

In terms of the environment, Lotus' sustainable development goal is to reduce the environmental impact of its overall operations. In addition to the EHS Department, which ensures factory operations comply with environmental regulations, the Engineering Department has implemented an energy management policy aiming to improve energy efficiency by 1–2% annually based on standard production capacity, continuously enhancing environmental protection efforts. Lotus has established an EHS Department and formed an Environmental, Health and Safety (EHS) Management Committee, as well as developed an EHS Guidelines Manual to oversee and manage the environmental impact of waste generated by the pharmaceutical manufacturing sites. Since 2021, Lotus has calculated and recorded greenhouse gas emissions, water consumption, and total waste weight at its manufacturing plants and R&D centers in accordance with standards announced by the Bureau of Energy. Furthermore, Lotus completed the 2024 greenhouse gas inventory and assurance for its major operating locations following the Sustainable Development Roadmap issued by the Financial Supervisory Commission.

5.1 Task Force on Climate-related Financial Disclosures, TCFD

The frequency of disasters caused by climate change has increased considerably. In response to the natural disaster and relevant financial loss associated with climate change, Lotus has implemented TCFD recommendations for climate-related financial disclosure established by FSB in 2015 to voluntarily provide information on our policies and preventions of climate-related financial risks. We provide details of relevant financial implications and identify business opportunities after appropriate climate adjustment and disaster recovery to enhance our overall climate resilience in responding to future climate risks. In 2024, TCFD disclosures were newly required of the operating sites in South Korea, Singapore and India.

▼ The Four Pillars of the TCFD

Governance	The Corporate Governance Department convenes the ESG and Risk Management Workforce regularly to discuss, decide, evaluate, and supervise climate related issues and matters. After identifying climate-related impacts, meetings are held with senior executives to discuss the potential harms of risks and propose improvement suggestions and measures to adapt and mitigate climate-related financial risks. The Chairman of the ESG and Risk Management Workforce affirms the short-term, medium-term, and long-term objectives. The ESG and Risk Management Workforce reports ESG performance annually. Including climate change-related issues, to the Board of Directors.
Strategy	Lotus will actively promote green energy and environmental protection policies, reduce electricity consumption and carbon footprint throughout our operations, manufacturing and distribution process. In response to the impact of climate change and greenhouse effect on the environment, measures have been taken to conserve energy, carbon reduction, and implement green procurement, products with energy-saving and environmentally friendly labels are purchased, and energy conservation and carbon reduction are implemented in operations.
Risk Management	To identify and evaluate significant impacts or risks related to operation, our Corporate Governance Department regularly assess climate change risks, understand specific potential financial impact, and provide a basis for policy formulation and goals to establish comprehensive climate management procedures, including steps such as identification, assessment, management, recovery, adaptation, and continuous monitoring. For the process, please refer to "Climate risk verification and assessment and management flow chart" for more detail.
Metrics and Targets	Short-term Goals <ul style="list-style-type: none"> Implement ISO 14064-1 greenhouse gas verification standard and gradually expand the inventory scope to comply with the regulations of relevant countries. Set carbon reduction goals with 2022 as the base year, including an annual reduction of 1% of greenhouse gas emissions and electricity consumption. Improve relevant units' understanding of the inventory items of Scope 3 of greenhouse gas emissions.
	Mid-term Goals <ul style="list-style-type: none"> Reduce carbon emissions from the main operating sites in Taiwan and South Korea by 36%. Disclose the carbon reduction goals, strategies and action plan for 2026. Complete the carbon inventory and assurance work of merged companies in 2028
	Long-term Goals <ul style="list-style-type: none"> Realize net-zero emissions in 2050.

5.1.1 Climate Risk Management

To identify and assess significant impacts or risks related to operations, the ESG and Risk Management Workforce holds regular meetings to evaluate climate change risks based on ESG factors to understand specific potential financial impacts to establish the foundation for formulating response strategies and relevant objectives. By establishing sound climate management procedures, we can review climate change-related response measures regularly.

▼ Climate Risk Management Process

Risk Management	Process content
Risk Identification and Assessment	In accordance with TCFD framework, the Company identifies and evaluates climate risks and responsive measures in a cross-departmental way, invites representatives from each competent department and external experts to evaluate "physical risks", "transition risks", and "opportunities" in climate change issues, and generates "Climate Risk and Opportunity Matrix" as an evaluation tool to address the occurrence rate of climate risk incidents and the degree of impact on operations.
Risk Monitoring and Control	Each competent department shall determine the priority of risk control through "Climate Risk and Opportunity Matrix", establish and execute corresponding climate risk control plans on this basis, and include the effectiveness of risk control in periodic self-evaluation. Relevant implementation results will be reviewed by the ESG and Risk Management Workforce and reported to the Board of Directors for verification.
Risk Communication	In accordance with the TCFD framework, the Company evaluates the expected impact loss and possible benefits resulting from climate risks and opportunities, and regularly discloses them on its annual sustainability report, to maintain continual communication with stakeholders.

▼ Climate Risk and Opportunity Identification Process

Step 1 Establish a list of climate risks	Refer to international trends, conduct extensive industrial research, have insight into climate risks and opportunities, and establish a list to check and confirm eight climate risks and one climate opportunity.
Step 2 Collect, evaluate, and analyze opinions	Collect the climate risk issues from main operating sites in Taiwan, South Korea, India and Singapore, discuss with external consultants and responsible colleagues from each internal department, and conduct evaluations and analyses of the likelihood of such risks and financial impact.
Step 3 Identify and sort key factors	Through matrix analysis, the climate-related risks and opportunities for Lotus in 2024 were prioritized, and key factors were identified.
Step 4 Responsive actions and strategic development	Include climate-related risk and opportunity factors in operation decision-making and development projects, check Lotus' current response measures, and develop future strategies, metrics and targets to thoroughly implement climate risk management.

5.1.2 Identification and Evaluation of Climate-Related Risks and Opportunities

In accordance with the TCFD framework and based on the results of the first inventory in 2024, Lotus considered the characteristics of the pharmaceutical industry and its own sustainable strategic operation goals, conducted materiality identification of four transition risks, four physical risks, and one opportunity, and presented the related risks and opportunities in a climate risk matrix. Three levels have been classified, i.e., short-term, medium-term and long-term, financial impact has been classified into five levels on the basis of the operating revenue of NT\$ 18.584 billion in 2024, i.e., extremely low (short-term, negligible), low (less than 0.1%), relatively low (0.1%~0.5%), medium (0.5%~1%) and high (greater than 1%). The result of the risk level is calculated by multiplying the likelihood by the financial impact. Identifying key items based on the risk level helps the Company properly manage future climate change risks and establish subsequent responsive measures and strategies, effectively enhancing the Company's risk resilience.

Climate-related Risks and Opportunities Lists

Transition Risks	
①	Transition-Policy and Legal (carbon fees/carbon tax)
②	Transition-Policy and Legal (Net-zero and carbon neutrality policies)
③	Transition-Policy and Legal (increase in electricity fees due to renewable energy policies)
④	Transition-Market Changes (improved threshold for the acquisition of raw materials)

Physical Risks	
①	Physical- Immediate (extreme high temperatures)
②	Physical- Immediate (delay in deliveries due to flooding and days of heavy rain)
③	Physical- Immediate (increased personnel costs due to typhoon leave)
④	Physical-Long-term (water shortages in South Korea/ India, restrictions on water consumption)

Climate Opportunities	
①	Resource efficiency

Climate-related Risk and Opportunity Matrix (likelihood * financial Impact)

Likelihood	Financial impact				
	Extremely low 1	Low	Very low 3	Medium	High
Short-term 3	① ② ③	② ③ ①			
Mid-term 2	④				
Long-term 1	④				

Note 1: ● Transition risk ● Physical risk ● Climate opportunity
 Note 2: dark grey background: Above 10; medium risk/grey background: 6~9; low risk/light gray background: 1~5.

In accordance with the matrix above, all climate-related risks and opportunities of Lotus are categorized as medium- or low-risk. After further evaluation by the Sustainability and Risk Management Team and external consultants, we identified two transition risks and one climate opportunity. Financial impact data is subsequently disclosed through scenario analysis, and response measures and short-, medium- and long-term goals established. The Sustainability and Risk Management Team shall then re-identify significant climate risks and opportunities every two years in principle, and regularly collect information on risks and opportunities at routine meetings every year. If any potential changes to the significant risks and opportunities originally determined occur or are indicated based on relevant information, the team shall initiate the re-identification procedure as needed.

Results of Climate Risk and Opportunity Identification

Type	Risk and Opportunity Item	No.	Risk level	Included or not	Description	
Transition Risks	Policy and Legal Risks	Carbon fee/ carbon tax	①	Low	X	The pharmaceutical industry is not subject to the regulations governing carbon fees/carbon tax as adopted in the main operating sites. Therefore, no impact is expected in the short term.
		Net zero and carbon neutrality policies	②	Medium	V	
		Renewable energy policies	③	Medium	V	
	Market Changes	Improved threshold for the acquisition of raw materials	④	Low	X	The costs of raw materials and manpower involved in the pharmaceuticals and products annually imported in the world have increased. During the pandemic, we had already begun taking response measures to adjust product portfolios and expanded and diversified raw material supply chains to reduce risks.
Physical Risks	Immediate	Extreme high temperatures	①	Low	X	Lotus needs cold chain distribution for only one pharmaceutical product. Therefore, no impact is expected in the short term.
		Delay in deliveries due to flooding or rainstorms	②	Low	X	In 2024, there was one case of delayed delivery in Taiwan. There was flooding at Dubai Airport and goods were stranded in Taipei. The delivery was re-routed via an alternative airline, leading to an additional expense of TWD 141,825. Since the financial impact of this case was extremely low, it was determined that no significant impact is expected in the short term.
		Typhoon (typhoon leave)	③	Low	X	In 2024, six days of typhoon leave were provided in Taiwan, causing a personnel cost of TWD 123,169. Three orders were delayed due to the typhoon leave, and all flights corresponding to these delayed orders were rescheduled, without extra expenses being incurred. No regulation on typhoon leave applies in South Korea, Singapore and India.
Long-term	Water shortages	④	Low	X	All operating sites are located outside regions with high water stress. Therefore, no impact is expected in the short term.	
Climate Opportunities	Efficiency resource	Use of energy-saving equipment	①	Medium	V	

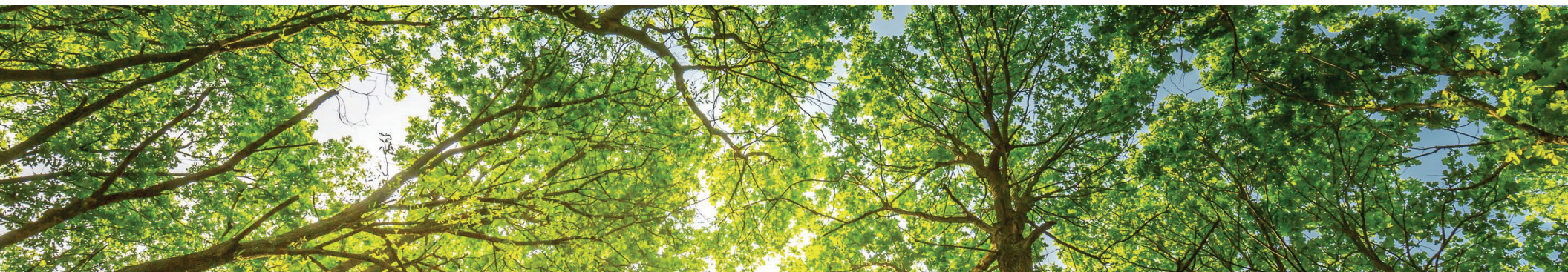
5.1.3 Climate-Related Risks, Opportunities, and Financial Impacts

In 2024, after reviewing the risks and opportunities related to climate change, the Company promoted risk assessments at relevant operational levels based on the functions of each unit, identified potential transition and physical risks, and identified appropriate scenarios for potential financial impact disclosures. We have organized and disclosed the potential impact of risks and opportunities on our business, strategies, and finance in the following table, and calculated the estimated financial impact. Following risk review, the Company analyzed the financial impact of climate change on our financial position and annual adaption and response measures. "Climate-related risks and financial impact" and "climate-related opportunities and financial impact" are disclosed as follows:

▼ Financial Impact of Lotus' Climate-related Risks and Opportunities and Responsive Strategies

Type	Risk and opportunity item	Risk description and financial impact	Duration of the impact	Adaption and response measures	Scope of the impact		
					Upstream	Lotus	Downstream
Transition Risks	Policies and regulations	Net-zero and carbon neutrality policies	Short-term	1. Conduct carbon inventory and assurance for each operating site in response to the national carbon reduction goals adopted in these sites. 2. Pay attention to Scope 3 inventory and collaborate with suppliers to implement relevant carbon inventory plans. 3. Set carbon reduction strategies.	V	V	V
		Renewable energy policies	Short-term	1. Replace energy-consuming equipment for energy conservation and carbon reduction. 2. Take energy-saving and carbon reduction measures from sources like processes and transportation to reduce the environmental impact and power consumption, thereby lowering the risk of increased costs of power generation in the future.	V	V	
Climate opportunities	Resource efficiency	Use of energy-saving equipment	Short-term	1. Reduce disposable waste, implement a classification system, and establish resource recycling management indicators for branch companies to drive resource sustainability. 2. Establish energy-saving and carbon reduction measures, further promote energy-saving management and waste reduction in offices and public areas, implement green procurement by purchasing products with energy-saving and environmentally friendly labels. 3. Continually replace the public facilities and equipment in the plants with energy-saving variable-frequency equipment and LED lighting. 4. Implement long-term planning for an energy monitoring system to review power consumption in plants, and conduct energy regulation within an allowable scope to save energy more effectively.	V	V	V

Note: "Short-term" indicates a time frame of 1 to 3 years; "medium-term" refers to 3 to 5 years; and "long-term" refers to a period exceeding 5 years.



5.1.4 Climate Risk Assessment and Scenario Analysis

Transition Risks -IEA NZE2050 Scenario

Scenario
IEA Net Zero Emissions by 2050 Scenario
Achieving net-zero emissions by 2050 and realizing a target of a maximum global average temperature increase of 1.5° C above the level prior to industrialization globally. The demand for coal declines by 55% by 2030, and global energy intensity declines by at least 4% annually from 2020 to 2030. In 2050, global coal consumption will decrease by 90%.

Renewable Energy Policy – Increased Power Costs

Lotus has estimated the financial impact of future power costs in response to the scenario analysis of international and domestic related regulations.

If estimated based on purchased electricity of 20,331,571kWh in Taiwan with an increase of 0.68, and purchased electricity of 7,219,178kWh in South Korea with an increase of 0.31, energy costs could increase to NT\$ 18 million in 2025 (mainly impacting the plants in Taiwan and South Korea). In consideration of this scenario analysis, Lotus will continue to take various energy-saving measures to address the potential impact of purchased electricity to reduce the impact on power.

Physical Risks-RCP 8.5 Scenario

Although physical risks were not identified as significant risks in this identification process, the Company has still conducted preventive risk assessment by using scenarios simulated with scientific tools based on the extremely high greenhouse gas emission scenario of RCP 8.5.

The estimated impact of the risks of extreme high temperatures, flooding, and water shortages on the Company are described separately below based on the scenarios simulated with scientific tools.

- Risk of extreme high temperatures: The [Climate Analytics](#) tool is used to evaluate the potential impact of global warming on extreme high-temperature incidents, including the frequency and intensity of heat waves.
- Risk of flooding: The [Climate Central](#) tool is used to measure the impact of rising sea levels and climate change on coastal and low-lying regions in terms of the risk of flooding, and to provide relevant data and models.
- Risk of water shortages: The [Aqueduct Water Risk Atlas](#) – Water Stress tool is used to evaluate water resource stress and the risk of water shortages around the world, and to analyze water resource management challenges and potential solutions.

Simulation Conditions of Scientific Scenarios of Lotus' Physical Risks

Physical Risks	Description of risk factor	Taiwan		South Korea		Singapore		India	
		2030	2050	2030	2050	2030	2050	2030	2050
Immediate	Extreme high temperatures	Medium risk	High risk	Low risk	Low risk	Low risk	Low risk	High risk	High risk
Immediate	Flooding: Resulting in interruptions in the supply chain or delivery delays	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Long-term	Water shortages: Restriction on water consumption	(Medium) low risk	(Medium) low risk	(High) low risk	(High) low risk	(Medium) low risk	(Medium) low risk	(Extremely high) high risk	(Extremely high) high risk

Identification Results of Lotus' Physical Risks

Physical Risks	Identification and assessment results
Extreme high temperatures	The climate change data of the regions where Lotus is located indicates that the impact of high temperatures will be insignificant in the future, or the existing air-conditioning, ventilation and cooling systems are adequate enough to address the rising temperature. Therefore, the impact of high temperatures on operations is insignificant.
Flooding: Resulting in interruptions to supply chains or delivery delays	According to simulation data, the main plants and supply chain facilities of Lotus Pharmaceutical are located in high-altitude regions that are not vulnerable to flooding. Therefore, the risk of flooding is relatively low. Although the place where Lotus Singapore is located is near a region with a high flooding risk, it is only an office area rather than the plant operating site, and the Company does not have any plans to establish a plant in Singapore. Therefore, the impact of flooding on production and operations is not significant after assessment.
Water shortages: Restrictions on water consumption	The current supply of Lotus' water resources is stable. Scientific models predict that the risk of water shortages will emerge in South Korea and India in the medium- to long-term. We will continue to monitor water resource policies adopted in operating regions in the future and establish response strategies to reduce the risk of water shortages.

5.1.5 Environmental Management Objectives

Net-zero and carbon neutrality policies – Greenhouse gas inventory and assurance

According to Lotus' dedicated roadmap in the section dedicated to IFRS Sustainability Disclosure Standards, the timeline for Lotus's greenhouse gas inventory and assurance project as required by regulations is shown in the diagram below. Lotus introduced ISO 14064-1:2018 carbon emission inventory in 2024 and has conducted inventory verification of greenhouse gas emissions of the main operating sites of Lotus in Taiwan and South Korea since 2023. The Company also obtained a third-party assurance report in 2024. The Company's internal energy consumption and carbon emissions will be identified through standardization of processes to further control the energy consumption and carbon emissions of major equipment and facilities. Furthermore, the Company plans to complete the inventory information and assurance of consolidated subsidiaries prior to the statutory time limit, and gradually complete greenhouse gas reduction targets and strategic actions.

Lotus did not face significant sanctions or penalties in 2024 for violating environmental regulations. It required each operating site, while carrying out operating activities and internal management, to strive to achieve environmental management goals and continue implementing relevant action plans. In the future, Lotus will continue assessing the method of establishing a dedicated responsible unit for environmental related risks to further improve its environmental governance responsibilities and response to external risks.

Period	Short-term (2024-2025)	Mid-term (2026-2030)	Long-term (~2050)
Greenhouse Gas	<ul style="list-style-type: none"> Our Company has adopted the ISO 14064-1 greenhouse gas inventory standard. The scope of the 2024 inventory and assurance is provided in chapter 5.2. Moving forward, we will gradually expand the inventory scope to comply with regulatory requirements in various countries. Establish carbon reduction targets with 2022 as the base year. Reduce greenhouse gas emissions by 1% annually. Pay attention to Scope 3 greenhouse gas emissions and enhance awareness and understanding across relevant departments. 	<ul style="list-style-type: none"> Reduce carbon emissions by 36% compared to the baseline year. Disclose carbon reduction targets, strategies, and concrete action plans in 2027. Complete the disclosure of 2027 greenhouse gas emissions information and assurance for combined companies in 2028. Gradually implement a carbon inventory program Evaluate boiler operational efficiency and plan to replace existing diesel boilers with natural gas boilers. 	<ul style="list-style-type: none"> Achieve net-zero emissions by 2050.
Energy (power consumption)	<ul style="list-style-type: none"> Reduce electricity consumption per capita by 1% annually. 	<ul style="list-style-type: none"> Purchase energy-saving equipment to improve the energy usage structure. Continue promoting energy-saving and carbon reduction measures. 	<ul style="list-style-type: none"> Plan for an energy monitoring system.
Water Resource	<ul style="list-style-type: none"> Reduce water consumption per capita by 1% annually. 	<ul style="list-style-type: none"> Confirm the water consumption process and optimize water consumption procedures to reduce water consumption. 	<ul style="list-style-type: none"> Plan a water recovery system.
Waste	<ul style="list-style-type: none"> Reduce waste generation per capita by 2% annually. 	<ul style="list-style-type: none"> Continually optimize classification through in-house education and training, and strengthen classification implementation to improve waste recovery rate. 	<ul style="list-style-type: none"> Circular economy with waste

