%) (FY2023)
	Promoting green procurement	· Green procurement rate of office supplies :97% (FY2023)
Strengthening supply chain management (ESG Data Book 2023 p. 7)	Raising awareness of ESG in the supply chain	· Response rate to questionnaire survey on sustainability improvement initiatives for major business partners: 90% or higher (FY2023)
Enhancing stakeholder engagement (ESG Data Book 2023 p. 7)	Raising the level of stakeholder satisfaction (enhancing environmental education programs)	· Percentage of people who answered in the questionnaire that they had an increased awareness of environmental conservation: 90% or higher (FY2023)