Climate Action and Natural Capital | Disclosure in Line with TCFD/TNFD Recommendations: Strategy

GRI 201-2/304-2

Assess Assess risks and opportunities

Based on the aforementioned priority regions and the results of the dependency and impact analysis, the NOF Group identified and assessed our risks and opportunities in accordance with climate change scenarios (the 1.5°C/2°C scenarios and 4°C scenario). For the assessment, the level of impact and the timeline were defined as shown below. Transition risks were assessed under the temperature representing the worst case scenario. NOF is focusing on promoting proactive consideration for the environment and developing products that contribute to environmental conservation. In responding to decarbonization markets such as electric vehicles and renewable energy, there may be risks of reduced sales in existing business areas or reputational impacts from the use of certain raw materials. However, we expect the following opportunities in the long term.

- **Increased sales:** As consumer awareness of environmental conservation rises, sales will grow due to increased demand for products that contribute to environmental conservation.
- **Enhanced reputation:** Proactive measures for climate change and emissions management, as well as the development of products that contribute to environmental conservation, will improve the Company's reputation and credibility over the long term, also leading to higher stock value.

Category	Cause	Value chain	Major risks and opportunities	Overview	Level of impact 2023–2025	Level of impact 2030	Level of impact 2050	Countermeasures
Transition risks 1.5°C and 2°C scenarios	Policies and regulations	NOF Manufacturing	Increased manufacturing costs and decreased product sales due to environmental regulations (carbon tax, plastic tax, etc.)	● Manufacturing costs rise due to costs associated with carbon taxes or switching to recycled or bioplastics ● Introduction of water intake restrictions or new emission regulations make it impossible to produce existing products, leading to declining sales	—	Large	Large	● Promotion of measures toward reducing greenhouse gas emissions ● Reduction and efficiency improvement of water intake ● Reduction of waste ● Reduction of pollutants ● Reduction of plastic usage ● Shift to recycled plastics and biomass plastics
		Manufacturing	Compensation for damages due to environmental litigation, decline in sales due to plant shutdowns, and a drop in stock prices	● Large compensation for damages is owed due to environmental lawsuits, such as those related to ground subsidence, while long-term plant shutdowns reduce sales and push down stock prices	—	Medium	Medium	● Measures toward reducing greenhouse gas emissions ● Measures toward reducing and improving efficiency of water intake ● Measures toward reducing waste ● Measures toward reducing pollutants ● Measures to reducing plastic usage ● Promotion and communication of proactive environmental initiatives
	Sharp rise in raw material and fuel prices	Upstream Cultivation and livestock	Higher procurement costs because of increased cultivation and production costs due to environmental regulations (regulations on methane emissions, wastewater, etc.)	● Costs to address methane emissions from livestock, farmland development, and water/soil pollution from pesticide and fertilizer use drive up raw material prices, increasing procurement costs (forecast based on the IPR Forecast Policy Scenario (FPS) + Nature scenario)	—	Medium	Medium	● Switch to lower-risk oil types ● Securing stable raw materials through multiple purchases and long-term contracts
		Upstream Processing	Higher procurement costs and production interruption-caused reduced sales due to environmental regulations (beverage container tax, packaging tax, etc.)	● Compliance costs due to tighter regulations drive up raw material prices and procurement costs ● Production plant operations are suspended due to water intake restrictions and emission regulations, resulting in decreased sales	—	Small	Small	● Promotion of measures toward reducing greenhouse gas emissions ● Reduction and efficiency improvement of water intake ● Reduction of waste ● Reduction of pollutants ● Reduction of plastic usage ● Shift to recycled plastics and biomass plastics
		Upstream Import	Higher distribution costs due to environmental regulations (SOx regulations, etc.)	● Compliance costs to address tighter regulations are passed on to prices, raising distribution costs	—	Small	Small	● Promotion of joint delivery and modal shifts
		Upstream Cultivation and livestock	Increased procurement costs due to soaring raw material prices	● Sharp rise in prices of raw materials such as petrochemicals and vegetable and animal-based oils and fats due to a decrease in the supply of petroleum, etc. and an increase in demand for biofuels	—	Large	Large	● Securing stable raw materials through multiple purchases and long-term contracts ● Utilization of biomass chemicals ● Switching from petrochemical-based raw materials to plant-based raw materials ● Carbon recycling (solvent recycling, etc.)
		Upst-ream Import / NOF Manufa-cturing	Higher energy and transportation costs due to soaring crude oil and natural gas prices	● Higher energy and transportation costs due to soaring crude oil and natural gas prices	—	Medium	Medium	● Introduction of energy-saving equipment, review of processes ● Promotion of joint delivery and modal shifts
	Evaluation and reputation among stakeholders	Upstream Cultivation and livestock	Reputational damage and falling stock prices due to the use of certain raw materials	● Using raw materials that negatively impact natural capital, such as illegally cultivated palm oil, harms the Company's reputation and lower stock prices	Large	Large	Large	● Procurement of sustainable palm oil ● Selection of suppliers and business partners with lower regulatory risks
		NOF	Decline in evaluation and reputation due to delays in ESG investment	● Deterioration of evaluation from investors in ESG investment and reputation among customers due to delay in measures to address climate change and nature	—	Small	Small	● Development and provision of products that contribute to environmental conservation ● Promotion and communication of proactive environmental initiatives
	Market	Downstream Products	Changes in the sales destination environment due to the shift to a decarbonization market	● Decrease in sales due to decline in market share of gasoline and diesel vehicles	—	Medium	Medium	● Strengthening our response to decarbonization markets, such as electric vehicles and renewable energy

*For details on the 1.5°C and 2°C scenarios and levels of impact, see the notes on the next page

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Physical risks 4°C scenario	Extreme weather	Upstream Cultivation, livestock, processing	Increase in cultivation/ production and procurement costs due to degradation of ecosystem services	● Procurement costs rise and sales decline due to soaring prices of palm oil and rapeseed oil resulting from degradation of ecosystem services such as pollination, soil quality, and water cycle maintenance ● Water shortages and crop damage from pests and diseases cause instability or soaring prices in raw material procurement, increasing procurement costs	Large	Large	Large	● Switch to lower-risk oil types ● Selection of suppliers and business partners taking into account risks at the production area (ensuring traceability) ● Securing stable raw materials through multiple purchases and long-term contracts
		Upstream Import NOF Manufacturing	Decrease in sales caused by damage to production sites and supply chains from storm and flood damage	● Flood damage from heavy rains, floods, and storm surges results in factory repair costs, production interruptions, or reduced production capacity, leading to sales declines	—	Large	Large	● Rain water countermeasures and disaster prevention measures for buildings and facilities ● Multiple purchases of raw materials ● Review the business continuity plan (BCP) and conduct education, training, and audits
		NOF Manufacturing	Increase in equipment costs and decline in sales due to production interruptions associated with degradation of ecosystem services	● Water shortages cause production interruptions or reduced production capacity, resulting in decreased sales	—	Small	Small	● Reduction and efficiency improvement of water use at high-risk sites ● Diversification of production items at manufacturing sites (preparing for alternative production)
		NOF	Increase in storage costs due to high temperatures and heatwaves	● Rising temperatures affect refrigerated and air-conditioned warehouse storage	—	Medium	Medium	● Ongoing review of facility investment plans
Opportunities	Resource efficiency	NOF Manufacturing	Decrease in manufacturing costs through improved resource efficiency	● Improved resource efficiency during manufacturing, such as reduced water, energy, and waste, leads to lower environmental impacts and cost reductions ● Promotion of decarbonization and infrastructure development in society results in cost reductions from renewable energy use, subsidies, and tax incentives	—	Medium	Large	● Reduction of greenhouse gas emissions ● Reduction and efficiency improvement of water use ● Reduction of waste ● Reduction of plastic usage
	Capital flow /financing	NOF	Diversification of financing methods	● Sustainable finance and other forms of environmental funding become more active, expanding the options for financing such as green bonds and green loans for upgrading to low-impact facilities and for development costs of environmentally friendly products	—	Small	Small	● Utilization of positive impact finance and the like
	Reputation	NOF	Improved evaluations and reputation, leading to higher stock prices	● Proactive climate change measures, emissions management, and development/provision of products that contribute to environmental conservation enhance investor evaluations in ESG investment and reputation among customers, driving stock prices upward	—	Medium	Medium	● Development and provision of products that contribute to environmental conservation ● Promotion and communication of proactive environmental initiatives
	Market	Downstream Products	Increase in sales due to growing demand for products that contribute to environmental conservation	● Rising consumer interest in climate change, water pollution, air pollution, and forest protection boosts demand for environmentally friendly products, leading to increased sales	—	Large	Large	● Development and provision of products that contribute to environmental conservation

*1.5°C and 2°C scenarios: Decarbonization scenarios that assume that necessary measures will be implemented to limit the temperature increase to 1.5°C or 2°C or less compared to pre-industrial times (International Energy Agency (IEA) "Net Zero Emissions by 2050" (NZE2050), "Stated Policies Scenario" (STEPS), etc.)

*4°C scenario: Decarbonization scenario that assumes that necessary measures will be implemented to limit the temperature increase to 4°C or less compared to pre-industrial times (International Energy Agency (IEA) "Net Zero Emissions by 2050" (NZE2050), "Stated Policies Scenario" (STEPS), etc.)

*Level of impact: **[Risks] Impact amount**: Over ¥1 billion (high), ¥100 million–¥1 billion (medium), under ¥100 million (low)
[Opportunities] Impact amount: Over ¥1 billion (high), ¥100 million–¥1 billion (medium), under ¥100 million (low)
[Opportunities] Market size: Over ¥30 billion (high), ¥3 billion–¥30 billion (medium), under ¥3 billion (low)