



TCFD REPORT 2024



In accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

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INTRODUCTION

1.1 Message from CEO



(Wichan Jitpukdee)
CEO and Board of Directors
SCG Packaging Public Company Limited

“SCGP is committed to managing our greenhouse gas (GHG) emissions responsibly. Through a combination of efficiency improvements, renewable energy use, and emissions sequestration, we are working to reduce our carbon footprint and contribute to a more sustainable future”

SCGP pledges to aggressively follow the company’s Climate Strategy and Climate-related Performance, which has ambitious targets. SCGP has committed to Net Zero emissions by 2050 and reduce GHG emissions by 2025 by 2030 compared with the base year of 2020 which is aligned with Science based target (SBT).

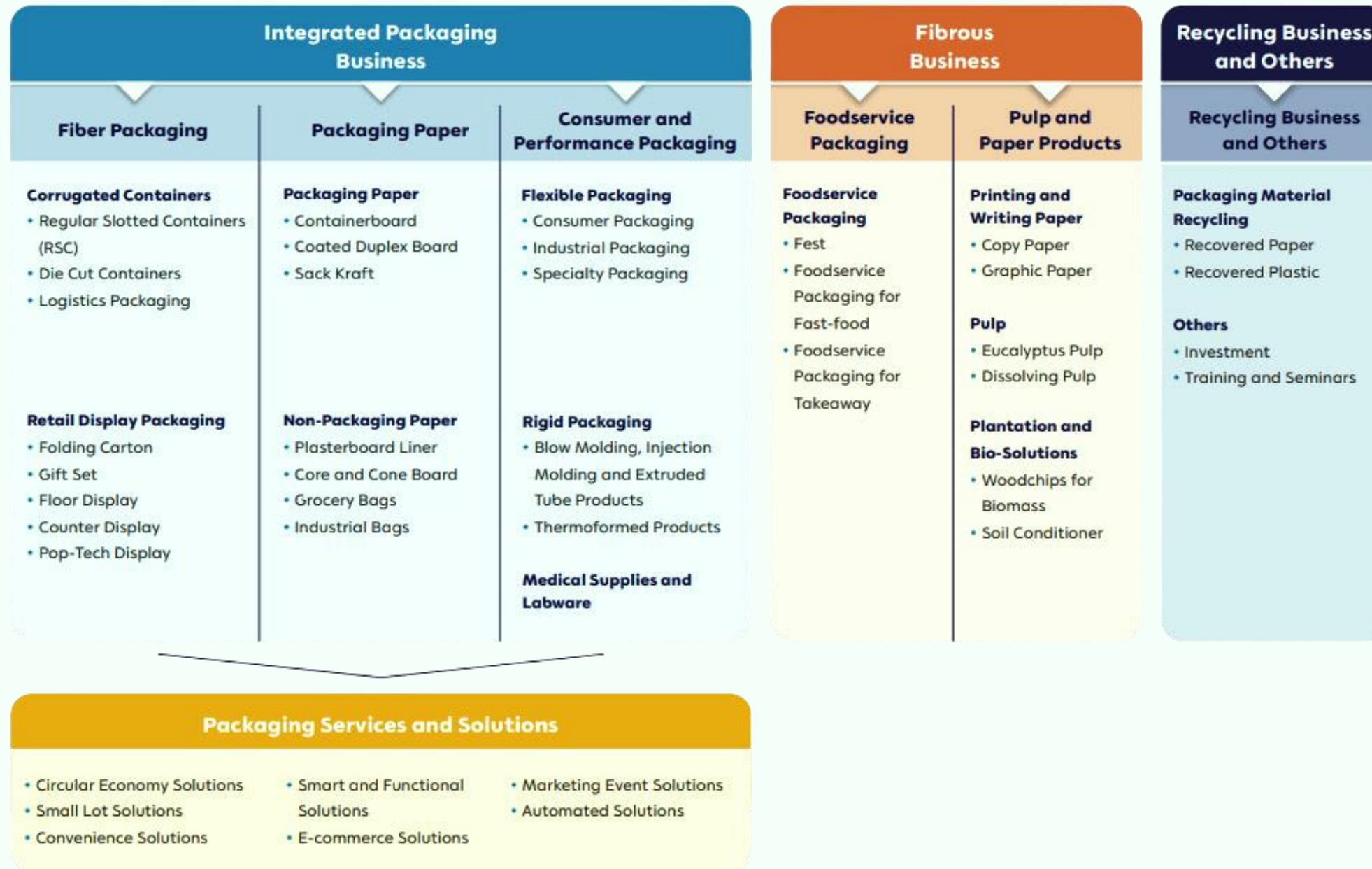
Achieving our GHG reduction targets will require the collective effort from value chain whether it's through energy-saving practices, waste reduction efforts, or advocating for sustainable solutions in each respective role.

SCGP is pleased to present our related climate management report in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). This report represents our commitment to transparency, sustainability, and responsible corporate citizenship.

Climate change poses a significant challenge to our planet and our business. As a responsible corporate citizen, SCGP is committed to understanding and addressing these challenges. Through this report, SCGP aims to provide stakeholders with a comprehensive overview of our climate-related risks and opportunities, as well as our strategies for managing them.



SCG Packaging Public Company Limited (SCGP) has 4 core value in conducting business: Adherence to Fairness, Dedication to Excellence, Belief in the Value of the Individual, and Concern for Social Responsibility. Our vision is to be “A leading multinational consumer packaging solutions provider through innovative and sustainable offerings”.



SCGP's Business Strategy as follows :

- Pursuing quality growth through merger & partnership and organic expansion.
- Aiming to become a top-of-mind packaging in solution provider through innovations and sustainable products/services in response to e-commerce mega-trend.
- Achieving operational excellence.
- Operating businesses based on the principle of sustainable development in line with ESG (Environmental Social, and Governance) concepts..

SCGP is organized into 3 main operating segments:

- Integrated Packaging Business, Fibrous Business, and Recycling Business & Others

The business is conducted with high importance :

- The Environment, Society, and Corporate Governance (ESG), with a commitment to comply with the SCG ESG Pathway Scheme given by the parent company, SCG.
- To correspond with our company's vision, SCGP has implemented the ESG 4 Plus guidelines, which consist of:
 - 1) Aim for Net Zero
 - 2) Go Green
 - 3) Lean Inequality
 - 4) Emphasize collaboration, fairness, and transparency.

1.3 About This Report

Our disclosure is adapted from Task Force on Climate Related Financial Disclosures (TCFD) Recommendation, which corresponds to four main topics: Governance, Strategy, Risk Management, and Metrics and Targets, including: Global Standard on Responsible Corporate Climate Lobbying.

TCFD Framework



The term ‘corporate climate lobbying’ refers to those activities carried out by corporations or their agents to directly or indirectly influence climate-significant policy decision-making by political or bureaucratic actors. Climate-significant policy refers to any environmental or non-environmental public policy with non-trivial implications – positive or negative – for realizing the temperature goals of the Paris Agreement. Such lobbying – also commonly known as advocacy – can have a significant impact on the stringency and effectiveness of public climate policy. It is not only a matter of societal concern, but also an issue of material, financial, significance for corporations and their investors

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GOVERNANCE



2.1 SCGP Sustainability Structure and Climate-Related Issues Oversight

SCG Packaging (SCGP) is committed to conducting business in alignment with sustainable development guidelines and goals, focusing on Environmental, Social, and Governance (ESG) aspects. Our aim is to drive organizational growth while ensuring the stability of business expansion. We prioritize maintaining a stable financial position and delivering suitable returns to our shareholders.

To ensure the efficient and effective implementation of an Enterprise Risk Management System, the Board of Directors has established the **SCGP Risk Management Policy**, following international best practices. Additionally, the Board has also established **the SCGP Sustainable Development Policy**. This policy ensures that all SCGP operations are based on sustainable development principles, taking into account risks and opportunities to improve work processes at all levels of the organization. Our focus extends to fulfilling the demands and expectations of all stakeholders in the short and long term, as well as addressing social and environmental impacts.

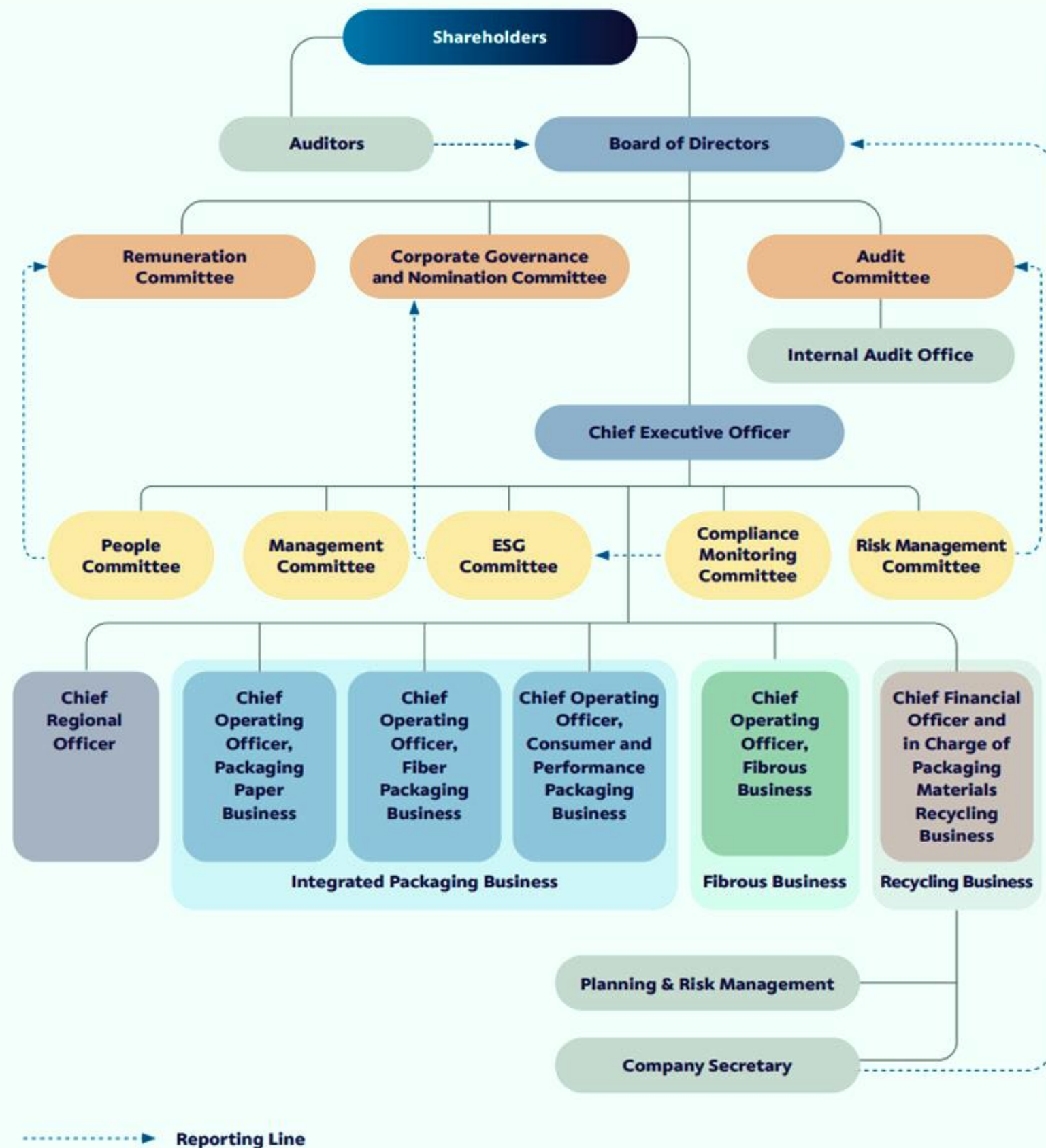
To govern and reinforce all relevant functions in executing sustainable development strategies throughout the SCGP value chain, we have established the **Corporate Governance Structure** and **Sustainability Structure**.

In 2022, SCGP developed and improved the Environmental and Climate Change Policy, Biodiversity Policy, and Product Stewardship Policy for precise and robust sustainability development. **A reporting line** from the ESG Committee to the Governance and Nomination Committee has also been added to the Corporate Governance Structure at the Board of Directors Meeting No. 240 (8/2022).

Through these initiatives, SCGP is committed to driving sustainable growth and making positive contributions to society and the environment.



SCGP Corporate Governance Structure



Indeed, Energy & Climate Change-related matters involve various key stakeholders beyond the ESG committee at SCGP. These include the Board of Directors (BOD), the Board of Directors Sub-committees, the committees chaired by the BOD representative, the dedicated ESG Committee's sub-committee, the ESG department, and the operational teams. Together, these parties collaborate and contribute their expertise to address and tackle the complexities of these important issues.

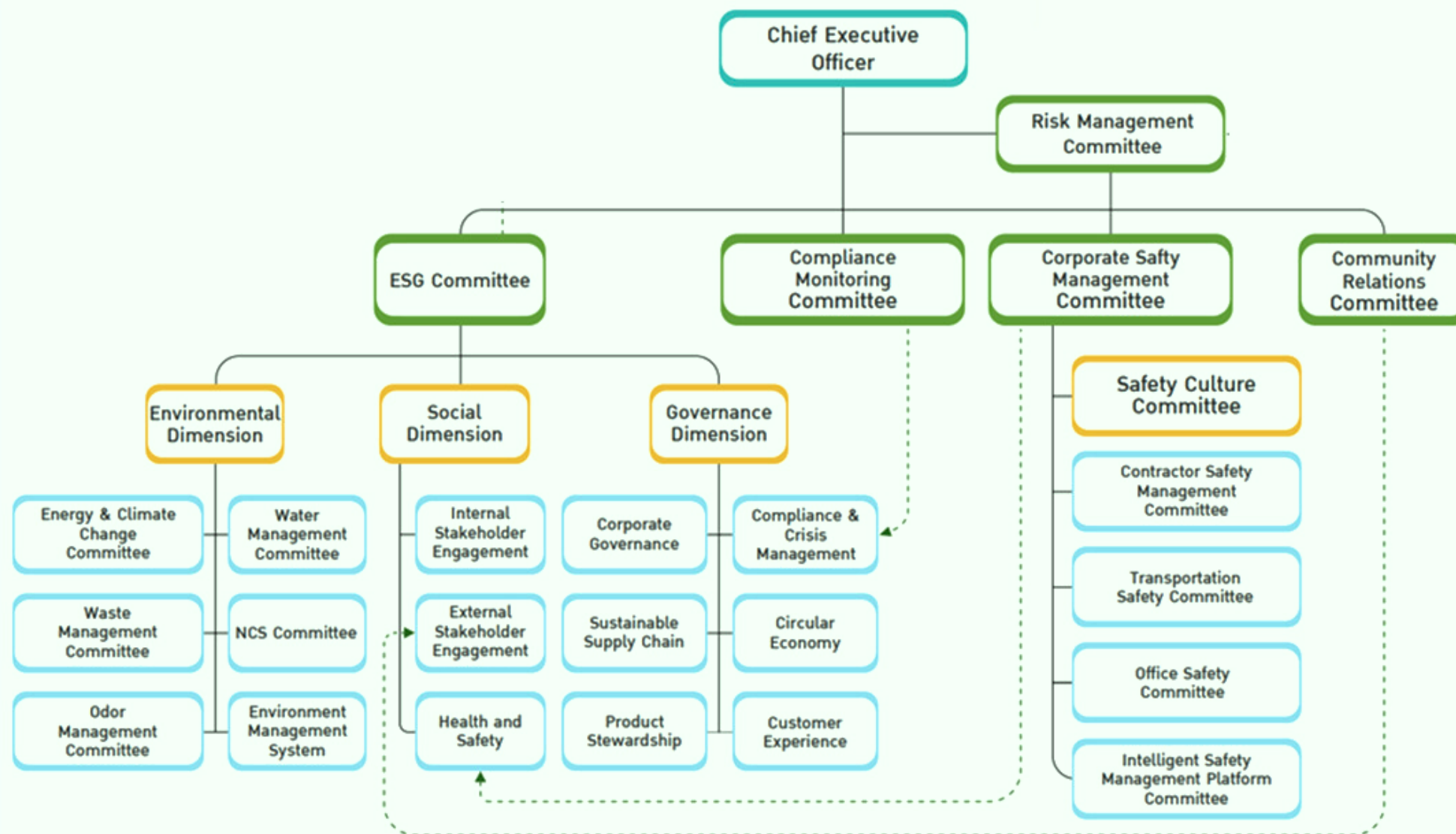
A. SCGP's Board of Directors: This group comprises 8 directors who possess extensive experience, skills, and expertise in ESG. Their inclusion ensures that energy and climate change-related matters are deliberated upon at the highest level of decision-making.

B. The Board of Directors Sub-committees: The Audit Committee plays a pivotal role in overseeing and monitoring climate-related risks and opportunities.

C. Committees chaired by the BOD representative: The Risk Management Committee (RMC) and the ESG Committee are instrumental in managing and mitigating risks associated with climate change. They actively contribute to formulating innovative strategies that promote sustainability.

D. ESG Committee's Sub-committee: Operating within the Environmental Dimension, the Energy & Climate Change Committee focuses on addressing energy-related challenges and developing solutions to mitigate the adverse impacts of climate change.

2.1 SCGP Sustainability Structure and Climate-Related Issues Oversight



ESG Committee and its committees and working groups under E, S, & G dimensions (Apart from SCGP Sustainability Structure)

The Board of Directors (BOD) plays a crucial role in ensuring sustainable value creation and promoting the Company's business objectives. As leaders, they define key objectives and business goals that prioritize sustainable value creation. One of the BOD sub-committees, the Audit Committee, oversees climate-related issues on behalf of the BOD. They are responsible for monitoring and addressing climate-related risks and opportunities.

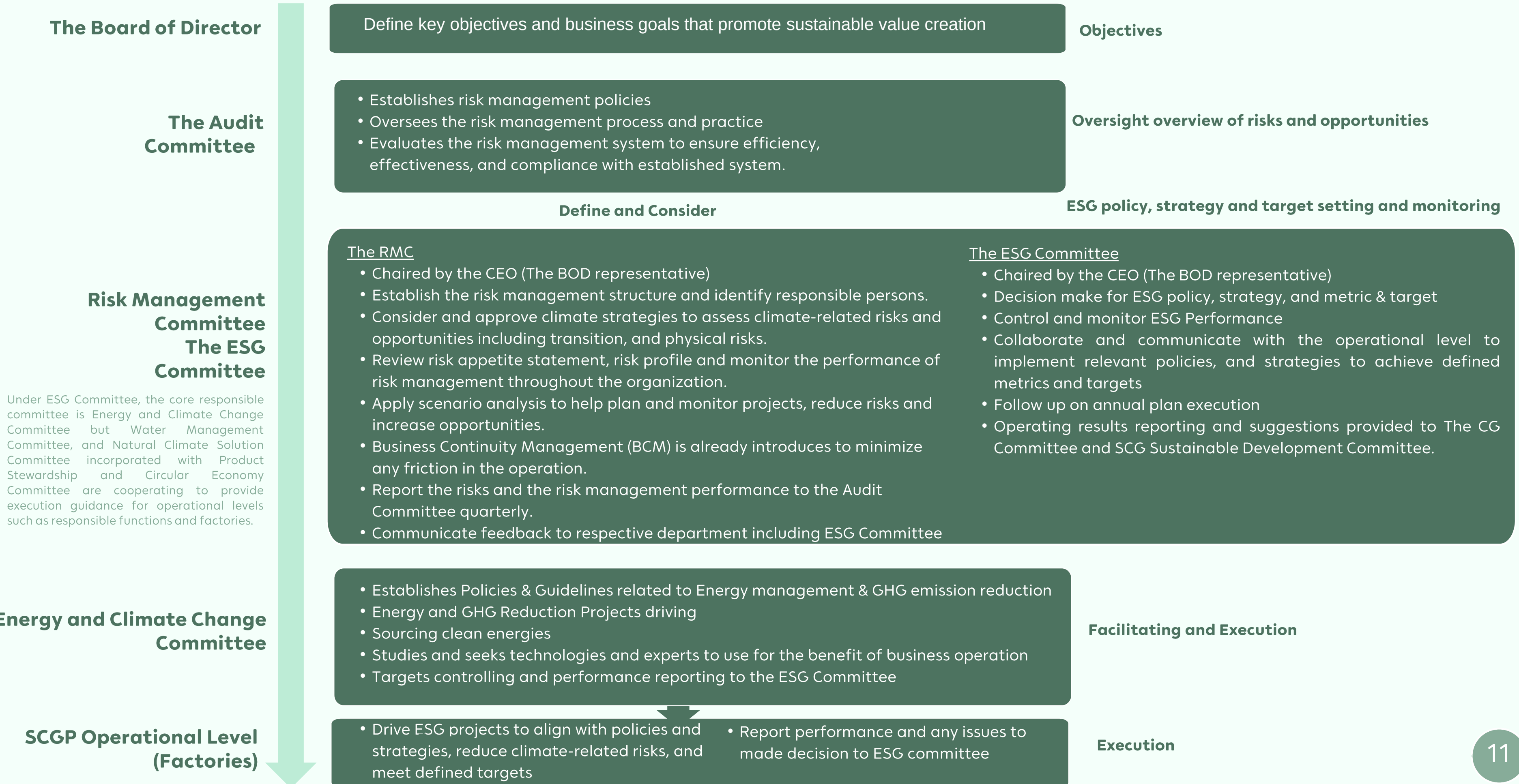
The ESG Committee and the Risk Management Committee (RMC) are responsible for managing Climate-Related Risks & Opportunities. These committees collaborate on enterprise climate resilience, setting targets, formulating strategies, and implementing effective management practices. The Energy and Climate Change Committee, a specific committee working under the ESG Committee, focuses on addressing climate-related issues and reports to the ESG Committee.

Both the ESG Committee and RMC comprise representatives from the business and operational levels. The Chief Executive Officer serves as the Committee Chairman and represents the Board of Directors in these committees. Regular progress reports on performance and key actions are provided to the Corporate Governance (CG) Committee and the Audit Committee, respectively.

To stay informed about advancements within SCGP and global outlook on Climate-related issues and Risk Management, the BOD receives updates through in-house seminars, discussions, and a Specific Director Training Program. These platforms allow board members to exchange comments, updates, and ideas in an open environment. SCGP engages in various activities and initiatives to promote sustainability and address climate-related challenges.

SCGP engages in various activities and initiatives to promote sustainability and address climate-related challenges. Examples of these include discussion sessions on the Medium Term Plan 2023-2027, meeting was focusing on Net Zero technologies that would be applicable to SCGP including changes in law & regulation and carbon price that to be prepared in advance as transition risk. The availability and impact of these changes have been discussed to define the options that to immediately do now or do later when applicable.

2.2 Management's Role in Assessing and Managing Climate-Related Risks & Opportunities



Under ESG Committee, the core responsible committee is Energy and Climate Change Committee but Water Management Committee, and Natural Climate Solution Committee incorporated with Product Stewardship and Circular Economy Committee are cooperating to provide execution guidance for operational levels such as responsible functions and factories.

2.3 Climate-Related Position Adopted Criteria

SCGP proactively engages in collaborative efforts with governments, businesses, and society to achieve a harmonious balance between environmental, social, and governance factors based on the principles of sustainability. In order to ensure effective representation in climate-related organizations, SCGP designates high-ranking employees, including C-level executives, directors, and management personnel, to serve as the company's representatives. These individuals are entrusted with the responsibility of driving policies, strategies, and implementing actions that are in line with the Paris Agreement and global standards.

In 2023 SCGP actively participates in various climate-related management organizations to advance the goals of the Paris Agreement and pursue a Net Zero pathway. These organizations include both national-level entities such as the Thailand Carbon Neutral Network (TCNN) and the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO), as well as international entities such as the United Nations Global Compact (UNGC) through the Global Compact Network Thailand (GCNT) and the Science Based Targets initiative (SBTi). These partnerships and collaborations are instrumental in advancing initiatives that are aligned with SCGP's sustainability goals.

Through these dedicated efforts, SCGP strives to make a significant impact on the environment and contribute to the creation of a more sustainable future.

Organization



SCGP position

Joining TCNN as a Climate Action Initiator and Climate Action Leading Organization member, declaration of intention to reduce GHG emissions and towards Net Zero by 2050, target and plan clearly which are aligned with Paris Agreement and support Thailand commitment, including collaborating for developing projects and a carbon offset market.

SCGP received the "Climate Action Leading Organization: CALO" gold-level recognition in 2023 from TCNN for their outstanding achievements in measuring and reducing greenhouse gas emissions.

Registration for Carbon Footprint of Products (CFP) to demonstrate the company's commitment and responsibility to participate in sustainable energy conservation efforts by reducing resource use and improving production processes for better efficiency, in preparation for and compliance with domestic and international tax regulations.

In 2023, SCGP registered 59 products for CFP. Joining in ESG policy and regulation public hearings such as Thailand carbon tax.

Supporting the 10 Principles of the United Nations Global Compact in the areas of human rights, labour, environment, and anti-corruption. Committing to making those principles part of our strategy, culture, and day-to-day operations and, collaborating, driving any policies or declaration to enhance societal goals, such as UN SDGs, including the intention to address the issue of "Preventing and solving problems caused by climate change"

SCGP participated in the seminar on the topic "Partnership for Human Capital 5.0 – Towards Sustainable Intelligence" with UNGCNT, to develop human capital and adapt to the challenges and sustainable global trends.

Target set and committed for GHG emission reduction based on scientifically accepted and internationally recognized standards and aligning with the goals of the Paris Agreement. The initiative seeks to establish targets and find ways to reduce the impact of climate change.

2.4 Climate-Related Incentive



SCGP recognizes the importance of climate change management at all levels of execution. This begins with the establishment of GHG emission reduction as a key organizational goal, including corporate Key Performance Indicators (KPIs) that are aligned with the Net Zero by 2050 commitment. These KPIs are developed and cascaded from the highest management level to the operational level, involving key individuals such as the Chief Executive Officer (CEO), Chief Operating Officer (COOs), ESG & Sustainability director, managers, and employees.

One example of a KPI defined within the "ESG & People" category, one of the four main criteria in the Balanced Scorecard principle of Performance Assessment and Remuneration for the Chief Executive Officer and Top Executives, is the percentage of GHG reduction.

In conclusion, if the overall performance meets the climate-related targets, incentives in the form of both monetary and non-monetary rewards are provided. The monetary incentive takes the form of a variable bonus, while the non-monetary incentive is a performance score that can lead to promotion opportunity.

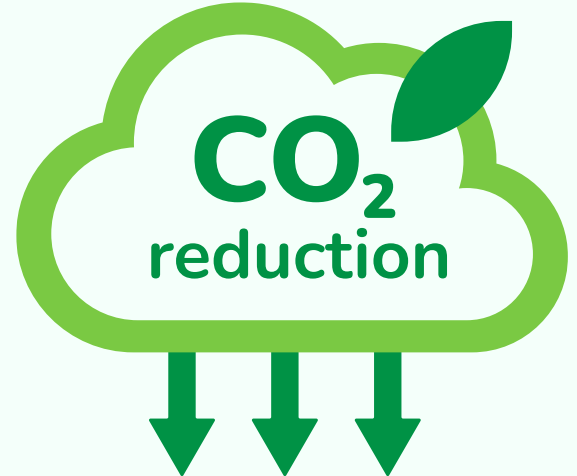
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STRATEGY



3.1 Climate-Related Risks and Opportunities Scenario Analysis (Short, Medium, and Long term)

SCGP has identified the climate-related risks and opportunities over short, medium and long term. SCGP has adopted ERM framework to study and embrace TCFD. Standard TCFD’s approach for climate scenario included 6 steps;



The climate change issue is the interest topics of worldwide. The impacts from climate change are increasing and more severe ever year. The 28th United Nations Climate Change Conference (COP 28) has taken significant steps in addressing this by agreeing on key actions. COP28 emphasizes aiming for the 1.5 °C target by reducing global greenhouse gas emissions by 43% by 2030 and 60% in 2035, compared to emissions in 2019, and aims to reach Net Zero Emissions by 2050 and reached a historic consensus that the world will transition away from fossil fuels. Countries have committed to accelerating their efforts to reduce greenhouse gas (GHG) emissions, including people and all business are concerned the impact of climate change, so they are focus on low carbon products and services. There are opportunities for SCGP to create environmentally friendly and low carbon products and services through innovation and technology.

SCGP’s Climate Scenario Analysis Approach



3.2 Risks & Opportunities and Impacts Analysis

Since 2021, Thailand has been showing commitment alongside other countries in setting a target for Carbon Neutrality of 2050 and achieving Net Zero emissions by 2065. SCGP has operated with commitment to reducing GHG emissions at least 25% by 2030 compared with the base year of 2020 and achieve Net Zero GHG emissions by 2050, both Thailand and abroad companies.

The current global crisis is a challenge that requires collective efforts from all sectors to change our behaviors and activities, which are the root causes of global warming and climate change. SCGP, a business organization in the industrial sector that plays a significant role in greenhouse gas emissions, is committed to implementing various strategies to reduce emissions and increase carbon removal, by fostering collaboration with stakeholders throughout the value chain, to achieve its set goals.

Climate-related risks & opportunities and Financial Impacts are challenging the business execution, and affecting their profitability, competition, reputation and survival. SCGP has analyzed climate-related risks, including transition risk and physical risk, and opportunities aligned with TCFD Framework.



3.2 Risks & Opportunities and Impacts Analysis

Transition Risks and Business Impacts

Topic	Risks (Key Driver)	Time Horizon	Definition of Risks & Business Impacts	Financial Impacts
	Implementation of carbon tax	2 year onward (short to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> • Non-compliance with laws or legal stipulations • More stringent trend of laws and regulations related to the environment, especially climate-related issue. <p>Business Impacts</p> <ul style="list-style-type: none"> • Fossil fuel-based electricity and fuel costs increasing • Fossil fuel feedstock costs increase • Transportation costs increase • Carbon emissions cost <p>However, the carbon tax also presents opportunities. The tax could make energy and carbon reduction projects feasible, which would not have been possible without the tax. This will allow SCGP to implement more carbon reduction projects with a positive financial return above its hurdle rate.</p>	OPEX
Policy and Regulation	Carbon border adjustment mechanism (CBAM)	3 year onward (short to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> • More stringent trend of laws and regulations related to the environment, especially climate-related issue. <p>Business Impacts</p> <ul style="list-style-type: none"> • SCGP' revenue decreasing • Competitiveness of low carbon emission products <p>The impact of CBAM on SCGP will likely be minimal, as most of its export destinations are in ASEAN, where CBAM is expected to be implemented similarly to Thailand's CBAM and carbon tax policies.</p>	Revenue
	Science-informed emission reduction targets in line with at least a "well-below 2°C"	5 year onward (medium to long)	<p>Definitions of Risks</p> <p>All business focuses on utilizing solar power and biomass as a replacement for conventional grid electricity and fossil fuels such as natural gas. Though leaders engage all business to transitions execution to low carbon business.</p> <p>Business Impacts</p> <p>In the long term, SCGP aims to explore new technologies such as solar batteries, hydrogen fuel combustion kilns, and high-density solar power when the cost is optimal.</p>	OPEX

CAPEX = Capital Expenditures, OPEX = Operational Expenditures

3.2 Risks & Opportunities and Impacts Analysis

Transition Risks and Business Impacts

Topic	Risks (Key Driver)	Time Horizon	Definition of Risks & Business Impacts	Financial Impacts
	Decarbonization technologies	3 year onward (short to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> Technologies development to low GHG emissions such as lowering the amount of GHG emissions produced by the burning of fossil fuels, use renewable energy to produce greener energy <p>Business Impacts</p> <ul style="list-style-type: none"> Fossil fuel-based electricity and fuel costs increasing Fossil fuel feedstock costs increasing Transportation costs increasing 	CAPEX, OPEX
Technology	Development of commercially viable green hydrogen and transitional use of blue/ grey hydrogen	10 year onward (medium to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> Technologies development to low GHG emissions Green hydrogen is more expensive compared to fossil fuel-based alternatives Uncertainty regarding government policies, subsidies, and market demand can impact the growth and investment in green hydrogen projects. <p>Business Impacts</p> <ul style="list-style-type: none"> Shift to greener sources of energy Investment required both in capex as well as R&D 	CAPEX, OPEX
	Maturity of Carbon Capture, Utilization and Storage (CCUS)	10 year onward (medium to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> Technologies development to low GHG emissions CCUS technologies are currently expensive to implement and operate CCUS technologies are still in the early stages of development, and large-scale deployment is limited Legal challenges related to liability, ownership, and long-term responsibilities for stored CO2 can create barriers and uncertainties for project developers. <p>Business Impacts</p> <ul style="list-style-type: none"> Important technology for hard-to-abate sectors Investments required in CAPEX as well as R&D Will help reduce carbon costs 	CAPEX, OPEX

CAPEX = Capital Expenditures, OPEX = Operational Expenditures

3.2 Risks & Opportunities and Impacts Analysis

Transition Risks and Business Impacts

Topic	Risks (Key Driver)	Time Horizon	Definition of Risks & Business Impacts	Financial Impacts
Market	Increasing demand for low-carbon products	3 year onward (short to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> • All supply chain expects and demands factories to produce low carbon product. • Scaling up the production of low-carbon products requires a complex and interconnected supply chain <p>Business Impacts</p> <ul style="list-style-type: none"> • Sales of low-carbon products to increasing • Products with lesser carbon footprint preferred • CAPEX for alternative production technologies increasing 	CAPEX, Revenue
	Increase in demand for products based on recycled plastic waste and packaging	3 year onward (short to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> • All supply chain expects and demands factories to produce products based on recycled plastic waste and packaging • Need collaboration to collect recycle plastics and packaging to production process <p>Business Impacts</p> <ul style="list-style-type: none"> • Sales of recycled plastic products to increase <p>*SCGP has already recycling business</p>	CAPEX, Revenue
Reputation	Stakeholder's higher expectation on climate action	3 year onward (short to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> • Stakeholder's expectation on climate-related action from organizations • Need collaboration to drive climate action through value chain <p>Business Impacts</p> <ul style="list-style-type: none"> • Reputation-related issues which could result in declining stakeholders trust, which may impact company's valuation, earnings, funding etc. 	Valuation. Revenue

CAPEX = Capital Expenditures, OPEX = Operational Expenditures

3.2 Risks & Opportunities and Impacts Analysis

Physical Risks and Business Impacts

Topic	Risks (Key Driver)	Time Horizon	Definition of Risks & Business Impacts	Financial Impacts
Acute	Weather event change and increased severity such as cyclone, floods, water and scarcity	2 year onward (short to long)	<p>Definitions of Risks</p> <ul style="list-style-type: none"> Impact from climate change for acute impacts - Weather event change and increase severity, especially water scarcity and floods Impact from climate change for chronic impacts such as rising of temperature 	CAPEX, Revenue
Chronic	<ul style="list-style-type: none"> Rising of temperature Extreme weather Sea level rising and make flooding in risk areas 	10 year onward (medium to long)	<p>Business Impacts</p> <ul style="list-style-type: none"> Business interruptions due to unable to carry out production process such as lack of water in production process Losses to assets of SCGP and supply chain Rising costs and expenditures for prevention of and recovery from impacts of natural disasters 	CAPEX, Revenue

3.2 Risks & Opportunities and Impacts Analysis

Opportunities and Business Benefits

Opportunity	Definition of Opportunities & Business Benefits
Resource Efficiency	<p>Definitions of Opportunities</p> <ul style="list-style-type: none"> Efficient consumption of energy and resources, e.g., raw material from recycling source, water recycling and energy saving to reduce GHG emission <p>Business Benefits</p> <ul style="list-style-type: none"> More production efficiency Use of more recycling Reduced material usage Reduced water consumption New technologies to capture GHG
Energy Source	<p>Definitions of Opportunities</p> <ul style="list-style-type: none"> Use clean and environmentally friendly energy such as biomass, solar cell, and etc. Use of best available technologies Shift toward decentralized energy generation <p>Business Benefits</p> <ul style="list-style-type: none"> Use of cleaner and renewable energy New technologies for production process Innovative energy options Incentive policy or mechanism execution
Products and Services	<p>Definitions of Opportunities</p> <ul style="list-style-type: none"> Development and expansion to low carbon products and services Development new products and services through R&D and innovation Shift in consumer preferences <p>Business Benefits</p> <ul style="list-style-type: none"> Increased revenue of low carbon products and services Better competitive position to reflect shifting consumer preferences, resulting in increased revenues Good image for low carbon business

Opportunity	Definition of Opportunities & Business Benefits
Markets	<p>Definitions of Opportunities</p> <ul style="list-style-type: none"> Expand to new business such as recycling business Access to new assets and locations Access to green funding <p>Business Benefits</p> <ul style="list-style-type: none"> Increased revenues through access to new and emerging markets Increased opportunity to access in financial funding or green finance
Resilience	<p>Definitions of Opportunities</p> <ul style="list-style-type: none"> Participation in renewable energy programs and adoption of energy efficiency measures Resource substitutes/diversification <p>Business Benefits</p> <ul style="list-style-type: none"> Participation in renewable energy program Resource substitution and innovation Increased revenue through low carbon products and services related to ensuring resiliency Leading in sustainable companies Increased reliability of supply chain and ability to operate under various conditions

3.3 Transition Risks Scenario Analysis

Scenario Analysis

SCGP updated climate-related scenarios based on the World Energy Outlook 2022. The Announced Pledges Scenario (APS) and the Net Zero Emissions by 2050 Scenario (NZE) have been modeled.;

- 1 The Announced Pledges Scenario (APS) has a 50% chance of constraining global warming at 1.8°C by reaching net zero emissions by 2050 and is based on the Announced Pledges Scenario.
- 2 Net Zero Emission Scenario (NZE) has a 50% chance of constraining climate global warming at 1.50°C by reaching Net Zero Emissions by 2050, and is based on the WEO Net Zero by 2050 scenario.

Carbon Price

USD / ton CO ₂ e	Scenario	2030	2040	2050
Thailand – carbon taxes	APS	18	110	160
	NZE	45	160	200
EU CBAM	APS	135	175	200
	NZE	140	205	250

- We assume Thailand’s carbon taxes based on the study published by Thailand Greenhouse Gas Management Organization (TGO), World Economic Outlook published by IEA, and discussion with the officials in TGO.
- EU carbon prices are based on International Energy Agency (IEA) on both APS and NZE scenarios.

		IEA APS 2030	IEA NZE 2030	IEA APS 2050	IEA NZE 2050
World population	Million	8,501		9,692	
Southeast Asia	Million	726		792	
Urbanisation rate		60%		68%	
Southeast Asia		56%		66%	
World GDP growth		3.3% (2021-2030)		2.6% (2030-2030)	
Southeast Asia		5.0% (2021-2030)		3.3% (2030-2030)	
Crude oil prices	\$/barrel	63.5	35	60.4	24.0
Natural gas prices	\$/MBtu, Japan	9.1	6.0	7.4	5.1
Steam coal	\$/t, Japan	74.4	59.0	59.5	46.0
Fossil fuels in primary energy mix		70%	62%	36%	18%
Energy and environmental policies		Policies promoting production and use of alternative fuels and technologies such as hydrogen, biogas, biomethane and CCUS across sectors. Faster deployment of large-scale near zero emissions plants in energy intensive industries. Energy demand in	No new unabated coal power plants approved for development. Nearly 50% of electricity from low-emissions sources, and over 40% is from wind and solar PV. Phase out of unabated coal in advanced economies. 8% of emissions from cement production captured and stored.	Policies to support increasing deployment of CCUS and hydrogen in various industry and fuel transformation sub-sectors.	Nearly 90% of Electricity generation from renewables, and almost 70% is from solar PV and wind. Phase out of all unabated coal for electricity generation. More than 90% of heavy industrial production is low emissions. 95% of emissions from cement production captured and stored

3.3 Transition Risks Scenario Analysis

Scenario Analysis

For APS scenario, we assume Thailand will implement carbon tax in year 2026 with the initial price of USD 3/ton CO₂e and gradually increase to USD 18/ton CO₂e in 2028. And NZE scenario, we assume the initial carbon tax prices of USD 18/ton CO₂e and gradually increase to USD 45/ton CO₂e.

Carbon Cost (million baht)	2025	2026	2027	2028	2029	2030
APS	305	328	318	1,813	1,793	1,694
NZE	1,823	1,897	1,794	6,880	6,694	6,296

Remark:

1. FX rates 36.5 THB/USD
2. In 2028 include Vietnam-ETS
3. Carbon Cost from carbon tax, ETS and CBAM
4. CBAM include all operation of SCGP and cover export to USA, UK, EU and CHN

List of Mitigation Options;

1. Increasing Renewable Energy usage such as biomass, Solar power, Green Hydrogen
2. Provide a power purchase agreement for renewable electricity such as RE100
3. Increasing energy efficiency by improving or replacing with best available technology

3.4 Physical Risks Scenario Analysis

Scenario Analysis

Climate change is a volatile challenge that has a direct impact on physical hazards such as floods, increased storm severity or cyclones, increased variability of water supplies, droughts, fires, higher temperatures, and so on. SCGP analyzes impacts using scenario analysis, a baseline for the existing year, the middle term in 2030, and the long term in 2050 for a considered method with tools to enhance strategic risk reduction.

SCGP conducts analyses against geographical locations where SCGP, supplier and major clients operate which include SCGP's plants 4 Midstream in Thailand, Vietnam, Philippines and Indonesia, 2 Critical Upstream and Downstream assessment with 3 scenarios are used for evaluating physical risk hazards as follows:

- SSP1-2.6 stays below 2.0°C warming relative to 1850-1900 (median) with implied net zero emissions in the second half of the century.
- SSP3-7.0 is a medium to high reference scenario resulting from no additional climate policy under the SSP3 socioeconomic development narrative. SSP3-7.0 has particularly high non-CO2 emissions, including high aerosols emissions.
- SSP5-8.5 is a high reference scenario with no additional climate policy. Emission levels as high as SSP5-8.5 are not obtained by Integrated Assessment Models (IAMs) under any of the SSPs other than the fossil fueled SSP5 socioeconomic development pathway

SCGP evaluated physical impact on 3 different natural hazard variables, which are Water Scarcity (Drought), Floods and Extreme Heat. Which are align with Baseline risk likelihood for relevant natural hazards were evaluated based on the review of an online tool (ThinkHazard) developed by the World Bank/Global Facility for Disaster Reduction and Recovery (GFDRR). The natural hazards are classified based on the following factors. Aqueduct developed by WRI and The Climate Change Knowledge Portal (CCKP) by World Bank.



3.4 Physical Risks Scenario Analysis

Scenario Analysis



Acute Risk

- Damage to infrastructure and equipment
- Reduced efficiency of equipment
- Disruption of supply chain



Flooding

- Capital costs
- Replacement costs
- Operating costs
- Maintenance costs

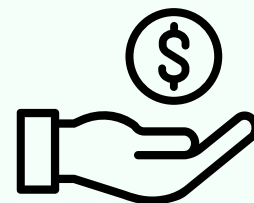
Cost of Sales

Attributes



Impacts

Profit and loss



Chronic Risk

- Increase insurance costs
- Reduced ability for employees to work efficiently
- Gradual loss of land due to permanent inundation



Drought



Extremely heat

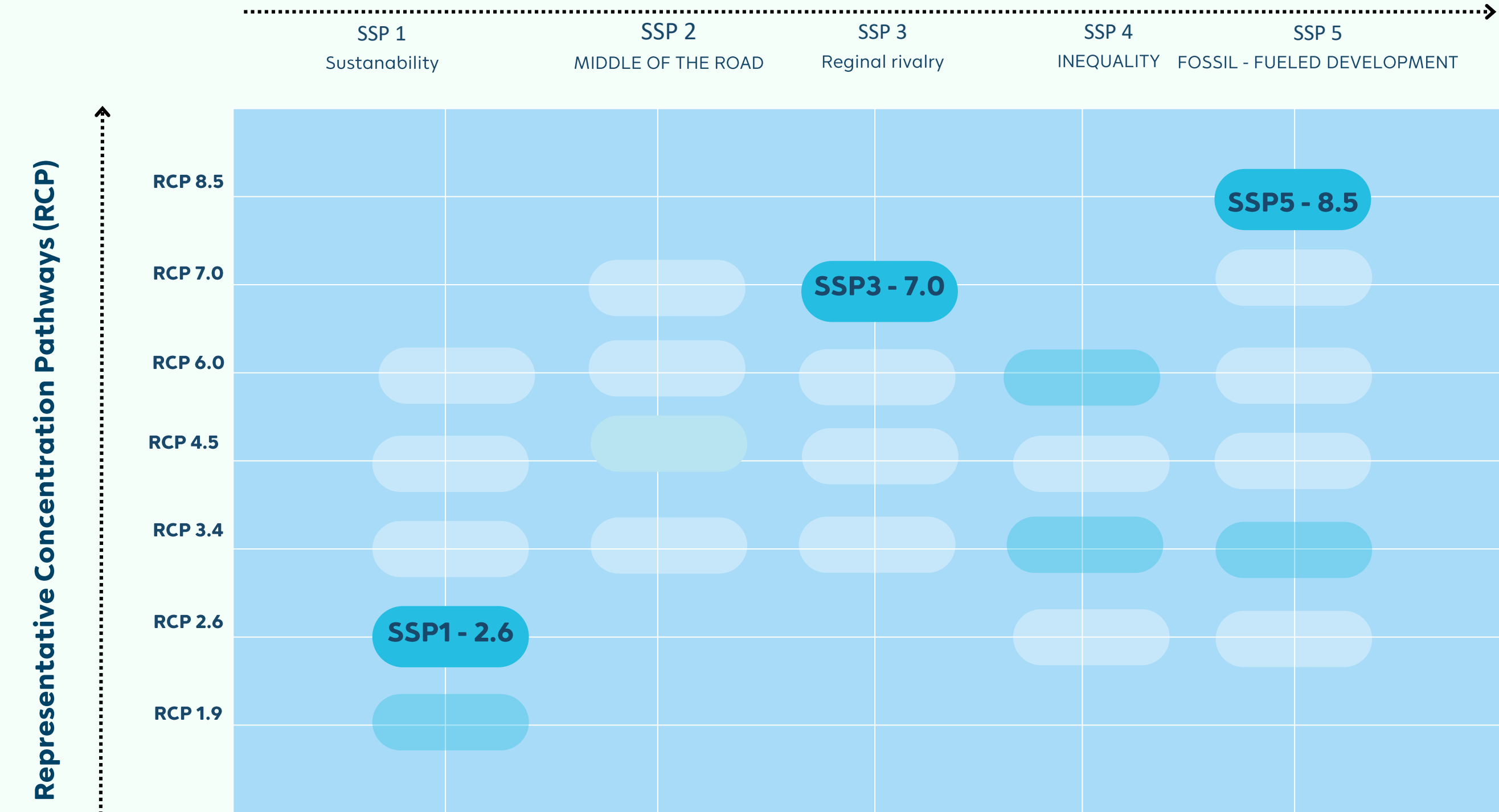
- Impact to services and products
- Decreased services provided
- decreased product volume
- disruptions in production process

Revenue/Margin

3.4 Physical Risks Scenario Analysis

Scenario Analysis

Shared Socioeconomic Pathways (SSPs)

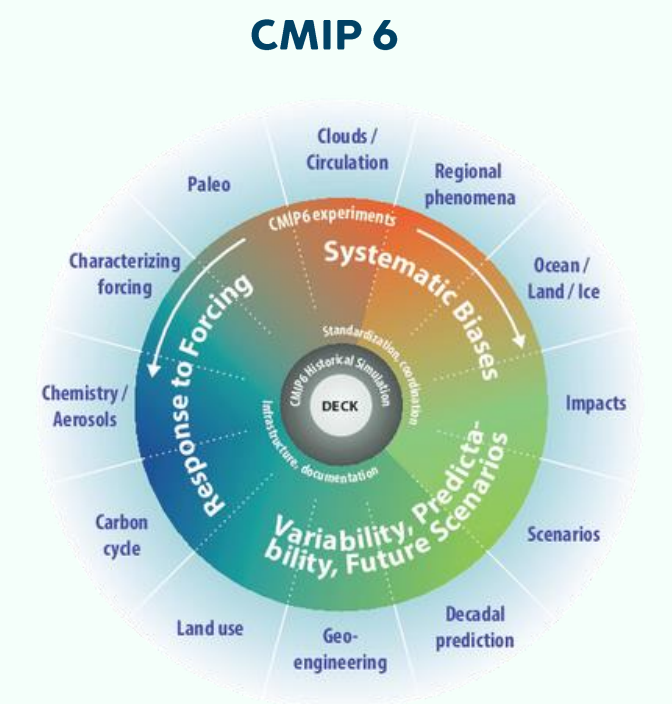


Representative Concentration Pathways (RCP)

Climate 2,100 Forcing Level (Watt per square meter)

SOURCE: CMIP 6

TIER 1 TIER 2



Coupled Model Intercomparison Project

3.4 Physical Risks Scenario Analysis

Scenario Analysis

Climate Risk Country Profiles

CCKP's Climate Risk Country Profiles present a high-level assessment of physical climate risks for a country, providing insight for decision-makers into the potential for increasing, expanding, and emerging risks across space and time, and for different climate futures. Projected climate data is derived from CMIP5, and CMIP6 the Coupled Model Intercomparison Project, Phase 5-6. The CMIP efforts are overseen by the [World Climate Research Program](#), which supports the coordination for the production of global and regional climate model compilations that advance scientific understanding of the multi-scale dynamic interactions between the natural and social systems affecting climate. The CMIP Collection used to inform each profile is listed by each country



Thailand

- Since the mid-20th century, there has been an increase in annual precipitation.
- By the 2090s, there will be an **increase of 0.95°C–3.23°C above the baseline.**
- **Proposed temperature increases are strongest in middle.**
- Floods are affecting the world's ten most affected countries. Drought and cyclone impacts.
- The number of people affected will be over 2 million by 2035–2044, and coastal flooding could affect 2.4 million by 2070–2100.
- Projections: **Due to rising temperatures**, the agriculture sector could be significantly affected by a changing climate.
- The combination of rising seas and sinking land, as well as the potential **impact of cyclone-induced storm surges on critical public and private infrastructure**,
- The aftermath of 2011's devastating floods. The studies show that post-flood, higher-income groups received more government compensation than lower-income groups.



Philippines

- The trend since the mid-20th century has seen an increase in temperature by 0.6°–2.9°C by the 2090s, which is 1°C less than the global average.
- Projections: Of the 16 climate models assessed, **15 projected at least some increase in precipitation.**
- The region has the highest disaster risk levels in the world, particularly due to its vulnerability to tropical cyclones, flooding, and landslides.
- **The number of tropical cyclones making landfall** also has greater intensity.
- Rising sea levels could flood up to one million people by 2070–2100, but investing in adaptation could potentially significantly reduce this number.
- Flooding and droughts could impact agricultural land. towards decreased productivity.
- The progress in effective adaptation and disaster risk reduction has slowed down.



Vietnam

- Vietnam is similar to the global average, between 1.0°C and 3.4°C by 2080–2099.
- Average temperatures likely impact human health, livelihoods, and ecosystems.
- **The current climate models' poor performance in simulating the El Niño Southern Oscillation (ENSO).**
- Vietnam's low-lying coastal and river delta regions have a very high vulnerability to rising sea levels. By 2070–2100, coastal flooding will affect 6–12 million people.
- Fluvial flooding is projected to be in the range of 3–9 million people by 2035–2044.
- We project losses in **agricultural productivity** for key food and cash crops.
- **The increase in heat stress** on the Vietnamese population will lead to negative health outcomes.
- Vietnam faces disaster, poverty, and inequality across multiple regions and sectors.



Indonesia

- Indonesia anticipates **warming between 0.8°C and 1.4°C** by the 2050s.
- With an increase in average annual rainfall, and. increase in droughts in western Indonesia by the second half of the 21st century.
- Climate risk, including flooding and extreme heat, ranks Indonesia in the top third of countries. **An extreme river flood could grow** by 1.4 million by 2035–2044.
- **Sea-level rise, ranked fifth in the world**, is likely to expose people to permanent flooding by the period 2070–2100 and could reach over 4.2 million people.
- Rice productions are likely to impact from higher temperatures an agricultural production, Indonesia faces multiple threats to its food security.
- There are impacts on water availability, disaster, urban impact, especially in coastal zones, and health and nutrition, which can lead to poverty and inequality.
- According to the ND-GAIN Country Index, there is a reduction in the overall national-level risk of experiencing significant loss and damage.

3.4 Physical Risks Scenario Analysis

Scenario Analysis



Drought



Flooding

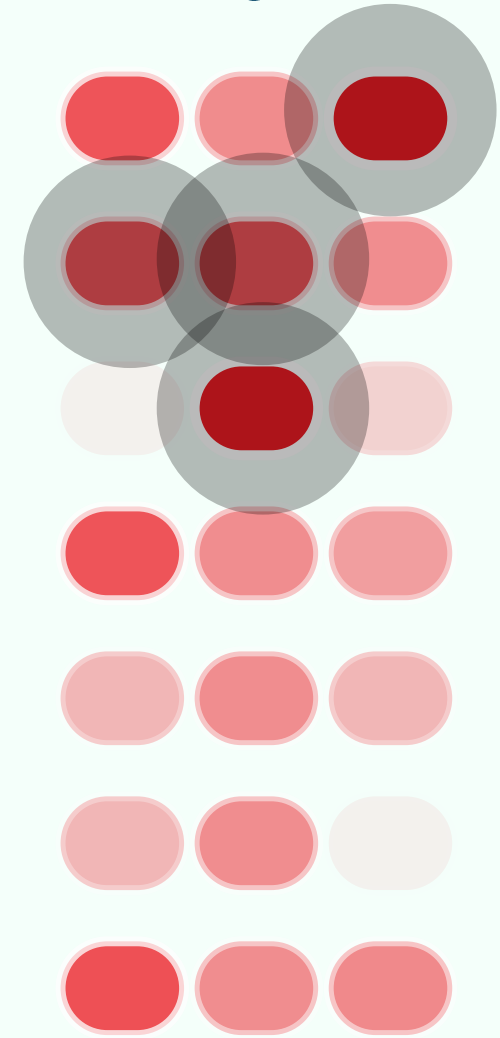


Extremely heat

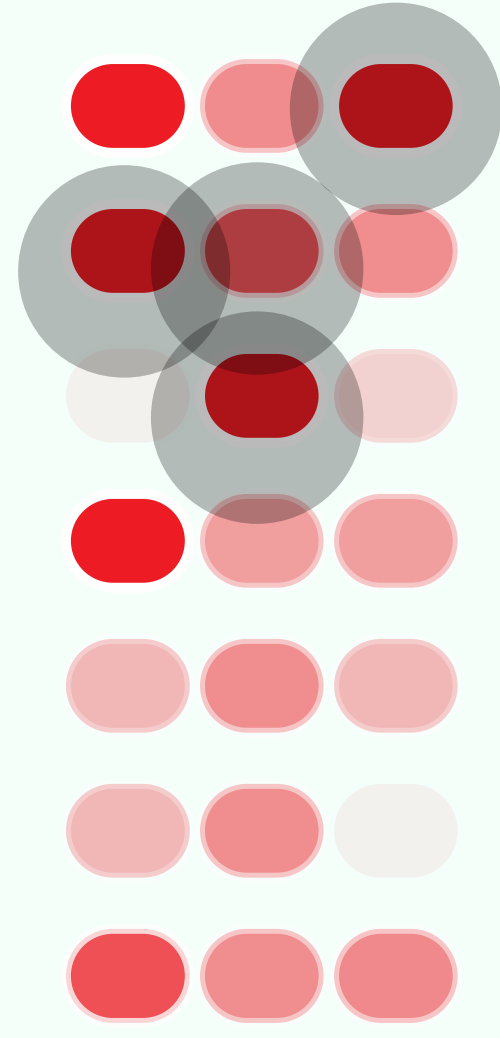


2020 Baseline

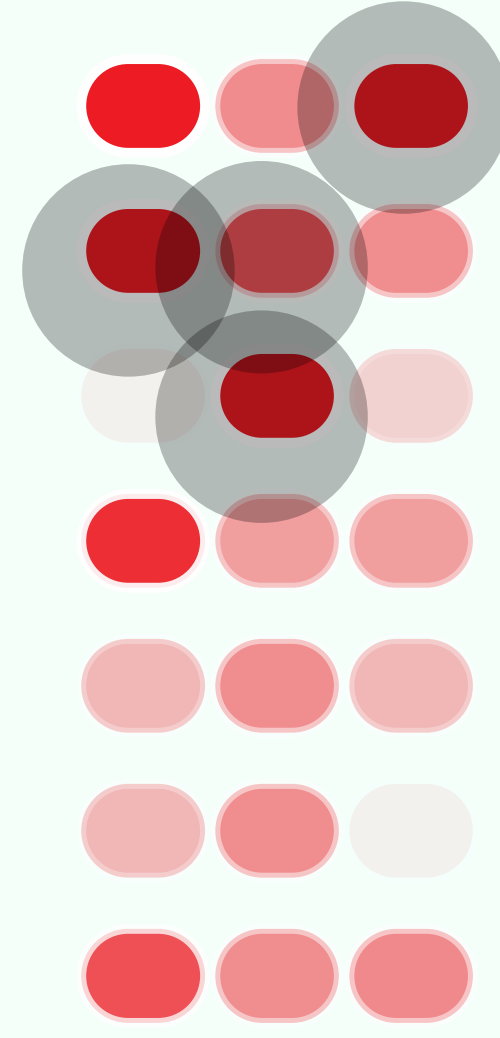
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2030 Short Term

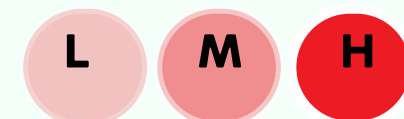


2050 Long Term



Climate Change Knowledge Portal
For Development Practitioners and Policy Makers

Risk Score

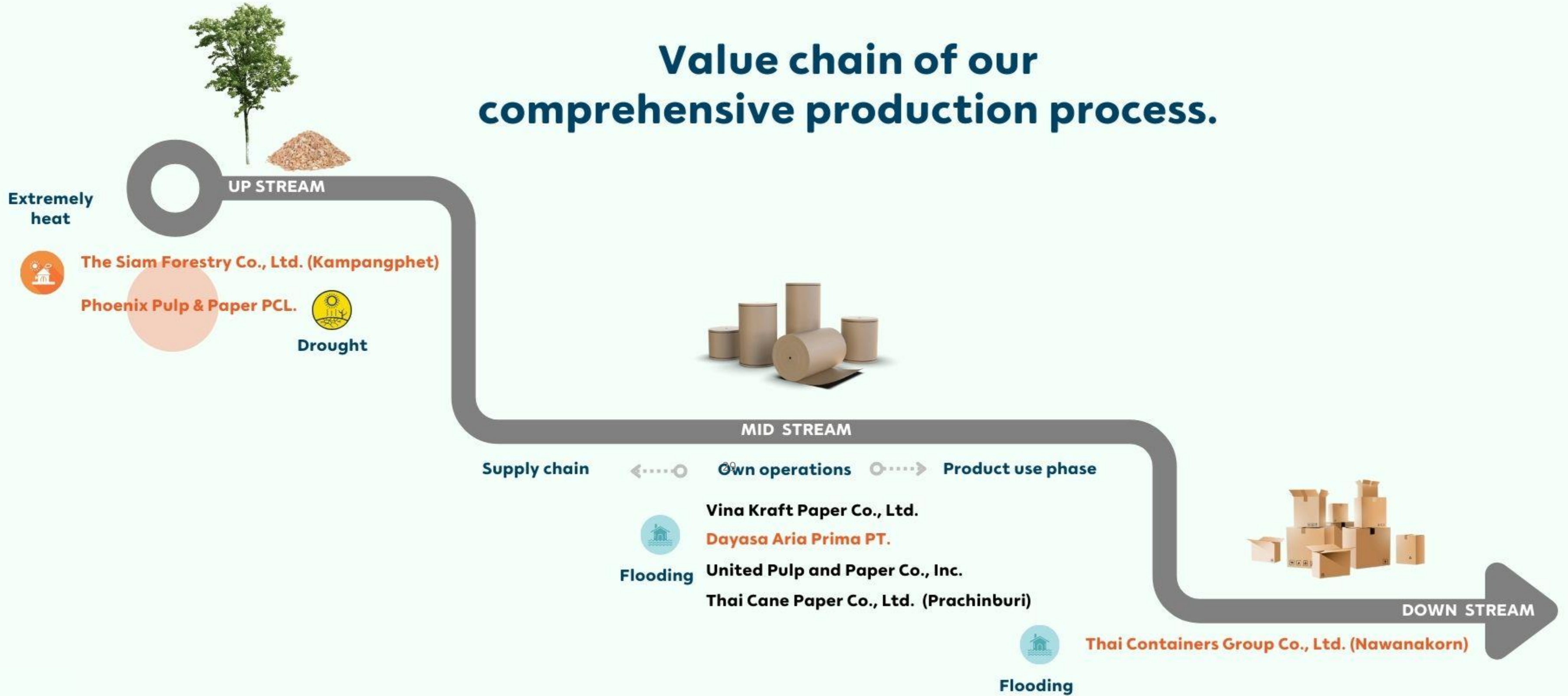


SCGP has previously gathered information on droughts and floods. These could have an effect on business in the Khon Kaen province area immediately impacted by the Mekong dam project. We consequently monitor and develop a strategy to be ready in case of drought in the area, that was developed several years ago.




3.4 Physical Risks Scenario Analysis

Scenario Analysis

Value chain of our comprehensive production process.



3.4 Physical Risks Scenario Analysis

		 Drought		 Flooding		 Extremely heat	
		Drought Scenario		Flooding Scenario		Extremely heat Scenario	
Dependency-related risks		Water shortage for use		Cannot operate due to flooding		Unable to maintain continuous production due to an unsuitable working environment	
Physical Risk Scenario		Case 1. Water available shortage 10%-50% of Lower Balance Curve (LBC) water available		Case 1. (+5%) 15 day maximum rainfall		Case 1. (+0.5 - 1.5) celsius 30 Days/year	
		Case 2. Regulation pricing change + 1.50 - 4 Baht / Cu.m.		Case 2. (+10%) 15 day maximum rainfall		Case 2. (+1.5 - 2.5) celsius 30 Days/year	
				Case 3. (+20%) 15 day maximum rainfall		Case 3. (+2.5 - 3.5) celsius 30 Days/year	
Impact-related risks		Lower Production and some products cannot be manufactured		No Production and Machine Breakage		Production has decreased due to unfavorable working conditions	
Double materiality		Finance materiality	Impact materiality	Finance materiality	Impact materiality	Finance materiality	Impact materiality
		Case 1. 93 mb./day	-	-	-	-	-
		Case 2. 12 mb./ year	-	-	-	0.5 mb / day	1-4 mb./ year
Investments for risks reductions and mitigations		<ul style="list-style-type: none"> Minimize water withdrawal 35% in 2025 at SCGP level Implement 3R Projects Inspect the backup water system within the factory. In each season, monitor community water allocation planning. Use a monitoring system to determine the factory's water volume transfer purchase orders to Backup plant 		<ul style="list-style-type: none"> Reduce production capacity within the factory and transfer purchase orders to Kamphaengphet, Ratchaburi, and Samut Prakan factories, as well as the Fajar factory. Activated the BCP management plan. Install a flood protection system for the factory worth approximately 10 million baht. 		<ul style="list-style-type: none"> Adjust the WFH (work from home) system. Enhance employee benefits regarding health check-ups. Adjust work plans and transportation systems during periods of high heat risk. Improve the spare parts monitoring system for machinery that may be damaged. 	

4 RISK MANAGEMENT



4.1 Climate-Related Risk Management Framework and Processes

SCGP implements an Enterprise Risk Management Framework in accordance with the COSO ERM Framework and ISO 31000 to effectively reduce the likelihood and/or the impact of ESG-related risks that may arise. SCGP integrates the risk management framework into critical operations encompassing Strategic Risks, Operational Risks and Investment Risks. The risk management process can be found in the Risk Management Manual which comprise of 4 steps:



1. Identify business and climate-related risks and opportunities consist of existing risks and emerging risks. The company uses multiple approaches, such as megatrend literature study and stakeholder engagement analysis, to identify and express climate change issues that may threaten the achievement of business objectives.
2. Assess the severity of risks by using Risk Map to measure the likelihood and impact and prioritize risks to be managed. To assess the climate-related risks, SCGP leverages climate change subject-matter expertise judgement to ensure emerging and longer-term climate-related risks are assessed and prioritized appropriately.
3. Establish risk responses, Key Risk Indicators and Key Performance Indicators – both leading and lagging – to anticipate and mitigate risks in accordance with the risk management goals and business objectives.
4. Report the performance of risk mitigation to the Risk Management Committee prior to the Audit Committee on a quarterly basis by considering Immediate Risks, Intermediate Risks and Strategic Risks such as IT Risks.

4.1 Climate-Related Risk Management Framework and Processes

SCGP realizes that a corporate culture is an essential enabler for the success of risk management. As a result, the organizational culture of risk management has been encouraged through the following activities:

1

Assigning top executives to communicate the significance of risk management and be role models in risk management. This includes establishing practical guidelines on common risk language, risk appetite, and common risk assessment systems.

2

Assigning role and responsibilities of risk owners.

3

Embedding risk management agenda in key meetings of each subsidiary.

4

Encouraging experience sharing across departments and subsidiaries to continually communicate the benefits of risk management.

5

Assigning Risk Champions and Risk Coordinators to attend risk management training and workshop regularly, so that risk management tools can be applied appropriately.

6

Incorporating risk management into the new hire training course and developing an e-Learning course for all employees to access and go through the risk management.

To integrate climate-related risks into the risk governance and culture, SCGP embeds ESG in the entity's culture and core values as well as increases awareness of climate-related risks within the company. One of the approaches for enhancing awareness is including climate-related risks or climate change issues in Risk Management Committee meeting to identify, monitor and review quarterly. In addition, the risk management function is the driver that responsible for coordinating and consolidating the enterprise risk management activities encompassing with climate change issues and support risk owners to address the climate-related risks that may impact to business objectives, such as the risks associated with climate change regulation.

1. Transition Risk

SCGP is committed to achieving Net Zero emissions by 2050 and set a new target to increase its greenhouse gas emission reduction from 20% to 25% by 2030, aligned with Science Based Target (SBT). From transition risks assessment, the impact of policy and regulation risks, market risk and reputation risks may increase in the future. SCGP set climate-related committee to monitor risks and performance, national climate policy and regulation such as carbon tax and fee and CBAM. SCGP has participated with governance and public sector such as Thailand Greenhouse Gas Management Organization (TGO), Thailand Carbon Neutral Network (TCNN), The United Nations Global Compact (UNGC) and etc. to support for driving progress toward low carbon economy.

SCGP sets strategy towards the goal of achieving Net Zero Emission by dividing it into two main parts, reducing GHG emissions to the maximum extent and removing GHG to the maximum extent with various measures.

REDUCING GHG EMISSIONS

- Improving energy efficiency by upgrading or changing to the best available technology at the time.
- Increasing the use of renewable energy sources and clean energy sources, such as biomass and biogas.
- Developing low-carbon products in line with a circular economy.

GHG REMOVAL

- Collaborate with national and international organizations to study Carbon Capture and Storage (CCUS) technology and to increase its maturity
- Support and participate in the conservation and restoration of forests and ecosystems to increase biodiversity and provide additional carbon sequestration areas.

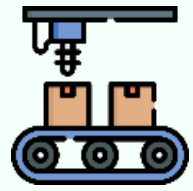
Economic tools are utilized, such as Internal Carbon Pricing (ICP) as 25 USD/ton CO₂e, to encourage the reduction of GHG emissions, including raises awareness on energy conservation and climate resilience among employees and stakeholders through value chain.

1. Transition Risk



4.2 Climate Risk Management

1. Transition Risk



Energy Efficiency

By using the best available technologies



Low GHG Energy Sources

By increasing the proportion of biomass and renewable energy



Low Carbon Product

Develop product aligned with circular economy



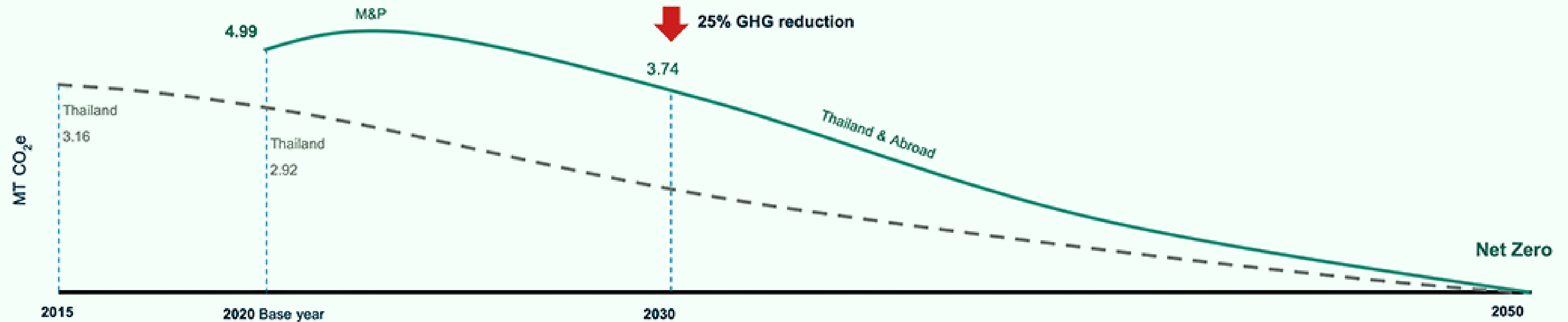
Carbon Capture

By network with national and international to scale of CCUS technologies



Natural Climate Solution

The conservation and restoration of biodiversity to provide sequestration areas.



In 2021 SCGP revised its base year GHG emission to include aboard operation facilities 2.07 million ton CO₂e resulting the total GHG emission of both Thailand and aboard to be 4.99 million ton CO₂e.

In 2023 SCGP set a new target to increase its GHG emission reduction from 20% to 25% by 2030 compared to the base year of 2020 (4.99 million ton CO₂e) and aims to achieve Net Zero greenhouse gas emission by 2050.

1. Transition Risk - Show Case

UPSTREAM

Promote ESG Understanding and Partnership with Suppliers

SCGP organized the SCGP Supplier Day 2023 to communicate and jointly address global issues according to the ESG 4 Plus approach and the revised Supplier Code of Conduct, which now includes important issues such as environmental concerns and climate change response. The event facilitated the exchange of ideas to develop collaboration, held in Bangkok and at various provincial plants, with a total participation of 400 suppliers (598 individuals).

SCGP conducted online training for 10 high-potential suppliers to raise awareness of climate change response. Following this, suppliers interested in reducing greenhouse gas emissions were selected for training on CFO and CFP registration processes per the procedures of the Greenhouse Gas Management Organization (Public Organization), or TGO.

Promote ESG Understanding and Partnership with Suppliers

SCGP began with EV delivery trucks, after studying and testing them with suppliers since 2021. For Transporting paper rolls and pulp between factories in Ratchaburi Province and Saraburi Province, SCGP invests in the installation of electric charging stations at origin and destination, and will begin operations for finished product transportation at the beginning of 2023 with 7 vehicles from selected suppliers, and will expand its operation to other product groups and shuttle buses for employees in the future. Additionally, electric vehicle (EV) trucks for transporting goods can reduce greenhouse gas emissions by 475,087 kg CO₂e per truck per year, and reduce energy costs by 50-60% compared to a diesel truck.

OPERATION

SCGP emphasizes improving the energy efficiency, use renewable energy. This is important in reducing GHG emissions, including absorb GHG by Natural Climate Solution.

Soot Blower Optimization

SCGP improved the efficiency of Boiler Soot Blower system 5 plants in Thailand. This was achieved by calculating the optimal frequency and duration for using high pressure steam to clean ash and soot accumulated on the walls of boiler tubes. The effort helped save approximately 28,306 GJ per year, reducing greenhouse gas emissions by 2,682 tons of CO₂e per year and saving coal purchasing costs 4.8 million baht annually.

Biomass Fuel

SCGP aims to increase biomass fuel use by exploring and experimenting with new alternative fuels, such as cashew husks. This also includes improvements in boiler systems for greater use of biomass fuel and continuous fuel feeding. Usage of biomass energy ratio increased from 8.4% to 12.8%, reducing greenhouse gas emissions by 696,275 tons of CO₂e/ year.

Solar Cell

Since 2018, SCGP has installed a total of 49.5 megawatts peak of solar energy. In 2023, the expansion included installations in Thailand and abroad, adding up to 9.7 megawatts peak, which helped reduce greenhouse gases by 9,228 tons of CO₂e per year.

In 2023, Siam Forestry Co., Ltd. collected data and was certified for carbon sequestration of 31,770 rais of economic tree plantation, amounting to 152,181 tons of carbon dioxide equivalent per year, certified by SGS (Thailand) Limited.

DOWNSTREAM

Promote low-carbon products

SCGP has developed innovating low carbon products, services and solutions based on circular economy across value chain. SCGP has been pursuing development and design of products under SCG "Green Choice" label with is given to product that meet our stated criteria for safety, environment-friendliness, less resource use, increase ratio of recycle materials and reduce GHG emission

SCGP Glassine Paper (SCG Green Choice)

SCGP developed enzymes to enhance the efficiency of pulp grinding, reducing electricity consumption by at least 2% per ton. This led to a decrease in greenhouse gas emissions by approximately 8 kg of CO₂e per ton while maintaining the standard product properties.

Promoting Carbon Footprint of Product (CFP) Registration

In 2023, SCGP registered 59 products for the Carbon Footprint of Product (CFP) label with the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO), covering the scope from raw material acquisition, transportation, to product manufacturing (Business to Business, B2B). This includes 4 types of pulp products and 55 types of kraft paper products. Kraft paper products also received the Carbon Footprint of Circular Economy Products label.

Promote ESG Understanding and Partnership with Customers

SCGP has sharing ESG knowledge to customers to find collaboration and develop products aligned with customers need such as Redi Pak: Ready-to-eat chilled food packaging made from natural materials, compostable within 60 days, and featuring a recyclable film that can be peeled off.

4.2 Climate Risk Management

2. Physical Risk

SCGP has monitored the water usage situation in business via connected digitalization with essential information from various country sources, such as the Royal Irrigation Department, the Meteorological Department, Pollution Control Department, etc. following disaster reduction measures by the United Nations Office for Disaster Risk Reduction: UNDRR, with the Sendai Framework 2015–2030, focuses on the adoption of measures that address the three dimensions of disaster risk (exposure to hazards, vulnerability and capacity, and the hazard's characteristics) in order to prevent the creation of new risks, reduce existing risks, and increase resilience.

Water is an essential resource for SCGP's business operations. Regarding the use of water resources with the most value and most significant benefit, SCGP has applied the **3R principle** to improve the production process to **reduce** the amount of water, **reuse**, and **recycle** the water used in the production process, including the restoration of the natural water resources. To discharge water to public sources, SCGP strictly complies with laws & regulations to prevent any impact on the environment or communities.

In addition, SCGP implements the risk trigger point method, which can be described as the degree of risk that determines the decision to take action. When the risk of suffering an impact exceeds an acceptable level, events will require advance notice. To manage risk reduction Setting a goal to estimate any possible harm and evaluate the actual damage after the occurrence finishes. Priority could be focused on reducing the loss of people and property impact on business



4.2 Climate Risk Management

2. Physical Risk

Water is an essential resource for SCGP's operations. As a consequence, SCGP implemented the 3R principle to improve the manufacturing process with the goal to reduce the amount of water consumed, reuse, and recycle the water used in the manufacturing process, in addition to regenerate natural water resources. Climate change conditions, such as unseasonal and inconsistent rainfall patterns, no rains occurring in the headwater area, and decrease of water volume in dams, have a significant effect on water management today. Furthermore, growing population needs for water consumption could result in water scarcity, affecting the manufacturing process and nearby communities.

SCGP committed to leveraging water management knowledge via the Integrated Water Management Committee, which consists of participants from all businesses, to establish a strategy to address water-related hazards and improve water efficiency. Water-related concerns are monitored, collaborated with the government and industrial sectors, digital technology is implemented, and innovation is generated for improved water usage efficiency in the manufacturing process and reuse the treated water. The following are water management strategies:

- 1) Water-related risk mitigation through integrated water resources management
- 2) Increase water usage efficiency in production processes and products
- 3) Treat the effluent to meet quality standards, monitor, measure the effluent and its quality, report on the effluent issues, incident investigation, corrective action, and reduce effluent
- 4) Bring the recycled water after treatment to be used
- 5) Capability building of the person who is involved in water management
- 6) Rehabilitate the water sources' ecosystems and support water to communities and agriculture



4.2 Climate Risk Management

2. Physical Risk

- 1 Water Management Collaborations**
- 2 SCGP Water Stress Monitoring**
- 3 Early Warning System (EWS)**
- 4 Business Continuity Management (BCM)**
- 5 Community Engagement**
- 6 Disaster Management Participated**

Ordinarily, the country's water management involves allocating water resources to consumers in order to mitigate conflicts within various regions. For water management purposes, Thailand divides itself into 22 river basins. SCGP has worked collaboratively with civil society entities in water resource administration, providing insightful perspectives that align well with community needs. The company serves as an exemplar within the industrial sector for implementing projects aimed at reducing water consumption at manufacturing facilities. Additionally,

SCGP has undertaken several other initiatives, such as groundwater management, which enables the replenishment of aquifer systems and subsequent reuse of this water source. At the end of the previous year, SCGP implemented an innovative water monitoring system that integrated data from government agencies, enabling systematic water resource management. This platform, referred to as the Water Monitoring Dashboard, facilitates advanced awareness of water volumes, thereby allowing for effective area management and preparedness in the event of flood situations. For instance, the Navanakorn factory continuously monitors water levels from the Chao Phraya River station as an early warning system to identify abnormally high water discharge, potentially requiring the release of excess water. In such scenarios, advance warning enables the factory to implement appropriate preparedness and response measures. Concurrently, SCGP employs the Business Continuity Management System (BCMS) plan to ensure operational continuity in serving customers, stakeholders, and surrounding communities during contingencies. Preparatory measures include clearing waterways and canals to facilitate unimpeded water flow, thereby mitigating the risk of flooding in residential areas.

SCGP has supported employee volunteers in flooding-affected regions by establishing the SCGP Emergency Response Team (S.E.R.T.), which deploys to affected areas to assist distressed populations in collaboration with government authorities. It shown that SCGP adopts a systematic approach to water resource management, and over the past several years, this strategy has effectively prevented operational disruptions to the company's business activities while concurrently promoting sustainability for local communities, society, and the environment.

4.3 Highlight Activities

1 INTERNAL CARBON PRICING (ICP)

For new technologies and advancements in carbon capture and storage, research and development are still ongoing. Leading institutions and organizations around the world are exploring ways to make the technology practical and feasible. The SCGP is keeping a close eye on the progress and trying to actively participate in the developments, in order to bring appropriate innovations to the organization.

However, supporting investment in new projects to reduce greenhouse gas emissions or to mitigate carbon sequestration is important. Using economic tools, such as Internal Carbon Pricing (ICP), the SCGP sets an internal carbon price for the years 2022-2024 with a maximum value of 25 US dollars per ton of carbon dioxide equivalent in order to accelerate support for various projects.

Year	Detail	Investment (Million Baht)	GHG emission reduction (Ton CO ₂ e/Year)
2021	Solar Cell Projects	166	5,541
2022	Solar Cell Projects	240	7,547
2023	Solar Cell Projects & Biomass Boiler	373	68,597

2 NATURAL CLIMATE SOLUTION

SCGP, in collaboration with government agencies and communities, has continuously planted trees since 2020. In 2023, 1,154,609 trees were planted, bringing the total to 2,283,284 trees. The "SCGP Plant the Trees to Beat the Heat" project alone contributed 62,549 trees



3 SUSTAINABILITY LINK LOAN

In 2021, SCGP signed credit support linked to long-term sustainability operations (Sustainability Linked Loan or SLL) totaling 5,000 million baht for four years with Bank of Ayudhya PCL. The interest rate structure is linked to Sustainability Performance Targets or SPT, whereby the bank adjusts lower down interest rates each year if SCGP achieves the three specified set targets:

1. Reduction in total greenhouse gas emissions
2. Reduction of total water withdrawal
3. Increased sales revenue from "SCG Green Choice" products and services

4 GREEN LOAN

SCGP is fully committed to advancing its sustainable business initiatives within the ESG framework and this presents a valuable opportunity from Krungsri to extend its support through a Green Loan of 3 billion baht over a 5-year term. The funds will be allocated to various projects aimed at boosting the adoption of alternative and renewable energy, with the goal of reducing greenhouse gas emissions by 25 percent by 2030 compared to the 2020 baseline.

Furthermore, the company plans to promote energy efficiency and enhance resource reuse. These efforts align with SCGP's main objective of achieving Net Zero greenhouse gas emissions by 2050, fostering robust growth for the company while ensuring sustainability for both society and the environment.



4.3 Highlight Activities

5 INVESTMENT TO REDUCE GHG EMISSIONS

In 2023, SCGP invested in innovation and R&D to reduce GHG emissions and decrease energy consumption totaling 1,542 million baht.

Detail	GHG Reduction (ton CO ₂ e)	Investment (million THB)
Improve energy efficiency	36,131	1,262
Biomass/Biogas	21,686	3
Solar Cell	9,228	277
Total	67,045	1,542

6 ENERGY AUDIT

SCGP has energy audit activities as follow;

1. Conducting a thorough analysis of energy usage in a building or facility
2. Identifying areas where energy efficiency can be improved
3. Inspecting equipment and systems to ensure they are operating efficiently
4. Collecting data on energy consumption and costs
5. Developing recommendations for energy-saving measures
6. Implementing energy-saving measures such as upgrading equipment or improving insulation
7. Monitoring and evaluating the impact of the energy-saving measures over time

7 CLIMATE-RELATED TRAINING AND SHARING ESG KNOWLEDGE

SCGP emphasizes the importance of increasing knowledge and understanding of ESG among stakeholders, especially in the topics of GHG reductions, Energy consumption reduction, Water management, Waste management, Sustainable procurement and etc. . For internal stakeholders, SCGP has developed the OCAP system, which is a self-learning system and provides training courses to develop knowledge and understanding of ESG for employees. For external stakeholders, SCGP organizes training courses for both suppliers and customers to increase knowledge and share example of sustainable execution activities.

5

METRICS & TARGETS









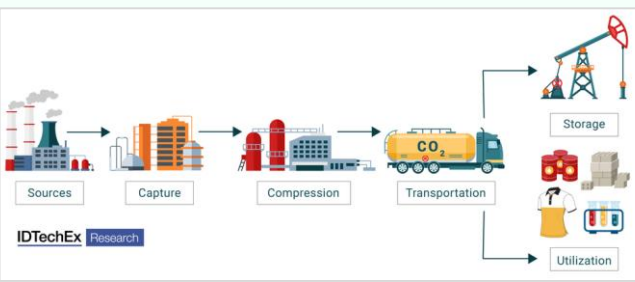
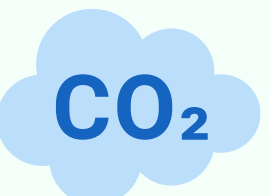


5.1 GHG Emission Reduction and Energy Consumption Metrics & Targets

SCGP set ambitious GHG reduction emission and Energy consumption targets, including climate-related target to ensure our targets and performances align with policy and strategy. SCGP committed Science Based Targets (Near Term Target) to be guideline to achieve Net Zero by 2050.

SCGP Elevate Net Zero Pathway



<p>Reduce (80%)</p>	<ul style="list-style-type: none"> RENEWABLE ENERGY ENERGY EFFICIENCY LOW CARBON PRODUCTS 	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Biogas (Methane gas system)</p> </div> <div style="text-align: center;">  <p>Solar Power</p> </div> <div style="text-align: center;">  <p>Biomass Torrefaction</p> </div> <div style="text-align: center;">  <p>Biomass Power Plant</p> </div> <div style="text-align: center;">  <p>Energy efficiency projects</p> </div> <div style="text-align: center;">  <p>Process Optimization Projects</p> </div> </div>
<p>Removal (20%)</p>	<ul style="list-style-type: none"> NATURAL CLIMATE SOLUTIONS CARBON CAPTURE UTILIZATION AND STORAGE 	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: center;">  <p>Collaborating with communities and authorities for reforestation and rehabilitation as carbon sink</p> </div> <div style="text-align: center;">  </div> <div style="text-align: center;"> <p>By networking with national and international to scale up carbon capture, utilization and storage (CCUS) technologies</p> </div> <div style="text-align: center;">  </div> </div>
<p>Economic Tool</p>	<ul style="list-style-type: none"> INTERNAL CARBON PRICING (ICP) 	<div style="text-align: center;">  <p>25 USD/ton CO₂e</p> </div>

External Framework and Standard



5.1 GHG Emission Reduction and Energy Consumption Target and Performance

SCGP increased its challenge to help control the global temperature from rising beyond 2 degrees Celsius by promoting science-based initiatives such as the Science-based Targets Initiatives (SBTi) to reduce greenhouse gas emissions, covering both direct emissions (Scope 1) and indirect emissions (Scope 2) based on the baseline year of 2020. Moreover SCGP has already collected GHG Scope 3 of all subsidiaries and plan to cooperate with stakeholders to reduce GHG emissions.

GHG AND ENERGY TARGET



Net Zero emissions by 2050



Reduce GHG Emissions 25% by 2030 compared with base year of 2020



Reduce Energy Consumption 13% by 2025 compared with Business As Usual (BAU) at the base year of 2007

GHG Emissions

Scope	Unit	Performance			
		2020	2021	2022	2023
GHG Scope 1 and 2 (Market based) Emissions	ton CO ₂ e	4,990,348	4,872,474	4,357,603	4,015,834
GHG Scope 1 Emissions	ton CO ₂ e	4,486,157	4,365,669	3,778,126	3,447,684
GHG Scope 2 Emissions (Market based)	ton CO ₂ e	504,191	506,806	579,477	568,150
GHG Scope 2 Emissions (Location based)	ton CO ₂ e	520,732	508,118	631,788	586,057
GHG Scope 3 Emissions	ton CO ₂ e	-	2,167,035	1,459,010	2,096,246*
CO ₂ emissions from biomass/biogenic	ton CO ₂ e	-	1,399,131	1,540,860	1,786,776
Carbon Sequestration in Economic tree plantation	ton CO ₂ e	-	-	-	152,181

Note : For GHG Scope 3 : In 2021, the data is collected from screening phase. In 2022, the data is collected from Thailand companies and estimate to abroad companies In 2023, the data is collected from Thailand and abroad companies and increased category 2, 5 and 10. The data in the table includes category 2, which was be calculated and added data from SCGP sustainability Report 2023

GHG AND ENERGY PERFORMANCE 2023



4.02 million ton CO₂e



Reduced GHG Emission 19.5% compared with base year of 2020



Reduced Energy Consumption 7.8% compared with Business As Usual (BAU) at the base year of 2007

Energy Consumption

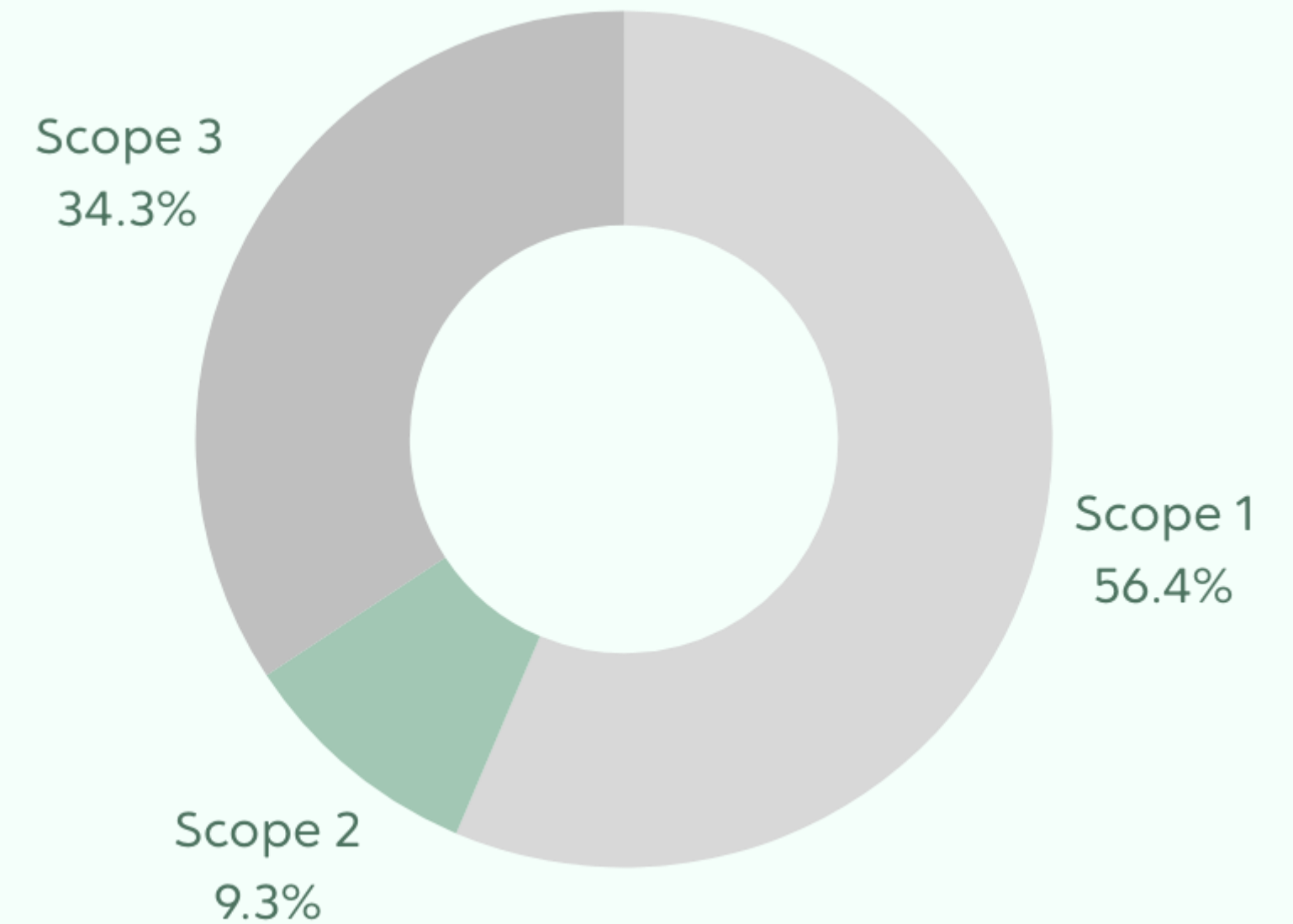
Scope	Unit	Performance			
		2020	2021	2022	2023
Total Energy Consumption	Petajoules	67.3	64.7	60.4	59.1
Renewable Energy Consumption	Petajoules	11.6	13.5	14.7	16.9
Non-Renewable Energy Consumptions	Petajoules	55.7	51.2	45.7	42.2
Energy Consumption Reduction compared with the base year of 2007	Petajoules	2.31	4.00	4.43	4.99

In 2023, GHG Scope 1, Scope 2, Scope 3 and Energy consumption data are verified by third party (SGS (Thailand) Limited).

5.1 GHG Emission Reduction and Energy Consumption Target and Performance

Category	GHG Scope 3 (ton CO2e)
1. Purchased Goods and Services	8 5 9 , 4 6 5
2. Capital Goods	3 6 , 5 5 0
3. Fuel-and Energy	4 4 1 , 1 7 2
4. Upstream Transportation and Distribution	3 8 4 , 5 6 0
5. Waste Generated in Operations	1 7 , 8 8 3
6. Business Travel	8 3 1
7. Employee Commuting	2 4 7
8. Upstream Leased Assets	Not Relevant
9. Downstream Transportation and Distribution	6 6 , 2 0 6
10. Processing of Sold Products	2 1 9 , 5 3 3
11. Use of Sold Products	Not Relevant
12. End-of-Life Treatment of Sold Products	3 7 , 4 6 3
13. Downstream Leased Assets	Not Relevant
14. Franchises	Not Relevant
15. Investments	3 2 , 3 3 6
Total	2 , 0 9 6 , 2 4 6

GHG Scope 3 (Thailand & Abroad) : 15 Category

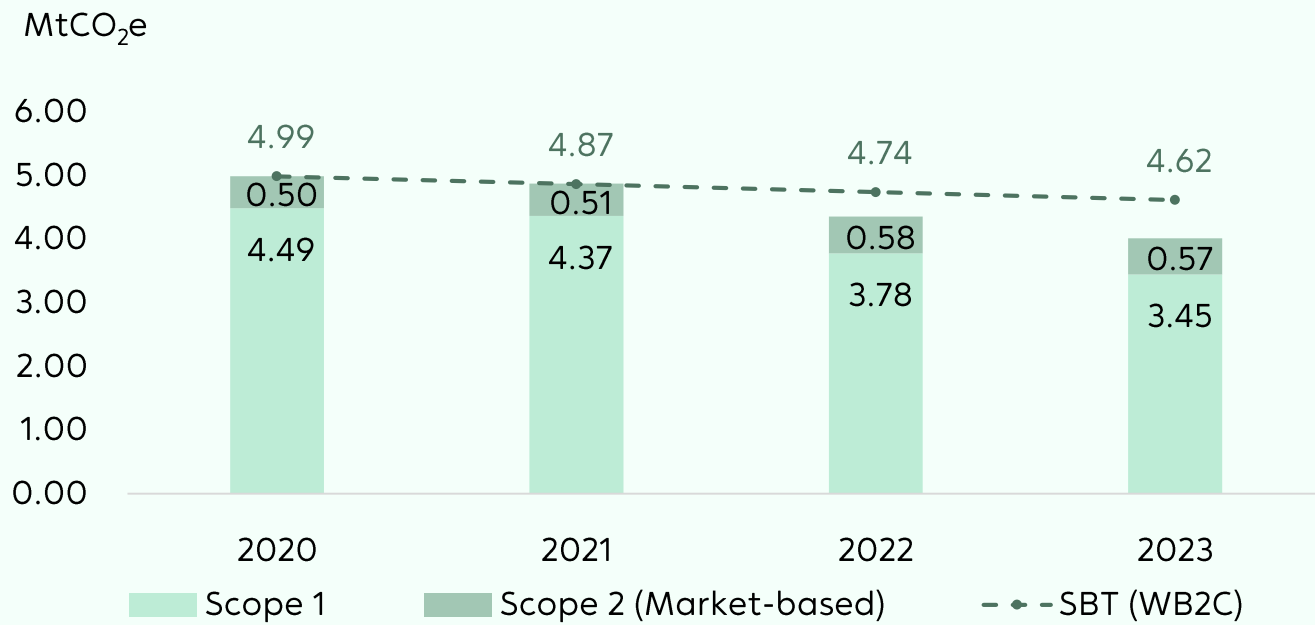


Note :

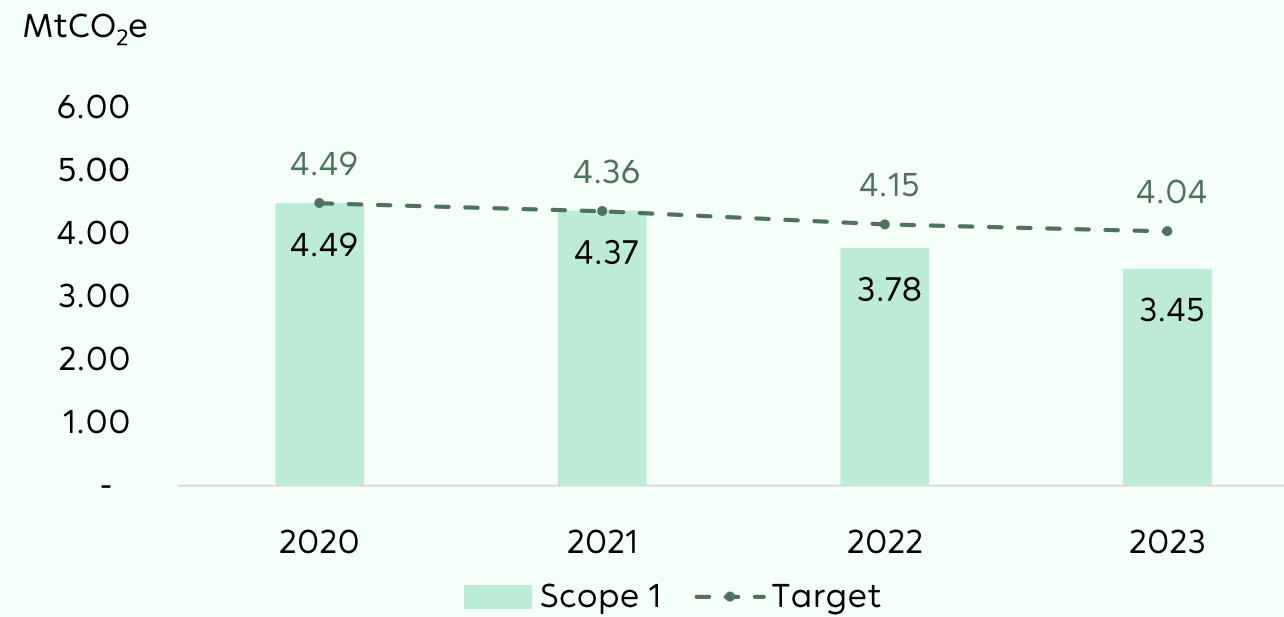
1. In 2023, started to collect category 2, 5 and 10. For category 2, the data was be calculated and added data from Sustainability Report 2023
2. In 2023, changed EF landfill that increased GHG Scope 3 performance.

5.1 GHG Emission Reduction and Energy Consumption Target and Performance

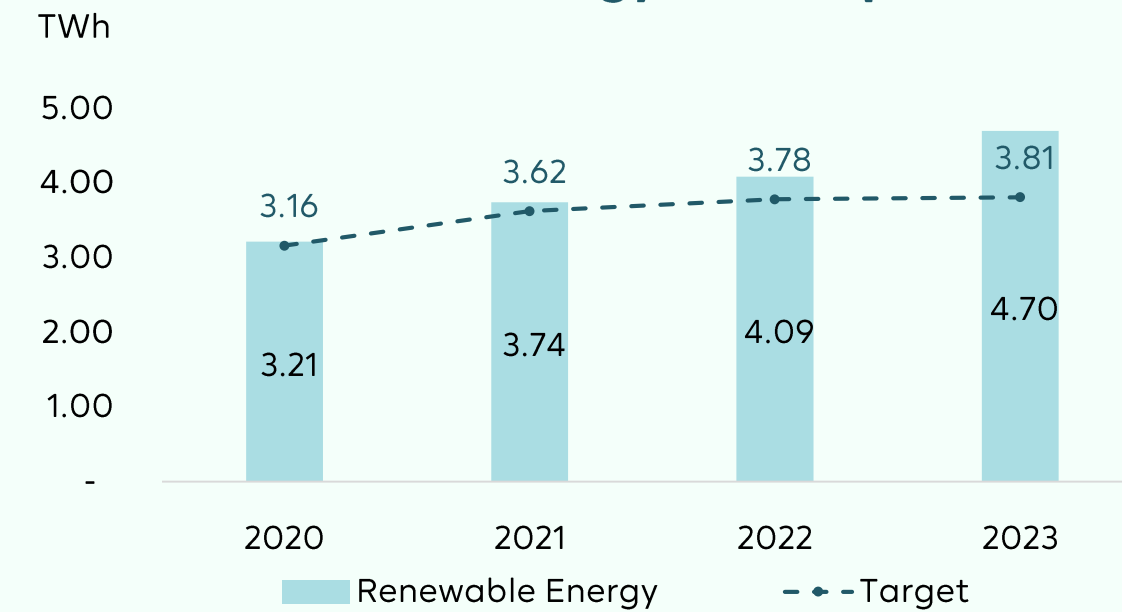
Total GHG emissions



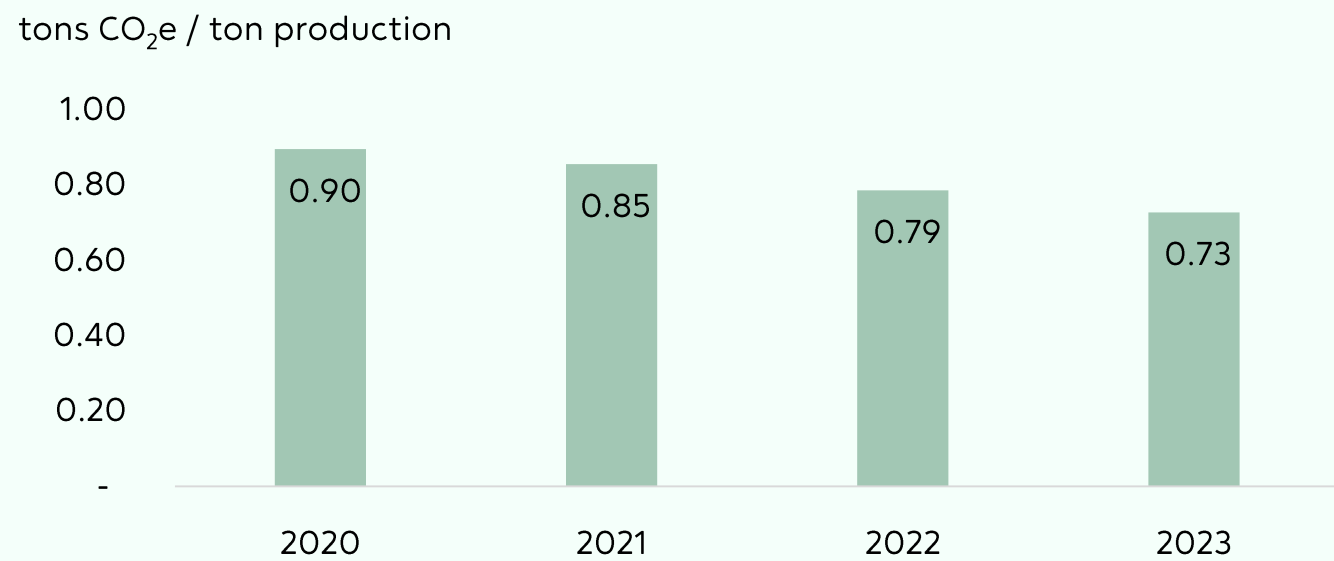
GHG emissions Scope 1



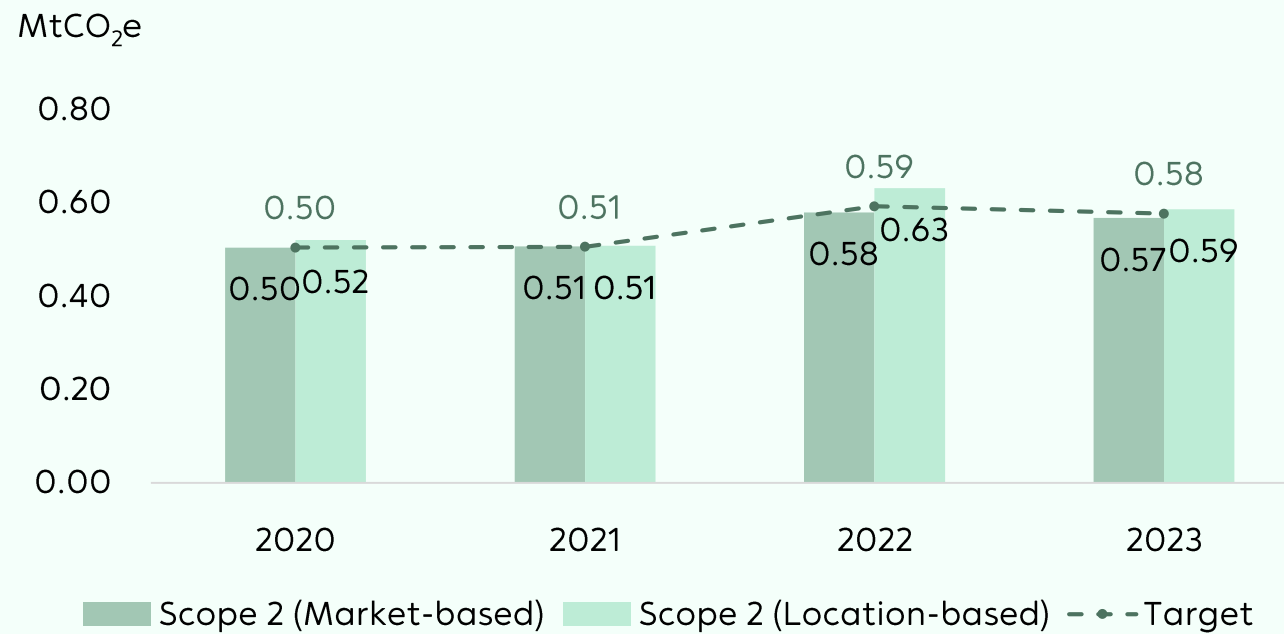
Renewable Energy Consumption



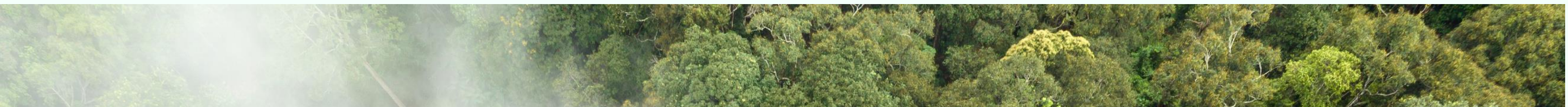
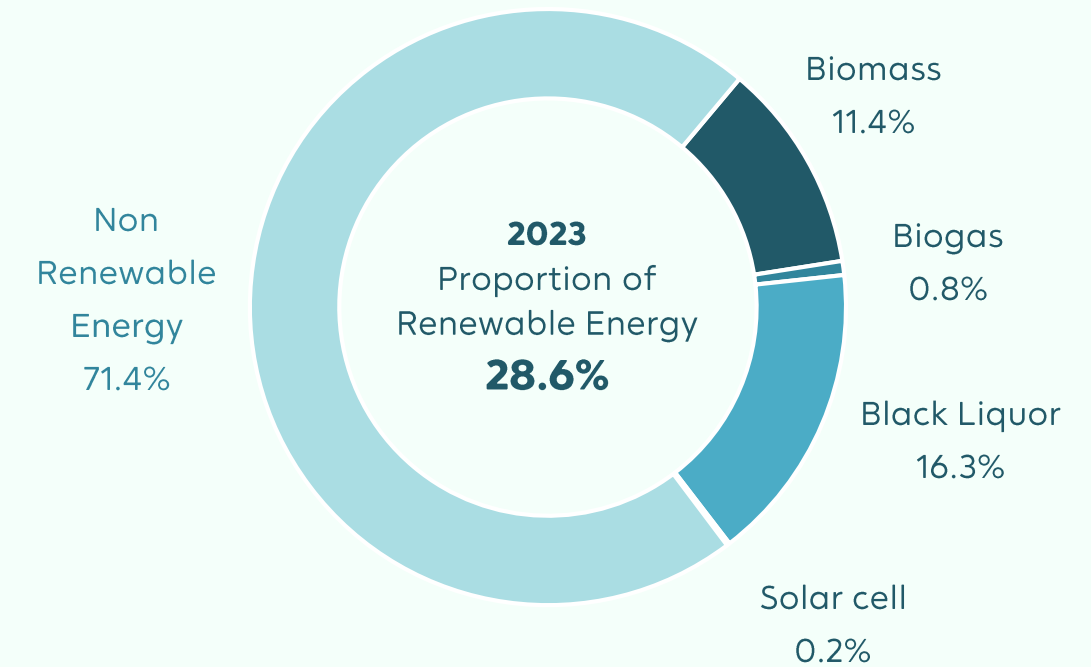
Total GHG emission Intensity (Scope 1 and 2)



GHG emissions Scope 2 (Market-based vs Location-based)



Renewable Energy



5.2 Other Climate-related Target and Performance



Water Management

Reduce Water Withdrawal 35% by 2025 compared with Business As Usual (BAU) at the base year of 2014



Circular Economy

The volume of Recyclable, Reusable, or Compostable Packaging equals 100% of total volume of packaging by 2030
Zero waste from the production process in Thailand is sent to landfill
Zero waste from the production process in Thailand is sent to incinerator without energy recovery



Product Stewardship

Sale revenue of SCG Green Choice products, services, and solutions is 66.7% of the total sales revenue by 2030

35.0%

100%

66.7%



Targets



Performance 2023

28.6%

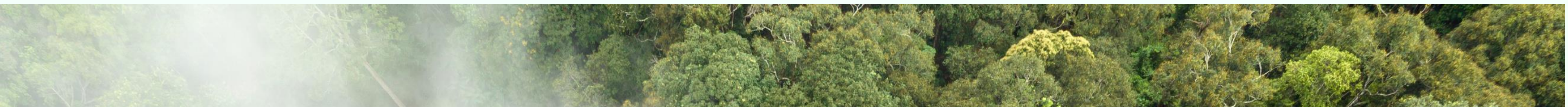
99.7%

57%

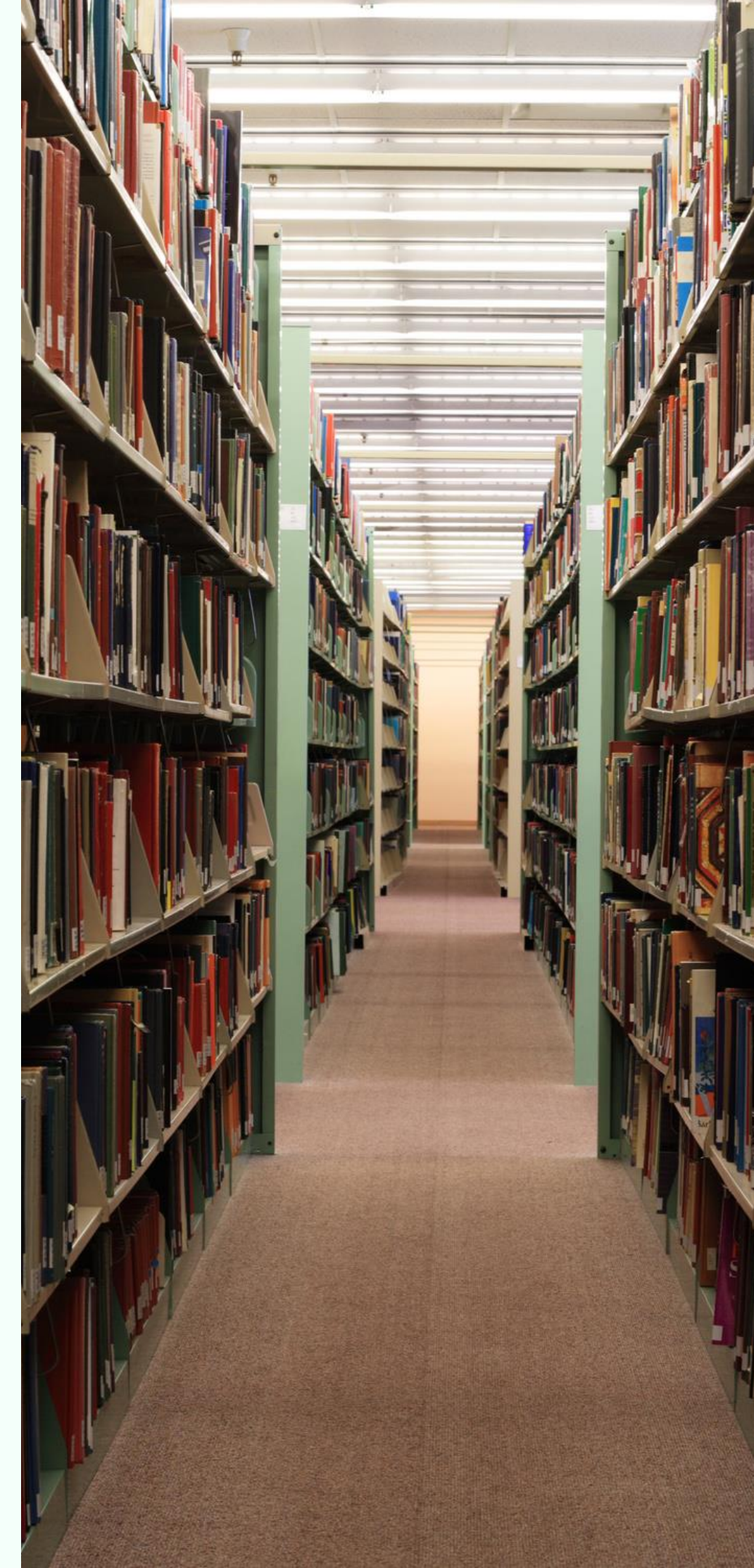
Reduce Water Withdrawal 28.6% compared with Business As Usual (BAU) at the base year of 2014
Proportion of recycle water was 17%

The volume of Recyclable, Reusable, or Compostable Packaging equals 99.7% of total volume of packaging
Zero waste to landfill (Thailand)
Zero waste to incinerator without energy recovery (Thailand)

Sale revenue of SCG Green Choice products, services, and solutions is 57% of the total sales revenue




6 APPENDIX



6.1 GHG Scope 1 & 2 & 3 Assurance Statement

The GHG scope 1 & 2 & 3 data (exclude category 2 Capital Goods) and Energy consumption data publicly in Sustainability Report 2023 (the same data in TCFD Report 2024) is verified by SGS (Thailand) Limited.

Link : <https://sustainability.scgpackaging.com/storage/downloads/assurance/scgp-assurance-statement-sdreport2023-en.pdf>



ASSURANCE STATEMENT

SGS (THAILAND) LIMITED'S REPORT ON SUSTAINABILITY ACTIVITIES IN SCG PACKAGING PUBLIC COMPANY LIMITED'S FOR 2023

NATURE OF THE ASSURANCE/VERIFICATION
 SGS(Thailand) Limited (hereinafter referred to as SGS) was commissioned by SCG Packaging Public Company Limited (hereinafter referred to as SCGP) to conduct an independent assurance of the SCGP Sustainability Report 2023 (hereinafter referred to as the Report) for the year ended December 31, 2023 in accordance with the reporting criteria.

INTENDED USERS OF THIS ASSURANCE STATEMENT
 This Assurance Statement is provided with the intention of informing all SCGP's Stakeholders.

RESPONSIBILITIES
 The information in the Report and its presentation are the responsibility of the directors or governing body (as applicable) and the management of SCGP. SGS has not been involved in the preparation of any of the material included in the Report. Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of verification with the intention to inform all SCGP's stakeholders.

ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE
 The SGS ESG & Sustainability Report Assurance protocols used to conduct assurance are based upon internationally recognised assurance guidance and standards. Assurance has been conducted at a limited level of scrutiny.

The assurance of this report has been conducted according to the following Assurance Standards:

- ISAE 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information
- ISAE 3410, Assurance Engagements on Greenhouse Gas Statements

SCOPE OF ASSURANCE AND REPORTING CRITERIA
 The scope of the assurance included evaluation of quality, accuracy and reliability of specified performance information as detailed below and evaluation of adherence to the following reporting criteria:

- GRI Standards 2021 (in Accordance with)
- WBCSD/WRI Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard
- Sustainability Accounting Standards Board (SASB)

SPECIFIED PERFORMANCE INFORMATION AND DISCLOSURES INCLUDED IN SCOPE
 SCGP's Sustainability Report are adequately in line with the Sustainability Reporting Standard and fulfils all the required content and quality criteria for the identified aspects listed as below;

- a) Environmental dimension performance indicators expressed numerically or in descriptive text
 - Energy consumption (petajoules)
 - Greenhouse gas emissions scope 1 & 2 & 3 (ton CO₂ equivalent)
 - Greenhouse gas removal (ton CO₂ equivalent)
 - Water withdrawal (million cubic meters) and recycled water (million cubic meters)
 - Water discharge (million cubic meters)
 - Water discharge by quality (BOD, COD and TSS (tons))
 - Oxides of Nitrogen (NO_x), Oxides of Sulfur (SO_x), dust and other significant air emissions data (thousand tons)
 - Total weight of waste by type and disposal method (thousand tons)
 - Waste management (waste generated, waste diverted from disposal, waste directed to disposal) (thousand tons)
- b) Social dimension performance indicators or in descriptive text
 - Number and rate of fatality work-related injury, high-consequence work-related injury, lost time injury, recordable work-related injury and number of hours worked
 - Number of fatality work-related occupational illness & disease and occupational illness & disease frequency rate
 - Ratio of the basic salary and remuneration of women to men and gender pay gap
- c) Governance dimension performance indicators or in descriptive text
 - Double materiality assessment
 - Number of Tier-1 supplier, significant supplier in Tier-1, spend on significant supplier in Tier-1 and

significant supplier in non Tier-1

- Number of supplier assessed assessment, significant supplier assessed and supplier assessed with substantial actual/potential negative impact
- Number of supplier supports in corrective action plan implementation and supplier assessed with substantial actual/potential negative impact supported in corrective action plan implementation

ASSURANCE METHODOLOGY
 SGS's assurance engagements are carried out in accordance with assurance procedure.
 The assurance comprised a combination of

- SCGP's Management interviews, including the ESG & Sustainability team with responsibility for performance in the areas within scope
- Interview with data owners &/or managers responsible for internal data collection and reporting databases
- Document review of relevant systems, policies, and procedures where available
- Understanding, analysing and sample testing the key data collection, aggregation, validation and reporting systems, processes, procedures, and controls
- Sampling evidence to confirm the reliability of the selected reporting standards, selected 2 sites for onsite visit as below:
 - Phoenix Pulp & Paper Public Company Limited
 - United Pulp and Paper Co., Inc.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

LIMITATIONS AND MITIGATION
 Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process. Note here any other specific limitations for the assurance engagement and actions taken to mitigate those limitation. Some statements and data within the scope were not assured due to lack of accessible records during the timescale allowed for assurance, and these are clearly marked throughout the Report.

STATEMENT OF INDEPENDENCE AND COMPETENCE
 The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS affirm our independence from SCGP, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.
 The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with ISO 9001, ISO 14001, ISO 45001, ISO 50001, ISO 14064-1, ISO 14067, ISO 26000, WFP, SA 8000 and experience on the Sustainability Report Assurance (SRA) Assurance service provisions.

ASSURANCE/VERIFICATION OPINION
 On the basis of the methodology described and the verification work performed, nothing has come to our attention that causes us to believe that the specified performance information included in the scope of assurance is not fairly stated and has not been prepared, in all material respects, in accordance with the reporting criteria. We believe that the organisation has chosen an appropriate level of assurance for the selected indicators and GHG Scope 3 in 15 categories for the year ended December 31, 2023 included in their reporting.

Signed:
 For and on behalf of SGS (Thailand) Limited

Montree T.
Montree Tangtermsirikul
 General Manager
 100 Nanglinchee Road Chongnonsee Yannawa, Bangkok 10120 Thailand
 16 February 2024
WWW.SGS.COM

attached sheet

Summary of Scope 3 GHG Emissions Report 2023

The emission is described as below: Unit: tonnes of CO₂e

Category	GHG emissions
1. Purchased goods & services	859,465
3. Fuel and energy-related activities	441,172
4. Upstream transportation & distribution	384,560
5. Waste generated in operations	17,883
6. Business travel	831
7. Employee commuting	247
9. Downstream transportation & distribution	66,206
10. Processing of sold products	219,533
12. End-of-life treatment of sold products	37,463
15. Investment	32,338
Total emissions	2,059,696

Remarks:

- Categories 11 and 14 are not reported as GHG emissions because the organization's activities are not relevant to the context
- Categories 8 and 13 - The total GHG emissions are negligible, close to zero, and thus not significant to assurance reporting. Therefore is excluded.

6.2 SCGP Responsible Climate Lobbying

No.	Framework Indicator	SCGP Actions
POLICY & COMMITMENT		
1	Make a public commitment to align all of its climate change lobbying with the goal of restricting global temperature rise to 1.5 ⁰ C above pre-industrial levels	SCGP commits to achieving Net Zero emissions by 2050 and reducing GHG emissions by at least 25% by 2030 compared with the base year of 2020 in all operations. SCGP also commits to conducting business in consideration of reducing environmental impact and setting ambitious targets to support environmental conservation, Climate change adaptation, and implementation in line with Thailand' NDC and Paris Agreement targets towards net zero greenhouse gas emissions by 2050, including climate change lobbying. Our commitment has been clarified and communicated to internal and external stakeholders included in SCGP Environment and Climate Policy
2	Apply the scope of this commitment to all of its subsidiaries and business areas, and all operational jurisdictions	Climate change-related policies, strategies and actions covers all operations and activities of SCGP, including those of its business partners in the value chain. From design, procurement, production of products, services and solutions, distribution and logistics, as well as managing waste and products after use. This also covers business partners tier 1 and non-tier 1. and service providers, both directly and indirectly including other important business partners such associate companies (non-managed operations), joint venture partners, outsourcing partners, new project, modification project, due diligence of mergers and partnership of SCGP both Thailand and abroad.
3	Publicly commit to taking steps to ensure that the associations, alliances and coalitions of which it is a member conduct their climate change lobbying in line with the goal of restricting global temperature rise to 1.5 ⁰ C above pre-industrial levels	All associations and organizations that SCGP contributed to and going to contribute, this is to support them in executing their mission of gathering information and supporting policymakers, in order to create and push public policies, regulations making resulting in members and participants of those associations and organizations can achieve sustainability enhancement, especially GHG emission reduction, Thailand's NDC, Net Zero and Paris Agreement.

6.2 SCGP Responsible Climate Lobbying

No.	Framework Indicator	SCGP Actions
POLICY & COMMITMENT		
4	Assign responsibility at board level for oversight of its climate change lobbying approach and activities	<p>The Board of Directors and top executives promote the fostering of corporate governance and SCGP Code of Conduct knowledge and awareness and encourage the use of GRC (Governance, Risk and Compliance) principles in understanding the targets of assignments, in fostering risk awareness and conducting risk assessments, and in complying with relevant rules to ensure strict adherence among all personnel.</p> <p>According to the SCGP Code of Conduct, SCGP maintains political neutrality and does not support or make contributions, financial or otherwise, to any particular political party, political coalition, person with political influence, or political candidate on a local, regional or national level, either directly or indirectly.</p>
5	Assign responsibility at senior management level for day-to-day implementation of its climate change lobbying policies and practices	<p>The SCGP Environment, Social and Governance (ESG) Committee is the highest-level body overseeing climate change support. The committee comprises the CEO as a member and all executives from all business units. The Energy and Climate Change Committee, chaired by director of PP business, is a sub-committee responsible for monitoring climate change management operations to align with climate-related targets and considering collaboration to drive climate change activities with stakeholders.</p>
6	Establish an annual monitoring and review process to ensure that all of its direct and indirect climate change lobbying activities across all geographies are consistent with the goal of restricting global temperature rise to 1.5 ⁰ C above pre-industrial levels	<p>The ESG committee regularly monitors and reviews process on quarterly basis to assess whether our direct and indirect climate change activities and trade associations' public policy engagements across all SCGP's operations are aligned with Thailand's NDC and the Paris Agreement as included in SCGP environmental and climate policy.</p> <p>SCGP confirms that association management within each trade association and organization which we are affiliated with. There is continued oversight of associate's support in line with the Paris Agreement and in line with our position. SCGP ensures that our commitment to responsible and innovative advocacy is shared by the associations to which we are members.</p>

6.2 SCGP Responsible Climate Lobbying

No.	Framework Indicator	SCGP Actions
POLICY & COMMITMENT		
7	Establish a process for engaging with stakeholders related to setting and reviewing its climate change lobbying policies, positions and activities	<p>SCGP has established a process for engaging with stakeholders regularly, including government agencies, civil society sector, opinion leaders, industry peers, and members of trade associations and organizations, in setting up and reviewing our climate change policies, positions, and activities through regular meeting, seminar, public hearing and then report the results to the ESG committee.</p>
8	Establish a clear framework for addressing misalignments between the climate change lobbying positions adopted by the associations, alliances and coalitions of which it is a member and the goal of restricting global temperature rise to 1.5 ⁰ C above preindustrial levels	<p>SCGP established roadmap toward Net Zero by 2050 which aligns with the goal of restricting global temperature rise to 1.5⁰C above pre-industrial levels. SCGP has established a clear framework in place and regular review for addressing misalignments between the climate change positions adopted by the associations, alliances, and coalitions of which we are members.</p> <p>If misalignments are significant issues, SCGP will report to the ESG committee and conduct extensive discussions with the association’s committees, and signal our engagement reconsideration in order to achieve a more successful alignment or demand that the association not take a position. In addition, SCGP will also assess the association’s performance and the value of its membership before deciding if exiting the organization is appropriate.</p>
9	Publish a detailed annual review covering the company’s assessment and actions related to the 1.5 ⁰ C alignment of: (a) its own climate change lobbying activities; (b) the climate change lobbying activities of the associations, alliances, coalitions or thinktanks of which it is a member or to which it provides support	<p>SCGP conducts regular reviews of both climate change lobbying activities and activities carried out by our associations, alliances, coalitions or think tanks. It must be consistent with the Paris Agreement. In 2023, SCGP has no climate-related lobbying activities.</p> <p>Purpose of participation of other organizations is to support sustainable development operations Particularly urgent are initiatives to build collaborative networks, such as climate change adaptation and the transition to a low-carbon economy. circular economy and health and safety To achieve concrete results</p>

6.2 SCGP Responsible Climate Lobbying

No.	Framework Indicator	SCGP Actions
POLICY & COMMITMENT		
10	Recognise the existence of and report on action to address any misalignments between its climate change lobbying and/or the climate change lobbying activities of its trade associations, coalitions, alliances or funded thinktanks and the goal of limiting global temperature rise to 1.5 ⁰ C above pre-industrial levels	SCGP has identified misalignments between our climate change lobbying and/or the climate change lobbying activities of the trade associations, coalitions or funded thinktanks, Thailand’s NDC and the Paris Agreement.
11	Create or participate in coalitions that have the specific purpose of lobbying in support of the goal of restricting global temperature rise to 1.5 ⁰ C above pre-industrial levels	Our large contribution is to drive Sustainable Business growth following ESG and principles of Circular Economy. The 2 main contributions are for Sustainable Business and Circular Economy such as GCNT, the Chambers of Commerce and related, the Federation of Thai Industries (F.T.I.), the Technical Association of the Pulp and Paper Industry (TAPPI), the Asian Corrugated Case Association (ACCA) including the Thailand Institute of Packaging and Recycling Management for Sustainable Environment (TIPMSE) and Sustainable Packaging Coalition. Both largest contributions are conforming to Paris Agreement and our Net Zero pathway.

No.	Framework Indicator	SCGP Actions
POLICY & COMMITMENT		
12	Publicly disclose, for all geographies, its membership of, support for and involvement in all associations, alliances and coalitions engaged in climate change-related lobbying	<p>SCGP Contribution to Organization information normally is disclosed via our website (https://sustainability.scgpackaging.com/en/governance/corporate-governance).</p> <p>Our large contribution in 2022 to drive Sustainable Business growth following ESG and principles of Circular Economy. Both largest contributions are conforming to Paris Agreement and our Net Zero pathway.</p> <ol style="list-style-type: none"> 1. Collaboration for Sustainable Business, SCGP is committed to conducting business for sustainable growth following the ESG framework. Engagement with our stakeholders through partnership and collaboration across sectors—government agencies, businesses, and civil societies is a key factor. SCGP has joined the Global Compact Network Association of Thailand (GCNT), The Chambers of Commerce and related, The Federation of Thai Industries (F.T.I), the Technical Association of the Pulp and Paper Industry (TAPPI), and the Asian Corrugated Case Association (ACCA), Water User Organizations and River Basin Committee. The main purposes are for collaboration and elevation for Sustainable Industry development with digitalization, technology, innovation acceleration, and enhancement of competitiveness of the industry including Climate Resilience and Paris Agreement Alignment. SCGP applies standards, tools, and knowledge of them as a model and shares that knowledge with our stakeholders. 2. Collaboration in Driving Circular Economy, SCGP adheres to creating innovative packaging for consumers and a sustainable World by following circular economy principles for reducing the probable impacts. To be able to do that we are seeking and being partners with external organizations, both public and private sectors. For the circular Economy, SCGP has joined the Thailand Institute of Packaging and Recycling Management for Sustainable Environment (TIPMSE), The Federation of Thai Industries for collaboration and elevation of a recycling-oriented society, including supporting pilot projects related to circular economy principles. Moreover, SCGP employees are the committee members of the organization. Also, SCGP has joined Sustainable Packaging Coalition for collaboration and enhancement for creating sustainable packaging. These collaborations will help in GHG emission reduction. <p>We are already joined TCNN in 2022 as a Climate Action Initiator and Climate Action Leading Organization member, declaration of intention to reduce GHG emissions and towards Net Zero by 2050, target and plan clearly which are aligned with the Paris Agreement and support Thailand's commitment, including collaborating for developing projects and a carbon offset market. However, the contribution to TCNN was made in early 2023 THB 20,000 which will include the contribution of TCNN in 2023's Contribution summary in the "Collaboration for Sustainable Business" topic.</p>

No.	Framework Indicator	SCGP Actions																						
POLICY & COMMITMENT																								
13	Publicly disclose, for each of these organisations: (a) how much it pays to them on an annual basis; (b) those organisations where it sits on the board or plays an active role in committees or other activities related to climate change	<p>Contributions to Each Organization: No. 1-7 were contributions to Sustainable Business, THB 2,490,600 No. 8-9 were contributions to Circular Economy, THB 594,825</p> <table border="1" data-bbox="1399 652 3232 1397"> <thead> <tr> <th data-bbox="1399 652 2782 735">Organizations</th> <th data-bbox="2782 652 3232 735">2023 Contribution (THB)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1399 735 2782 797">1. The World Business Council for Sustainable Development (WBCSD)</td> <td data-bbox="2782 735 3232 797">1,011,205</td> </tr> <tr> <td data-bbox="1399 797 2782 859">2. GLOBAL COMPACT NETWORK ASSOCIATION OF THAILAND</td> <td data-bbox="2782 797 3232 859">725,000</td> </tr> <tr> <td data-bbox="1399 859 2782 921">3. THE THAI CHAMBER OF COMMERCE</td> <td data-bbox="2782 859 3232 921">73,600</td> </tr> <tr> <td data-bbox="1399 921 2782 983">4. THE FEDERATION OF THAI INDUSTRIES (F.T.I)</td> <td data-bbox="2782 921 3232 983">328,412</td> </tr> <tr> <td data-bbox="1399 983 2782 1044">5. CDP WORLDWIDE</td> <td data-bbox="2782 983 3232 1044">243,977</td> </tr> <tr> <td data-bbox="1399 1044 2782 1106">6. ASIAN CORRUGATED CASE ASSOCIATION (ACCA)</td> <td data-bbox="2782 1044 3232 1106">71,023</td> </tr> <tr> <td data-bbox="1399 1106 2782 1168">7. The Thai Pulp and Paper Industries Association</td> <td data-bbox="2782 1106 3232 1168">37,383</td> </tr> <tr> <td data-bbox="1399 1168 2782 1230">8. CEFLEX</td> <td data-bbox="2782 1168 3232 1230">494,825</td> </tr> <tr> <td data-bbox="1399 1230 2782 1337">9. THAILAND INSTITUTE OF PACKAGING AND RECYCLING MANAGEMENT FOR SUSTAINABLE ENVIRONMENT (TIPMSE)</td> <td data-bbox="2782 1230 3232 1337">100,000</td> </tr> <tr> <td data-bbox="1399 1337 2782 1397">Total</td> <td data-bbox="2782 1337 3232 1397">3,085,425</td> </tr> </tbody> </table>	Organizations	2023 Contribution (THB)	1. The World Business Council for Sustainable Development (WBCSD)	1,011,205	2. GLOBAL COMPACT NETWORK ASSOCIATION OF THAILAND	725,000	3. THE THAI CHAMBER OF COMMERCE	73,600	4. THE FEDERATION OF THAI INDUSTRIES (F.T.I)	328,412	5. CDP WORLDWIDE	243,977	6. ASIAN CORRUGATED CASE ASSOCIATION (ACCA)	71,023	7. The Thai Pulp and Paper Industries Association	37,383	8. CEFLEX	494,825	9. THAILAND INSTITUTE OF PACKAGING AND RECYCLING MANAGEMENT FOR SUSTAINABLE ENVIRONMENT (TIPMSE)	100,000	Total	3,085,425
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Total	3,085,425																							
14	Publicly disclose its overall assessment of the influence that its climate lobbying has had on (a) supporting ambitious public climate change policy; (b) the company's ability to deliver its own corporate transition strategy	SCGP is committed to supporting various organizations with a vision and mission in creating sustainable growth whether it is with ESG principles or Circular Economy principles, as well as towards net zero emissions according to the intentions of the global community. Being TCNN's Climate Action Initiator and Climate Leader Organization Member influenced SCGP to declare our intention to reduce GHG emissions and towards Net Zero by 2050. This effect our annual target and transition strategy. On the other hand, other contributions will lead to reduce GHG emissions such as TIPMSE, F.T.I., and Sustainable Packaging Coalition.																						

The logo for SCGP, with 'S', 'C', and 'G' in blue and 'P' in a red-to-orange gradient. The background features a blue-tinted city skyline with white wireframe buildings and a grid floor.

SCGP

EVOLVE THE WAY OF LIFE



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