

Climate-Related Risk and Opportunity Analysis in DX Division

Key Risk and Opportunity Identification

We formed a pool of climate-related risks and opportunities related to our business by reviewing global climate change trends and industry responses based on a list of risks and opportunities presented by the TCFD¹⁾ recommendations and CDP²⁾. We conducted surveys on the likelihood and impact size of these risks and opportunities among key internal and external stakeholders. Based on these results, we held inter-departmental roundtable meetings to discuss these results and finally identified major climate-related risks and opportunities.

Results show that key physical risks have impacts across the short-, medium-, and long-term, while transition risks and opportunities primarily have impacts in the medium- to long-term.

1) Task Force on Climate-related Financial Disclosures
2) Carbon Disclosure Project

Key Risks and Opportunities

| Type | Risks and Opportunities | | | | |
|------------------|-------------------------|--|--------------|----------------|--------------------|
| Physical Risks | Acute | Typhoon | Flood | Wildfire | Hail, Thunderstorm |
| | Chronic | Drought | Extreme heat | Heavy rainfall | Extreme cold |
| Transition Risks | Policy and Legal | Increase in cost of purchasing carbon credits | | | |
| | | Changes in laws and regulations related to climate change | | | |
| | Market | Increase in production cost due to rising electricity prices | | | |
| | | Insufficient alignment with customer demand for low-carbon products | | | |
| | Technology | Increase in R&D cost for low-carbon products and services | | | |
| Opportunities | Reputation | Stakeholder concerns and negative media coverage related to climate change | | | |
| | Market | Increase in demand for low-carbon products and services | | | |
| | | Use of renewable energy | | | |
| | Resilience | Enhancing the supply chain's resilience to climate change | | | |

Financial Impact Assessment

The DX Division assessed potential financial impacts expected under each climate scenario for the identified key risk and opportunity factors.

Climate-Related Scenario Selection

We analyzed major risks and opportunities using various science-based scenarios that align with the latest international climate change agreements, including high-emission scenario and below 2°C scenario. We analyzed physical risks using IPCC scenarios, and transition risks and opportunities using IEA and NGFS scenarios.

| Type | Source | Scenario | Definition |
|------------------------------------|--------------------|----------------------------|---|
| Physical Risks | IPCC ¹⁾ | SSP ⁴⁾ 1-2.6 | Assumes net zero emissions by 2075 (Low-carbon emission scenario) Assumes current levels of carbon |
| | | SSP2-4.5 | Assumes current levels of carbon emission until 2050, net zero carbon emission not achieved by 2100 |
| | | SSP5-8.5 | Assumes fossil fuel-based development (High-carbon emission scenario) |
| Transition Risks and Opportunities | IEA ²⁾ | Net Zero Emissions by 2050 | Assumes net zero emissions in the energy sector by 2050 |
| | | Announced Pledges | Assumes full implementation of all national climate commitments worldwide |
| | | Stated Policies | Assumes maintenance and implementation of current policies |
| | NGFS ³⁾ | Net Zero 2050 | Assumes global net zero emissions by 2050 |
| | | NDCs ⁵⁾ | Assumes full implementation of currently pledged Nationally Determined Contributions worldwide |
| | | Current Policies | Assumes maintenance and implementation of current policies |

1) Intergovernmental Panel on Climate Change
2) International Energy Agency
3) Network for Greening the Financial System
4) Shared Socio-economic Pathway
5) NationallyDeterminedContributions

1. Physical Risks

For each site¹⁾, we evaluated the level of exposure to physical risks and assessed financial impacts of floods, typhoons, droughts, wildfires, and extreme heat, using a global analytics tool²⁾ that incorporates modeling data and location information. In all of the 3 IPCC scenarios, floods had the biggest financial impact among the 5 physical risks.

1) All manufacturing sites, key storage facilities, etc.
2) Climate and disaster prediction model, national meteorological administration data, etc.

Flood

The financial impact of floods was assessed based on the recurrence interval, inundation depth, and elevation level of the region in which each site is located. The results show that Asia has the highest financial impact among DX operations. In particular, certain manufacturing sites in Vietnam and India were evaluated as having relatively high financial impacts. It was analyzed that as climate change intensifies, even floods with recurrence intervals similar to those in the past are likely to result in deeper inundation levels. Consequently, physical damage to assets such as buildings, equipment, and inventory may occur, leading to a decline in asset value. In addition, production delays may cause revenue losses, resulting in potential financial losses.

Assessment of Financial Impact Levels from Floods (Short/Mid-/Long-Term, Scenario Averages)

2. Transition Risks and Opportunities

We developed a methodology for assessing the financial impacts of transition risks and opportunities through literature review and consultation with external experts. Financial impacts were derived using both internal roadmap, such as our New Environmental Strategy, and external projection data from IEA and NGFS scenarios. The increase in electricity prices and the increase in cost of purchasing carbon credits emerged as key transition risks, while the use of renewable energy and increase in demand for low-carbon products and services emerged as significant opportunities. The below explains how some of these factors influence our operation as risk or opportunity.

Increase in Cost of Purchasing Carbon Credits

As GHG regulations and policies become more stringent, we expect the price of carbon credits and the percentage of paid allocations to increase as well. As a regulated entity under the Korean Emissions Trading System (ETS) scheme, the DX Division is required to purchase carbon credits if our greenhouse gas emissions exceed the nationally allocated quotas. If the price of carbon credits in the ETS and the proportion of paid quotas increases, we expect that the operational costs associated with purchasing carbon credits may increase.

Increase in Demand for Low-Carbon Products and Services

Increasing consumer awareness of climate change is driving preference for low-carbon products and services, and national net zero policies and regulations are driving demand for low-carbon products. We see that the increasing demand for low-carbon products and services could be a long-term opportunity given our current business portfolio and business plans.

Resilience Assessment

We conducted a resilience assessment based the results of the financial impact assessment and current countermeasures to risks and opportunities. We aim to enhance our climate resilience capabilities through systematic management of our operational sites in response to climate change and the implementation of our New Environmental Strategy.

Flood

During the site selection process for manufacturing sites, we conduct risk assessments that include analysis of maximum regional precipitation, periods of heavy rainfall, and nearby river conditions. In the design phase, construction on ground level elevation is carried out to prevent potential flood damage. Flood risk simulations are performed to identify hazardous areas, and appropriate drainage and flood protection systems are installed. In addition, we have an emergency response system in place and conduct periodic on-site inspections and drills to ensure preparedness.

Increase in Cost of Purchasing Carbon Credits

To mitigate the financial impact of increasing cost of purchasing carbon credits, we are implementing emission reduction initiatives such as reducing electricity consumption and increasing the use of renewable energy. In addition, we closely monitor policy developments related to the ETS and fluctuations in carbon credit prices to establish and execute strategies to optimize the purchase, sale, and retention of carbon credits.

Increase in Demand for Low-Carbon Products and Services

We are making efforts to create low-carbon products from a product life cycle perspective, covering stages from material sourcing, production, and disposal, to recycling. We are expanding the application of circular materials such as recycled plastics in products, developing technologies to improve product energy efficiency, and providing services that reduce power consumption of home appliances through the SmartThings AI Energy mode solution. To extend product lifespan, we are improving product durability and repairability, supporting software upgrades, and are operating an e-waste collection system. We expect that continued development of low- carbon products and services will contribute to addressing climate change and lead to revenue growth.