

Recommendations of the Task Force on Climate-related Financial Disclosure

(TCFD)

In recent years, global response to climate change has not been only focusing on carbon emission but also climate adaptation. In 2021, TSRC initiated the TCFD project, and adopted TCFD Framework to analyze climate-related financial disclosures, identify and quantify financial impacts of climate related and disclose the impacts to TSRC and our countermeasure. The four core elements of the TCFD Framework will be described below, which are Governance, Strategy, Risk Management and Metrics and Targets.

I. Governance

For risk management, the Board of Directors serves as the highest governance institution for supervision, and the TSRC management team is responsible for TSRC's risk management. Risk management projects are implemented through risk management projects and risk management working groups. For climate change, the Company will have regular meetings to review the possible impact of operations and grasp the progress of related issues.

For implementation, the Sustainability/ESG Task Force is responsible for the TCFD climate risk assessment. The team members are from functional units such as finance, human resources, R&D, manufacturing, and business units. The Sustainability ESG Task Force and relevant colleagues in each subsidiary conduct a comprehensive assessment of the potential risks of climate change, and develop countermeasures for the identified potential climate risks, and regularly report the implementation progress and implementation results to the management team and to Board of Directors to ensure the tracking and control of risk management.

II. Strategy

In recent years, as climate change has become the norm, climate response has become an issue that companies must actively take actions on. In order to understand the potential risks and opportunities of climate change for TSRC, and in response to the global sustainability trend of disclosure of financial information related to climate change, TSRC has incorporated the potential impacts of climate change into our overall risk management procedure. In addition to establishing management measures for risk response and emergency response, we also actively

promote various energy-saving and carbon-reduction measures to effectively respond to the climate challenges and grasp climate-related business opportunities. As a leader in the chemical industry, TSRC adopts the promotion of low-carbon transformation as the main strategy to develop climate change response plans. In terms of operations, TSRC responds to the global net-zero trend, by continuously reviewing our own carbon reduction effectiveness, formulating carbon reduction strategies and targets, and improving our carbon reduction performance through continuous enhancement of green production innovation, energy efficiency improvement, and promotion of renewable energy. In terms of product stewardship, TSRC strives to develop sustainable product and services.

III. Risk Management

(1) Climate Risk Identification

In order to understand the potential climate-related financial risks and opportunities of TSRC, the ESG Task Force led colleagues to convene a TCFD workshop, and follow the content of the TCFD guidelines to establish climate-related risk management procedures. The management process can be divided into three steps: (1) Establishing TSRC's Climate-Related Risk and Opportunity Risk (2) Climate Risk Ranking, (3) Management and Response.

To establish TSRC's potential climate related risks, we refer to the recommended climate-related risk list by TCFD, global research reports, industry benchmarking analysis to identify our short, medium and long-term climate-related risks and risk factors related to TSRC, and assess the impacts on each part of TSRC's value chain. In addition, we invite colleagues from all departments to conduct assessments based on the principle of materiality to identify the impact of climate-related transition risks and physical risks on each business unit. We adopted three assessment criteria, which are "Potential Impact, Potential Vulnerability and Likelihood" to evaluate and generate climate-related risk matrix, and will continuously review and provide feedback on the results for developing corresponding response measures.

STEP 1 Establishing TSRC's Climate-Related Risk and Opportunity List

With reference to global trends and industry benchmarks and reports and information issued by relevant domestic and foreign institutions, TSRC finally listed 13 climate-related risks and 5 climate-related opportunities and evaluated extent of the impact of each risk on TSRC's value chain based on indicators such as financial impact and operating impact.

Climate-Related Risk List and its Impact on Value Chain

Risk Profile	Risk	Potential Influence		
		Upstream	Midstream	Downstream
		Suppliers	TSRC	Customer/ Society
Policy and Legal	Increased cost of GHG emission	High	High	Medium
Policy and Legal	Enhanced sustainability requirement and regulation	High	Medium	Medium
Market	Changing customer behavior	Medium	Medium	High
Market	Increased cost of raw materials	High	High	High
Technology	Costs to transition to lower emissions technology	High	High	High
Reputation	Stigmatization of sector	High	Medium	Low
Reputation	Shifts in consumer preferences	Low	Medium	Medium
Acute	Increased severity of extreme weather events - Hurricane	Medium	Medium	Medium
Acute	Increased severity of extreme weather events - Heavy Downpours	Medium	Medium	Medium
Acute	Increased severity of extreme weather events – Extreme Low Temperature	Medium	Low	Low
Acute	Increased severity of extreme weather events - Drought	Low	Low	Low
Chronic	Rising mean temperature	Low	Low	Low
Chronic	Rising sea levels	Low	Low	Low

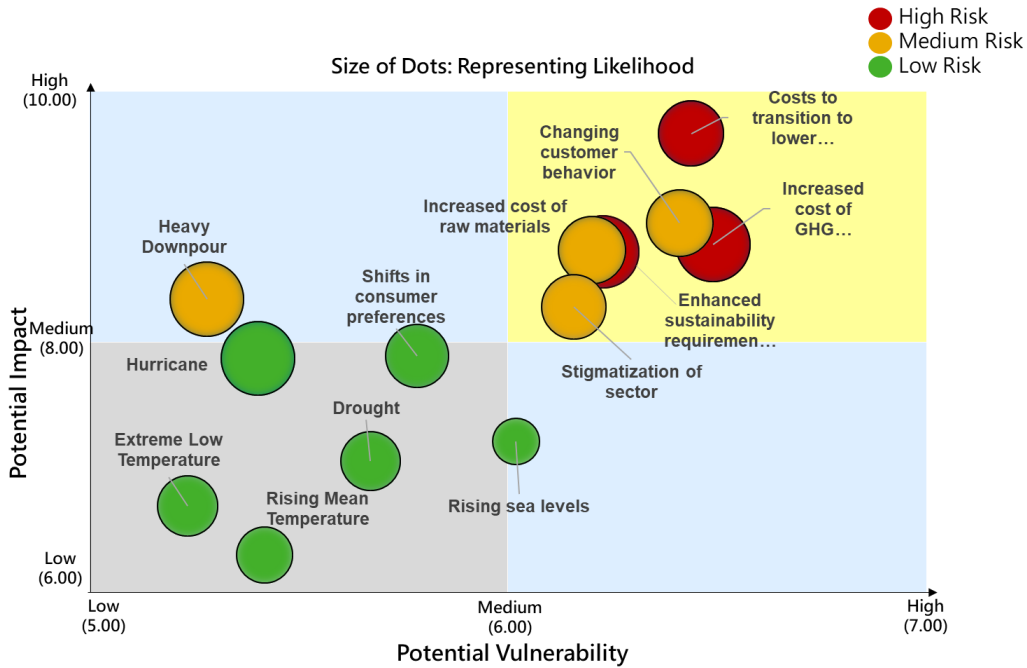
Climate-Related Opportunity List

Opportunity Profile	Opportunity	Description
Products and Services	Development and/or expansion of low emission goods and services	TSRC may develop low emission goods and services and/or products that can support clients to reduce carbon emission. By developing and expanding low-emission goods and services, TSRC would reach to new markets and have a better competitive position
Products and Services	Development of climate adaptation solutions	TSRC may develop products that can support clients to adapt climate change and extreme weather events. By developing and expanding adaptation goods and services, TSRC would reach to new markets and have a better competitive position to reflect consumer preferences, resulting in increased revenues.
Resource Efficiency	Use of more efficient production and distribution processes	TSRC may adopt more efficient distribution processes for increasing energy efficiency and update the current production processes by adopting high efficient ones. Operating costs would be reduced through efficiency gains and cost reductions.
Markets	Increase sustainable financing	If key investors perceive TSRC's contribution on mitigating global climate crisis, TSRC will have a lower capital cost from capital market.
Markets	Positive reputation	TSRC earns good reputation through practicing SDGs activities, it will increase market valuation and reputation amount workforces.

STEP 2 Climate Risk Ranking

TSRC conducts assessments based on the three criteria of potential impact, potential vulnerability, and likelihood, and classifies climate risks into three levels: high,

medium, and low. In the end, it was identified that " Enhanced sustainability requirement and regulation", " Increased cost of GHG emission" and " Costs to transition to lower emissions technology " were TSRC's top three climate risks.



STEP 3 Management and Response

Regarding the 13 climate-related risks and 5 climate-related opportunities identified by TSRC, TSRC has assessed the potential impacts on our operations and financial planning, and formulated relevant risk and opportunity response measures as shown in the table below:

Climate-related Risk Management and Response

Risk Type	Risk Profile	Risk	Influence of Risk	Countermeasure
Transition	Policy and Legal	Increased cost of GHG emission	With the increase of emission-related policies such as international carbon tariffs and domestic carbon price proposal, business will have to pay for its carbon emission that exceeds the allocated amount. These regulations will	<ul style="list-style-type: none"> • Develop low-carbon operating methods or related services • Improve energy efficiency and use renewable energy • Optimize resource management processes

Risk Type	Risk Profile	Risk	Influence of Risk	Countermeasure
			likely enhance over time.	
Transition	Policy and Legal	Enhanced sustainability requirement and regulation	<p>To achieve the net zero emissions commitment, countries and corresponding authorities have adopted a variety of economic and non-economic measures, aiming to encourage and regulate companies to take actions against climate change.</p> <p>For instance, the EU has announced the carbon border adjustment mechanism (CBAM), in which importers importing specific products are requested to purchase certificates based on the carbon content of goods. This regulation requires transparency of products carbon content and footprint.</p>	<ul style="list-style-type: none"> • Accelerate the reduction of product carbon footprint • Develop low-carbon footprint manufacturing process and products • Purchase renewable energy certificates • Invest in self-owned renewable energy power plants
Transition	Technology	Costs to transition to lower emissions technology	Energy Agency (IEA) indicated the reduction amount of the global net-zero path carbon emissions by 2030 will	<ul style="list-style-type: none"> • Work with partners to invest high-efficiency equipment, technology, and

Risk Type	Risk Profile	Risk	Influence of Risk	Countermeasure
			<p>come from the existing technology; by 2050, nearly half of the carbon emissions reductions come from technologies that under testing stage or prototype. The high cost, low high proficiency, and large-scale commercialization of low-carbon technology, should consider into ROI.</p>	<p>product development.</p> <ul style="list-style-type: none"> • Replacing old and high energy-consuming equipment with low-energy-consuming ones. • The company must actively seek talents who can adapt low-carbon transition technology, actions such as recruiting talents or training current employees. • Desk research and identification regarding the low-carbon investment or transformation for investing the resource within an affordable scope. •
Transition	Market	Changing customer behavior	<p>With the arising climate awareness, consumers are more inclined to adopt low carbon products with transparent environmental disclosure or services.</p>	<ul style="list-style-type: none"> • Utilize efficient mode of transportation • Develop low-carbon products/services • Develop efficient production process

Risk Type	Risk Profile	Risk	Influence of Risk	Countermeasure
Transition	Market	Increased cost of raw materials	IPCC calls on most countries to adopt low-carbon emission energy for power generation by 2050 and completely phase out fossil fuels by 2100, which will increase the company's cost of raw material	<ul style="list-style-type: none"> Assist suppliers in climate adjustment and energy transformation, and build a supply chain with climate resilience
Transition	Reputation	Stigmatization of sector	With the rise of consumers' climate awareness, and investors' increasing concerns about the performance of corporate sustainability, which will impact the reputation of high-carbon companies.	<ul style="list-style-type: none"> Strengthen corporate response to climate change to enhance corporate image Accelerate the low-carbon transformation of enterprises and Improve greenhouse gas management
Transition	Reputation	Shifts in consumer preferences	Extreme weather easily affects the stability of the supply chain, and customers may switch to localized supply. In addition, due to the continuous increase in demand for low-carbon transformation, it is easy to influence customers to choose lower-carbon-emission raw materials and sustainable products	<ul style="list-style-type: none"> Strengthen risk management and supervision mechanisms, and introduce climate risk assessment and response mechanisms

Risk Type	Risk Profile	Risk	Influence of Risk	Countermeasure
Physical	Acute	Increased severity of extreme weather events - Heavy Downpours	The increased frequency and severity of heavy downpour incidents will have the following impacts including large amount of asset losses and subsequent repairing costs, product and service disruption and employees unable to turn out for duty	<ul style="list-style-type: none"> • Focus on flood protection and strengthen the prevention measures for damage to production sites • Strengthen emergency response measures, such as temporary generators • Adjust manpower allocation
Physical	Acute	Increased severity of extreme weather events - Hurricane	<p>The increased frequency and severity of hurricane incidents will have the following impacts</p> <ul style="list-style-type: none"> • destroy the power system, causing power outages in some areas, resulting in the interruption of operations or services • disrupt company's supply chain • Increase premiums for assets located in "high-risk" areas, resulting in operational costs increase 	<ul style="list-style-type: none"> • Focus on flood protection and strengthen the prevention measures for damage to production sites • Strengthen emergency response measures • Adjust manpower allocation • Strengthen the localization and low-carbonization of suppliers
Physical	Acute	Increased severity of extreme weather events - Drought	Water cuts and water shortages caused by droughts may affect water supply at production site as well as increase water cost.	<ul style="list-style-type: none"> • Expand the implementation of water-saving measures to reduce wastewater

Risk Type	Risk Profile	Risk	Influence of Risk	Countermeasure
			<p>Meanwhile, shortage of water may interrupt TSRC or its supplier's operation, causing decline in output and increase operational costs.</p>	<p>discharge and water consumption</p> <ul style="list-style-type: none"> • Strengthen the recycling of process wastewater and promote green buildings to improve the efficiency of water use • Increase the use of reclaimed water
Physical	Acute	<p>Increased severity of extreme weather events – Extreme Low Temperature</p>	<p>When the temperature drops sharply or blizzard hits, it may have the following effects:</p> <ul style="list-style-type: none"> • Extreme low temperature events freezes water pipes, equipment and instruments at TSRC's operating or production site, resulting in rupture of the water pipes and damage to the equipment, which will lead to the disruption of supply chain. • Road closures prevent employees turning out for duty, reducing production capacity and increasing operational costs. 	<ul style="list-style-type: none"> • Focus on low-temperature protection and strengthen prevention measures against damage at production sites

Risk Type	Risk Profile	Risk	Influence of Risk	Countermeasure
Physical	Chronic	Rising mean temperature	<p>The increase in the length of the dry season in East Asia and the increase in the duration of extreme high temperatures caused by global climate change will have the following impacts:</p> <ul style="list-style-type: none"> • Causing heat stroke or other negative impacts on employees, resulting in loss of working efficiency • The continuous high temperature may increase the demand of electricity or affect the efficiency of production unit • Droughts caused by continuous heat may resulting in operation or supply chain disruption due to water shortage 	<ul style="list-style-type: none"> • Continue equipment maintenance and power consumption monitoring to maintain stable power consumption • Strengthen the recycling of process wastewater and promote green buildings to improve the efficiency of water use
Physical	Chronic	Rising sea levels	<p>Production and operational sites may be affected by floods caused by sea level rise, resulting in significant financial loss</p>	<ul style="list-style-type: none"> • Focus on the protection of coastal sites and strengthen prevention measures for damage to production sites

Climate-related Opportunity Management and Response

Opportunity Type	Opportunity	Description	Countermeasure or objectives
Products and Services	Development and/or expansion of low emission goods and services	Developing low emission goods and services and/or products that can support clients to reduce carbon emission. By developing and expanding low-emission goods and services, company has a better competitive position to reflect consumer preferences	<ul style="list-style-type: none"> • Develop high-efficiency, low-carbon products • Assist clients in reducing product carbon footprint
Products and Services	Development of climate adaptation solutions	Developing products that can support clients to adapt climate change and extreme weather events.	<ul style="list-style-type: none"> • Developing products with better capability to adapt climate change
Resource Efficiency	Use of more efficient production and distribution processes	TSRC may adopt more efficient distribution processes for increasing energy efficiency and update the current production processes by adopting high efficient ones. Operating costs would be reduced through efficiency gains and cost reductions.	<ul style="list-style-type: none"> • Equipment renewal and replacement • Promote energy saving and carbon reduction programs • Introduce water-saving processes and projects • Participate in renewable energy projects and adopt energy-saving measures • Promote waste recycling • Adopt low-carbon transportation
Markets	Increase sustainable financing	International investment and appraisal agencies give a better evaluation of the company's ESG performance, which will attract financial capital to the company	<ul style="list-style-type: none"> • Strengthen the risk management and supervision mechanism • Introduce climate risk assessment and response mechanisms

Opportunity Type	Opportunity	Description	Countermeasure or objectives
Markets	Positive reputation	Earning good reputation through practicing SDGs activities, it will increase market valuation and reputation amount workforces.	<ul style="list-style-type: none"> Expansion of stakeholder discussions on climate issues

IV. Targets and Metrics

In terms of operations, TSRC currently tracks key climate indicators, including greenhouse gas emissions, energy efficiency, water resources use, waste emissions, air pollutant emissions and other management indicators, and set reduction targets for energy and greenhouse gas emissions. In terms of product stewardship, TSRC continues to monitor the environmental impact and performance of TSRC products and services by tracking the proportion of sustainable product to promote environmental sustainability through regular tracking and monitoring of our sustainability roadmap.