

Legend: Risks in raw material sourcing for products are highlighted in yellow shading

Category	Overview	Negative impacts on the business	Actions / Countermeasures (* indicates measures under consideration)	
Natural risks	Acute and chronic	<ul style="list-style-type: none"> -Revenue decline due to product delivery delays and stockouts -Increased financial burden associated with securing alternative sourcing channels for products 	<ul style="list-style-type: none"> -Diversification of raw material sourcing * -Securing stable procurement through the expansion of climate-resilient raw material sourcing, such as factory-grown vegetables, land-based aquaculture, and improved crop varieties* 	
	<ul style="list-style-type: none"> -Reduced yields and quality deterioration of agricultural, forestry, and livestock products due to the degradation of ecosystem services (e.g., high temperatures, extreme precipitation, drought, increased pests and diseases, and declines in natural pollinators), as well as instability in product quality and supply resulting from decreased fish catches associated with rising sea temperatures 	<ul style="list-style-type: none"> -Increase in procurement costs -Revenue decline due to product delivery delays and stockouts -Increased financial burden associated with securing alternative sourcing channels for products 		
	<ul style="list-style-type: none"> -Reduced production volumes of agricultural, forestry, fishery, and livestock products due to insufficient precipitation and water scarcity or chronic water shortages at irrigation sources, aquaculture sites, and livestock water intake points, leading to instability in product supply 	<ul style="list-style-type: none"> -Incurrence of repair and restoration costs -Increase in expenditures for natural disaster preparedness and response measures -Revenue decline due to business interruption resulting from natural disaster damage 	<ul style="list-style-type: none"> -Implementation of disaster preparedness education and training -Strengthening disaster response infrastructure through the installation of flood barriers and the deployment of emergency power generators -Store development strategies and facility design incorporating flood risk considerations 	
Natural risks	Acute	<ul style="list-style-type: none"> -Incurrence of repair and restoration costs -Increase in expenditures for natural disaster preparedness and response measures -Revenue decline due to business interruption resulting from natural disaster damage 	<ul style="list-style-type: none"> -Development and implementation of Business Continuity Plans (BCP) * -Establishment of a system that enables prompt repair and replacement based on the medium- to long-term repair plan * 	
	<ul style="list-style-type: none"> -Store damage and business interruption due to the intensification of natural disasters driven by continued GHG emissions 	<ul style="list-style-type: none"> -Incurrence of repair and restoration costs -Increase in expenditures for natural disaster preparedness and response measures -Occurrence of losses due to business interruption resulting from natural disaster damage 		
	<ul style="list-style-type: none"> -Store damage and business interruption for stores located in riverine lowlands, coastal areas, and the foothills of mountainous and hilly regions, arising from natural disasters (e.g., flooding, river overflows due to storms, and landslides) 	<ul style="list-style-type: none"> -Incurrence of repair and restoration costs -Increase in expenditures for natural disaster preparedness and response measures -Occurrence of losses due to business interruption resulting from natural disaster damage 		
	Chronic	<ul style="list-style-type: none"> -Increase in operating costs -Expenditures associated with upgrading to high-efficiency equipment -Capital expenditures related to facility investments 	<ul style="list-style-type: none"> -Promotion of energy efficiency and adoption of renewable energy in stores (e.g., installation of solar power systems, introduction of on-site/off-site PPAs, and use of green electricity) -Electrification of air conditioning and kitchen equipment currently using gas or heavy oil * -Improvement of energy efficiency through the introduction of Energy Management Systems (EMS) * -Transition to low-carbon stores through measures such as enhanced building insulation performance * -Development and sales of products that can be stored at room temperature 	
	<ul style="list-style-type: none"> -Changes in demand for seasonal products due to abnormal weather conditions (e.g., extreme heat and unusually warm winters) associated with the sale of seasonal merchandise 	<ul style="list-style-type: none"> -Increase in inventory management costs due to unsold stock -Revenue decline due to discounts and product disposal 	<ul style="list-style-type: none"> -Optimization of inventory and ordering management through the use of AI and data analytics * 	
	<ul style="list-style-type: none"> -Supply instability arising from the suspension of operations by raw material producers due to the intensification of natural disasters driven by continued GHG emissions 	<ul style="list-style-type: none"> -Revenue decline due to product delivery delays and stockouts 	<ul style="list-style-type: none"> -Diversification of raw material sourcing * 	
Natural risks	<ul style="list-style-type: none"> -Deterioration of production environments due to soil and water pollution caused by eutrophication and the accumulation of chemicals from agricultural activities, leading to instability in the quality and supply of agricultural, forestry, livestock, and fishery products 	<ul style="list-style-type: none"> -Increase in procurement costs -Revenue decline due to product delivery delays and stockouts -Increased financial burden associated with securing alternative sourcing channels for products 	<ul style="list-style-type: none"> -Expansion of raw material sourcing through factory-grown vegetables to ensure stable procurement * -Protection of marine ecosystems and support for sustainable aquaculture 	
	<ul style="list-style-type: none"> -Increased costs and rising prices of metal and mineral raw materials due to the need for water quality treatment measures in quarrying and coal mining processes, driven by the deterioration of water quality for cooling and process water resulting from the degradation of watershed ecosystems 	<ul style="list-style-type: none"> -Increase in procurement costs 	-	
	<ul style="list-style-type: none"> -Supply instability of fishery products due to the depletion of fishery resources caused by overfishing and illegal, unreported and unregulated (IUU) fishing 	<ul style="list-style-type: none"> -Revenue decline due to product delivery delays and stockouts -Increased financial burden associated with securing alternative sourcing channels for products 	<ul style="list-style-type: none"> -Securing stable procurement through the expansion of raw material sourcing via land-based aquaculture * 	
	Policy	<ul style="list-style-type: none"> -Increased regulatory compliance costs associated with carbon taxes and GHG emission regulations 	<ul style="list-style-type: none"> -Increase in expenditures for energy efficiency and renewable energy measures -Increase in monitoring and measurement costs 	<ul style="list-style-type: none"> -Promotion of energy efficiency and adoption of renewable energy in stores (e.g., installation of solar power systems, introduction of on-site/off-site PPAs, and use of green electricity) -Electrification of air conditioning and kitchen equipment currently using gas or heavy oil * -Improvement of energy efficiency through the introduction of Energy Management Systems (EMS) * -Transition to low-carbon stores through measures such as enhanced building insulation performance * -ISO 14001 certification (all UNY stores)
	<ul style="list-style-type: none"> -Increased expenditures associated with enhanced compliance with the Air Pollution Control Act and local government ordinances 	<ul style="list-style-type: none"> -Expenditures associated with capital investments in low-emission emergency generators -Increase in monitoring and measurement costs 	-	
	<ul style="list-style-type: none"> -Waste generation, including food waste (unsold products, fresh and prepared foods, expired items) and packaging and plastics (shopping bags, containers, cushioning materials) 	<ul style="list-style-type: none"> -Increase in waste treatment costs -Costs associated with compliance with stricter sorting and collection requirements -Increase in expenditures related to food waste reduction measures 	<ul style="list-style-type: none"> -Development of products that contribute to the reduction of food loss -Promotion of food recycling initiatives -Optimization of inventory and ordering management through the use of AI and data analytics * -Reduction of food waste through the relaxation of delivery and sales deadlines * -Donation initiatives utilizing food items prior to disposal * 	
	<ul style="list-style-type: none"> -Increase in livestock and metal/mineral raw material prices associated with carbon taxes and GHG emission regulations 	<ul style="list-style-type: none"> -Increase in monitoring costs associated with compliance with strengthened regulations (including Scope 3) -Increase in procurement costs 		
	<ul style="list-style-type: none"> -Supply constraints and price increases for agricultural, forestry, and livestock products as well as metal and mineral raw materials due to strengthened land-use restrictions associated with enhanced deforestation prevention measures and the expansion of terrestrial and marine protected areas 	<ul style="list-style-type: none"> -Increase in procurement costs -Increased financial burden associated with securing alternative sourcing channels for products 	<ul style="list-style-type: none"> -Sales of products made with recycled materials and certified raw materials (e.g., FSC, organic cotton) -Compliance training for suppliers conducted by the Quality Management Department 	
	<ul style="list-style-type: none"> -Increase in raw material prices driven by higher production costs for agricultural, livestock, and fishery products, due to strengthened regulations on the management of feed, fertilizers, pesticides, antibiotics, and other inputs, as well as on manure, residues, and material waste 	<ul style="list-style-type: none"> -Increase in procurement costs 	<ul style="list-style-type: none"> -Collaborative development and branding of environmentally friendly, low-carbon products with suppliers * -Marketing strategies to address changes in consumer purchasing behavior * 	
	<ul style="list-style-type: none"> -Increase in metal and mineral raw material prices due to strengthened environmental regulations on air pollutants (other than GHGs), waste, wastewater, chemical substances, and pollution under laws and regulations 	<ul style="list-style-type: none"> -Increase in procurement costs 	<ul style="list-style-type: none"> -Collaborative development and branding of environmentally friendly, low-carbon products with suppliers * -Cost optimization of alternative materials and development of sourcing strategies * 	
Natural risks	<ul style="list-style-type: none"> -Increase in prices of fishery raw materials and instability in supply due to strengthened regulations on endangered species and illegal, unreported and unregulated (IUU) fishing under applicable laws and regulations 	<ul style="list-style-type: none"> -Increase in inventory losses and management costs due to the replacement of discontinued products -Penalties and administrative sanctions in the event of non-compliance with laws and regulations 		
	<ul style="list-style-type: none"> -Increase in raw material prices due to tighter restrictions on extraction volumes and areas for non-living resources (including minerals, sand, stone, and clay), as well as the tightening of environmental impact assessment requirements under applicable laws and regulations 	<ul style="list-style-type: none"> -Increase in procurement costs 		
	<ul style="list-style-type: none"> -Strengthening of regulations on genetically modified products under applicable laws and regulations 	<ul style="list-style-type: none"> -Increase in additional costs for product labeling and management associated with compliance with strengthened regulations -Penalties and administrative sanctions in the event of non-compliance with laws and regulations -Increase in inventory losses and management costs due to the replacement of discontinued products 		
	Market	<ul style="list-style-type: none"> -Reduced demand for products with high environmental impacts due to changes in customer preferences 	<ul style="list-style-type: none"> -Reduction in transactions due to customer attrition 	<ul style="list-style-type: none"> -Collaborative development and branding of environmentally friendly, low-carbon products with suppliers * -Marketing strategies to address changes in consumer purchasing behavior *
Reputation	<ul style="list-style-type: none"> -Social criticism from consumers, NGOs, and the media regarding food waste and plastic waste 	<ul style="list-style-type: none"> -Revenue decline due to deterioration in corporate brand value 	<ul style="list-style-type: none"> -Promotion of initiatives to reduce food waste and plastic waste -Engagement in industry initiatives and policy advocacy -Strengthening stakeholder engagement 	
	<ul style="list-style-type: none"> -Reputational damage arising from engagement with suppliers that practice inadequate nature management 	<ul style="list-style-type: none"> -Revenue decline due to deterioration in corporate brand value -Increased financial burden associated with changes in suppliers 	<ul style="list-style-type: none"> -Compliance training for suppliers conducted by the Quality Management Department -Strengthening suppliers' nature-related risk management systems (e.g., third-party CSR audits, implementation of self-assessment questionnaires (SAQs), and submission of pledges to comply with the PPH Group Supplier Chain Code of Conduct) 	
Technology	<ul style="list-style-type: none"> -Increase in raw material prices arising from expenditures associated with the transition to sustainable agriculture, forestry, livestock, and fisheries with reduced environmental impacts, through measures such as the adoption of precision agriculture technologies, the promotion of regenerative agriculture, the development of crop varieties requiring less water, the use of low-emission feed, and waste reduction initiatives (including packaging made from recycled materials) 	<ul style="list-style-type: none"> -Incurrence of costs for supporting the introduction of technologies and new equipment for farmers -Increase in procurement costs 	-	