

The Way of the Better World





SCGP with the “SCG ESG Pathway”
aims to present sustainable products, services, and solutions
for the Better World

Our Act for the Better World

Listed in THSI and SETTHSI Index

Selected to be included in the list of Thailand Sustainability Investment (THSI) for the Year 2022 and the SETTHSI index



SET Awards

Received the Best Sustainability Awards and Best Innovative Company Awards from the SET Awards 2022.

Participating in the United Nations Global Compact

Joined the United Nations Global Compact (UNGC) as a participant on June 7th, 2022 and committed to its principles as a participant to address climate change and protect the environment.



Received certification as a Certified Company from CAC

Received certification as a Certified Company from the Thai Private Sector Collective Action Against Corruption (CAC) on March 31st, 2022.

Member of Carbon Neutral Network Thailand

As a member of the Climate Leading Organization, we have declared our commitment to reduce greenhouse gas emissions in support of Thailand's policy and the global Paris Agreement.



Selected to be ranked in the FTSE4Good Index Series

Demonstrated a strong and robust Environmental, Social, and Governance (ESG) issues practices.

Top 1% of the World

As a result of the 2022 Corporate Sustainability Assessment (CSA) in the Containers & Packaging Industry by S&P Global



Industry Mover

As an Industry Mover in Container & Packaging Industry from the 2022 CSA by S&P Global



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Talk with CEO



“

SCGP is committed to sustainable business management in the Environmental, Social, and Governance (ESG) dimensions to achieve its set goals.

”

In 2022, how was the progress on ESG initiatives?

SCGP is committed to conducting business sustainably and continuously improving its service channels and solutions for all customer groups. The company's Board of Directors has set ESG targets for both the year 2022 and the middle-to-long-term (3-5 years) taking account of the ESG Pathway.

For the environmental aspect, in 2022, the company has continued to implement strategies to reduce greenhouse gas emissions 20% by 2030, reduce the use of external water sources 35% by 2025. The company will also aim to reduce energy use 13% by 2025 and not dispose of waste from production processes in Thailand in landfills or dump sites. Over the past years, SCGP has been successful in reducing greenhouse gas emissions by 12.7%, reducing energy use by 6.8%, reducing the use of external water sources by 28% and achieving zero waste from production processes in Thailand to landfill.

For the social dimension of SCGP, the board of directors reviewed the Diversity and Inclusion Policy to enhance the understanding of its policy among employees, business partners, and stakeholders that promotes equality, respect for diversity and increased acceptance of individual differences. Additionally, the company added content to the Life Saving Rules to cover the use of drugs from opium, marijuana, and cocaine to regulate the work of employees and business partners, both in Thailand and abroad, ensuring their well-being and safety, and protecting their property. Currently, the Life Saving Rules are applied to all SCGP factories. Regarding human rights issues, SCGP continues to assess risks that may impact human rights both internally and externally and aim to cover 100% of significant risks along the value chain. This will further reduce the risk of human rights violations in the future and protect the values of SCGP.

The corporate governance of SCGP follows the SCGP Corporate Governance Guidelines and SCG Code of Conduct throughout the organization.

In 2022, there were no violations of laws, regulations, and ethical principles that had significant impacts. The company also built trust in its business with partners based on fairness and good cooperation. The Supplier Code of Conduct was introduced and in 2022, 100% of significant suppliers signed and participated in this code of conduct, which enhances and promotes the suppliers' corporate governance.

What is the direction of ESG works in 2023?

SCGP remains committed to sustainable business management in the Environmental, Social, and Governance (ESG) dimensions to achieve its set goals. In the environmental aspect, SCGP will increase the use of renewable energy sources and reduce 20% of greenhouse gas emissions by 2030 compared with the base year 2020. Data collection on greenhouse gas emissions will also be expanded to cover its suppliers and business partners. The company will also improve energy efficiency by upgrading its boilers to meet set standards, with a goal to reduce energy use 13% by 2025. Water conservation will also be promoted through innovation and reduction in water usage within its factories. Waste management will maintain the target of zero waste from the production process in Thailand to landfill.

In the social dimension, SCGP will promote gender diversity within its leadership structure by supporting more women in management positions through various human resources programs. The company will also assess human rights risks in its operations more extensively and encourage its suppliers to comply with Supplier Code of Conduct. SCGP will continue to provide business consultations and foster innovation with partners to align with business growth strategies and meet customer needs.

What is SCGP's business strategy for 2023?

For 2023, SCGP's business direction will focus on maintaining growth with quality and sustainability by expanding the business through mergers and partnerships, as well as synergizing and enhancing existing businesses. The company will also aim to access new related businesses and markets, particularly in the consumer goods sector, such as lifestyle-related products, food and beverages, and health and medical products, which are essential in daily life.

SCGP will prioritize customer centricity and collaborate with customers in developing innovative and value-adding packaging solutions that cater to consumers' lifestyles. The company will also focus on improving production efficiency to reduce costs and increase productivity continuously.

The development of personnel capabilities and competencies to manage the organization in line with business growth and various risks will also be emphasized. The company will advance its business in line with ESG principles for a sustainable world.



(Wichan Jitpukdee)
CEO and Chairman of
ESG Committee





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SCGP Business Overview

Vision, Purpose, Mission, and Strategy.

SCGP has four core values 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**. Focused on the following missions:

- Enhancing customers' brand and their supply chain efficiency customer satisfaction through services and innovation for product reuse
- Continuing business expansion both domestically and internationally, as well as enhancing product diversity and customer base to capture benefits from regional macroeconomic growth and consumer expenditures; and
- Committing to undertaking proactive actions in sustainable development and being the leader in the circular economy in the ASEAN.

SCGP's long-term purpose is **to create growth in people and business for a better world** by conducting sustainable business consistently with ESG (Environmental, Social, and Governance) and the Circular Economy principles. This aims to optimize the use of resources, raw materials, and products while preserving their value through reduction, reuse, and recycling, to solve limited natural resource issues and waste problems. This approach enhances the company's competitiveness and fosters sustainability.

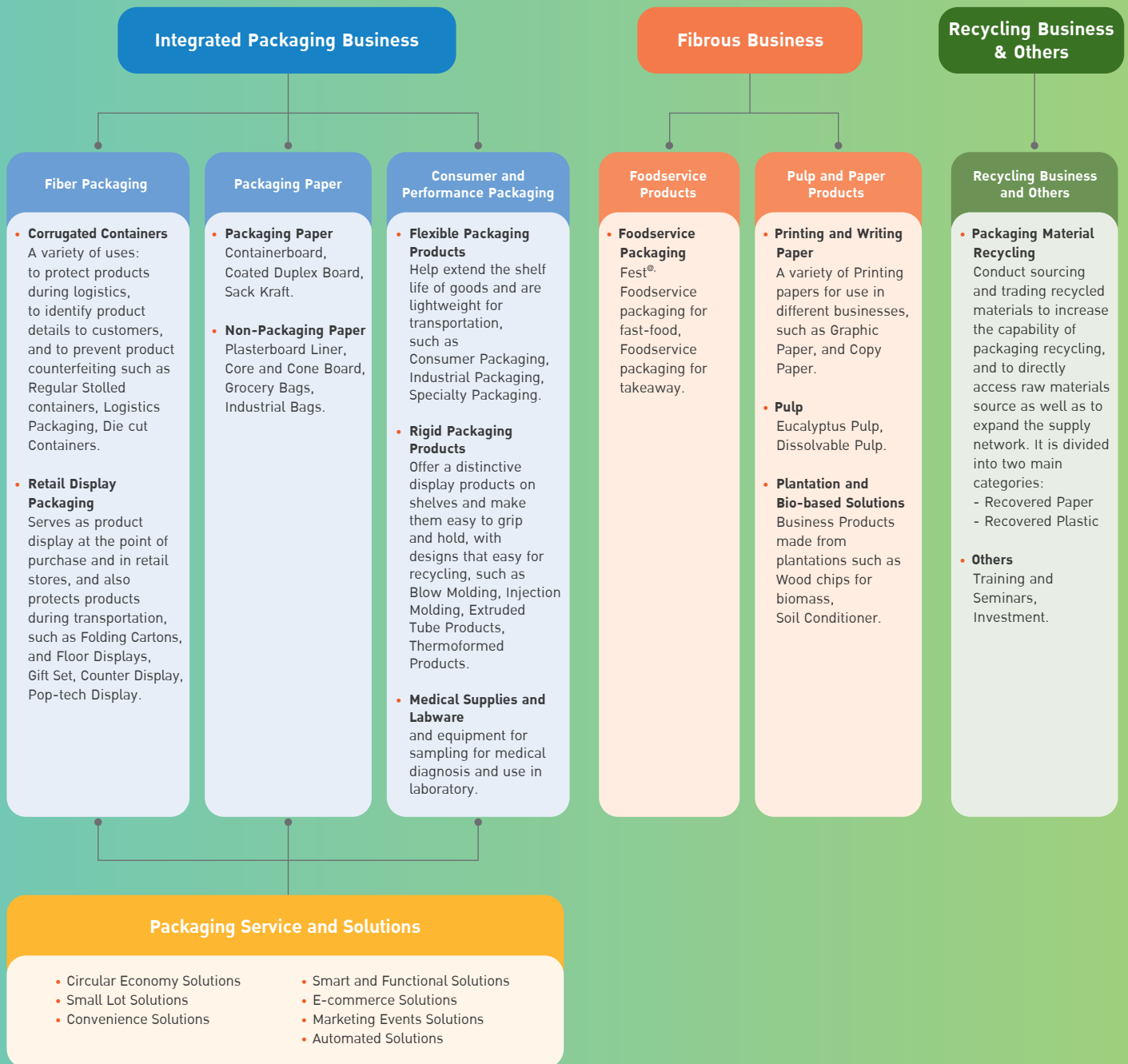
SCGP's Business Strategy

- 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.



Nature of Business

SCGP is organized into 3 main operating segments:
Integrated Packaging Business, Fibrous Business,
and Recycling Business, & Others.



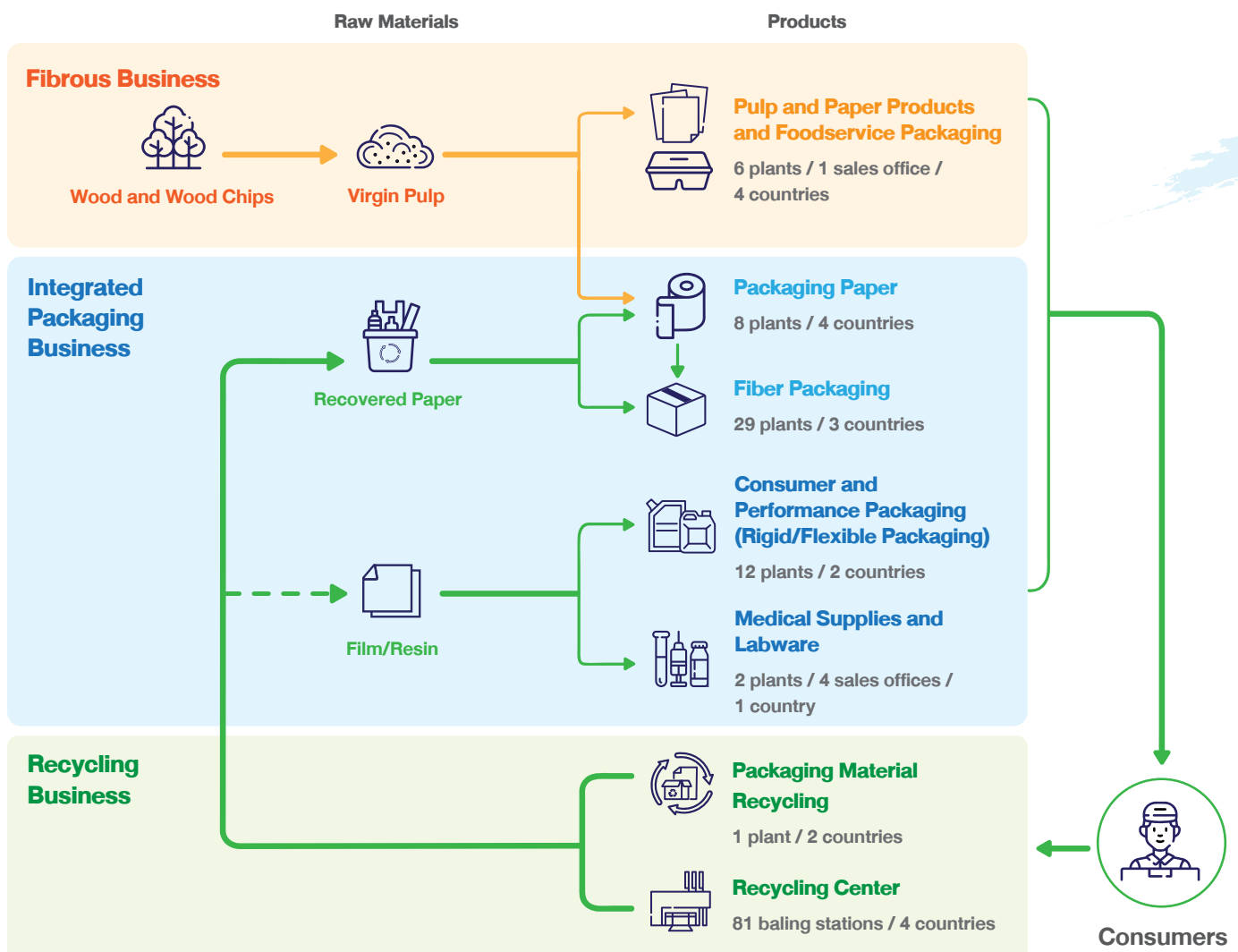
SCGP Products and Solutions

SCGP focuses on all operations across the packaging value chain, from managing raw materials, improving efficient production processes, and delivering products on time to meet diverse customer needs for Primary, Secondary, and Tertiary Packaging and Promotional & Display Packaging for marketing purposes. They use various types of materials like fiber-based or polymer-based and offer additional services including design, printing, and other innovative solutions as per customer requirements.

With the ability to manage supply chains efficiently and the commitment to ESG (Environmental, Social and Governance), circular economy, and stakeholder capitalism that prioritizes the well-being of all stakeholders, SCGP is able to meet the needs of customers through its expertise and integrated business strategies.

The diagram below illustrates the comprehensive and valuable value chain of the company's integrated production process.

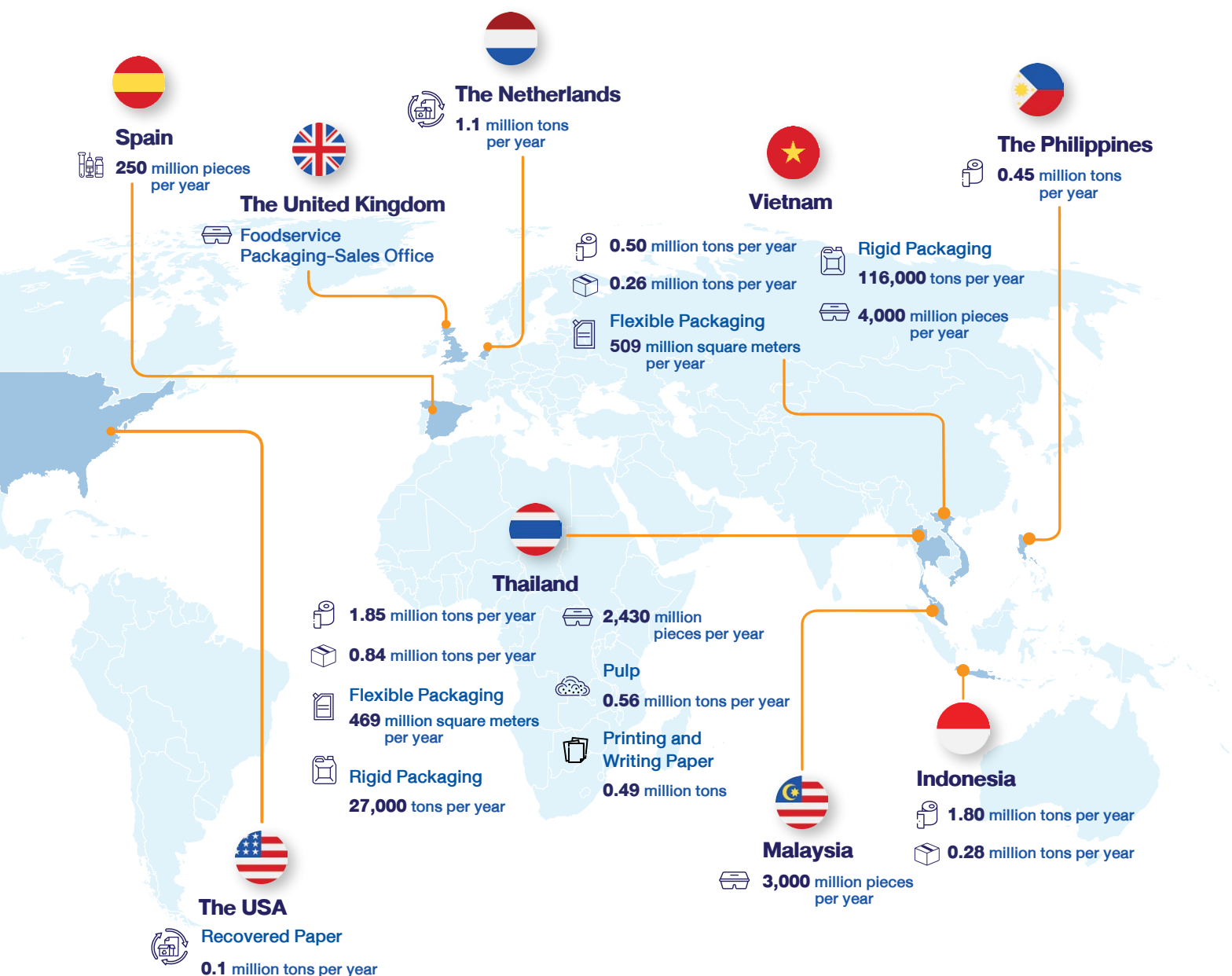
Total Packaging Solutions



Business Operation Based on Geographical Area

In 2022, SCGP's business operations spanned the entire ASEAN region and extended into countries with potential outside the region. The company has 57 production plants in 9 countries, including Thailand, Vietnam, Indonesia, the Philippines, Malaysia, the United Kingdom, Spain, the Netherlands, and the USA, promoting a comprehensive and integrated business model. This strengthened the overall company, creating synergies between subsidiary companies and expanding market access in the rapidly growing regions of ASEAN, Europe, and North America.

The map below shows the location of the production plant and sales office of the company as of December 31st, 2022.



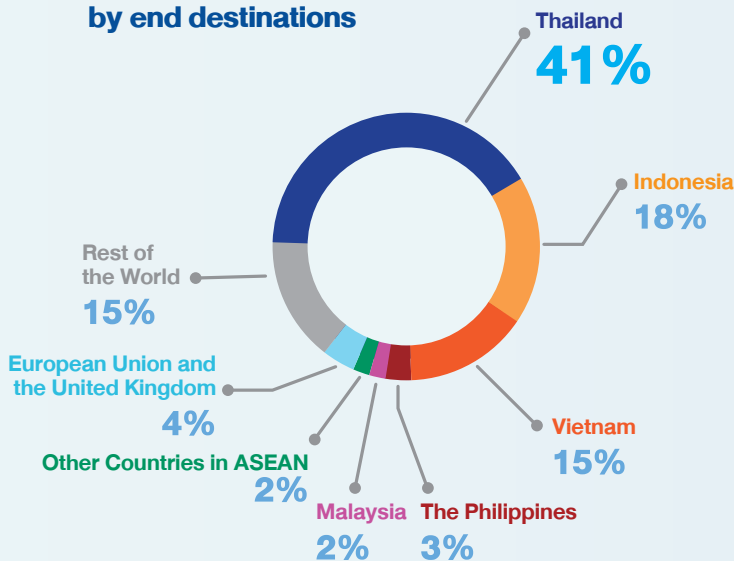
ESG Highlight Performance 2022

Sales Revenue

146

(Baht billion)

Consolidated sales by end destinations



EBITDA



19

(Baht million)

Production facilities



57

Sites



No. of Employees

(Thai / Aboard)

8,960 / 13,329

Employees



Supplier passed Environmental, Social, and Governance (ESG) risk assessment

100%

of supplier with procurement spending over Baht 1 million

Green Procurement Purchased



4,883

(Baht million)

8.29%

of total procurement purchased

16

Products

Environmental-related expenses and investments



1,315

(Baht million)

Investment and expense in research & development, and Innovation



522

(Baht million)



"SCG Green Choice" products, services, and solutions

61

Products



Waste from production processes in Thailand to landfill

0

Ton



Reduction of waste disposal by incineration without energy recovery in Thailand

99.95%

Compared with the base year of 2014

Water Withdrawal Reduction

28.3

Million Cubic Meters

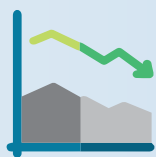
28.0%

Compared with Business As Usual (BAU) at the base year of 2014



Proportion of Recycled water

16.3%



GHG Emission Reduction

0.63

Million tons CO₂ equivalent

12.7%

Compared with the base year of 2020,
both Thailand and abroad

Energy Saved

4.4

Petajoules

6.8%

Compared with Business
As Usual (BAU) at the base year of 2007



Proportion of Renewable Energy

24.3%



Total Number of Work related Fatalities (Employee/Contractor)

0

Case



Work-related Injury and Illness Rate of Employees and Suppliers (in Thailand)

0.267/0.599

Cases per 1,000,000 Hours-Worked



Occupational Illness and Disease Frequency Rate of Employees

0

Case per 1,000,000 Hours-Worked



Employees Passed Ethics & Human Rights Learning and Testing and Ethics e-testing

100%



Human Rights Violations

0

Case



Scholarship Program

1,339

Scholarships

67

Schools



Check Dam

501

Projects



Agricultural Water Supply Project

2,907,215

Cubic
meters



Natural Climate Solution (NCS) Plantation

999,263

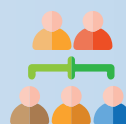
Trees



Support for Community Products

11,796,186

(Baht)



Career Development Center in Communities

44

Centers



Zero Waste Community Project

31

Communities



Social Enterprise Development – income from handicraft product from industrial waste

720,000

(Baht)



Corporate Volunteers

237

Employees

Awards and Achievements 2022



ดร. อติศักดิ์ วรคุณพินิจ

ผู้อำนวยการศูนย์พัฒนาองค์กรและผลิตภัณฑ์ บมจ. เอสซีจี แพคเกจจิ้ง



- SCGP has been invited to participate in the **Dow Jones Sustainability Index (DJSI)** as a result of the 2022 Corporate Sustainability Assessment (CSA) in the Containers & Packaging Industry by S&P Global for the first time. Based on the result announcement on February 7th, 2023, SCGP received a total score of 86, representing the Top 1% and Industry Mover of the Containers & Packaging Industry.
- SCGP has been selected to be included in the **THSI (Thailand Sustainability Investment)** list for the year 2022 and the SETTHSI index for the second consecutive year. The company also received two SET Awards, in the category of the **Best Sustainability Awards** from the Sustainability Excellence Awards group and the **Best Innovative Company Awards** from the Business Excellence Awards group. This reflects SCGP's commitment to conducting business in line with ESG principles to increase the company's resilience and sustainability.
- SCGP has joined the **Science Based Targets initiative (SBTi)**, which is a collaboration between global organizations and currently has more than 2,000 leading companies worldwide participating in the program. The goal is to set targets for reducing greenhouse gas emissions 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.
- SCGP is one of the first 30 companies in Thailand to receive the **CIRCULAR MARK** certification for the environment for 5 leading products, including Idea Green copier paper, consumer paper bags, Fest Bio, Laminated Mono-material (R1) and pet shampoo bottles made from 100% PCR HDPE plastic. This demonstrates the company's leadership in the Circular Economy among Thai and international businesses and certifies the quality of environmentally-friendly and circular-economy-focused products and packaging. The production process is environmentally friendly and involves the proper collection and recycling of waste materials.
- Thai Containers Group Co., Ltd. factories in Pathumthani, Ratchaburi, Songkhla, and Saraburi has received the **Product Carbon Footprint label** certification for 37 corrugated containers categories from Thailand Greenhouse Gas Management Organization (Public Organization) (TGO), which demonstrates 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.



ESG PASSION

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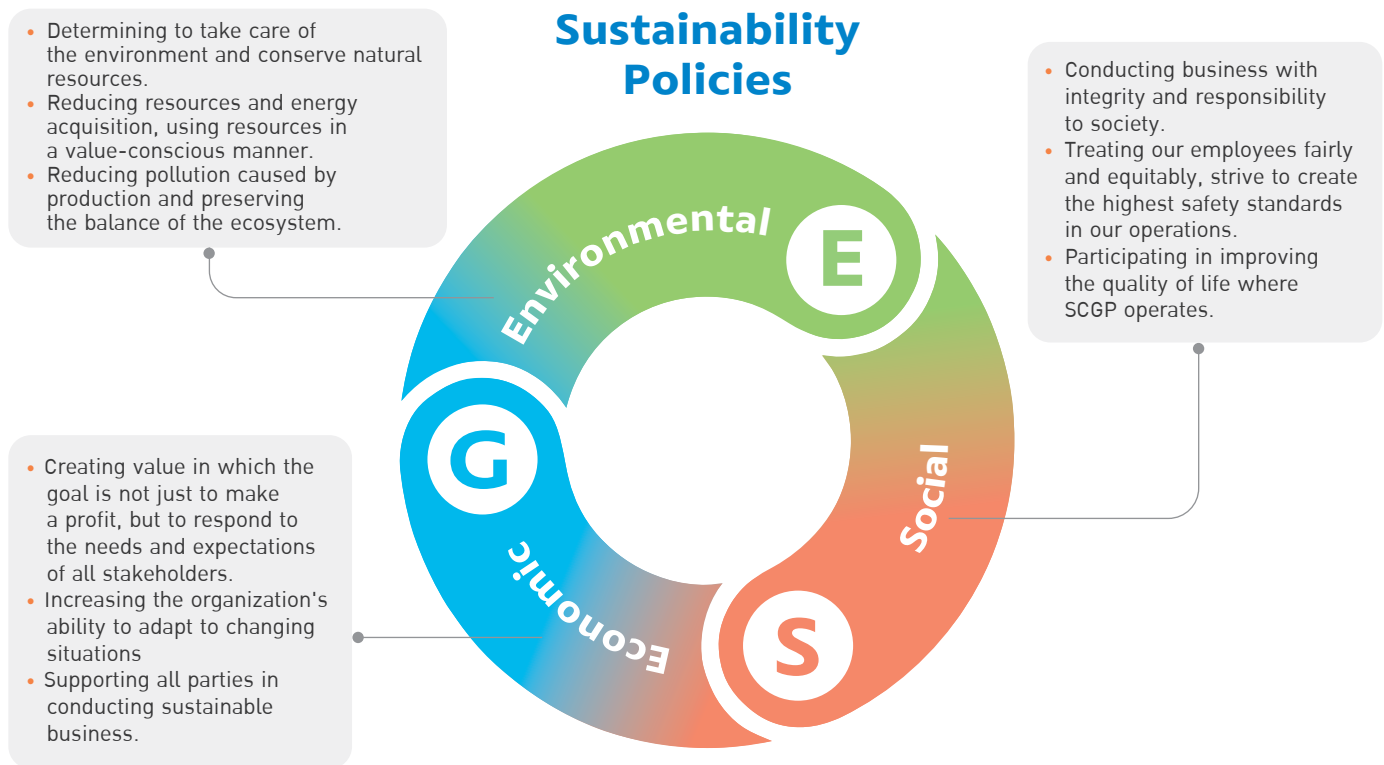
ESG Metrics and Targets **26**

Collaborative network aspiring
towards sustainability **28**



Sustainability Policies and Approaches

SCGP and its subsidiaries, both Thailand and abroad, have a policy of conducting business sustainably taking into account risks and opportunities for improvement at all levels of the organization, needs, and expectations both short and long-term of all stakeholders, covering the impact of economic, social, and environment.



Sustainability Approaches

1. Choosing the use of modern, safe, and socially friendly equipment and technology.
2. Development and design of products to ensure quality, and safety in use, and can be reused and recycled easily and is a leader in the packaging industry.
3. Taking care of all stakeholders, giving importance to sustainable social development, including campaigning and creating awareness of environmental conservation for young people.
4. Encourage cooperation and coordination with stakeholders in favor of sustainability.

Continuous development and improvement of policies for sustainability

In 2022, SCGP has reviewed and improved its policies to achieve effective and efficient management practices, in line with global issues and considering local issues according to SCGP Sustainability Practices such as;

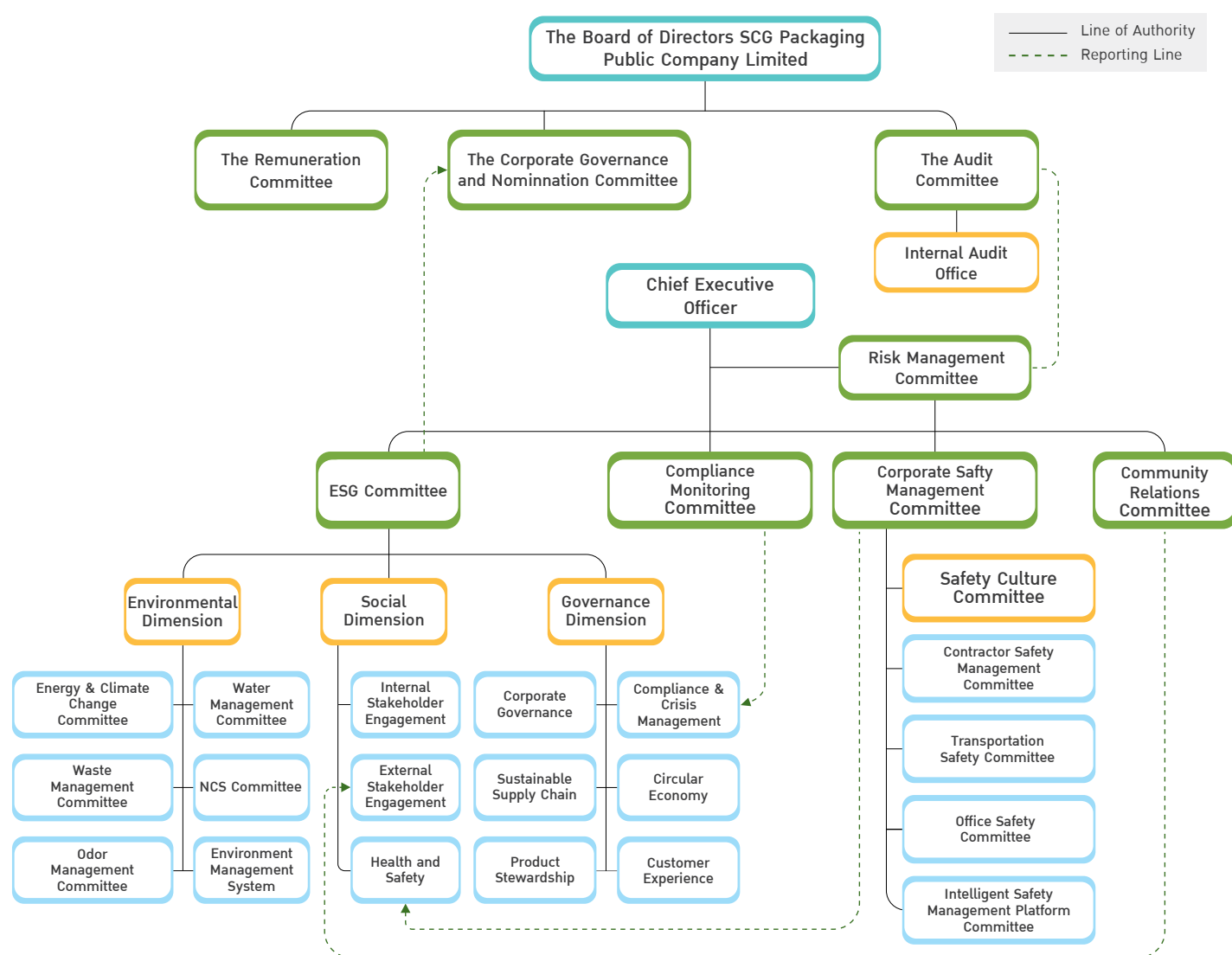
1. Environment and Climate Policy
2. Biodiversity Restoration and Conservation Policy
3. Diversity and Inclusion Policy
4. Human Rights Policy
5. SCG Packaging's Code of Conduct

Track any updates, implementations, reviews, and improvements made to other relevant policies and guidelines here.



Sustainability Structure

Apart from the development and improvement of policies for sustainability in 2022, reporting line has also been added from the ESG Committee to the Governance and Nomination Committee.



Responsibilities of Environmental, Social and Governance (ESG) Committee as follows:

1

Establish policies and governance practices in business operations following the UN Sustainable Development Goals (UN-SDGs) guidelines. Including environmental, social, and corporate governance (ESG) guidelines that align with key stakeholders' expectations for being a good role model for Sustainability both regionally and internationally.

2

Promote, communicate, and create ESG awareness among all employees and business partners for achieving the ESG goal.

3

Encourage the linkage and implementation of crucial sustainability issues (Materiality) to be a part of the business strategy to create value and sustainability for the organization and society.

4

Follow up on implementing the Action Plan and the Annual Plan, including Indicators of sustainability performances to achieve the specified goals.

5

Be Empowered to appoint a working group to achieve the set objectives.

6

Quarterly Report of the operating results and advice on improvement to the Governance and Nomination Committee and SCG Sustainable Development Management Committee.

SCGP Value Chain and Value Creation

OUR SIX CAPITALS

EMPOWER OUR VALUE CHAIN

Inputs



Planet

1. Natural Resources

- Virgin Raw Materials (e.g. Wood chips/ wood logs, Virgin pulp, Virgin film/resin)
- Recycled Raw Materials (e.g. Recovered paper, Post Consumer Resin)
- Water
- Energy



People

2. Human Resources

- Employees and suppliers
- Training

3. Social and Relation

- Sound business ethics
- Business partners
- Customer relationship
- Global Brand Perception



Prosperity

4. Intellectual resources

- Innovative Patent on Paper Packaging and Recycling
- Trademarks
- Technology licenses
- Software licenses

5. Financials

- Costs and Expenses
- Corporate Shares
- Bonds, Debts, Loans

6. Manufacture

- 57 Operation Plants
- Head office

Raw Materials



9 STAKEHOLDER GROUPS

1. Shareholders/Investors/Business partners/Creditors
2. Employees
3. Customers
4. Suppliers/Contractors
5. Communities
6. Governance Agencies
7. Mass Media
8. Civil Society/Academics/Thought Leaders, and
9. Competitors.

SECURE FUTURE

SCGP is committed to conducting business with the SCG ESG Pathway, combined with the Circular Economy Principles to maximize happiness for stakeholders in the sustainable value chain.



Stakeholders Engagement

The SCGP categorizes stakeholders into 9 groups. The combined interests of each group may affect or be affected by SCGP's operations at different levels. Therefore, each stakeholders' needs and expectations are analyzed before communication through the various channel consistently, including examples of ongoing actions of stakeholders. In 2022, the analysis of stakeholders' expectations were described as follows:

Stakeholder Group	Key Concerns & Expectations	Engagement Approach	Example of Outcomes	Key Response	Page
1. Shareholders/ Investors/ Business Partners/ Creditors	<ul style="list-style-type: none"> SCGP's plan/strategies to achieve both long-term, and short-term goals Operating results and business growth Corporate governance practice and transparency of management Disclosure of information on business performances An optimum value of the dividend Receive opinions /suggestions to improve operations 	<ul style="list-style-type: none"> Annual General Meeting of shareholders (AGM) Announcement of quarterly business performance Annual Report and Sustainability Report Analyst conference (quarterly) Investor Relations (IR) communicate business results/action plans with Investors around the world Hotline phone and e-mail, managed by IR Website Annual plant visits and CSR activities 	<ul style="list-style-type: none"> Disclosure of essential and necessary information on SCGP's operating performances Conduct business with transparency and accountability Listen to opinions and suggestions for business operation development 	<ul style="list-style-type: none"> Annual Report 2022 Sustainability Report 2022 	
2. Employees	<ul style="list-style-type: none"> Reskill-Upskill and Potential Development in line with business changes Business directions and Guidelines for adaptation Employee caring 	<ul style="list-style-type: none"> Ensure regular communications through internal news Hold annual meeting between employees and executives Prepare employee engagement Plan of each department to encourage employee's commitment to the organization Conduct yearly employee engagement survey Conduct formal and informal employee engagement surveys Provide relevant information business movements through various internal communication channels, including e-mail, Line Group, Employee Connect Application Provide information to realize and be aware of healthcare during the COVID-19 pandemic through multiple internal communication channels, including e-mail, Line Group, Employee Connect Application 	<ul style="list-style-type: none"> Recognize employees' problems and expectations Understand employees' needs and facilitate them to work happily and efficiently Disclosure of operational Information in various activities for employees to acknowledge the SCGP's business movement Promote a collaborative culture with other stakeholders 	<ul style="list-style-type: none"> ESG Highlight Performance 2022 Risks and Opportunities in ESG ESG Metrics and Targets Health and Safety Human Rights Employee Caring and Human Capital Development Corporate Governance Risk and Crisis Management Information Technology Security and Cybersecurity 	12-13 24-25 26-27 54-55 56-57 58-59 62-63 64-65 66-67

Stakeholder Group	Key Concerns & Expectations	Engagement Approach	Example of Outcomes	Key Response	Page
3. Customers	<ul style="list-style-type: none"> Provide Integrated services and solutions that meet the needs of customers in a complete cycle Supply quality products and services that meet customer needs and are environmentally friendly Provide online channels to customers during the COVID-19 pandemic to respond to customer behavior 	<ul style="list-style-type: none"> Develop sustainable products, services, and solutions and consider environmental, health, and safety impacts at every step of the process Provide channels for customers to give feedback about products and services, request solutions, and file complaints through various channels 24 hours a day Co-develop products with customers and create collaborative projects that enhance social responsibility Conduct a customer experience survey every year Conduct brand reputation survey Listen to customer needs to develop products/ services through Facebook, website, and customer visit 	<ul style="list-style-type: none"> Recognize and understand customer needs to deliver products and services that meet their specific needs Co-develop products with business customers, including promoting cooperation among B2B customers to develop more sustainable products and services Create channels for customers to give feedback on the products, request the advice for solving their problems, and receive complaints 	<ul style="list-style-type: none"> ESG Highlight Performance 2022 Risks and Opportunities in ESG ESG Metrics and Targets High-Tech Innovation coupled with Low Carbon Circular Economy Across Supply Chain Corporate Governance Product Stewardship Customer Relationship Management 	12-13 24-25 26-27 36-39 40-43 62-63 70-71 72-73
4. Suppliers/ Contractors	<ul style="list-style-type: none"> Provide knowledge be a mentor to raise transportation capability with safety for growing along with SCGP Support operational knowledge with concerns on the Environmental, Social and Governance (ESG) to enhance the business partners' capability to reduce operational and reputational risks 	<ul style="list-style-type: none"> Visit suppliers/contractors' places for exchanging ideas and listening to their suggestions or recommendations for improvement Cultivate consciousness, raise awareness and promote working behavior to build a culture of safety Organize the seminars to share knowledge and new trends that may affect contractors' operations Enhance the level of transportation contractors with assessment and development under sustainable development program every year Establish measures for contractors, including digital and online technology applications, to ensure safety during COVID-19 pandemic 	<ul style="list-style-type: none"> Promote and take care of the safety and working environment of contractors in production and transportation Create values for suppliers and contractors' operations Enhance and enrich supplier and contractor's operations with new knowledge for maximizing operational efficiency Develop collaborative projects for business growth and expansion Promote and support suppliers and contractors to comply with the requirement relevant environmental, health and safety laws 	<ul style="list-style-type: none"> ESG Highlight Performance 2022 Risks and Opportunities in ESG ESG Metrics and Targets Health and Safety Human Rights Corporate Governance Sustainable Value Towards Suppliers 	12-13 24-25 26-27 54-55 56-57 62-63 68-69
5. Communities	<ul style="list-style-type: none"> Ensure that the business operations do not affect the community and environment Use SCGP's expertise to develop and improve the quality of life of the community Have a chance to learn and self-development for building career and income stability Enhance income generation by increasing sales channels, developing the marketing plan, and providing packaging Care for communities during the COVID-19 pandemic 	<ul style="list-style-type: none"> Visit the community to listen to villagers' opinions, suggestions, and needs through Community - Relations activities Conduct community satisfaction survey annually Act as a mentor to give advice and help develop communities in various dimensions, using the expertise of the organization Collaborate with communities, experts, government, and related sectors to create a positive social impact Use Social media tools; Line, Facebook, and Twitter Create Open house activities for the community visit to obtain their opinions 	<ul style="list-style-type: none"> Be a part of the community with respect to community's rights in parallel with caring for the environment around the community Improve the quality of life and enhance the community's benefits and society where SCGP operates both in Thailand and abroad Listen to the community's opinions and co-develop the projects that enhance the community's competence for society's benefit 	<ul style="list-style-type: none"> ESG Highlight Performance 2022 Risks and Opportunities in ESG ESG Metrics and Targets Circular Economy Across Supply Chain Forestry and Biodiversity Water Management Industrial Waste Management Air Quality Management Human Rights Community Engagement and Development Risk and Crisis Management 	12-13 24-25 26-27 40-43 46-47 48-49 50-51 52-53 56-57 60-61 64-65

Stakeholder Group	Key Concerns & Expectations	Engagement Approach	Example of Outcomes	Key Response	Page
6. Government Agencies	<ul style="list-style-type: none"> Be a role model of corporate governance for other organizations in terms of operational transparency and excellence Collaborate with public sectors and present guidelines for Sustainability Disclosure of business operation information with transparency and accountability Operate business with considerations of the impact on the environment and community Participate in a collaborative project to achieve the Sustainable Development Goals (SDGs) 	<ul style="list-style-type: none"> Receive opinions and suggestions from the public sectors Participate in proposing opinions and suggestions on public regulations and practices Participate with the public sectors and share the best practices to disseminate to the public Join as a committee or working group with the public sectors in proposing regulatory rules Visit various public sectors to obtain opinions and give suggestions Disseminate information on the business operations through articles, media, academic forums, exhibitions, and seminars 	<ul style="list-style-type: none"> Conduct business operations appropriately and adequately with strict compliant to applicable laws and regulations Cooperate and support activities that promote operations and policies of the public sectors 	<ul style="list-style-type: none"> ESG Highlight Performance 2022 Risks and Opportunities in ESG ESG Metrics and Targets Collaborative Network Aspiring Towards Sustainability Circular Economy Across Supply Chain Water Management Community Engagement and Development Risk and Crisis Management 	12-13 24-25 26-27 28-29 40-43 48-49 60-61 64-65
7. Mass Media	<ul style="list-style-type: none"> Become a large corporation model that focuses on conducting business according to sustainable development framework in three aspects, economic, social, and environment. And do it thoughtfully and continuously, achieving clearly tangible and intangible outcomes 	<ul style="list-style-type: none"> Disseminate business information in various aspects regularly, such as business performance and business press conference Organize activities to explore operations or social activities occasionally Support the media activities that are beneficial to society, aligning with SCGP's business principle, appropriately Have media dialogue to receive suggestions, opinions, or improvements to develop and design communication activities to match the needs and benefits of people who receive information 	<ul style="list-style-type: none"> Communicate corporate news through in-depth media interviews and an online survey (empathize media) to provide news content –preparation responding to different media needs Create an online communication channel to disseminate correct, complete, and up-to-date information, including facilitating the media Build engagement and good relationships with the mass media 	<ul style="list-style-type: none"> Sustainability Report 2022 	
8. Civil Society/ Academics/ Thought Leaders	<ul style="list-style-type: none"> Become a model and mentor of other small and medium enterprises for sharing lesson learned and best practices on Sustainability Join forces with large corporations to make significant changes for sustainability Cooperate with government agencies and present practical guidelines for Sustainability 	<ul style="list-style-type: none"> Listen to opinions and suggestions from civil society, academics, and thoughts to develop business operations Cooperate in projects promoting social sustainability Build engagement and share good practices for civil society/academics/ thought leaders to apply, such as road safety, health management, etc. Provide information on the business operations through articles, media, meetings, exhibitions, academic work, and seminars 	<ul style="list-style-type: none"> Disclosure of complete and transparent information Listen to comments and suggestions from civil society Seek opportunities to build partnerships to drive and drive issues related to sustainability Raise awareness and understand the community on important sustainable development issues and utilize knowledge from experts to support collaborative projects 	<ul style="list-style-type: none"> ESG Highlight Performance 2022 Risks and Opportunities in ESG ESG Metrics and Targets Collaborative Network Aspiring Towards Sustainability SCGP is committed to Net Zero Circular Economy Across Supply Chain Forestry and Biodiversity Water Management Community Engagement and Development 	12-13 24-25 26-27 28-29 32-35 40-43 46-47 48-49 60-61
9. Competitors	<ul style="list-style-type: none"> Conduct Business under the framework of fair competition, with business ethics and transparency Do not take advantage of competitors by unlawful means Do not damage the reputation of competitors by making malicious accusations Do not seek any trade secret information through dishonest or inappropriate means Do not conduct any action that fringes the intellectual property of competitors. Support and promote free trade 	<ul style="list-style-type: none"> Join as a committee or work with associations such as the Federation of Thai Industries or other associations. Provide seminar for knowledge sharing on new trends that may affect business operations Pay a visit to build relationships for exchanging ideas and listening to suggestions or improvements 	<ul style="list-style-type: none"> Conduct the business under the framework of fair competition and related laws Disclosure of significant and necessary information about SCGP's operation Have corporate governance with transparency, fairness, and verifiability Listen to comments/ suggestions to develop the business operation Identify opportunities to build cooperation for encouraging and driving business-related issues to the consideration of the government sector 	<ul style="list-style-type: none"> Sustainability Report 2022 	

Materiality

SCGP has reviewed and prioritized the materiality issues to be implemented into three levels without any significant changes from the previous assessment in accordance with the Global Reporting Initiative (GRI) Standard.

However, SCGP has updated the materiality issues according to global trends and stakeholders' interests during the year consisting of "Risk and Crisis Management", "Information Technology Security and Cybersecurity", "Industrial Waste Management", and "Air Quality Management" which will be included for review and prioritize during the next materiality assessment.

Analysis of materiality issues from stakeholders

- Key issues in Container and Packaging Industry based on the principles outlined of the Global Reporting Initiative (GRI) Standards, the United Nations Sustainable Development Goals (SDGs), the Task Force on Climate-related Financial Disclosures (TCFD), and sustainability assessment indices from leading organizations DJSI, MSCI, Sustainalytics, FTSE4Good and EcoVadis.
- Stakeholders' interests.
- Survey results from stakeholder engagement and materiality survey, ESG Symposium survey and Supplier Day survey.

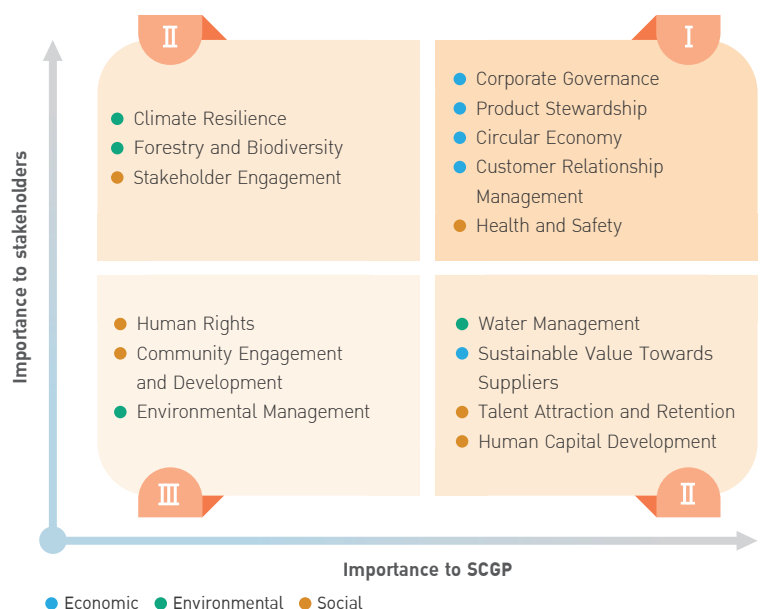
Analysis of materiality issues within SCGP

- Significant impacts on SCGP according to enterprise risk management principles.
- Chief Executive Officer and top executives shared opinions and approved through executive workshop.
- Focus issues from ESG Committee which must be closely monitored.
- Issues that has been set as short, medium and long-term goals for business. And its performance is part of the remuneration criteria for the Chief Executive Officer and top executives.



In 2022, SCGP still prioritized the Materiality issues into 3 levels as follows;

- I. Key Risk and Capturing Future Value Issues**
 - Long-term development goals and progress
 - Management strategy (system/certified)
 - Verified data (3 years or more)
- II. Issues that drive sustainable development (Enabler)**
 - Management approach (system/recognized)
 - Verified data (3 years or more)
- III. Issues that are fundamental to sustainable business operation (Business Fundamental)** without any change in the Key Risk and Capturing Future Value Issues
 - Key elements of sustainable business practices
 - Management strategy (regular business operations)
 - Data management



Risks and Opportunities in ESG

Significant issues: Sustainable Development	Risks Management	Significant stakeholders within the scope	Importance to the 6 Capitals* Develop and implement effective operations and control processes Value Creation
Significant risks and opportunities in sustainable development			
• Corporate Governance	<ul style="list-style-type: none"> There are increased attention from stakeholders toward transparency, integrity, anti-corruption, and business practices whether are these in line with corporate governance principles. This has been an opportunity to build trust and acceptance. It also be assessed by ESG rating as performance on sustainability. Developing a robust governance and oversight system that aligns with international standards, and fosters a virtuous and ethical corporate culture among employees, and compliance with the Four Core Values and SCG packaging ethical standards. 	<ul style="list-style-type: none"> Employees Shareholders/Investors/ Business Partners/Creditors Customers Suppliers/Contractors Community Civil Society Sector/Scholars/ Thought Leaders Government agencies 	<ul style="list-style-type: none"> Financial Capital Social and Relationship Capital Human Capital
• Risks and Crisis Management**	Risk and crisis management in a systematic and standardized manner, following global standards and integrated with business operations, within acceptable levels of risk and consistent with business continuity.	<ul style="list-style-type: none"> Shareholders/Investors/ Business Partners/Creditors Suppliers/Contractors 	<ul style="list-style-type: none"> Financial Capital Social and Relationship Capital Human Capital
• Information security and cybersecurity**	The use of information technology in every step of business operations increases the risk of security and cyber attacks, which can impact the operation and reputation of the company.	<ul style="list-style-type: none"> Customers Suppliers/Contractors 	<ul style="list-style-type: none"> Production Capital Intellectual Capital Human Capital
• Product Stewardship	<ul style="list-style-type: none"> Consumers are increasingly considering packaging that is durable, environmentally friendly, and safe. The producer is also encouraged by regulations to responsible for the social and environmental. Developing and designing quality products, services, and solutions that are creative, sustainable, and safe throughout the entire life cycle of the product in line with a circular economy. 	<ul style="list-style-type: none"> Employees Customers Suppliers/Contractors Community Civil Society Sector/Scholars/ Thought Leaders 	<ul style="list-style-type: none"> Natural Capital Intellectual Capital Social and Relationship Capital Financial Capital
• Circular Economy	<ul style="list-style-type: none"> Limited Natural Resource Issues, Environmental Problems from Climate Change and Resource Depletion. Using Circular Economy as a management approach to efficiently utilize limited resources such as water, energy, and raw materials for maximum benefit. 	<ul style="list-style-type: none"> Shareholders/Investors/ Business Partners/Creditors Customers Suppliers/Contractors Community Civil Society Sector/Scholars/ Thought Leaders 	<ul style="list-style-type: none"> Natural Capital Intellectual Capital Social and Relationship Capital
• Customer Relationship Management	<ul style="list-style-type: none"> Business customers must allocate costs from war and inflation situation. Designing products that reduce production costs while maintaining quality and being environmentally friendly, and develop online platforms to help with sales to customers. 	<ul style="list-style-type: none"> Customers Suppliers/Contractors Community Civil Society Sector/Scholars/ Thought Leaders 	<ul style="list-style-type: none"> Social and Relationship Capital Financial Capital Intellectual Capital
• Health and Safety	Committing to upgrading the Occupational Health and Safety Management systems both domestically and internationally, fostering a culture of safety across the organization, and developing technologies to support effective and efficient operations in the implementation of Occupational Health and Safety. efficiency.	<ul style="list-style-type: none"> Employees Contractors /Suppliers Community 	<ul style="list-style-type: none"> Human Capital Intellectual Capital
Key drivers of Sustainable Development			
• Climate Resilience	<ul style="list-style-type: none"> The fluctuations in the price of fossil fuel and energy sources constraints have led to an increase in the use of alternative and renewable energy sources. The expectation of Net Zero greenhouse gas emissions by 2050. The increasingly stringent climate-related regulations such as carbon tax measures, the risks from rising global temperatures, and the increase in natural disasters affect creature and natural resources. Implementing measures in accordance with the guidelines set by the Task Force on Climate-Related Financial Disclosures (TCFD). 	<ul style="list-style-type: none"> Shareholders/Investors/ Business Partners/Creditors Customers Suppliers/Contractors Community Civil Society Sector/Scholars/ Thought Leaders 	<ul style="list-style-type: none"> Natural Capital Production Capital Social and Relationship Capital

* Reference is made to the value chain and the creation of sustainable value, as described by the 6 dimensions of the integrated reporting (IR) framework, which provides information that is linked to outcomes and impacts, as well as stakeholders throughout the value chain.

** Risk Management and Crisis Management and Technology Security and Cybersecurity were separately considered "Risks Management, Significant stakeholders within the scope, Importance to the 6 Capitals" from Corporate Governance as it is important to SCGP's business operations.

SCGP specifies the risks and opportunities arising from significant sustainable development issues with aiming to reduce risks that may have negative impacts on the organization while seeking opportunities to further create added value, considering the impacts on all stakeholders both inside and outside the organization, based on the importance of the 6 Capitals, Develop and implement effective operations and control processes, Value Creation through innovation as an important tool in responding to risks and opportunities quickly and directly, both in the development of products, services and solutions, as well as changing lifestyle, working processes and business operations toward the leading multinational consumer packaging solutions provider through innovative and sustainable offerings.

Significant issues: Sustainable Development	Risk Management	Significant stakeholders within the scope	Importance to the 6 Capitals* Develop and implement effective operations and control processes Value Creation
• Water Management	<ul style="list-style-type: none"> The situation of drought or flooding may have a severe impact on businesses. Water-Related risks assessment through internationally accepted tools, including reduce risk in a comprehensive manner with government and external organizations. Improving the efficiency of water usage, treat wastewater to pass standards. Restoring the hydrological system for the benefit of the community and agriculture. 	<ul style="list-style-type: none"> Community Civil Society Sector/Scholars/Thought Leaders Government agencies 	<ul style="list-style-type: none"> Natural Capital Production Capital Social and Relationship Capital
• Forestry and Biodiversity	<ul style="list-style-type: none"> The loss of biodiversity globally is due to human activities. Conserving biodiversity and Promoting the sustainable use of forests, conservation efforts should be reinforced and widely supported by the community. In addition, enhancing the carbon sink capacity of forests under T-VER standards, and managing resources in compliance with legal regulations and the well-being of the community is also crucial. 	<ul style="list-style-type: none"> Suppliers/Contractors Community Civil Society Sector/Scholars/Thought Leaders Government agencies 	<ul style="list-style-type: none"> Natural Capital Social and Relationship Capital Production Capital
• Sustainable Value Towards Suppliers	The management of business partnerships involves the selection of competent business partners, the evaluation of their ESG performance, and the creation of a collaborative relationship for the purpose of fostering growth in partnership with SCGP.	<ul style="list-style-type: none"> Customers Suppliers/Contractors Community Civil Society Sector/Scholars/Thought Leaders 	<ul style="list-style-type: none"> Social and Relationship Capital Human Capital Intellectual Capital
• Employee Caring and Human Capital Development***	<ul style="list-style-type: none"> The fluctuations of the global economy and the after COVID-19 situation have necessitated the need to adjust our business structures and strategies. We have encouraged our employees to develop and adapt to these changes by fostering a culture of learning and creating a strong sense of commitment to the organization. 	<ul style="list-style-type: none"> Employees 	<ul style="list-style-type: none"> Human Capital Intellectual Capital Social and Relationship Capital
Fundamental Aspects of Sustainable Business Operations			
• Human Rights	<ul style="list-style-type: none"> Expansion of business and consolidation of operations in foreign countries poses risks of adjusting policies or practices related to human rights to align with laws in respective countries. Elevating efforts in the area of human rights to encompass business activities and partnerships, both domestically and internationally, within a framework of values. 	<ul style="list-style-type: none"> Employees Customers Suppliers/Contractors Community Civil Society Sector/Scholars/Thought Leaders Government agencies 	<ul style="list-style-type: none"> Human Capital Social and Relationship Capital
• Community Engagement and Development	Creating a sense of participation among all stakeholders while embedding sustainable development concepts, promoting income generation for communities, and providing support to society and developing sustainable communities and networks.	<ul style="list-style-type: none"> Customers Suppliers/Contractors Community Civil Society Sector/Scholars/Thought Leaders Government agencies 	<ul style="list-style-type: none"> Social and Relationship Capital Financial Capital Human Capital
• Industrial Waste Management****	The management of waste is based on the 3R principles in order to reduce the amount of waste generated from its source. The waste is recycled or repurposed to increase its value, and these operations are conducted in compliance with relevant laws and standards.	<ul style="list-style-type: none"> Suppliers/Contractors Community Civil Society Sector/Scholars/Thought Leaders Government agencies 	<ul style="list-style-type: none"> Production Capital Intellectual Capital Social and Relationship Capital
• Air Quality Management****	<ul style="list-style-type: none"> Increased enforcement of regulations regarding the release of air pollutants. Controlling and reducing of air pollution emissions from sources, by increasing the proportion of renewable energy, utilizing advanced technology, and expanding operation efforts across all facilities. 	<ul style="list-style-type: none"> Employees Community Civil Society Sector/Scholars/Thought Leaders Government agencies 	<ul style="list-style-type: none"> Natural Capital Production Capital Social and Relationship Capital

* Reference is made to the value chain and the creation of sustainable value, as described by the 6 dimensions of the integrated reporting (IR) framework, which provides information that is linked to outcomes and impacts, as well as stakeholders throughout the value chain.

*** Combined the reported data of talent attraction and retention with human capital development to employee caring and human capital development.










**** Separate the reported data of environmental management into industrial waste management and air quality management.

ESG Metrics and Targets

SCGP recognizes the importance of promoting and encouraging operations in line with the ESG Pathway to ensure sustainable outcomes. Quantitative evaluation and consideration of risks and opportunities associated with ESG performance can be measured. Therefore, the company has established metrics and targets in various ESG dimensions including environmental, social, and governance aspects as follows:








Material Sustainability Issue

ESG Metrics and Targets

Climate Resilience 	Net Zero <ul style="list-style-type: none"> Achieve Net Zero greenhouse gas emissions by 2050. Reduce greenhouse gas emissions 20% by 2030, compared with the base year of 2020, both Thailand and abroad. Reduce energy consumption 13% by 2025 compared with business as usual (BAU) at the base year of 2007.
Water Management 	35% <ul style="list-style-type: none"> Reduce water withdrawal 35% by 2025 compared with business as usual (BAU) at the base year of 2014.
Forestry and Biodiversity 	10% <ul style="list-style-type: none"> Biodiversity conservation area certified by FSC™ standards at least 10% of agroforestry area. 100% No gross deforestation.
Industrial Waste Management 	100% <ul style="list-style-type: none"> Every Year-Zero waste from the production process in Thailand to landfill. Year 2025, 100% Reduction of waste disposal by incineration without energy recovery in Thailand, compared with the base year of 2014.
Air Quality Management 	10% <ul style="list-style-type: none"> Reduce the intensity emission of air pollution [Particulate matter, Sulfur oxides (SO_x), Nitrogen oxides (NO_x)] per ton of production 5% by 2025 and 10% by 2030 compared with the base year of 2020. No official odor complaint.
Health & Safety 	0 case <ul style="list-style-type: none"> Zero work-related fatality of employees and contractors in the workplace every year. Zero of Occupational Illness and Disease Frequency Rate work-related injury or illness per working hours (cases/1,000,000 Hours Worked) every year among employees. In the year 2022, Zero Lost Time Injury Frequency Rate of employees and contractors (Cases/1,000,000 Hours Worked) (Thailand).
Employee Caring and Human Capital Development 	> 78% <ul style="list-style-type: none"> Total employee engagement rate is 78%. Employees in Thailand received a performance assessment and employee development plan on the learning management system (LMS) with 100% participation every year.
Human Rights 	0 Case <ul style="list-style-type: none"> Zero case of human rights violations. 100% of employees complete Ethics e-Testing on human rights. 24% of female employees in all management positions in year 2025.
Community Engagement and Development 	90% <ul style="list-style-type: none"> Community satisfaction index is 90%. Scale up Zero Waste Community Project to 183 communities by 2030. SCGP Open House 12 times, with 1,000 participants per year.

Material Sustainability Issue

ESG Metrics and Targets

Governance	
Corporate Governance 	100% <ul style="list-style-type: none"> Receive an excellence rating (5 stars) from the assessment of the Corporate Governance Survey of Listed Companies (CGR Checklist) for the year 2022. No corruption. Employees learn and pass Ethics e-Testing 100%.
Risk and Crisis Management 	0 Case <ul style="list-style-type: none"> Reducing the impact of disruption of key processes or services, primary products, and primary customers.
Information Technology Security and Cybersecurity 	> 99.5% <ul style="list-style-type: none"> Information system operates continuously with a minimum of 99.5% availability or having system problem not more than 1.83 days per year. No complaints on customer data breach.
Product Stewardship 	66.7% <ul style="list-style-type: none"> Sale revenue from SCG Green Choice products, services, and solutions is 66.7% of the total sales revenue by 2030. Sale revenue from SCG Green Choice products, services, and solutions that provide direct benefits to customers is 33.3% of the total sales revenue by 2030. All subsidiaries in Thailand must comply with the requirements of REACH Regulation (Annex XVII and Substances of Very High Concern (SVHC) for Authorization). No complaints on non-compliance with laws and product safety.
Circular Economy 	100% <ul style="list-style-type: none"> The proportion of recyclable, reusable, or compostable packaging is equal to 100% of the total packaging in 2025.
Customer Relationship Management 	85% <ul style="list-style-type: none"> Customer experience score 85% (Pulp and Paper business, paper packaging, and packaging from pulp and paper)
Sustainable Value Towards Suppliers 	90% <ul style="list-style-type: none"> 90% of procurement value from suppliers with a commitment to comply SCGP Supplier Code of Conduct. 100% of the supplier in procurement value passed the annual Environmental, Social, and Governance (ESG) risk assessment. 100% of operation contractors certified SCG Contractor Certification, (SCS). 100% of transportation contractors certified as main logistics partners

Collaborative Network Aspiring Towards Sustainability

SCGP works collaboratively with all sectors including government, business, and society, creating a balance between the governance, society, and environment based on sustainability principles, to quickly and effectively address the current challenges and produce effective results.



ESG Collaborations

• ESG Symposium 2022

SCGP participated the ESG Symposium 2022 : achieving ESG and Growing Sustainability which hosted by SCGP. SCGP invited 469 partners to participate and exchange their thoughts and approaches towards ESG initiatives. The goal was to raise awareness and understanding of ESG among business stakeholders, and build a foundation for further growth through collaboration at the next event, "Growing Together Through Collaboration."

Cooperation in reducing greenhouse gas emissions.

• TCNN

SCGP joined the Thailand Carbon Neutral Network (TCNN) as a Climate Action Initiator member, which has 300 organizations initiated as members. The goal of TCNN is to collaborate in developing projects and a carbon offset market.

• UNGC & GCNT Forum

SCGP participated with the United Nations Global Compact (UNGC) and joined in the Global Compact Network Thailand Forum (GCNT Forum) organized by the Thai Global Compact Network and the United Nations in Thailand on November 2nd, 2022, including declared the intention to address the issue of "Preventing and solving problems caused by climate change"

"We aim to effectively manage and implement policies, leverage the diversity of biodiversity with sustainability and integrity throughout the supply chain, and establish a system for assessing and monitoring biodiversity values. Additionally, we strive to engage communities and involve all stakeholders, and support the effort through financial mechanisms, scientific management and international cooperation to help Thailand achieve its target of protecting at least 30% of its terrestrial and marine areas by the year 2030."

Moreover, SCGP participated in a talk session on the topic of smart cities, and real estate/retail/consumer goods.



Business Partner Voices



The climate change conditions are affecting companies in the agricultural and livestock production sector. The company are aware of the significance of the global warming problem and want to reduce greenhouse gas emissions in accordance with national and international standards. This requires cooperation with all stakeholders, particularly with SCGP for developing Green Products and the carbon footprint of products. In addition, there is an opportunity for sharing knowledge and collaborating to reduce greenhouse gas emissions in the future for the sustainability of all parties."

Pattanakiat Chaisomsakrudee

Executive Vice President
Sustainability Department
Betagro Public Company Limited



• Business Partner Award 2022

Thai Containers Group Company Limited receives Silver Award for Business Partner Award 2022 from ThaiBev Co., Ltd. at the SX Partnerships for the Goals : TSCN Business Partner Conference 2022



Circular Economy Collaborations

• "Zero Waste Community" Project

The project aimed at creating a model community waste management system. SCGP provides knowledge on waste segregation to recycle and generate income based on circular economy principle. In 2022, 96 communities in Ratchaburi, Kanchanaburi, Prachinburi, and Khon Kaen province participated in this project. SCGP also collaborates with local government agencies and nearby industrial plants to execute waste management projects.

• "PackBack collects packaging for a sustainable future." Project

SCGP joined a project initiated by the Thailand Institute of Packaging and Recycling for the Environment (TIPMSE) and more than 70 organizations in the Thai industrial sector, aiming to drive packaging used management through the circular economy principle. The project began with 3 pilot projects in Chonburi province to expand its impact nationwide.



Water Management Collaborations

• Water User Organizations and River Basin Committee

SCGP has joined the establishment of the Water User Organization and River Basin Committee, under the Water Resources Act of 2018, under the supervision of the National Water Resources Committee. The representative of SCGP and its stakeholders have a role in determining the management direction of water resources focusing in 5 major watersheds: Mae Klong, Eastern Seaboard, Bang Pakong, Chi, and Tha Chin.



Disaster Management Collaboration

• S.E.R.T.

SCGP has established the SCGP Emergency Response Team (S.E.R.T.), which is a response team for emergency situations that occur within and outside the factory. The aim is to effectively handle increasingly diverse and severe emergency situations that occur yearly, reduce the loss and increase safety in life and properties of companies and communities, including promoting cooperation between the private sector and the government, such as creating a plan to reduce disaster risk in Kanchanaburi and Ratchaburi Provinces, with plans to expand to Khon Kaen and Prachinburi Provinces. Moreover, SCGP has cooperated with the government and private networks such as

the Department of Disaster Prevention and Mitigation, the Royal Thai Army Development Unit, the Royal Thai Army, the Engineering Corps, Ruamkatanyu Foundation, Poh Teck Tung Foundation, Disaster Response Association (Oneness Thailand Team: OTT), Thai Network for Disaster Resilience (TND), and etc. S.E.R.T. works in cooperation with these organizations to support "Private Sector Partnership in Disaster Risk Reduction for Sustainability, PSP" through learning, training, knowledge and technology sharing, including organizing annual rehearsals together to learn skills, practice, and train the team to always be ready.



**Award for
Excellent
Customer
Partnerships**

• BETAGRO Supplier Excellence Awards

Thai Containers Group Company Limited received the BETAGRO Supplier Excellence Award from BETAGRO Company Public Company Limited for the first time under the concept of "Growing Together with Sustainability" for recognizing outstanding performance by its business partner in the year 2021.

“

Joining the S.E.R.T. team provides a lot of training and personal development opportunities. Women play the same role as men in the team, facing physical challenges of all kinds, and providing aid to female as well. Thank you to the organization for promoting gender equality and providing opportunities for women to be part of the team.”

Pienpen Limpothong
CSR Staff Team S.E.R.T.
Sponsored by
Director-Wangsala Mill





ESG IN FOCUS

SCGP is committed to Net Zero **32**
Encouraging all measures to reduce
and remove greenhouse gases

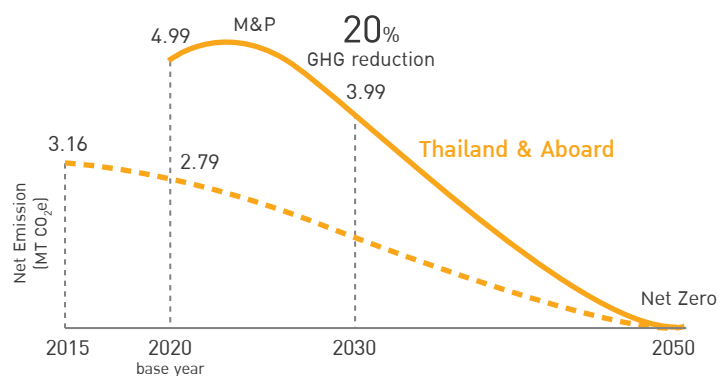
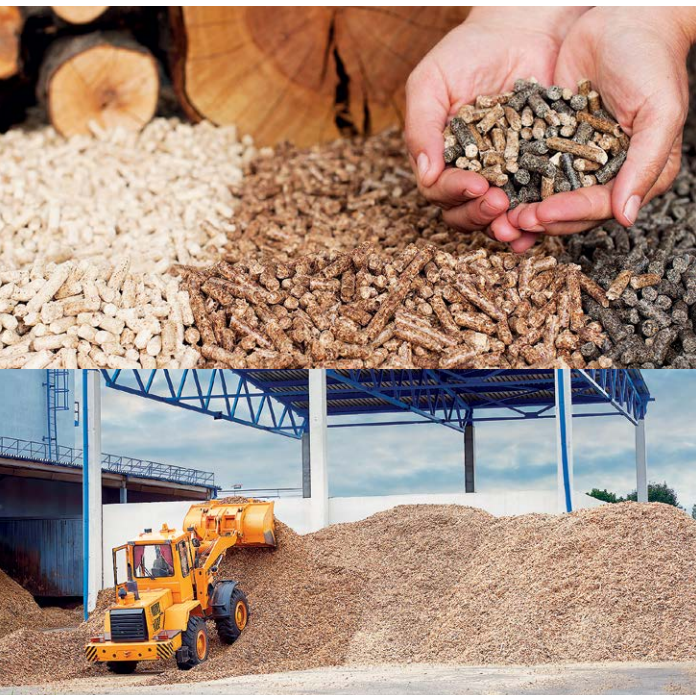
High-Tech Innovation coupled **36**
with Low Carbon

Circular Economy Across Supply Chain **40**



SCGP is committed to Net Zero

Encouraging all measures to reduce and remove greenhouse gases



Since 2021, Thailand has been showing commitment alongside other countries in setting a target for Carbon Neutrality by 2050 and achieving Net Zero emissions by 2065. SCGP has also set its own target to reach Net Zero by 2050 and reduce greenhouse gas emissions at least 20% by 2030 compared with the base year of 2020, both Thailand and aboard.

It is accepted that human activities are a major cause of greenhouse gas emissions into the atmosphere, leading to a rise in global average temperatures and causing climate change, affecting the environment, human life, and economic development, such as natural disasters, heat waves, droughts, food shortages, or new pandemics with a stronger trend.

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.

In 2022, one year has passed since the announcement of the initiative. SCGP is taking steps towards a sustainable future for the world by promoting various challenging measures.



The determination amidst the instability of the world in 2022.

The ongoing Russo-Ukrainian war and the changing climate have caused energy costs, especially the price of fossil fuels, to rise. The changing climate has also led to severe weather conditions, including intense storms, floods, and droughts in many parts of the world. The increasing awareness of the impact of global warming has led to a growing interest in environmentally friendly products among consumers. Meanwhile, businesses are beginning to pay more attention to competition in low-carbon markets, and governments are starting to implement stricter laws regarding climate change, such as carbon tax policies, which will directly affect businesses and industries.

SCGP consistently monitors and assesses the risks to its business and creates preventive measures to accommodate various situations under the management of the Risk Management Committee and the Energy & Climate Change Committee. The company has established and disclosed its management of climate-related issues aligned with the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD) since 2021 to assess and manage the risks of climate change and continuously conduct its business, seeking sustainable opportunities amidst the changes.

Click here for our TCFD report

Link: <https://sustainability.scgpackaging.com/en/environmental/climate-resilience>



The board of directors and top management of SCGP are committed to overseeing and managing the reduction of greenhouse gas emissions through the Climate Change Task Force and the Natural Climate Solutions working group, which implements the policy. The progress and results are monitored and evaluated regularly through quarterly meetings to ensure that all activities are well coordinated and effective towards achieving their goals.

In 2022, 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. In addition, it has started collecting data on other indirect emissions (Scope 3) to better manage greenhouse gas emissions in the future.

SCGP recognizes the importance of all parties working together to solve climate change issues. In 2022, it became a member of the Thailand Carbon Neutral Network, as a Climate Leading Organization to promote collaboration between the public sector, private sector, and local communities, in enhancing greenhouse gas reduction and supporting the domestic carbon credit trading market.



Elevating the strategy towards the goal of Net Zero.

SCGP sets its strategy towards the goal of achieving net-zero greenhouse gas emissions by dividing it into two main parts, reducing greenhouse gas emissions to the maximum extent and removing greenhouse gases to the maximum extent with various measures.

Reducing greenhouse gas emissions is comprised of three measures:

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

GHG removal is comprised of two measures:

- 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.

And, economic tools are utilized, such as Internal Carbon Pricing (ICP), to encourage the reduction of greenhouse gas emissions.

For many years, SCGP has consistently implemented various strategies towards this goal, resulting in a reduction of energy usage by 6.8% compared with BAU at the base year of 2007. The company has also been able to continuously reduce greenhouse gas emissions, with a decrease of 12.7% in 2022 compared with the base of 2020.

Research and development of technology to accelerate the reduction of greenhouse gas emissions.

Currently, SCGP directly releases about 90% of its greenhouse gas emissions (Scope 1) and indirectly releases about 10% (Scope 2) from the activities of its factories and other facilities through the use of energy such as heat and electricity.

SCGP emphasizes improving the efficiency of machinery, production processes, and equipment in all stages, with the aim of increasing energy efficiency and reducing energy consumption. This is important in reducing greenhouse gas emissions, by incorporating new innovations in both domestic and international factories, especially with the use of online digital control systems. Sensors are installed to monitor the values of different equipment in the paper production process, and AI Data Analytics is utilized to analyze and control operations for maximum efficiency, instead of relying on manual inspection or control by employees. Examples of systems include monitoring the air flow in the Dryer Part, controlling the consistency of the pulp in the paper production process, and measuring the quality of wastewater.

In year 2022, SCGP implemented measures to increase water discharge efficiency from boilers in its paper production processes at 5 plants both domestically

and abroad with automated systems, saving 78,732 GJ of energy per year and reducing the emission of 7,978 tons of carbon dioxide equivalent per year.

The abroad factory, PT Fajar Surya Wisesa Tbk in Indonesia, has made an interesting advancement. They have optimized the water extraction system from the paper by installing machines with new technology instead of the old system. This reduces the use of electricity and anti-scale chemicals. It saves energy by 172,214 gigajoules per year and reduces greenhouse gas emissions by 13,239 tons of carbon dioxide equivalent per year and upgraded its wastewater treatment system from using electrical energy to an anaerobic system, reducing their use of electricity. Furthermore, they have used biogas to generate electricity, replacing the use of coal. This has reduced the use of coal by 22,000 tons per year, reduced the emission of greenhouse gases by 36,000 tons of carbon dioxide equivalent per year, and saved 58 million Baht per year in coal costs.

Another important measure is to increase the proportion of renewable energy and clean energy use instead of fossil fuel use. In the electricity energy sources, SCGP has continuously installed solar power systems every year since 2018. Both rooftop and ground-mounted solar farms have been installed. In 2022, the company expanded the installation of solar energy to seven other companies in Thailand, adding a total of 10.5 megawatts to the current capacity, bringing the total capacity of solar energy production to 22.3 megawatts to date. This has helped to reduce greenhouse gas emissions by 10,238 tons of carbon dioxide equivalent per year.

SCGP is working to build partnerships with communities in the provinces of Kanchanaburi, Ratchaburi, Suphan Buri, and Petchaburi to purchase agricultural waste materials, such as sugarcane leaves conversion into biomass fuel. They are also upgrading their equipment to allow for the use of biomass fuel instead of coal. Additionally, SCGP is researching various types of biomass, such as tree branches and sugarcane leaves, to improve their properties so that they can be used as a fuel source that is similar to coal. In the year 2022, SCGP has been studying and testing the use of wood pallets as a fuel source. They have found that wood pallets have a higher calorific value than wood bark and have properties similar to coal, allowing them to be used as a substitute. By working with communities in these provinces, SCGP is promoting sustainable agriculture and reducing the use of non-renewable energy sources.

In the overall use of biofuel, in the year 2022 SCGP was able to increase the use of bioenergy to replace the use of coal in steam boilers from 6.2% (344,526 tons per year) to 8.4% (496,878 tons per year), reducing the emission of greenhouse gases by 287,210 tons of carbon dioxide equivalent per year to 404,478 tons of carbon dioxide equivalent per year.

SCGP recognizes the importance of increasing the proportion of renewable energy and improving production efficiency in the factory to make it environmentally friendly, both upstream and downstream. It also sees the significance of reducing greenhouse gas emissions on the downstream side, particularly through the continuous research and development of low-carbon products delivered to customers and consumers. This involves reducing the usage of raw materials, resources, and energy in production while ensuring that

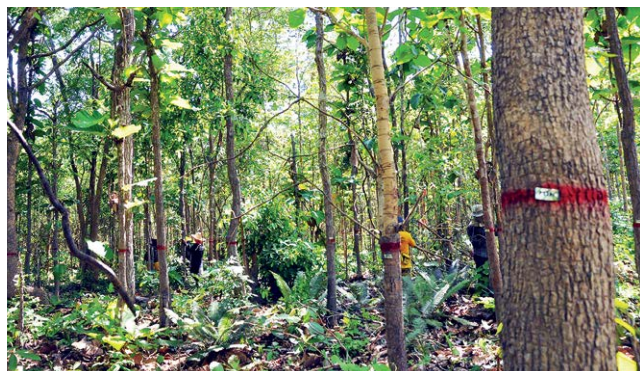




the new products have equal or better quality and a longer lifespan than their traditional counterparts, and can be recycled in line with circular economy principles.

SCGP supports the disclosure of greenhouse gas emissions data of products to meet customer interests and respond to the stringent carbon import tax regulations that are being implemented globally. By promoting products to receive the Product Carbon Footprint Label (CFP) from Thailand Greenhouse Gas Management Organization (Public Organization), it will serve as a data foundation for further product development to reduce carbon emissions in the future.

In 2022, Thai Containers Group Co., Ltd. received the Product Carbon Footprint Label certification for 37 categories of corrugated containers, and continues to work towards expanding their efforts in the future.



Promote and support carbon removal with Natural Climate Solution.

SCGP has embraced Natural Climate Solutions (NCS) concept, which uses natural forests as a source of carbon sequestration to address the issue of climate change. In the year 2019, the Natural Climate Solutions committee was established to plan and implement forestry and conservation initiatives in collaboration with government agencies, private organizations, and communities. The committee has continuously carried out various projects such as reforestation in both industrial and non-industrial areas through initiatives such as the "Plant the tree to save the world" project.

In 2022, SCGP organized a tree-planting activity with various organizations and communities, planting a total of 999,263 trees. As a result, the total number of trees planted since 2020 has now reached 1,128,675 trees. This is equivalent to the carbon dioxide sequestered, which is estimated to be around 10,722 tons of carbon dioxide equivalent.

In addition, to support the planting and preservation of forests to absorb and store carbon dioxide, SCGP can use them as carbon credits in the future. This supports the T-VER (Thailand Voluntary Emission Reduction Program) registered project and the private sector's voluntary effort to reduce greenhouse gas emissions in accordance with Thailand's standards. The project is managed by Thailand Greenhouse Gas Management Organization (Public Organization). In year 2021, SCGP, together with Siam Forest Company Limited, took part in the protection of the forest area of Kampaengphet Plantation project. They registered the T-VER project for an area of 684.4 rais (109.5 hectares). The project has a carbon sequestration base of 14,315 tons of carbon dioxide equivalent. Currently, SCGP is expanding its cooperation with Siam Forest Company Limited in the conservation park area and the area of Siam Kraft Industry Company Limited (Ban Pong mill and Wang Sala mill) and Phoenix Pulp & Paper Public Company Limited, totaling 7,138 rais (1,142.08 hectares). The data is being verified for T-VER registration in year 2023.

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, an increase from the previous year's rate of 18 US dollars, in order to accelerate support for various projects.

Currently, 5 projects have been supported by ICP, with a total investment of THB 159 million. It is expected that these projects will help reduce greenhouse gas emissions by a total of 7,550 tons of carbon dioxide equivalent per year.

Although it will take 28 years until the year 2050, which is the target year to become a Net Zero emitting organization, the goal is not easily achievable.

SCGP still announces its determination, drives, and implements every feasible measure with the latest knowledge and technology

Collaborating continuously and sincerely with all sectors for a better world and for everyone.

The world is in a fast-paced era of change
 With technology advancing and transforming our lives and businesses.
 While natural disasters and environmental issues remain a difficult challenge,
 Both global warming and resource scarcity impact humanity's unending needs.
 SCGP always seeks innovation to offer a modern lifestyle, caters to the current era,
 to answer the demands of life in harmony with nature, emphasizing the importance of
 sustainable values, using technology and innovation to create resilience.
 SCGP believes that we can make technology, the environment, and a good way of life
 all go hand in hand and that this is not an impossible task.

High-Tech Innovation coupled with Low Carbon

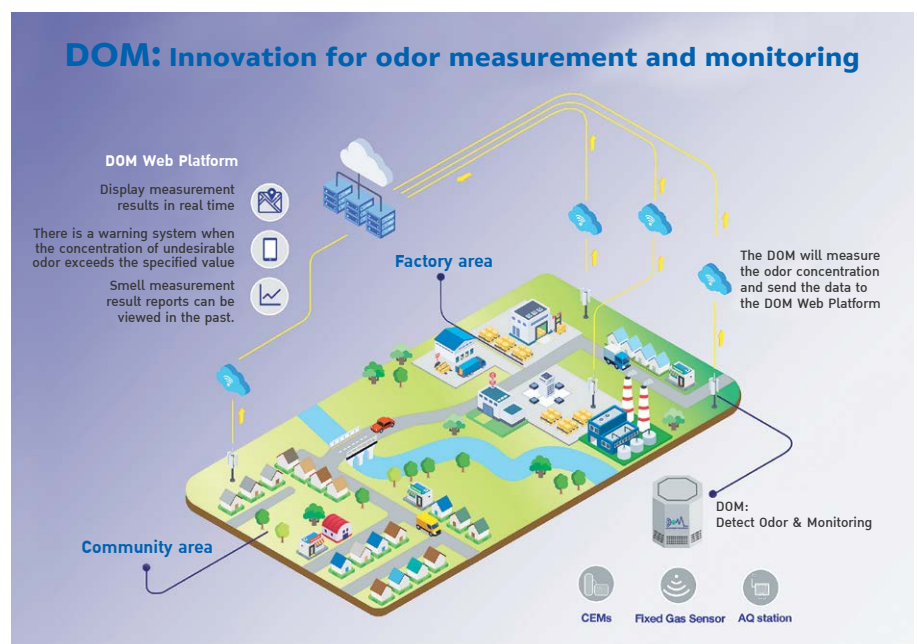


Since odor is easily sensed but difficult to quantify

Industrial factories must take care not to generate dangerous or undesirable scents.

Detecting Odor & Monitoring, or "DOM," is a breakthrough odor detection and monitoring invention that collects odor samples for chemical analysis and evaluates the strength of the odor through its dispersion in the environment, coupled with meteorological data, wind direction, and odor panelists.

DOM uses a combination of hardware and software technologies to collect and analyze odor samples, measure their concentration and dispersion in the environment with the help of meteorological data, wind direction, and odor panelists. The system features custom-built sensors that



detect and monitor the concentration of various unpleasant scents such as ammonia, hydrogen sulfide, ethylene oxide, and PM2.5. The real-time results are displayed on a dashboard, providing numerical data and odor distribution ranges for straightforward and effective corrective action.

SCGP's research and engineering teams have meticulously researched, designed, and tested the DOM system, ensuring its effectiveness in SCGP factories before expanding its services to other enterprises. In 2020, the National Innovation Agency (Public Organization), Ministry of Higher Education, Science, Research, and Innovation, recognized the product design and service of DOM with the National Innovation Award, in the service design category.



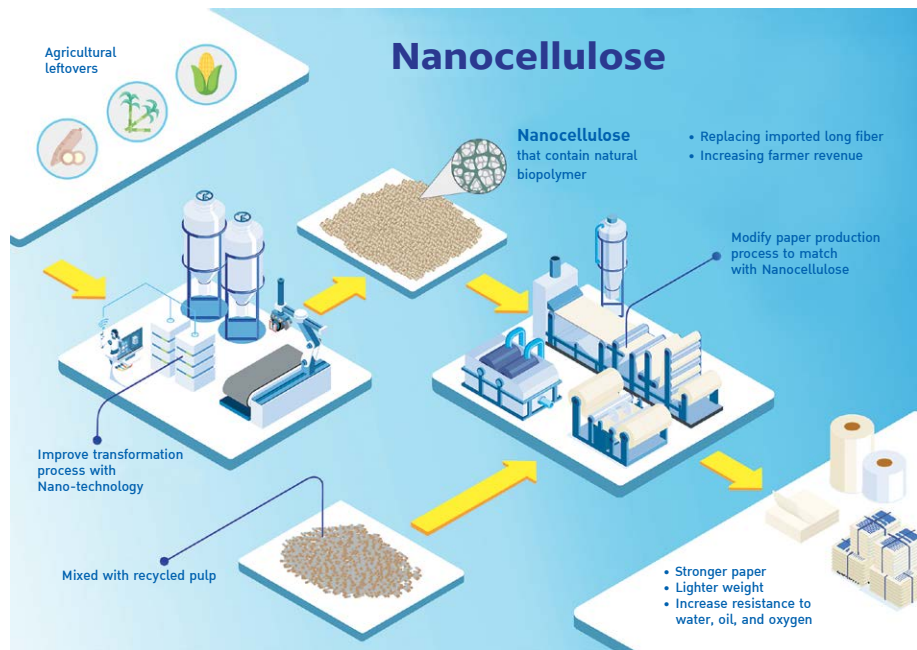
Traditionally, odor detection has relied on human senses, which are limited in their ability to detect certain odors and gases. In addition, it can be difficult to track the source of the odor when wind direction changes. However, the “DOM” innovation developed by experts in science, engineering, and programming has revolutionized odor detection and monitoring by utilizing machine learning. With its advanced capabilities, the system can even pinpoint the exact source of the odor, empowering operators to proactively prevent and solve odor issues at the sources.”

Dr. Thipnakarin Boonfueng

Senior Researcher (Project Manager),
Innovation and Product Development
Center, SCGP



Industrial operations such as animal food manufacturing, alcohol production, agricultural product processing, vehicle painting, and petrochemicals, among others, may face odor complaints if effective management systems are not in place. DOM can assist with the evaluation, measurement, and monitoring of the origins of these complaints, providing access to historical data that allows businesses to analyze and compare data to identify the main cause of the odor. It is the responsibility of all industrial operations to manage their odor emissions and prevent them from affecting the environment and surrounding communities.



The magnificent "Nanocellulose" of the paper world

The future is moving towards a green technology era.

As the demand for green technology increases, researchers and developers in various industries are striving to meet this need through innovation.

SCGP's researchers have contributed to this cause by developing high-quality fiber for

paper production. Through an appropriate production process.

The product is nanocellulose fibers, which are produced from agricultural waste materials such as rice straw, bagasse, and pineapple leaves. The development of this method of raw material preparation and production process has helped overcome many limitations in industrial-scale production of nanocellulose fibers. This is the challenge of researchers.

SCGP's nanocellulose fibers have properties that enhance strength and resistance to water, oil, and carbon dioxide. In 2020, SCGP utilized these fibers in the production of commercial paper products and replaced the use of imported long-fiber pulp by more than 50-100% of the normal usage.



The production of Nanocellulose fibers by SCGP has resulted in lightweight packaging materials that are strong enough to ensure products reaching consumers in optimal condition during transportation. Moreover, it also enhances the opportunities for packaging and other business growth.

The use of these fibers can reduce the cost of importing raw materials for paper and packaging production while also supporting farmers' income. Consumers gain benefit from stronger and lighter packaging products that save energy in transportation while reduce waste and contribute to the sustainable use of resources.

This innovative approach represents a significant step forward for the paper packaging industry and offers benefits for society as a whole.



Innovation must not only cater to consumer needs, but also improve the quality of life in society and drive economic growth. The development of 'Nanocellulose Fibers' is a prime example of such an innovation, with patents secured both in Thailand and abroad to protect intellectual property. The success of this innovation has led to its expansion in 2022 to abroad paper packaging factories, and we believe that its properties can be further developed for use in other industries. With its water absorbency property, there is potential for growth in the cosmetics industry, and most importantly, the products made with Nanocellulose Fibers can be recycled."

Dr. Kasinee Thitiwutthisakul

Project Lead, SCGP's Innovation and Product Development Center



"Fest" Food Safety Packaging

Meeting Diverse User Needs with a Range of Options



In today's fast-paced lifestyle, with the rise demand of food delivery and takeaway services and environmentally conscious, consumers are increasingly looking for food packaging that is not only safe but also sustainable. That's why SCGP has developed Fest, a line of clean and safe food packaging that meets international BRC certified standards. Fest offers two main product lines: Fest Choice, which is recyclable, and Fest Bio, which is biodegradable.

Now, Fest is proud to introduce its latest innovation: "Fest Chill". This new product is made from 100% Eucalyptus pulp and coated with a special film that allows direct contact with food. Fest Chill can withstand hot food up to 120 degrees Celsius and has been rigorously tested for cleanliness and safety. In addition, the packaging is designed to meet the needs of long-distance delivery services, withstanding stacking and ensuring food quality.

The unique feature of Fest Chill is its ability to be peeled off, separating the packaging into two parts: one that can be recycled, and the other that is 100% biodegradable. This innovation is not only good for consumers but also for businesses, society and the environment.

Fest is one of SCGP's products that has received the SCG Green Choice label, which guarantees consumers high-quality products that contribute to sustainability for the world.

Fest for food...Safe for you

R1 and R1+ Lightweight Polymer Containers

Circular Economy Principles Applied in Polymer Container Development

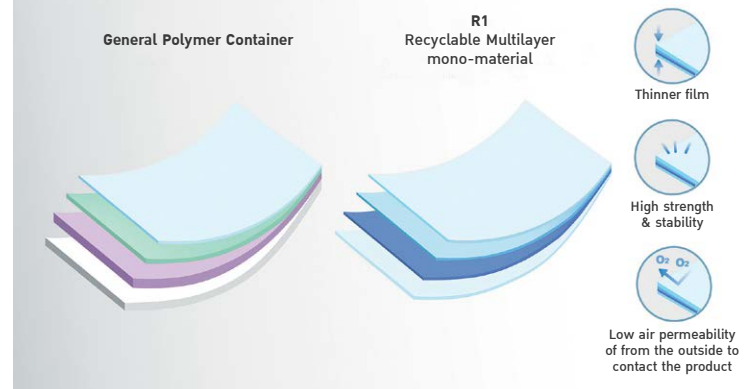
Multilayer polymer containers are commonly composed of two or more different compositions, but they often pose challenges in recycling and can end up as plastic waste in landfills.

SCGP is committed to promoting the circular economy principles in its flexible packaging solutions by developing products and solutions that are sustainable and environmentally friendly.

To address this issue, SCGP has developed a lightweight laminated mono-material, also known as "R1.", which is made from a single type of polymer for each layer, making it 100% recyclable. This product not only protects the product and withstands impact, but also conserves natural resources and reduces waste.

In 2022, SCGP improved the properties of R1 with the introduction of "R1+.", which provides better

Laminated Mono - material R1



protection for the product and is more resistant to oxygen permeation to extend the shelf life of food or packaged products. Moreover, SCGP invested in high-quality 5-layer film blowing technology and Machine-Direction Orientation film (MDO film), which can produce thin plastic films while having more strength and stability than conventional polyethylene technology. These films can replace some materials like PET and Nylon that are difficult to recycle and can be printed at high speed, making them ideal and currently used for retail rice bags and frozen food bags.

SCGP's commitment to sustainable packaging solutions is reflected in its actions, which aim to turn ideas into reality. By promoting environmentally friendly and sustainable products like R1, SCGP strives to create a better future for both the environment and society.



Every day, we produce, use, and discard countless materials, with much of them wasted and improperly disposed of. This results in a large amount of waste, which harms both the health of the community and the environment.

Not considering the limited natural resources, but instead being used wastefully. The production process, which requires advanced technology and a lot of energy, is then carried out, but it has an incredibly short lifespan.

All these problems can be solved by adopting the Circular Economy principles which follow the principle of "make-use-return" to maximize resource utilization and reduce resource consumption.

SCGP is dedicated to using the Circular Economy Principle model that aligns with ESG principles to deliver high-quality products, services, and solutions to society with responsibility and to promote the collection and recycling of used products for remanufacturing responsibly.



Circular Economy Across Supply Chain



Targets

Year 2022

- The Volume of Recyclable, Reusable, or Compostable Packaging equals 100% of total volume of packaging by 2025

99.7%

Strategy

- Incorporate the Circular Economy principles in developing products and services to generate and retain their maximum material core values.
- Promote the use of bio-based or renewable materials with recyclability with certification.
- Research and develop innovations to extend the life of products and components.
- Use the Sharing Platform to make the most of our resources.
- Collaborate with customers and business partners throughout the value chain to efficiently manage the resources.
- Collect and manage waste for reuse and recycling.
- Transform the business model according to the concept of making Products as a Service.
- Become a member of national and international associations to drive implementations toward the mutual goal following the Circular Economy principles.

Since 2020, SCGP has announced a Self-Declaration policy in accordance with the FSC's principles to determine activities that organizations will not accept and that conflict with the principles of the FSC™ as follows:

- Illegal logging or trade in illegal timber or products from illegal forests.
- Violation of cultural and human rights in forest operations.
- Destruction of high conservation values in forest operations.
- Harvesting of timber from natural forests for purposes other than forestry.
- Harvesting of genetically modified planted forest species.

"Upstream": Starting at "Raw materials"

SCGP currently develops packaging from two main materials, paper, and polymer, commonly known as plastic. The sustainability of SCGP starts from the management of procuring raw materials, such as paper pulp and plastic pellets, in an environmentally friendly manner.

In the case of paper pulp, we are committed to managing sustainable economic forests for paper pulp production following the Forest Stewardship Council™ (FSC™) standards. The forest plantation will be located outside and not in conservation areas to ensure that the natural habitats are not disturbed. This guarantees that there will be no impact on the environment from the cheating of natural trees.

In 2022, SCGP planted Eucalyptus trees in company-owned operation land for a total of 20,894 rais (3,343 hectares) which is 100% SCGP's wooden products certified according to the FSC™ - FM/COC: FSC™ C012207 standards.

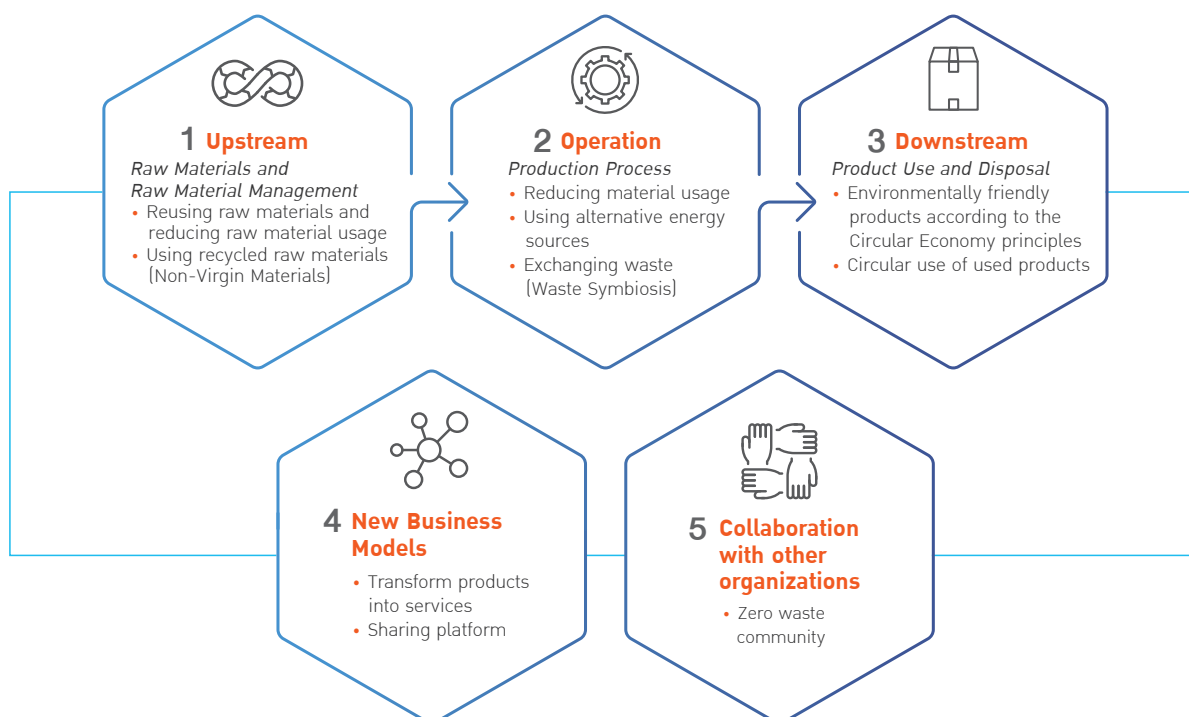
In the polymer section, SCGP emphasizes research and development of production processes that help reduce raw material use and the recycling of used plastic into high-quality recycled plastic pellets, to continuously decrease the use of virgin resin.

In 2022, in the development of Food Direct Contact High Barrier Cup packaging, we were able to reduce the amount of plastic used by over 25 tons (from 41 million cups produced). This made the cups thinner and lighter by 8% while still maintaining the important quality properties of the packaging. In addition, we're rolling out a similar concept to other products and expect material reduction more than 250 tons per annum.

Concerning the production of polymer packaging with supportive material like post-consumer recycled resin (PCR), the success story is that collaboration between Conimex Co., Ltd., and Shell (Thailand) Co., Ltd. in using recycled plastic as a supplement in the production of polymer products is demonstrated by the development of a recycling-based lubricant oil packaging that received the 2022 Asia Pacific Supplier Award for Environmental Sustainability from Shell Lubricant Asia-Pacific. This product contains 25% of Post-Consumer Recycled (PCR) resin and helps reduce greenhouse gas emissions by more than 439 tons of carbon dioxide, which is 17% of Shell's total reduction of greenhouse gas emissions in the Asia Pacific region in 2022.



The Circular Economy Principles of the SCGP's Value Chain



Operation: Use clean energy and manage waste responsibly

During the process of converting raw materials into finished products and packaging, machinery is utilized that requires energy to operate, and inevitably generates by products such as water, solvents, and waste that are challenging to eliminate entirely.

SCGP has been actively promoting the use of solar energy as a source of electricity since 2021, and has installed an additional 10.5 megawatts of solar capacity in 2025. With a total of 22.3 megawatts of solar energy production capacity distributed across SCGP's factories in different provinces, the company is committed to sustainable energy practices.

We are committed to leveraging technology for waste recycling in our production processes, as evidenced by the successful implementation of the Solvent Recycling System. Following its successful use in two factories for managing solvents used in washing printing ink from flexible packaging production in 2020, we expanded its deployment to all factories of Prepack (Thailand) Co., Ltd. in Thailand and Tin Thanh Packaging Joint Stock - BATICO Co., Ltd. in Vietnam by 2022. By adopting this system, we have reduced external disposal of waste solvents by 600 tons, while also enabling us to reuse recycled solvents in our production processes.

The circular economy approach to waste management extends beyond individual factories and creates opportunities for inter-factory collaboration in the reuse of waste as raw materials.

The Consumer and Performance Packaging Business, a division of SCGP, places importance on sustainably reducing industrial waste. There is a concerted effort to utilize post-industrial recycled plastic (PIR), both internal and across factories, in the business operations to reduce the disposal of potentially non hazardous waste outside the company. The post-industrial recycled plastic (PIR) is used to replace virgin plastic pellets in the production process. This PIR plastic is sourced from Prepack (Thailand) Co., Ltd. a company that produces flexible packaging products. The PIR plastic is then mixed with polyethylene produced by Conimex Co., Ltd. to create tubing products. This is a company that produces rigid packaging products and includes the production of PIR products and collaborates with external companies in transforming into other products, such as plastic pallets used within the factory, storage containers, and others. Within 2022, The Consumer and Performance Packaging Business reduced the waste output of the industry outside exceeding 100 tons.



Downstream: Non-waste packaging

Even though the situation of the COVID-19 pandemic is starting to ease, the new normal way of life still has a significant impact on consumer behavior, as online ordering of goods and food has become a normal part of daily life. However, one of the environmental impacts of this shift is the increase in the amount of packaging waste.

The development of compostable or easily recyclable packaging is important in reducing and mitigating these new environmental challenges.

An example of success in 2022 is the project by GO-PAK UK Co., Ltd, a leading company in European packaging, which is the owner of the popular Edenware brand. The company joined forces with Thai Paper Co., Ltd. to develop pulp made from Eucalyptus cellulose which was produced by Siam Kraft Co., Ltd at their Wang-Sala factory. The pulp was developed to be environmentally friendly and compostable. The pulp was also graded PFAS Free and sold to customers in the UK and Europe, emphasizing the importance of environmentally friendly products. The sales reached over 100 tons.

Prepack (Thailand) Co., Ltd has developed a light weight polymer packaging that can be recycled by using the same film type for multiple layers (Mono-material Packaging) instead of using different film types (Multi-material), which are difficult to recycle. The packaging still retains its properties in protecting the product, such as moisture, and air, and extending the product shelf life, similar to conventional packaging. In addition to using the same film type in the production of bags, Prepack has also collaborated with Dow Chemical (Thailand) Co., Ltd. to develop thinner films, reducing the film thickness from 110 microns to 100 microns and the ultimate goal is 90 microns, to reduce resource consumption. In the next step, Prepack continues to develop mono-material products with long shelf life. The new technology, called "Mono-material with the barrier (R1 Plus)," protects against moisture, air, and various chemical reactions. The development is based on multiple technologies and ongoing research and development efforts. The criteria for consideration is that the barrier component should not exceed 5% of the total material composition. In addition, to meet the demand for Mono-material with the barrier, Prepack invested in a Machine Direction Oriented (MDO) film-blowing system. The resulting product is a special type of stretchable plastic film produced along the machine's direction. This production process allows for thinner film production while increasing its strength, stability, and non-elasticity compared to films produced through general blow molding processes. As a result, it can be printed quickly and without image distortion issues.





SCGP Recycle: Creating Sustainability through Collaboration

Waste that lies in a trash can or landfill is still waste with no value. The challenge of the circular economy is to make waste from every place return to the desired factory.

SCGP established the SCGP Recycle business to manage waste materials in an efficient, comprehensive, and environmentally-friendly manner (Closed Loop). This includes creating an experience for consumers to participate in the circular economy by providing access to proper waste management channels, such as Drop Points, and a transparent and trustworthy waste management system, including data collection, reporting, the use of EV vehicles, and collaboration with all stakeholders, such as old-for-new exchange programs and paper recycling initiatives.

In 2022, SCGP Recycle teamed up with over 50 different partners to recycle waste paper. They established drop points with partners in housing projects and condominiums, collected used cardboard boxes from Uniqlo branches, set up recycling points at over 1,200 Thai Post branches, and organized the "Box Born Again" event with SHOPEE to receive used boxes and process them through correct recycling methods at over 104 points.

In addition, SCGP Recycle also plays the role of a connector in the recycling process by managing the waste recycling of plastics and other recyclables from retailers and modern trade outlets such as CP Lotus, CPALL, Homepro, and Central Group, etc., by delivering directly to recycling factories (Connect the dots) to support the Circular Economy in terms of plastics and other recyclables. This not only responds to consumers' intentions but also supports businesses, enhances the image of the organization's sustainability, and can be referenced in various standard reports to reflect the organization's commitment to improving the quality of life for residents, employees, and communities. It is a collaboration to create sustainability for society.



- SCGP is one of the first 30 companies in Thailand to receive the Circular Mark certification for the environment for 5 leading products, including Idea Green copier paper, consumer paper bags, Fest Bio, Laminated Mono-material (R1), and pet shampoo bottles made from 100% PCR HDPE plastic. This demonstrates the company's leadership in the Circular Economy among Thai and international businesses and certifies the quality of environmentally-friendly and circular-economy-focused products and packaging. The production process is environmentally friendly and involves the proper collection and recycling of waste materials.

- In 2022, Prepack (Thailand) Co., Ltd. has received the ISCC PLUS standard from International Sustainability and Carbon Certification (ISCC), which certifies organizations that conduct business sustainably from sourcing raw materials, storage, quantity control, production of plastic resins, to sales and delivery through standardized and audited processes. This can enhance product quality and build consumer confidence in environmental aspects.



Ministry of Industry: 80th Year Anniversary, 8,000 Kilograms Recycled

SCGP has the opportunity to collaborate with the Ministry of Industry on the 80th anniversary of the establishment of the Ministry of Industry. This project aims to collect and sort waste paper to be used as raw materials in the industrial sector and recycle it into products delivered to society through awareness and networking activities with 7 organizations. Additionally, Bio-Circular-Green (BCG) knowledge and concepts will be shared with 324 personnel from 133 public and private organizations.

This project collected a total of 11,596 kilograms of waste paper, surpassing the set target of 8,000 kilograms. The waste paper was recycled into products such as paper, boxes, and paper furniture sets, which were then donated to charity organizations and 8 schools.

The project's results are equivalent to reducing the release of 7,885 kilograms of carbon dioxide into the atmosphere. SCGP and the Ministry of Industry have plans to expand the project to other provinces in 2023.





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Forestry and Biodiversity

Expanding conservation area,
sustainably maintaining the ecosystem.



Targets

- Biodiversity conservation area certified by FSC™ standards at least 10% of agroforestry area
- No gross deforestation

Year **2022**

14.4%

Area of **3,856** rai
(616.9 hectares)

No gross deforestation

The world is losing biodiversity due to human activities, SCGP recognizes the importance of biodiversity and ecosystems, and thus aims to create cooperation in conserving biodiversity by setting the goal of creating a “Net Positive Impact (NPI) Balance” in all related processes and increasing carbon absorption sources. The project is implemented within the framework of the Thailand T-VER standards and promotes businesses, communities, and the environment to work together consistently under the legal framework and international standards.



Eucalyptus planting areas

In 2022, SCGP planted eucalyptus trees in operation areas accounting for 20,894 rai (3,343 hectares). SCGP has no operation sites located in globally or nationally important biodiversity areas, including Thailand's Protected Forest Area.

The proportion of SCGP's wood products that are certified by the FSC™ standard.

- FSC™-CW/COC: FSC-C133879 100% of the total amount of wood used by SCGP
- FSC™-FM/COC: FSC-C012207 100% of wood from SCGP areas which cut to operation process
- FSC™-FM/COC: FSC-C105470 15,077 rai (2,412 hectares) of 100 farmer members

Promoting the management of small-scale forest sustainability

SCGP is implementing the FSC™-SLIMF (Small or Low-intensity Managed Forest) project for small forests area of no more than 625 rai. The project conducts regular training and provides advice on sustainable forest planting practices according to FSC™ standards to the community. Currently, around 100 farmers are participating as members.

Survey and assess new conservation area: Khao Cha-ang Forest Park

Siam Forestry Co., Ltd. a subsidiary of SCGP originally had two conservation forest areas, namely Huay Saphan Samakee Community Forest and Kampaeng Phet Forest Park. In 2022, SCGP increased a third conservation forest area, Khao Cha-ang Forest Park, in Nong Phai sub-district, Dan Ma Kham Tia district,






Strategy

- Management of sustainable biodiversity with universal indicators.
- Serve as a model for preserving biodiversity for expanded results in other areas.
- Foster community participation and stakeholder involvement to increase awareness and understanding of conservation.
- Manage the utilization of forest community areas with community involvement and following the principles of community forestry.

Management

- 1 The FSC™ Management Committee sets policies, objectives, and targets for the management of sustainable forests controls and monitors the implementation to align with FSC™ standard [Forest Stewardship Council™].
- 2 The target is to create a “Net Positive Impact : NPI” in all related processes.
- 3 To involve the community and various organizations in the conservation of the ecosystem and biodiversity.
- 4 To increase forest areas to enhance biodiversity and act as a carbon sink by implementing projects under the T-VER standards in Thailand.



	Khao Cha-ang Forest Park	Huay Saphan Samakee Community Forest	Kampaeng Phet Forest Park
Tree Species	100 species, 74 genera, 30 families	65 species, 51 genera, 27 families	101 species, 77 genera, 33 families
Shannon-Weiner Diversity Index 	3.56 (High Level)	2.88 (Medium Level)	3.66 (High Level)
Mammal (Species) 	13	20	15
Reptile (Species) 	7	19	20
Amphibian (Species) 	7	9	12
Bird (Species) 	71	33	56



Kanchanaburi province, with an area of 109.5 rais (17.5 hectares). In 2021, The Biodiversity Research Center assessed SCGP's conservation forest in Kamphaeng Phet plantation and found that the area had a High Conservation Value (HCV) of level 5 (Basic Needs), which is a level that supports the basic needs of the community. The company also surveyed the plant species diversity in the area using the Shannon-Weiner Diversity Index, the result is 3.56, which is considered a high level. This information from the assessment will be used to plan for biodiversity management in the future.

Do not cut and collect wood chips ▶

Collaboration in biodiversity conservation research

SCGP collaborates with universities and various government institutions to develop knowledge in the field of conservation and management of biodiversity.

- Collaborate with the Forest Research Center, Kasetsart University to survey and conduct long-term research on biodiversity conservation and management of biological diversity and ecosystems.
- Collaborate with the Thai Forest Biodiversity Research Network Coordination Center, Kasetsart University to monitor and present long-term research reports on biodiversity conservation and ecosystem systems within the SCGP network area.
- Work with the Forest Resource Management Office to promote natural resource conservation activities in economically viable forest plantations. SCGP continues to develop Eucalyptus species, with a focus on genetic diversity. In 2022, two new hybrid species were developed, H44 and H46.

Inspection for maintaining international standards

To ensure confidence that SCGP's operations in biodiversity diversity for both SCGP operations and suppliers comply with legal and regulatory standards in Thailand and internationally, SCGP received external audits from two independent organizations yearly.

1. **Forestry Research Center** conducts evaluations and assessments of plant and animal species in SCGP's conservation areas, based on the IUCN Red List (2011) and the status of trade between countries under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), to execute align with regulatory requirements.
2. **Forest Stewardship Council™** inspects and evaluates the operations and results of operations to ensure compliance with FSC™ Standards and collaborates with the community to monitor operations and mitigate operational risks. SCGP aims to have all of the company's forest plantations comply with FSC™-FM standards.



Water Management

Mitigating risks with advanced Early Warning System.

Water is a crucial resource for the operations of SCGP, and droughts or floods can have a severe impact on the production process. To reduce water-related risks, SCGP manages water resources in an integrated manner by monitoring water conditions in collaboration with government and external organizations, using digital technology to track and assess water risks, and applying the 3R principle to reduce water usage. Additionally, SCGP also restores and supports ecosystems and provides water to the community for agricultural purposes.



Targets

- Reduce water withdrawal 35% by 2025 compared with business as usual (BAU) at the base year of 2014

Year **2022**

28%

Proportions of external water withdrawal usage:

Groundwater	50%
Surface water	44%
Tap water	6%

Proportions of recycle water:

16.3%

Amount of external water withdrawal usage per revenue from sales:

0.5

million cubic meters per billion baht

Strategy

- Integrate water management to reduce water-related risks.
- Optimize water usage efficiency in production processes and products.
- Treat effluent to meet quality standards, track and investigate incidents, identify causes, and reduce water discharge.
- Recycle treated wastewater to conserve water resources.
- Restore and support water ecosystems, and promote sustainable water usage in agricultural communities.
- Develop employee expertise in water management to enhance integration and efficiency.

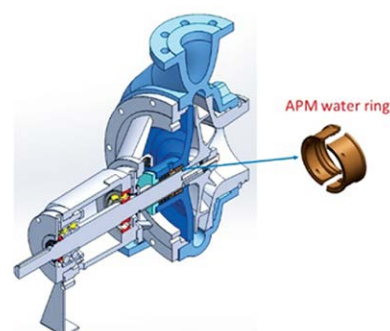
Management

- 1 SCGP manages water resources in a comprehensive manner through the SCGP Water Management Committee and the SCG Water Management Committee.
- 2 Global tools such as WRI AQUEDUCT and GISTDA satellite images, along with digital systems that assess water risks, are utilized to provide Early Warning System (EWS) based on Business Continuity Management (BCM) principles and Business Continuity Plan (BCP).
- 3 Collaboration with the public sectors, industrial sectors, and relevant stakeholders is done to monitor the water situation and mitigate risks.
- 4 SCGP acts as an industrial sector representative and a knowledgeable expert in the River Basin Committee to determine the direction of water management in Thailand.

Reducing water usage according to the 3R principle

SCGP has continuously reduced water usage in its production processes by reducing the amount of water used and recycling water through the use of technology and innovation.

- Expanding the use of treated water in production processes has increased the reuse of water, resulting in a reduction of 4 million cubic meters of water usage per year.
- Improving the high-pressure water cleaning system has also reduced water usage by approximately 0.7 million cubic meters per year.
- The Reuse RO Reject Project has further reduced water usage by 0.4 million cubic meters per year.
- Expanding the use of the APM Water Ring, an innovation by SCGP that prevent leak of sealing water in the nozzle area of pump, to all SCGP factories which have reduced water usage by 1.6 million cubic meters per year.





Assessing water-related risks based on the Business Continuity Management (BCM) principle

SCGP has developed a continuous business plan (Business Continuity Management for Sustainability) to ensure that its business operations are uninterrupted and aligned with the United Nations Office for Disaster Risk Reduction (UNDRR) and the Sendai Framework 7 goals, which focus on reducing risk as the main axis. The data analysis combines data from WRI AQUEDUCT and the National Water Resources Office with the Department of Irrigation to determine the appropriate approach to the situation. In addition, SCGP has sent representatives to join various River Basin Committee, such as the Mae Klong Basin, Bang Pakong Basin, etc., to collaborate with the government and the private sector in managing water in the area sustainably, as well as determining the direction of water management in various areas of Thailand. Furthermore, SCGP continues to focus on innovation to reduce disaster risks, such as:

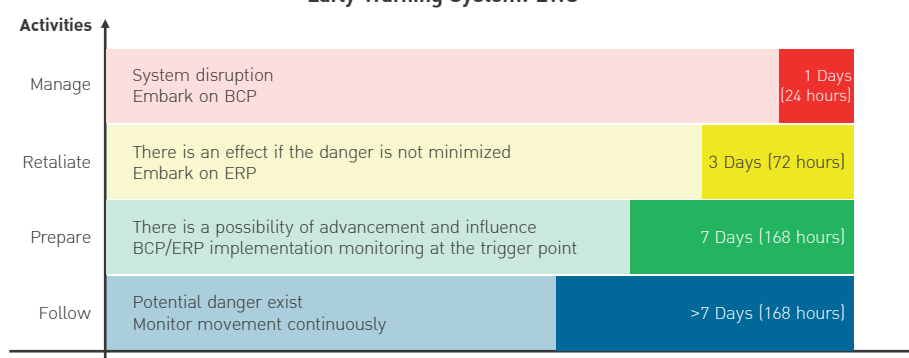
- **SCGP Water Stress Monitoring**, to track and analyze water levels in important dams, to plan and manage water resources, and to engage with the community, such as promoting water conservation efforts during droughts, or digging canals to prevent flooding during the rainy season, and reducing the impact on business operations, such as transportation of raw materials, and preparing for disasters.
- **The Early Warning System (EWS)**, is an advanced warning system for potential disasters in Thailand and abroad. SCGP has developed this system to improve preparedness and reduce the impact on individuals, businesses, communities, and the environment for sustainability. The data is derived from international disaster risk analysis and connected to the business sector and community.
- **Disaster Relief**
SCGP has created a volunteer team, the SCGP Emergency Response Team (S.E.R.T.), to help the community. The team operates based on the 3R principle of disaster relief, which is Rescue, Relief (relieve emotional stress), Recovery or Build Back Better.



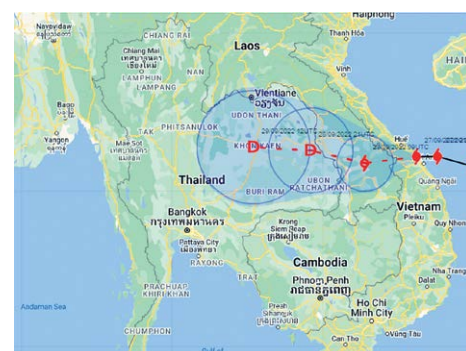
Ecosystem Restoration: Returning water to nature

- Restoring ecosystems and giving back water to nature, the Community Forest Project in Ban Samakkhi Tham, Kanchanaburi Province is a collaboration between all parties in the area for the conservation of the community forest. It involves the creation of check dams and tree plantation, which helps the community benefit from and value the community forest, creating jobs and income for the community.
- Improving community wastewater treatment system in the Ban Rim Nam Community, Kanchanaburi Province. The project aims to develop water sources for the benefit of the community and conserve water sources for sustainable use. This is done by treating household wastewater at the community level before discharged into the Mae Klong River. The project aims to create awareness of efficient water use.
- SCGP is implementing a Water for Agriculture Project by deliver treated water according to standard quality criteria to farm areas in the Ratchaburi and Kanchanaburi Provinces. In 2022, a total of 2.9 million cubic meters of water was delivered, covering an estimated 4,750 rais (760 hectares), reducing the shortage of water in agriculture and increasing the production and income of farmers.

Early Warning System: EWS



BCP : Business Continuity Plan
ERP : Enterprise Resource Planning



Industrial Waste Management

Committed to recycling waste to create benefits and value-added

SCGP recognizes the importance of industrial waste management, which is part of the value chain and life cycle of products. The goal is to zero waste from the production process in Thailand to landfill and focuses on research and innovation to develop circular solutions that utilize waste as raw materials or alternative fuel and transform it into products of added value. The use of technology is also utilized to reduce waste from production processes, which can have a negative impact on society and the environment if not managed properly. To achieve good waste management, SCGP incorporates the principles of the 3R (Reduce, Reuse, and Recycle) and the Circular Economy (CE) principles aiming to minimize waste and maximize resources through closed loop systems.

Strategy

- Strive to reduce and eliminate waste generation at the source and set the indicators for continual assessment.
- Manage industrial waste, hazardous and non-hazardous wastes at maximum within SCG and SCGP following the 3R and Circular Economy principles and using measures or standards issued by the government or world-class organizations aiming to perform beyond compliance.
- Research and develop innovation to reuse, and recycle raw material and waste or create value to waste by converting them to value-added products.

Management

- 1 Reduce waste starting from stage of product design, material selection and enhancement of production efficiency.
- 2 Govern and support the wastes, which will be managed outside SCGP, to be conform with regulation or effectively manage the waste under environmentally friendly procedures following international collaboration framework.



Targets

Year **2022**

- Every Year - Zero waste from the production process in Thailand to landfill
- By 2025, 100% Reduction of waste disposal by incineration without energy recovery in Thailand, compared with the base year of 2014

0

99.95%

Upgrading plant to support recycling of plastic-coated paper

- Thai Paper Co., Ltd., Ban Pong Factory is undertaking a project to upgrade its Eco Fiber Plant to support the recycling of plastic-coated paper, which is generated from the production of plastic-coated paper for food packaging, such as leftover from trimming the edges of the paper, leftover from molding, and low-quality waste, etc. This is approximately 2,000 tons of plastic-coated paper. The plastic content in this part is 15-20%, which is higher than what the existing machinery can handle, thus requiring investment in installing new machinery and additional equipment to enable the Eco Fiber Plant to support the recycling process of plastic-coated paper waste. Additionally, the plant was renovated for new equipment installation, total investment at 70 million baht, this is not only enhancing recycling process to separate pulp that replacing virgin pulp from aboard, but also plastic that will be used as alternative fuel in boiler, resulting in coal consumption reduction at the end.





Waste used as an alternative fuel

One strategy in waste management according to the 3R principles and the circular economy principles is to manage waste by converting it into alternative fuel instead, reducing the use of fossil fuel.

- United Pulp and Paper Co., Inc.** in the Philippines installed a shredder device to shred waste generated from the paper production process into small pieces, to be used as an alternative fuel source in the boiler instead of fossil fuels. The shredder has the capacity to shred 3,300 tons of waste per year, reducing the cost of coal purchases by PHP 15 million peso (about 9 million baht) per year. This project is a part of the company's sustainable initiative, aligned with the global SCGP's policy and goal of zero waste to landfill.



- Thai Cane Paper PLC.** upgraded the quality of waste management in its Prachinburi factory by installing shredder equipment to shred waste from the paper production process, such as wooden pallets, and paper cores, which is normally difficult to dispose of. The equipment was installed to reduce the size of the waste, then used as fuel in the steam boiler. The installation, trial run, and improvement of the process were carried out and the equipment was ready for use in 2022. The installation helped to reduce energy costs and there was a plan to expand the implementation to other factories. The company also studied the automatic belt conveyor feeding of waste into the shredder equipment.

From Fly Ash to the Interlocking Block: The Innovation for the Earth's Conservation Brick

SCGP collaborates with cement businesses and construction material companies, SCG and SCG Technology Office, to transform fly ash and bottom ash, a by product of solid fuel or coal combustion, into high-quality construction materials named PROBLOCK-ECO Brick such as building blocks, strength bearing block or decorative blocks. This helps reduce the problem of waste disposal and increases the value of waste. In 2022, SCGP developed a new product called Interlocking Block, which uses bottom ash as the raw material in production. It was designed to have a similar appearance to Lego blocks and can be firmly connected without the use of any binding materials. The blocks can be moved, removed, or reconfigured to suit the needs of the area. SCGP is able to utilize 1,500 tons of fly ash and bottom ash per year by using it to produce PROBLOCK and Interlocking Block.

The volume of waste that is shredded into alternative fuel using a Shredder

Wooden Pallets

70

Tons/Year

Paper Cores

30

Tons/Year

Thai Cane Paper PLC.





Air Quality Management

Determining to control and reduce the amount of air pollution and odor from the source in the production process.

SCGP manages air quality, both air pollution and factory odors, continuously. With concern for the health of employees and surrounding communities, and in light of increasingly stringent regulations, SCGP is committed to controlling and reducing air pollution and odors from the source of production processes. It promotes the use of renewable energy instead of fossil fuels, uses advanced technology in air management and monitoring, and expands its operations in all factories both domestically and abroad, for the benefit of the well-being and society of the communities in which SCGP operates.



Targets

- Reduce the intensity emission of air pollution (Particulate matter, Sulfur oxides (SO_x), Nitrogen oxides (NO_x)) per ton of production 5% by 2025 and 30% by 2030 compared with the base year of 2020
- No official odor complaint

Year 2022

Particulate Matter	9.0%
Sulfur oxides (SO _x)	5.0%
Nitrogen oxides (NO _x)	2.7%
	0 case

Strategy

- Set the goal to reduce air pollution emissions according to international norms among peers and not exceed legal limits.
- Use the best available technology for managing air pollution, both at source and release points, as well as continuously monitoring air quality.
- Encourage community involvement and stakeholders in managing air pollution. And collect feedbacks and concerns regularly.

Management

- 1 Monitor progress through the Energy and Climate Change Committee, with representatives from various business units working together to develop strategies, goals, and plans.
- 2 The Packaging Paper, Pulp and Paper Products use the Continuous Emission Monitoring System to monitor air quality, and Fiber Packaging, Consumer and Performance Packaging uses spot check approach, and complete verification by external party.
- 3 Train employees who control the air pollution treatment system to comply with the regulations of the Department of Industrial Works.

Manage particulate matter, SO_x and NO_x, with advanced technology

SCGP has increased determination to reduce air pollution by using advanced technology to capture particulate matter with an electrostatic precipitator (ESP) system and capture Sulfur oxides (SO_x) with white cement, and reduce Nitrogen oxides (NO_x) emissions using the Terminox GS combustion technology for boilers using natural gas fuel. Additionally, the company utilizes digital control systems to improve production efficiency and achieve the set goals.

Comprehensive odor monitoring and detection system.

The SCGP has developed a comprehensive Detect Odor & Monitoring system (DOM) to address the impact of air-borne odors on the community. The DOM system received a national award for product and service design innovation in 2020 and was installed in SCGP's factories starting from 2021. In 2022, the DOM system was expanded and installed in all 28 points from 5 pulp and paper factories, achieving 100% coverage.





Expanding CEMs Internationally

SCGP is continuously expanding the installation of automated Continuous Emissions Monitoring Systems (CEMs) to control air quality in pulp and paper industry groups in Indonesia and Philippines, that is exceeding legal requirement. The installation has already covered 91%.



In addition, SCGP also communicates with the community through the LINE application to receive complaints and communicate news to the community before any odor-causing operations, reducing odor complaints.

Managing odors with advanced technology

SCGP continuously manages odor from the factory by using technology to reduce odors generated during production and continuously monitoring and measuring odors.

- Expanding the use of the Wet Scrubber odor control system from Thai Paper Co., Ltd. (Wang Sala mill) to Phoenix Pulp & Paper Co., Ltd. (Public) to reduce the intensity of gas emissions in the pulp washing

process and thus reduce the intensity of Hydrogen sulfide (H_2S) to less than 1 ppm, Ammonia (NH_3) to less than 10 ppm, and Methyl mercaptan (CH_3SH) to less than 1 ppm.

- Phoenix Pulp & Paper Co., Ltd. (Public) in collaboration with SCGC (SCG Chemicals) developed the Advanced Scrubber system to reduce odors from the black liquor oxidation process by adjusting the temperature of the gas and improving the efficiency of odor-causing gas capture. The goal is to reduce the concentration of Hydrogen sulfide (H_2S), Ammonia (NH_3), and Methyl mercaptan (CH_3SH) and reduce odor treatment costs by THB 526,000 per year compared to the use of chemical substances.

PM 2.5 Reduction

The Agricultural Waste Management Project, which collects and recycles agricultural waste such as sugarcane leaves from farmers in Kanchanaburi, Ratchaburi, Suphanburi, and Petchaburi provinces, is being used to generate renewable energy in the form of substitute fossil fuel. This project is estimated to reduce the burning area by approximately 680 rais (108.8 hectares), and thus help to reduce PM 2.5 emissions caused by the burning of agricultural waste by farmers.

Health and Safety

Expanding the use of technology and safety standards both domestically and abroad.



SCGP has a solid determination to be an “Injury and Illness Free Organization” with proactive management by the Occupational Health and Safety Committees, including an actionable safety system “SCG Safety Framework” in both Thailand and abroad business operations. By leveraging digital technology to enhance safety management efficiency, including promoting and driving safety as a culture within the organization that everyone must adhere to in both personal life and work time. In 2006, SCGP announced its Occupational Health and Safety (OHS) Policy, which covers operations in the workplace, new project development, improvement projects, services, as well as travel and transportation both Thailand and abroad, which applies on employees, contractors, and relevant stakeholders.



Targets

- Zero Work-Related Fatality of Employees and Contractors in the workplace every year
- Zero of Occupational Illness and Disease Frequency Rate (OIFR) (cases/1,000,000 Hours Worked)
- In the year 2022, Zero Lost Time Injury Frequency Rate of Employees and Contractors (LTIFR) (Cases/1,000,000 Hours Worked)

Year 2022

0 case

0
OIFR

0.267
LTIFR for employees

0.599
LTIFR for contractors

Strategy

- Encourage employees at all levels and contractors to be safety leaders, raise safety awareness, and promote behavior change towards a safety culture.
- Commit to upgrading the Occupational Health and Safety Management system compliance to the local and international standards towards excellence in Occupational Health and Safety.
- Develop digital technology to support Occupational Health and Safety operations to be easier for implementation and higher efficient.

Management

- 1 The monitoring and support committee for the plan operation to achieve its goals, including analyzing results for improved efficiency.
- 2 Utilizing the “SCG Safety Framework” as the Occupational Health and Safety Management system and following safety rules such as the Life Saving Rules to create a safe workplace.
- 3 Encouraging self-declaration and continuous improvement, through self-discipline and internal ownership within the organization.



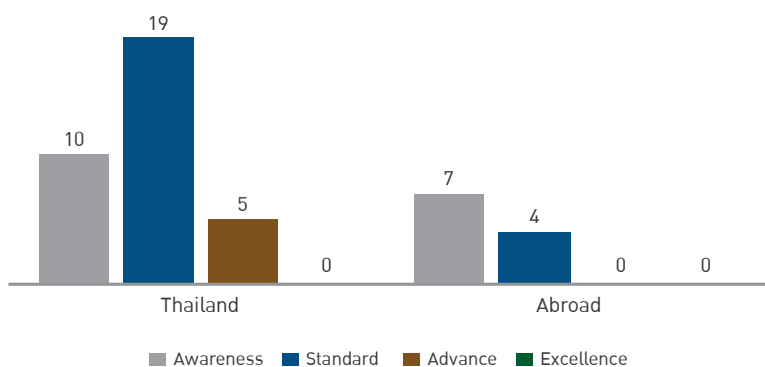
Promoting Safety Culture

SCGP drives safe operating behaviors according to the Bradley Curve Model to promote proactive action for raising employees' awareness, attentiveness, and self-care, resulting in a more sustained level of safety compared to compliance with regulations, rules, or orders from supervisors. In the year 2022, SCGP created digital learning media to increase employee understanding of reporting minor injury and near-miss incidents, as employees were still confused about the terms used, such as unsafe action, unsafe condition, near-miss, and accident, and the reporting channels. The learning media used clear visual examples through videos to help employees understand and feel confident in their work, which will increase efficiency and the impact of a safety culture.

Expanding the self-declaration of the SCG Safety Performance Assessment Program (SPAP) abroad.

SCGP has continually implemented Occupational Health and Safety management in line with the "SCG Safety Framework", which emphasizes that companies within Thailand should conduct a self-declaration of their safety performance every year. In the year 2022, the scope was expanded to cover abroad companies, requiring them to also assess and self-declare their performance every year according to the same standards, in order to demonstrate their commitment to moving towards higher performance levels from Awareness to Standard, Advanced, and Excellence levels in the future.

2022 SPAP Evaluation Results



Leveling up the SAFEsave Module

SAFEsave is SCGP's innovative Safety Management – Digital platform, to support the operation of occupational health and safety in a convenient, fast, and easy way. The platform reduces complicated work processes and reduces errors made by personnel, as well as provides centralized data management for tracking purposes. The platform consists of various modules that cover a wide range of operations, and in 2022, the platform has further developed and upgraded its modules, such as

- **Near Miss Module** – Supports the reporting of Near Miss, which previously had limited usage. It has been improved to increase participation through gamification features and added Line Management Accountability tracking for analyzing causes and preventing incidents systematically and effectively.
- **Transportation Safety Module** – Collects information about drivers. This information is used to investigate and analyze the causes and prevent future incidents, enhancing the safety of transportation.



SCGP places great importance on contractors that cover both work time and off-the-job time. There are activities for contractors to participate in and are equal to employees, such as campaigns for sharing risk points/safe driving activities/ KYT activities, including using SAFEsave regularly such as finding and reporting unsafe conditions through the Site Inspection Module, or reporting channel through the Near Miss Module when there is Near Miss event which to notify relevant people to take corrective actions to ensure safety."

Itsaraporn Thongdee

Safety Officer

K.S.I. Inter Supply Company Limited
(Contractor)



Contractor Safety Management

- SCGP has The Contractor Safety Management Committee (CSM) to oversee all procedural steps; the selection process, operational control, and contractors' performance evaluation, including continued development and upgrading of the safety operations of contractors.
- 97.14% of contractor's companies passed the SCG Contractor Safety Certification: SCS, according to the specified target criteria.

- **Safety Audit Module** – facilitates convenience in assessing safety, from the assessment plan, scoring, and aggregating the assessment results, the system integrates data into a single database to analyze and continuously improve management efficiency, reducing data inaccuracies and time-consuming data summarization from various companies.
- **Safety and Health Risk Assessment Module** – a software program for hazard identification, assessment, and risk management in all factories to have a standardized format.

Transportation Safety

With the goal of preventing fatal accidents to be zero within the year 2023, SCGP used the Goods Transportation and Road Safety standards to regulate activities related to transportation and vehicle usage. This was done by emphasizing training and enhancing the knowledge and driving skills of drivers, as well as introducing telematics technology such as ADAS (Advanced Driver-Assistance Systems), and DMS (Driver Monitoring System) to monitor and adjust driving behavior. In 2022, the standards were expanded to cover non-goods transportation, such as waste and industrial materials, as well as strengthening the evaluation and assessment of transportation contractors. Penalties were imposed on transportation contractors who failed to meet safety standards, and these penalties were made equivalent to the value of the penalties imposed. The standards were also extended to abroad companies, with the regulations being adjusted to ensure they were in line with local laws and culture.

Human Rights

Enhancing human rights integration across the value chain both in Thailand and abroad.



Targets

Year **2022**

- Zero case of human rights violation
- 100% of employees trained and passed human rights tests on Ethics e-Testing
- Female employees in all management positions account for 24% in the year 2025

0 case

100%

24.4%

As a result of business expansion, merger and acquisition in abroad, increased human rights risks for SCGP. SCGP has elevated the human rights practices in policies, frameworks, and guidelines to cover all of SCGP's business activities and its value chain, including business partners both in Thailand and abroad.

Strategy

- Integrating Human Rights, diversity, and inclusion into business operations across the value chain both in Thailand and abroad.
- Foster value and initiate human rights programs for all stakeholders across the value chain and society.
- Being a role model in human rights, both directly and indirectly through business activities, by providing support and encouraging the value chain to recognize, protect, and respect human rights in their business operation

Management

- 1 SCGP has joined the SCG Human Rights and Stakeholder Engagement Committee to drive the implementation of human rights throughout the organization.
- 2 Announced and reviewed SCGP Human Rights Policy and SCGP Diversity and Inclusion Policy in line with United Nations Global Compact (UNGC), the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work, and other international standards, as well as driving implementation of such policies through SCGP ESG Committee.
- 3 Established a unified organization-wide risk management framework and carried out human rights due diligence processes in all facets in a proactive manner to prevent human rights violations.



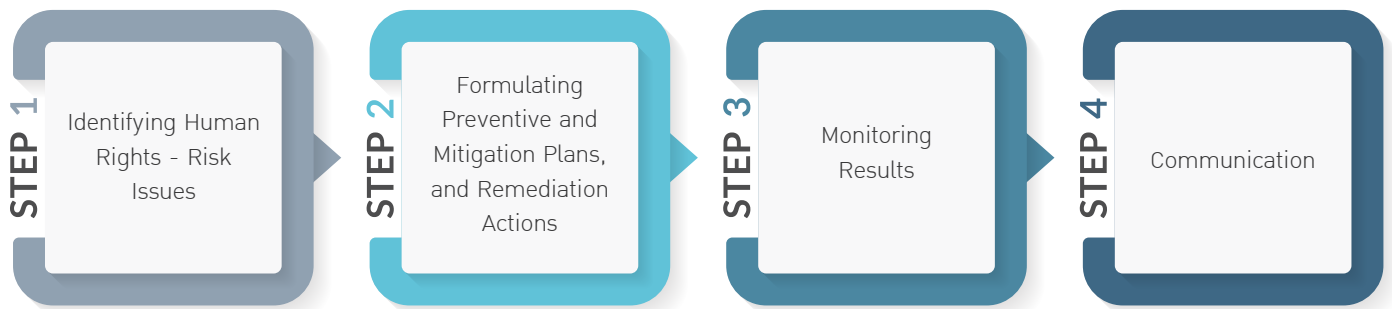
Key Human Rights Risks in 2022

In 2022, there are four salient human rights issues with a high level of risks as follows

1. Employment conditions
2. Health and Safety
3. Forced labor
4. Protection of migrant workers' rights

SCGP has planned and implemented measures to prevent, mitigate, and remediate impacts, covering all of its business activities.

Human Rights Due Diligence Process



Conduct risk assessment following Enterprise Risk Management covers human rights risks in relevant countries in all stakeholders and vulnerable groups;

- Forced Labor
- Human Trafficking
- Child Labor
- Freedom of Association
- The Right to Collective Bargaining
- Equal Remuneration
- Discrimination

Stakeholders engagement

- Employees
- Contractors/Suppliers
- Customers
- Communities
- Joint Ventures

- Whistleblowing System
- Ethics e-Testing
- Engagement Survey
- Governance Risk and Compliance (GRC)

- Raise awareness and understanding
- Communicate with Internal and External Stakeholders.
- Provide knowledge and support to all relevant parties



Review the policy and practices to enhance the implementation of human rights in accordance with global standards

SCGP has reviewed policies, frameworks, and guidelines in comprehensive and aligned with global and local standards covering all of SCGP's business activities, suppliers, contractors, and business partners. This includes specific topics in human rights, such as:

- Human Rights Policy
- Diversity and Inclusion Policy
- Supplier Code of Conduct (Labor and human rights)
- Human Rights Framework

In addition, SCGP also complied with human rights standards and proactive indicators to establish Human Rights Due Diligence Process Guideline for each company to use as a risk assessment guideline and set up mitigation and preventive plans and remediation actions. This is aimed at reducing risks to an acceptable level. Moreover, SCGP also provides a modern and effective whistleblower system that covers human rights issues and violations with complainant protection measures as defined in the SCGP Whistleblowing Policy.

Human Rights Empathizing Project

SCGP conducted a project to understand the needs of employees from diverse groups, such as women, people with disabilities, LGBTQI+ individuals, etc. in all business units, covering employees of all ages. The project is carried out by interviewing employees with empathy and understanding and using the information obtained to develop new operational plans and effective communication.

Organization-wide Human Rights Communication

SCGP participated with SCG to communicate and raise awareness about human rights through various channels to ensure that all employees are aware of and understand human rights and the value of diversity. The implementation is as follows;

- Ethics e-Testing to provide knowledge and test employees' understanding of ethics and human rights
- Workshop on "SCG Human Right Risk Assessment"
- Broadcast Live of "SCG Women in Leadership Inspiration Talk"
- Internal News under the topic of ESG Movement

Additionally, there is a GRC Helpline system available for employees to seek advice on work-related GRC, ethics, and ESG issues.

SCGP has joined with The Sedex Members Ethical Trade Audit (SEDEX), a global organization whose members are business organizations worldwide. It requires the members to comply with SEDEX standards in four areas: labor standards, health and safety, business ethics, and environment, which assure members' operations and business partners are responsible for business practices and respect for human rights.

In 2022, companies in SCGP both Thailand and abroad have implemented SEDEX's regulations, assessed by external auditors and become members of SEDEX for 13 companies which reflects SCGP's commitment to human rights continuity.

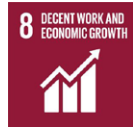
Implementation of National Action Plan on Business and Human Rights

SCGP has operated in accordance with the National Action Plan on Business and Human Rights, such as:

- **International investment and multinational corporations:** Consider both domestic and international investment based on ESG principles to promote the quality of life for all individuals in all SCGP's business operations.
- **Labor & workforce:** Promote diversity among employees to lead to creative thinking and innovation. Provide flexible working days and hours that are appropriate for each job position.
- **Human rights defenders:** Ensure the rights of employees to freedom of association without any discrimination.

Employee Caring and Human Capital Development

Enhancing experiences and well-being.



In response to the economic fluctuation and the situation after COVID-19, SCGP has adjusted its structure and strategies in business. This is done by promoting employees to develop themselves and adapt to changes, as well as creating a sense of commitment to the organization to maintain valuable employees as a driving force for business, especially for those with high potential. SCGP aims to implement effective employee management practices from onboarding to retirement, enhancing the overall employee experiences.



Targets

Year **2022**

- Total employee engagement rate is 78%
- 100% of employees in Thailand receive the competency assessment and have an Individual Development Plan (IDP) on the Learning Management System (LMS)

76%

100%

Employee Well-being Post COVID-19

In response to the COVID-19 pandemic, SCGP has prioritized the well-being of its employee, focusing on their working conditions, physical and mental health. SCGP has provided support to employees in various critical areas, including;

Workplace: Providing new workspaces such as co-working spaces and collaborative zones.

Economic: Providing financial assistance in special cases to support living expenses, due to the increased cost of living and inflation.

Physical health: Supporting employee's physical health by providing access to fitness centers, sporting facilities, and fitness classes to improve strength and flexibility.

Mental health: Implementing the SCGP Employee Wellness Program, offers online counseling services by experts from iSTRONG, self-assessment tools, access to mental health resources, 24-hour emergency hotline services, and online seminars on mental health topics related to work and daily life.

Strategy

- Provide training opportunities to enhance employee knowledge and skills, enabling them to adapt to business expansion and change effectively.
- Cultivate a learning culture by offering diverse Hard and Soft Skill courses through various effective learning channels tailored to employees' interests and learning preferences.
- Develop leaders in all business units who can tackle business challenges and promote collaboration. Empower leaders and change agents to lead by example in communication, understanding, and transmitting the organization culture.
- Enhance leadership competency at all levels, promoting standard behavior and effective business management while taking care of employees.
- Prioritize comprehensive and fair employee care by listening to their opinions and creating an inclusive work experience to foster a sense of commitment to the organization.
- Create an organizational culture that attracts talented and capable individuals to join the workforce, adding value to the organization.

Management

- 1 Business Unit Academy Committee is responsible for employee learning and development initiatives, offering unlimited opportunities to enhance employee knowledge and skills.
- 2 Provide short-term courses and activities that enable employees to develop a positive attitude towards work, teamwork, and social and environmental responsibility. This is led by supervisors, coaches, mentors, and supported by a dedicated learning team.





Effective Human Resource Management: Leveraging Diverse Tools

SCGP is committed to developing its employees' competencies and preparing them for leadership roles in the future through its Career Development Plan and Mobility Pool Readiness Program, utilizing a Blended Learning 70-20-10 approach to support business expansion.

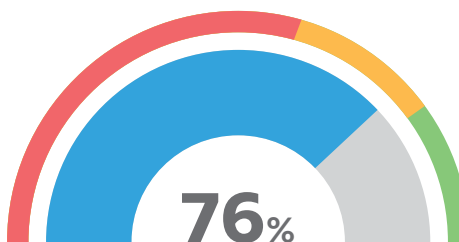
- Supervisors and managers received a competency appraisal to identify their existing skills and prioritize areas for improvement, focusing on strategic competencies aligned with SCGP's vision, such as global business excellence, M&P management, client-centric and integrated solutions, global expansion and operational excellence, and integrated people and organizational solutions.
- Expand the competency development system to employees in critical positions in all business units, preparing them for future leadership roles through a 70-20 blended learning program. The program is facilitated by supervisors, employees, and HR personnel, consisting of competency evaluation, development participation, and post-program support.
- Empower talented employees in Thailand to take ownership of their career paths, enabling them to design their own development plans and evaluate progress towards target jobs. Identified areas for improvement will be addressed to support career growth.
- Prepare to support business expansion both Thailand and abroad, in alignment with the business plan for Production, Energy, Maintenance, Sales & Marketing, and Accounting, by investing in employee development.

Post COVID-19 Learning: Adapting Curriculum and Formats

Develop leadership for all managerial-level through leadership competency and behavior standard support with leader role model.

SCGP offers two management training programs to develop its employees' leadership skills: the Business Management Program (BMP) and the Business Concept Development Program (BCD).

The BMP is designed to enhance the skills of managerial-level employees, focusing on SCGP's leadership competency framework, which includes Customer and Consumer Centricity, Strategic Formulation & Growth Mindset, Agility, Resilience, Global Mindset & Perspective, People Motivator & Team Collaboration, and the ability to work in diverse contexts. Employees who completed the BMP gain practical experience in developing real-life business solutions to drive growth in international markets. The BCD, on the other hand, is designed to develop the business acumen of supervisors and prepare them for future leadership roles.



11,942 out of
15,629 employees participated in the survey

Building a Strong Organizational Culture

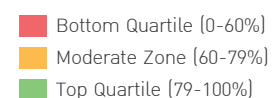
- Strengthening the SCGP Culture and Core Values by incorporating them into the employee development system, starting with the new employee development program (SCGP WE Program) and the new leadership development program (SCGP WE PLUS Program and Onboarding). This helps employees understand the desired behaviors in the workplace and leaders have discussions about desired behaviors and expectations in line with the organizational culture. The programs and practices are also expanded to operations in abroad, adjusting to their cultural and business context.

Employee Engagement Survey Results in 2022

SCGP collaborated with global consulting firm Kincentric, specializing in organizational engagement and talented management to conduct an employee engagement survey across Thailand and abroad.

The 2022 survey showed that:

- 11,942 employees, or 76% of employees surveyed had strong engagement with the organization.
- 15,629 employees out of 15,998 total employees participated in the survey, which is 98%.
- The average engagement score in public companies was 71%.



Community Engagement and Development

Creating community partnerships and increasing value of recycled paper.



SCGP has committed to improving the quality of life in communities for a sustainable society by promoting systematic waste management in the community and recycling waste paper back into the production process or transforming it into new products according to circular economy principles. This helped to generate income for the community and provided support to any scarce areas. The collaboration of all sectors from public and private sectors, communities nearby the factory, and academic sectors to foster sustainable development concepts to younger generations following ESG principles.



Targets

- Community satisfaction index is 90%
- Scale up Zero Waste Community Project to 183 communities by 2030
- SCGP Open House 12 times, with 1,000 participants per year

Year 2022

91%

96 communities

43 times with

1,489 participants

Community Development Project: “Zero Waste Community” Project

SCGP has collaborated with Ban Pong District and 17 local government organizations to drive the community-based waste management project. By studying the Zero Waste Community Model in Rang Plub Village, which was awarded first prize at the national Zero Waste Community Project Contest from the Department of Environmental Quality Promotion in 2019. Then, the knowledge and practical examples from Rang Plub Village were expanded to other communities at all SCGP's locations. The goal is to scale up Zero Waste Community Project to 183 communities by 2030.

Community innovation is an important tool for successful waste management, such as converting plastic straws into cushions, creating compost bins to eliminate odors, making fertilizer from organic waste, converting used tires into tables or hand wash basins, etc. In 2022, the project was scaled up 31 communities in Ratchaburi, Kanchanaburi, Prachinburi, and Khon Kaen Provinces, totaling 96 communities. There were also communities that received national level awards in the Zero Waste Community Contest organized by the Department of Environmental Quality Promotion in 2022, including the first prize award, Ban Hua Pong in Kanchanaburi Province, and the second runner-up award, Hua Pong in Ratchaburi Province. Ban Hua Pong community has a large population of 1,000 households and has a high level of diversity, making it difficult to manage, but it was able to effectively manage waste with innovative community waste management.

From 2019 to 2022, the Zero Waste Community Project was able to reduce waste by more than 1.16 million kilograms and generated income for the community of over 1.95 million baht.



Strategy

- Utilize the expertise of SCG and external partners to enhance the resilience of communities and society.
- Foster engagement among employees and all relevant stakeholders to create sustainable value for society.
- Develop innovation to serve the needs of communities and solve social issues.
- Develop models for sustainable development and scale up to other community networks.

Management

- 1 Conduct a community satisfaction survey every year to monitor the community development progress transparency and credibility research
- 2 Listen to and analyze the opinions of stakeholders in the community to develop effective plans to meet the needs of the community.



The Weaving Handicrafts of Paper Band Project

SCGP has carried out the Paper Band Project since 2014, promoting the use of waste paper tapes, so called paper bands from the paper-making process as weaving materials for local handicrafts in accordance with Circular Economy Principles. The project provides the community with paper tapes and has established community learning centers to develop the skills and techniques in paper tape crafting. The project also aims to modernize product designs and promote exporting channels overseas. Currently, SCGP has provided 4,300 kg of paper tapes to the community annually and helped to generate income of over 720,000 baht per year as well as strengthening the community to utilize their free time effectively.



Speak Out-Empowers Young People to Take Action for the Environment

SCGP hosted SCGP Packaging Speak Out Contest, an annual packaging design competition organized by SCGP in Thailand and Vietnam for the 7th consecutive year. In 2022, the theme of the competition was "UPCYCLE", which is a packaging design that extends life by changing its shape to be reusable, and "Easy to Recycle", which is a packaging design that is suitable for segregating and recycling. The competition aimed to encourage young people, especially Generation Z aged between 17-24 years old who are the generation that will play an important role in the future to learn and care about sustainability by using their creativity to design packaging according to Circular Economy Principles. The award-winning Best of Challenge Award in Thailand is a work titled, "Shoes-Able", by the students of the Faculty of Decorative Arts, Silpakorn University, presenting a shoe box that can be upcycled into a two-tier shoe rack benefit in less storage space.



Reflections from Contestants:

I am impressed to be able to design a packaging that can help reduce unnecessary waste to the world

It is a great opportunity to have such a great project, providing students to have a place to showcase and design ideas

Collaborative Efforts to Recycle Waste Paper

- The SCGP Paper Recycling Project, in collaboration with government agencies in the surrounding area of the factory such as schools, hospitals, and government agencies, exchanges used paper for a new paper to promote knowledge about paper sorting and reduce waste. In its third year of operation in 2022, the project expanded its paper collection points to 130 and recycled over 215 tons of used paper back into the production process.
- SCGP x reBOX and Thailand Post continue to work together for the third year in 2022. In the same year, reBOX to School event was held over 1,200 post offices across the country were designated as collection points for used boxes and paper. The collected paper weighed over 74 tons and was recycled into 95 sets of bookshelves which were then donated to students at police border schools nationwide.
- SCGP x Uniqlo SCGP collaborated with Uniqlo to collect over 350 tons of waste cardboard boxes from their branches and recycle them into A4 printing paper for in-store use, producing 1,114 reams of paper. Additionally, they recycled the waste cardboard into furniture and donated 133 sets to the United Nations High Commissioner for Refugees (UNHCR) in Ratchaburi and Kanchanaburi Provinces.

Conserve nature and the environment

SCGP has joined the Conserving Water from Mountain through Mighty River Project to restore the watershed forest by constructing check dams. The project's benefits helped preserve soil moisture, return the balance of the forest ecosystem, reduce the severity of wildfire, drought, and flooding, and finally create happiness for the community. In 2022, SCGP continued to implement the check dam project with communities and local government organizations in Ratchaburi, Kanchanaburi, and Khon Kaen Provinces, totaling 501 check dams.

Corporate Governance

Striving for fair and transparent business governance and creating awareness among employees at all levels.



Targets

- Receive an excellence rating (5 stars) from the assessment of the Corporate Governance Survey of Listed Companies (CGR Checklist) for the year 2022
- No corruption
- Employees learn and pass Ethics e-Testing 100%

Year 2022

High Rating
(5 stars)

0 Case
100%

The SCGP's Board of Directors has determined the corporate governance policy to be a part of the business strategy, with the Corporate Governance and Nomination committee responsible for overseeing the company's corporate governance. The Company has adopted Corporate Governance Code: CG Code year 2017 for sustainable benefits and value creation.

Strategy

- Establishing Corporate Governance Policies and Guidelines to be consistent and aligned throughout the organization.
- Reviewing the Corporate Governance Policies and Guidelines to be proper to the company's strategy and challenges posed by changes at least once a year.
- Communicating and supporting employees and suppliers to understand, gain awareness and seriously comply with the Corporate Governance Policies and Guidelines, SCG Packaging Code of Conduct, and Supplier Code of Conduct.

Management

1. Oversee and monitor the implementation of the Corporate Governance Policies and Guidelines throughout the organization.
2. Assess risks and monitor anti-corruption through the preventive system consisting of ethical testing, three-level of risk management and internal controlling, and an accessible whistleblowing system for stakeholders.
3. Review, communicate, and provide ethical training to employees, suppliers, and stakeholders to promote a transparent work culture.

Corporate External Assessment

The continuous implementation of the Corporate Governance Policies and Guidelines has led SCGP to receive assessments from various organizations as a well-governed entity in 2022, such as:

- Received a full score of 100 in the evaluation of the annual general shareholder meeting in 2022 from the Thai Investors Association.
- Being rated as "excellent" rating in the assessment of the Corporate Governance Survey of Listed Companies for the year 2021 by the Thai Institute of Directors.
- Being named one of the Thailand Sustainability Investment 2022, following 2021, by the Stock Exchange of Thailand.
- Received certification as a Certified Company from the Thai Private Sector Collective Action Against Corruption (CAC) on March 31st, 2022.





Participating in the United Nations Global Compact (UNGC)

SCGP participated in UNGC on June 7th, 2022, and committed to supporting the Ten Principles of the UNGC on human rights, labor, environment, and anti-corruption.



Providing knowledge and testing employees' ethics through Ethics e-Testing

In 2022, SCGP conducted the Ethics e-Testing for employees for the 8th consecutive year, including ethics, SCGP Core Values, SCG Packaging Code of Conduct, and anti-corruption policy to ensure that employees at all

levels have learned and understood to comply with these policies. In 2022, all 100% SCGP employees passed Ethics e-Testing, and the results were analyzed to highlight important issues to be communicated to employees to correct their understanding. The SCG Packaging Code of Conduct was translated into the Indonesian language to accommodate the expansion of business in foreign countries.



Whistleblowing

In the year 2022, there were 6 complaints received through the whistleblowing system from both external parties and employees regarding violations that resulted from non-compliance with laws, company regulations, anti-corruption policy, SCGP Core Values, SCG Packaging Code of Conduct, or Supplier Code of Conduct.

SCGP conducted investigations and completed 5 cases, with 1 cases still under investigation. The complaints were divided into cases that were not in accordance with the complaint or had unclear evidence, 4 cases, 1 case of inappropriate management, and no cases of violations of SCG Packaging code of Conduct,. Anti-Corruption Policy, Antitrust Policy, Human Rights, and use of Insider Information The damages were non-significant.

Report of Violations	The Total Number of Complaints		
	2020	2021	2022
Total Complaints	11	8	6
Investigated and Completed Complaints	11 (including 1 complaint from the year 2019)	7	5
Number of Complains Under Investigation	0	1	1
Classification of Complaints			
1. Unethical or Improper Conduct	0	1	0
1.1 Conflict of Interest	0	1	0
1.2 Corruption	0	0	0
1.3 Violation of Human Rights	0	0	0
1.3.1 Sexual Harrasment	0	0	0
1.3.2 Non Sexual Harrasment	0	0	0
1.3.3 Discrimination	0	0	0
1.4 Antitrust	0	0	0
1.5 Use of Insider Information	0	0	0
1.6 Others	0	0	0
2. Non-compliance with Company Regulations	1	2	1
3. Not in accordance with Complains	10	4	4

Risk and Crisis Management

Managing risks according to international standards and creating an organizational culture in risk management.



SCGP establishes a risk management system that conform to international standards and integrates it into the organization's business operations. This is to cope with and reduce the impact in the world from VUCA (Volatility, Uncertainty, Complexity, and Ambiguity), including economic, social, and environmental challenges, so that the business can operate continuously without disruption. Furthermore, the company explores opportunities to develop value creation by improving consumers' quality of life and being environmentally friendly. This will lead SCGP to achieve business sustainability.



Targets

- Reducing the impact of disruption of key processes or services, primary products, and primary customers.

Year **2022**

0 Case



Strategy

- Managing risks in the same direction throughout the organization by defining objectives and Risk Appetite in short-term, medium-term, long-term, as well as Strategic Risks that may affect to business performance significantly.
- Establishing risk management structure, roles, and responsibilities at all levels encompassing the corporate level, business level, and operational level.
- Performing Risk Management comprises of risks and opportunities identification, risk assessment, establishing risk response, key risk indicators and key performance indicators, as well as reporting to the SCGP within organization Risk Management Committee (SCGP RMC) regularly.
- Building risk management culture by considering top executives as role models, and providing training course for employees.




Management

- Manage risks throughout the organization, consistent with the Committee of Sponsoring Organizations (COSO) and ISO 31000 to effectively reduce the likelihood and impact of potential risks.
- Conduct analysis to measure the severity level and prioritize key risks using the Risk Map.
- Manage business continuity according to the BCM framework for sustainability, aligning with the United Nations Office for Disaster Risk Reduction (UNDRR) guidelines and the seven targets of the Sendai Framework.

Significant Risks in 2022

In the year 2022, SCGP evaluated the significant risk events and developed mitigation plans for potential risks, such as High and volatile energy cost, Rising input cost of raw material and labor, strategic investment risks, or map integration risks. Additionally, the company also considers Emerging Risks that may arise as follow:



Emerging Risks	Risk Management
<p>The transition to a low-carbon economy</p> 	<ul style="list-style-type: none"> Regularly monitor the situation and assess the risks that may occur to the business. Determine mitigation measures SCGP RMC to cope with various situations under the assessment of SCGP RMC and the Energy and Climate Change Committee which was approved by the Chief Executive Officer to disclose information following the Task Force on Climate-Related Financial Disclosures (TCFD) guidelines.
<p>Environmental pollution risks transition to a Circular Economy</p> 	<ul style="list-style-type: none"> Develop innovative products and the solutions that reduce resource used or promote recycling, in line with the Circular Economy principle. Increase the ability to manage recyclable raw materials for the business. Expand packaging recycling business through M&P. Collaborate with customers in projects to collect bottles to recycle.
<p>Cyber security risks</p> 	<ul style="list-style-type: none"> Enhance the protection system, with modern technology. Improve policies and guidelines. <p>See page 66-67 for more details.</p>

Training for employee development at all levels

SCGP realizes that corporate culture is a key element to the success of risk management and therefore promotes a risk management culture through various training for employees at all levels, such as:

- Providing SCGP Risk Management Training & Workshop for Risk Champions and Risk Coordinators who are responsible for managing risks at the business-level and operational level, respectively. The training is conducted annually to enable them to use risk management tools effectively.
- Developing the SCG Enterprise Risk Management (ERM) program as a part of the training and development program for new employees. The training is conducted annually and the course is registered into the e-Learning system to make it accessible and learnable by all employees.



S.E.R.T. SCGP Emergency Response Team

SCGP is a leading organization in the country's industrial sector with a vision to create employees without discrimination based on race, religion, and gender to form a volunteer team that responds to emergencies that occur within and outside the factory. With the belief that the factory and community can live together safely and work together to manage disasters by adhering to the principles of Community Based Disaster Risk Management (CBDRM). In the event of a disaster, the S.E.R.T. team will respond at an appropriate time based on the 3R principles of Rescue, Relief, and Recovery to truly meet the needs of those affected by the disaster.

- Green Response: S.E.R.T. Team has a principle of operation that assists society without creating waste or damaging the environment. Additionally, the team creates innovations that deliver support to society from recycled materials.
- Developing Public and Private Sector Networking for Sustainable Disaster Management: S.E.R.T. Team is involved in the national and local level of disaster management plans.

SCGP Security Management System

As incidents that can affect business operations have become increasingly complex, especially due to human actions, which are difficult to control and can occur at any time, SCGP has developed the SCGP Security Management System (SMS) to screen risks from individuals. This includes a database of personal training, entry and exit records, or abilities, as well as systems for monitoring various dangers such as vehicle inspections, speed checks, and asset entry and exit from the premises. The system uses a single database that links organizations within and outside the country which is supporting the 7 targets of the Sendai Framework and is a crucial data source for building a robust system for organizations.



13 OCTOBER
INTERNATIONAL DAY
FOR DISASTER RISK REDUCTION

The Objectives of the Sendai Framework

1. Reduce mortality rates from disasters within organizations.
2. Reduce the number of people impacted by the consequences of disasters within organizations.
3. Reduce direct and indirect business losses compared with the organization's income.
4. Reduce damage to infrastructure, buildings, essential basic utilities, society, and the environment.
5. Increase the number and the capacity to cope with all types of disasters to reduce the impacts on individuals, factories, communities, the environment, and stakeholders.
6. Enhance collaboration with government agencies and other organizations, both at the local, national, and international levels, to align with global standards.
7. Increase efficiency and effectiveness, including access to information, and early warning of disaster risk.

Information Technology Security and Cybersecurity



Upgrading policies, guidelines, audits, and incident response.

SCGP uses information technology in all aspects of business, from resource planning, production, quality control, delivery, inventory management, e-commerce sales, customer communication, financial management, and supporting hybrid workplace operations, which requires increased connectivity with external networks. This increases the risk of cybersecurity and cyber attacks that can lead to data leaks, loss, or system downtime, affecting the company's operations and reputation. Therefore, SCGP strictly regulates and secures information technology and network security to maintain the confidentiality and security of the data and systems.



Targets

Year **2022**

- Information system operates continuously with a minimum of 99.5% availability or the system experiences no more than 1.83 days of downtime per year
- There is no customer data security-related complaints

99.5%

0 case



Strategy

- Integrate information technology security and cybersecurity risks into enterprise risk management, from identifying risk or opportunity in business operations, assessing and prioritizing, identifying mitigation measures, monitoring, and reporting.
- Establish processes for managing the information technology system's security that is aligned with the organization's information technology security policy.
- Enhance knowledge, understanding, and awareness among employees at all levels by providing training to ensure the appropriate action for cyber threats.




Management

- 1 Adhere to the information technology usage policy (SCGP e-Policy), which references ISO 27001 and cybersecurity plans.
- 2 Install additional cybersecurity devices such as vulnerability scan systems, privileged access management systems (PAM), network access control systems, and Security of Industrial Control Systems (ICS).
- 3 Establish a Security Operation Center (SOC) for cybersecurity surveillance, both On-Premise and On-Cloud SOC.

Enhancing security with cutting-edge technology

- Next-Generation Firewall (NGFW)**
Cyber attacks today are becoming more complex and sophisticated, using more advanced techniques. SCGP has therefore installed a new type of firewall monitoring and attack response, known as Next-Generation Firewall (NGFW), in all its offices and factories to enhance security at the application (Layer 7) level throughout the organization. This allows for protection against external attacks and known cyber threats as well as irregular usage, and also provides Traffic Behavioral Analysis, supporting leakage of crucial data, user authentication and tracking, etc. This enables system administrators to manage the system from the central more effectively.
- Improving IT security audits**
by dividing audits into the IT system, IT process, and IT security and designing more efficient and effective audit procedures, which can reduce the cost of the audits.
- ISO/IEC 27001**
Improving data security systems to obtain ISO/IEC 27001 certification by the year 2023.

Information Technology Security and Cybersecurity Governance Framework

Management Levels	Committees/Related Units	Roles
Supervisory Level 	<ul style="list-style-type: none"> SCGP Audit Committee SCG Information Technology Governance Committee SCG Cybersecurity Governance Committee 	<ul style="list-style-type: none"> Reviewing the risk management process, workflows, controls, operational oversight, and information technology and communication network security to ensure they align with international standards and monitor risk management results and assess risk management results from the Risk Management Committee. Participating as a member of <ol style="list-style-type: none"> SCG Information Technology Governance Committee SCG Cybersecurity Governance Committee to determine the direction of oversight and implement it within the SCGP.
Management Level 	<ul style="list-style-type: none"> SCGP Risk Management Committee Technology and Digital Platform Unit 	<ul style="list-style-type: none"> Considering and approving risk management strategies, risk management frameworks, and risk management processes, including reviewing of risks and monitoring of risk management. Deployed policies and guidelines from SCG and implementing them within the context of SCGP.
Operational Level 	<ul style="list-style-type: none"> Information Technology Unit Information Technology Governance Unit 	<ul style="list-style-type: none"> Overseeing the operations of the Information Technology Governance unit, responsible for information technology security and cybersecurity.

Revisions in Policy and Guideline

Following the appointment of representatives as part of the SCG Information Technology Governance Committee and SCG Cybersecurity Governance Committee in 2022, additional actions have been taken including:

- Development of additional 3 standards/processes/guidelines including IoT Security, Guidelines for using Social Media Applications, and Online Communication Tools.
- Revisions of 2 policies, including the Mobile Device and BYOD Policy and the System Access Control Policy, which are additional revisions from 2020 to accommodate the COVID-19 situation and the Work from Home period.
- Creation of guidance for audit documents for internal control/security such as ERP system audits, IoT security, Web application, Cloud Development, and Data Governance security audits.
- Review and refinement of risk assessment strategies to align with the COVID-19 situation and new normal risks by utilizing Machine Learning (ML), Robotics Process Automation (RPA), and Data Analytics (DA) for more effective risk analysis.
- Mandating all employees to pass e-Policy testing at 100% to create awareness and understanding for proper implementation.
- Mandating external Cybersecurity Assessments every 2 years.



Sustainable Value Towards Suppliers

Enhancing supplier partnership for sustainable society co-creation.



SCGP's suppliers along the value chain consist of manufacturers, service providers, and distributors, have played a crucial role in economic growth and bear responsibility for the environment and society. Thus, SCGP manages its suppliers by selecting suppliers with capability, evaluating their performance in terms of environmental, social, and governance (ESG) aspects, and providing support for their sustainable growth in partnership with SCGP.



Targets

Year **2022**

- 90% of procurement value from suppliers with a commitment to comply SCGP Supplier Code of Conduct
- 100% of the supplier in procurement value passed the annual Environmental, Social, and Governance (ESG) risk assessment
- 100% of operation contractors certified SCG Contractor Certification (SCS)
- 100% of transportation contractors certified as main logistics partners major transportation contractors

90%

100%

97.14%

100%
68 Companies

Other Performances

Total number of active suppliers:

2,072
suppliers

Suppliers with high sustainability (ESG) risks:

0

supplier

Critical:

2

suppliers
received audit **100%**
of critical suppliers

Green procurement:

4,684
(Baht million)

Employees in the sourcing and purchasing function participated in ESG training and development:

100%



Sourcing EV Transportation Service Suppliers to Reduce Greenhouse Gas Emissions

SCGP is committed to reducing greenhouse gas emissions in its operations and has partnered with a supplier providing electric vehicle (EV) transportation services, which are efficient and can meet various types of work requirements. This is intended to replace the conventional use of fossil fuel vehicles. The initiative 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 kilograms of carbon dioxide equivalent per truck per year, and reduce energy costs by 50-60% compared to a diesel truck.



Promote ESG Understanding and Partnership with Suppliers

SCGP, together with SCG and affiliates, organized "Supplier Day 2022" to communicate and encourage participation in solving world problems by applying ESG 4 Plus and the revised Supplier Code of Conduct which addresses the important issues that are in the interest of stakeholders such as forced labor and environmental data collection to suppliers. Moreover, the workshop on topic 1. Human Rights, 2. Climate Change and 3. Governance and Business Ethics was held to share ideas and acknowledge as well as support needed for the future development of the partnership. There were 123 participants from 81 key suppliers.

Enhance Competency in Service with Waste Management Suppliers

SCGP has undertaken a project to develop a waste management supplier in order to reduce the potential risk of waste transportation from SCGP's factory to the supplier's site. The training to the supplier's employees to raise awareness on safety and providing quality services with heart provided by expert instructors from SCG Skills Development School. In result there was no complaints of safety violations or service issues in 2022. In the future, key performance indicator (KPI) evaluations will be conducted every quarter to create lasting change.



Strategy

- Select and evaluate competent suppliers for sustainable business conduct.
- Assess risk and segment suppliers to determine strategies and supplier development plans corresponding with the risk.
- Develop and enhance the capabilities of suppliers toward sustainability.
- Raise awareness, knowledge, and ability of employees in effective procurement.

Management

- 1 Conduct risk assessment and certification of all suppliers annually and continually, using an enterprise risk management framework that covers Environmental, Social, and Governance (ESG) aspects and spending analysis.
- 2 Segment suppliers into 4 groups, namely, general tier 1 suppliers, critical suppliers, high potential sustainability (ESG) risk suppliers, and critical non-tier 1 suppliers.
- 3 Determine supplier development and capability enhancement plans for continuous improvement.
- 4 Establish a working group to set the development of employee knowledge and skills in the procurement, supplies, and logistics groups, including the exchange of knowledge, information, and best practices with both public and private organizations.

Product Stewardship

Promoting SCG Green Choice products and register for Carbon Footprint of Products.



SCGP responds to consumer demand for sustainable and environmentally friendly packaging and comply with regulations and laws that push manufacturers to consider safety and the impact on society and the environment. SCGP is focused on developing and designing high-quality, safe, and durable products, services, and solutions that can be reused and recycled aligned with circular economy principles through innovative thinking and consider responsibility to control, monitor, and evaluate the danger of unsafe products (Product Hazard Analysis, PHA) in every step. This ensures that SCGP is a leader in the container and packaging industry.



Targets

Year **2022**

- Sale revenue from SCG Green Choice products, services, and solutions is 66.7% of the total sales revenue by 2030
- Sale revenue from SCG Green Choice products, services, and solutions that provide direct benefits to customers is 33.3% of the total sales revenue by 2030
- All subsidiaries in Thailand must comply with the requirements of REACH Regulation (Annex XVII and Substances of Very High Concern (SVHC) for Authorization)
- No complaints regarding non-compliance with the laws and product safety

48%

13%

100%

0 Item



Products, services, and solutions certified as environmentally friendly



Carbon Footprint of Product label

37

Products



SCG Green Choice label

61

Products



Green label, type 1 environmental label

21

Products



Circular Mark

5

Products

Register for Carbon Footprint of Product (CFP)

The trend of using environmentally friendly packaging continues to increase. Information on greenhouse gas emissions from products is an important factor for consumers to make purchasing decisions. SCGP promotes its products to receive the Product Carbon Footprint label from the Thai Greenhouse Gas Management Organization (TGO) to provide consumers with confidence that they are purchasing environmentally

responsible products. SCGP considers the entire lifecycle of their products, including sourcing of raw materials, transportation, and production (Business to Business, B2B) to develop more low carbon products. In 2022, SCGP registered 37 packaging products for the Product Carbon Footprint label, and SCGP continue to develop products to register for Carbon Reduction Label in the future.





Asia Pacific Supplier Awards 2022

Conimex Co., Ltd., a subsidiary of SCGP, has received the Asia Pacific Supplier Awards 2022 in Environmental Sustainability category from Shell Lubricant Asia Pacific. The award was selected from 400 companies in the Asia Pacific region based on their outstanding performance in various projects, particularly the engine oil packaging made from 25% PCR. All of the projects have contributed to reducing greenhouse gas emissions by 439 tons of carbon dioxide equivalent. Moreover, the engine oil packaging has been awarded the SCG Green Choice label in the Indirect type: Recycled Content.



SCG Green Choice

In 2022, SCGP had a total of 61 products, services, and solutions that received the SCG Green Choice label. The highlight SCG Green Choice products, services, and solutions include:

- Paper Exhibition & Lifestyle Products:**
 A solution for creating creative media for marketing and lifestyle products such as exhibition booths, furniture, promotional products, etc. They are made from recycled paper but still maintain their strength and efficiency. They cater to the marketing activities of business customers and general consumer use. When the products are finished usage, SCGP Recycle brings them back into the recycling process. They have received the SCG Green Choice label in the Indirect type: Waste Reduction.
- SB-Shopping Bag Paper:** 100% of the paper used for all standard weight paper bags are made from recycled paper and is certified FSC™ recycled 100% and meets the green label standards and the Ministry of Industry's standard 170-2559. They have received the SCG Green Choice label in the Indirect type: Recycle Content.
- Modified Atmosphere Packaging:** These packages are used to preserve the quality of food, delay color changes, maintain shape, and flavor. They help extend the shelf life of food by at least 2 days compared to traditional packaging. OptiBreathe® is for vegetable and fruit packaging, where the internal gas exchange is controlled to be suitable for the external environment. Optisorb-X™ is for bakery and fatty foods component, where the package prevents the penetration of oxygen gas from the outside and helps reduce the oxidation reaction of the food. They have received the SCG Green Choice label in the Direct type: Extended Life Product.



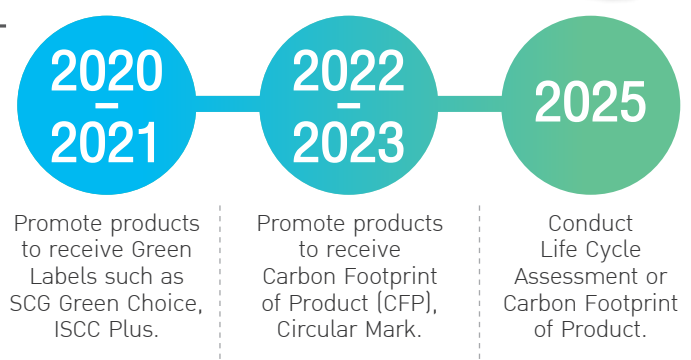
Strategy

- Drive innovative approaches to develop products, services, and solutions that meet consumer demands, improve quality of life, and consider the impact of climate change, environment, and health through circular economy principles, including creating business opportunities.
- Promote and develop business processes throughout the value chain in accordance with international standards.
- Consider the environmental and safety impact of products, services, and solutions throughout life cycle.
- Promote and encourage products to be certified and labeled as environmentally friendly, such as SCG Green Choice, Carbon Footprint of Product (CFP), Carbon Reduction, etc.
- Promote and raise awareness of environmentally friendly product usage to stakeholders.

Management

- Develop products starting from the design phase, material and chemical selection, production process, packaging, usage, waste management (reduce waste generation and recycle) for reducing environmental and health impact throughout the product life cycle through Circular Economy and Eco Design principles to maximize resource, energy, water, and material utilization.
- Comply with both and international laws and standards related to chemical usage, such as REACH Regulation, hazardous substance list, and reduce the usage of chemicals that are harmful to the environment and health.
- Support to Invest in product, service, and solution development to enable fast and effective change.

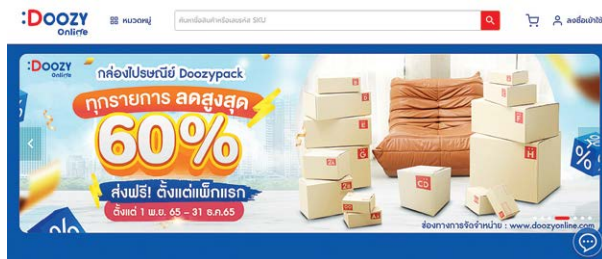
Roadmap



Customer Relationship Management

Focusing on developing new channels of services and solutions to meet the needs of all customer groups.

SCGP is concerned about the economic impact from the rising energy costs due to the conflict, as well as the post-COVID-19 situation. SCGP is determined to design products that reduce production costs while still maintaining light weight, strength, and safety to meet the business customer's cost burden. In addition, they aim to increase the product offerings that cater to health and environmental needs. Also, they are developing online platforms for customer convenience in accessing products and services.



Targets

- Customer experience score **85%**
(Pulp and Paper business, paper packaging, and packaging from pulp and paper)

Year **2022**

87%



Sales channels and customer service operations

SCGP places importance on developing its sales channels and customer services operations, to meet customer needs and behaviors, in order to create the best user experience through expanding its online platform and the capabilities of its customer services center to quickly resolve issues.

- Doozy Online by SCGP** has opened an online sales channel through its website www.doozyonline.com, which offers a comprehensive range of high-quality packaging products such as food and beverage containers, bags and wrapping paper, and e-commerce packaging, etc. The company has also collaborated with financial service providers to increase payment options, including QR codes, credit cards, e-Wallets, and Paywise, providing more convenience and security for online payments. SCGP has also partnered with service providers for inventory management and delivery, such as SCGL and My Cloud Fulfilment, to ensure fast and efficient delivery of products to consumers in good and complete condition.

In addition, Doozy Online has also started selling healthcare products under the brand "Almind by SCGP", which is made up of the main ingredient "AQUACELLA" extracted using SCGP's unique nanotechnology and innovation. The product helps to retain moisture and deliver essential ingredients deep into the skin for deep nourishment.

Strategy

- Engage in co-creation with business customer groups to create customer-oriented B2B2C services.
- Engage in co-creation with consumer customer groups to create B2C services.

Management

- Analysis and tracking of customer experiences, starting from understanding problems and needs, behaviors, purchasing and using products, services, and solutions, as well as surveying satisfaction with products, services, and solutions.
- Using digital technology to support services to partners, business partners, and all customer groups.
- Connecting customer experiences in the online channels and service center to create convenience and maximum satisfaction.
- Delivering innovative products, services, and solutions that meet customer needs consistently.



Sustainable Innovative Products

SCGP develops products that help customers reduce costs for competitiveness in the market and during economic downturns, while also promoting environmental sustainability in line with ESG principles.

- **TS-grade paper** for box production, which reduces weight while increasing strength, helps reduce production and transportation costs, leading to increased adoption of TS-grade paper instead of traditional KT-grade paper with 70% of customers making the switch.
- **EH-grade paper** for cement bag production, increasing the use of recycled paper instead of imported virgin fiber, reducing the risk of supply chain disruptions due to conflict, and reducing costs while promoting greater environmental sustainability.

The company has also launched "HOLIS", a brand of dietary supplements, which offers the "Holis by SCGP IM-MU Cap" product, a compact and easy-to-take capsule that combines three natural ingredients: Astaxanthin from Haematococcus Pluvialis extract from Japan, Yeast Beta Glucan from France, and Cordyceps militaris from SCGP, produced using SCGP's unique cultivation technology and certified under GMP quality assurance system. These products are available for purchase online through eMarket place platforms such as Shopee, Lazada, JD Central, 24 Shopping by 7-11, and social commerce platforms such as LINE My Shop and Facebook, making it more convenient for customers to access the products. They can also be purchased at leading retail stores such as Office Mate, B2S, Tops Vita, PnF, and Save Drug, etc.

- **SCGP Customer Services Center** can be reached at the phone number 02-586-5555. The company has consolidated its customer services contacts into a single phone number to improve service efficiency. In the year 2022, the company has developed a digital online Customer Services Center which can categorize customers into VIP, and new customers, and route them to the appropriate customer services representative. The center provides information on products and services, tracks order status and delivery, and can be reached through the LINE Official account @SCGPcontact. The customer service representatives are equipped to work on computers and provide continuous service, and there are shortcuts available for customers to access products and services of interest quickly.

Creating innovation together with customers through the Inspired Solutions Studio

SCGP collaborates with business customers to co-create innovative solutions and new offerings through Inspired Solutions Studio, which is a hub for idea generation and creative packaging and product design. In 2022, SCGP had many successful business customer collaboration projects, such as:

- **Doi Kham Food Products Co., Ltd.** collaborated with SCGP to design and develop Shelf Ready Packaging, replacing plastic packaging with paper because paper is lightweight, easy to move and save storage space, and can be reused and recycled easily.
- **Thai President Foods Co., Ltd. (Public Company)** partnered with SCGP to design and develop paper tubes and seasoning packets for instant noodle products (Mama) as a mono-material plastic packaging that can be recycled, reducing plastic waste and increasing competitiveness in the international market that has a ban on single-use plastic policy.

ESG for Customer

- **ESG Guideline Toolkit:** As customers become increasingly interested in the carbon emissions of pulp and paper products, SCGP has developed an ESG Guideline Toolkit in the form of an excel file. The toolkit provides basic information on carbon emissions and their impact on the environment, such as the use of recycled materials, and the amount of wood used per product, to support customers who are interested in ESG concepts and to make it easier for designers and customer service representatives to work.
- **SME Assistance:** Due to the volatile economy, SCGP has developed financial support tools for SMEs through Siam Validus investment platform and the Siam Saison financial service platform. These platforms serve as additional channels to improve the financial situation of SME partners and retailers in Thailand and Vietnam.

SCGP takes into account the security of customer privacy data and related parties. SCGP collects, uses, and discloses customer privacy data and complies with the requirements of the Personal Data Protection Act, B.E. 2562 (2019). In 2022, SCGP has no complaints about personal data breaches and incidents of personal data leakage.





PERFORMANCE

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About this report

SCGP has published the sustainability report on a yearly basis since 2019, with the intention to disseminate business performances in economic, social, and environmental dimensions to stakeholders. The reporting period is from January 1st, 2022, to December 31st, 2022.

Notable Changes and Developments in 2022

May 2022

Invested in corrugated container capacity expansion of additional 75,000 tons per year in Thailand through Thai Containers Group Co., Ltd. Commercial start-up is expected in early 2024.

July 2022

Acquired 100.0 % shares in Peute Recycling B.V. (Peute), the largest recycling company of paper and plastic packaging in the Netherlands.

August 2022

Issued the Digital Bonds no. 1/2022 (SCGP256A) on August 1st, 2022 in the amount of Bath 5,000 million (Tenor 2 Years 10 Months, Coupon Rate 2.80% per annum).

September 2022

Acquired 90.1% of shares in Jordan Trading Inc., (Jordan), a New York-based trader of Recovered Paper-RCP.

December 2022

Issued the debenture no. 2/2022 (SCGP26DA) on December 1st, 2022 in the amount of Baht 5,000 million (Tenor 4 Years, Coupon Rate 3.50% per annum).

Invested in consumer and performance packaging business expansion project in Thailand by Prepack Thailand Co., Ltd. through the purchase of assets in flexible packaging business from Cyberprint Group Co., Ltd., a multi-type printing and packaging service provider in Thailand, resulting in around 12% increment of Prepack's total production capacity.

Reporting Boundary

Data in this report consist of sustainable development performance data from 3 main business units (BU), which are the integrated packaging business, fibrous business, and recycling & others business. The SCGP and management are responsible for the data presented in this report concerning that these are beneficial for all stakeholders. There were changes to the Information already reported in the Sustainability Report 2021 as described below;

1. Page 87 of Social Performance data, the topic of "Female in management positions in revenue-generating functions (%)" and "Female in Science, Technology, Engineering, and Mathematics positions (STEM-related positions) (%)". There was a change in the calculation method, therefore, the data amendment was made during the year 2017-2021.
2. Page 93 of Economic Performance data, the topic of "Top 7 corporate sponsorship in 2021" changed from 2,447,321.15 baht to 2,462,438.17 baht.

This report is disclosed with reference to the revised Global Reporting Initiative Standard version 2021 (GRI Standard 2021) and modified GRI topic standard as shown in the GRI Content Index table on pages 96-99. Performance toward Sustainable Development Goals (SDGs) is shown on pages 18-19 as well as actions toward Sustainability Accounting Standards Board (SASB) on pages 100-101.

Economic Data The reporting scope is consistent with those disclosed in the SCGP annual report, performance data from Thailand and abroad companies in form of SCGP and its subsidiaries are included in this report except Circular Economy data which is taken from newly established (greenfield) companies (less than 4 years) and newly merged companies (less than 4 years).

Environment, Health & Safety Data

The reporting scope is performance data of SCGP and its subsidiaries in Thailand and abroad except expenses, investment, environmental benefit, and fine & law violations which were retrieved only from Thailand operations exclusive of newly established (greenfield) companies (less than 4 years) and newly merged companies (less than 4 years). This detail is presented on pages 94-95.

Sustainability Management System

To ensure that SCGP and its subsidiaries have a sustainability management system, various groups of industrial system standards had been certified such as Quality Management System (ISO 9001), Environmental Management System (ISO 14001),

Occupational Health and Safety Management System (OHSAS / TIS 18001 / ISO 45001) and Forest Stewardship Council™ (FSC™). In 2022, the companies granted 88% of ISO 9001, 96% of ISO 14001, 79% granted OHSAS / TIS 18001 / ISO 45001, and 97% granted FSC™.

FSC™ License Code of SCGP and its subsidiaries are tabulated below.

Company	FSC™ License Code
SCG Packaging Public Company Limited Fiber Packaging Product Group (Thailand & Aboard) Packaging Paper Product Group (Thailand & Aboard) Siam Nippon Industrial Paper Company Limited	FSC-C135609
Thai Paper Company Limited	FSC-C014429
The Siam Forestry Company Limited	FSC-C105470 FSC-C133879 FSC-C012207
Phoenix Pulp & Paper Public Company Limited	FSC-C015565

Report Assurance

The economic performance data retrieved from the financial data collection system is similar to those presented in the SCGP annual report which had been verified by a certified accounting firm.

The selected environmental, health, and safety data had been assured the integrity and consistency with reference to GRI Standards by an external third party, the detail provided in 94-95 pages.

We value your feedback. To share your thoughts on the disclosures and presentation in this report, please use the QR code below.



**You can download
an electronic copy of this report
as well as previous versions
from the SCGP website**

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Sustainability Performance Data

SCGP 2022 (Thai)

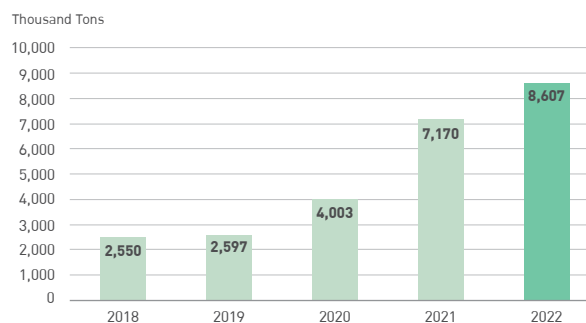
Environmental Performance

Production and Raw Materials

Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Production (Thousand Tons) *	3,439	3,442	3,359	5,700	5,548		RT-CP-000.A
Total Raw Materials (Thousand Tons) ^{EN0.1}	5,483	5,177	6,405	7,219	8,649	GRI 301-1	
Recycled Materials (Thousand Tons) ^{EN0.1}	2,550	2,597	4,003	4,420	3,916	GRI 301-2	RT-CP-410a.1
Renewable Materials (Thousand Tons) ^{EN0.1}	N/A	N/A	N/A	2,750	4,691	GRI 301-1	RT-CP-410a.1

* Within SGS (Thailand) limited assurance scope (page 94-95)

Recycled Materials and Renewable Materials

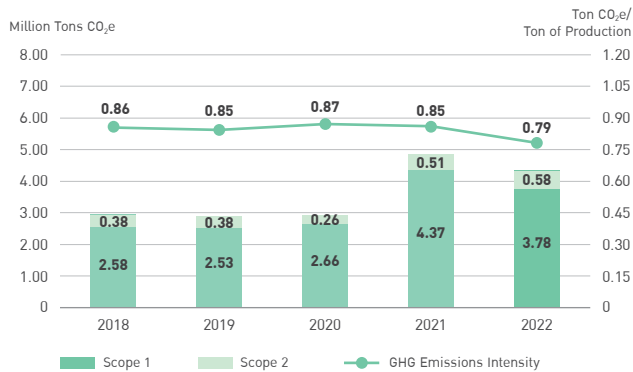


Greenhouse Gas Emissions

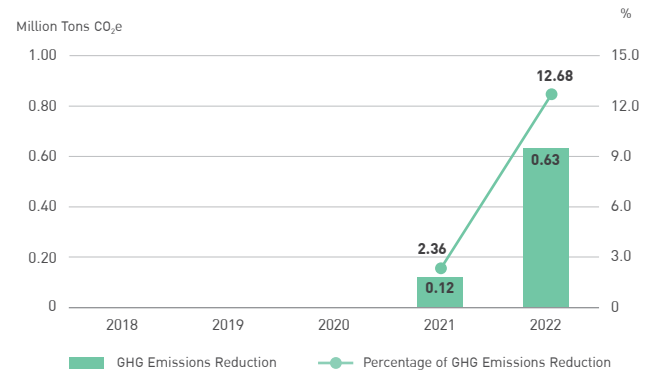
Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
GHG Scope 1 and 2 emissions (Million Tons CO ₂ equivalent) ^{EN1,*}	2.96	2.91	2.92	4.87	4.36		
GHG Scope 1 emissions (Million Tons CO ₂ equivalent) ^{EN1,*}	2.58	2.53	2.66	4.37	3.78	GRI 305-1	RT-CP-110a.1
CO ₂ emissions from biomass/biogenic (Million Tons CO ₂ equivalent) ^{EN1}	N/A	N/A	N/A	1.40	1.54	GRI 305-1	
GHG Scope 2 emissions (Million Tons CO ₂ equivalent) ^{EN1,*}	0.38	0.38	0.26	0.51	0.58	GRI 305-2	
• Market Based (Million Tons CO ₂ equivalent)	0.38	0.38	0.26	0.51	0.58		
• Location Based (Million Tons CO ₂ equivalent)	0.41	0.41	0.28	0.51	0.63		
GHG Scope 3 emissions (Million Tons CO ₂ equivalent) ^{EN1}	-	-	-	-	-	GRI 305-3	
GHG Scope 1 and 2 emissions intensity (Ton CO ₂ equivalent per Ton of Production)	0.86	0.85	0.87	0.85	0.79	GRI 305-4	
GHG Scope 1 intensity (Ton CO ₂ equivalent per Ton of Production)	0.75	0.74	0.79	0.77	0.68	GRI 305-4	
GHG Scope 2 intensity (Ton CO ₂ equivalent per Ton of Production)	0.11	0.11	0.08	0.09	0.10	GRI 305-4	
GHG Emission Reduction compared with the base year of 2020 (Million Tons CO ₂ equivalent) ^{EN1}	0.45	0.49	0.43	0.12	0.63	GRI 305-5	
GHG Emission Reduction compared with the base year of 2020 (%) ^{EN1}	13.22	14.45	12.79	2.36	12.68	GRI 305-5	
• GHG Emission Reduction from activities within organization (Million Tons CO ₂ equivalent)	N/A	N/A	N/A	N/A	0.63		
• GHG Emission Reduction from carbon offset activities (Million Tons CO ₂ equivalent)	N/A	N/A	N/A	N/A	-		

* Within SGS (Thailand) limited assurance scope (page 94-95)

Quantity and GHG Emissions Intensity



Quantity of GHG Emissions Reduction Compared with the Base Year of 2020

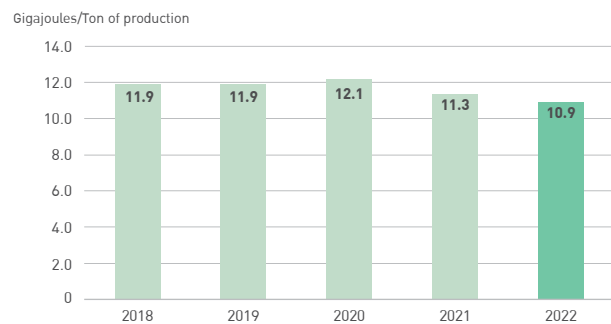


Energy Consumption

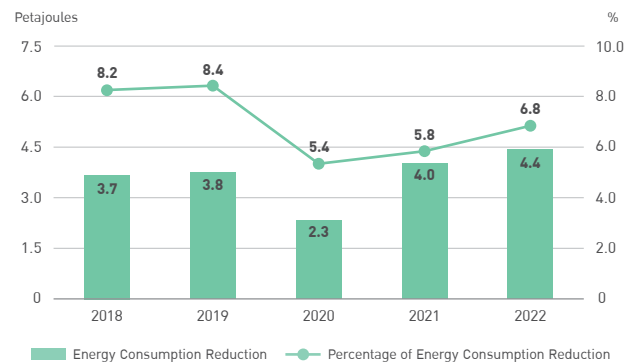
Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Fuel Consumption from Non-Renewable Sources (Petajoules) EN2,*	27.2	26.6	27.8	47.5	41.5	GRI 302-1	
Fuel Consumption from Renewable Sources (Petajoules) EN2,*	10.8	11.2	10.4	13.4	14.6	GRI 302-1	RT-CP-130a.1
Heating and Steam Consumption (Petajoules) EN2,*	1.7	1.7	1.7	1.5	1.4	GRI 302-1	RT-CP-130a.1
Electricity Consumption (Petajoules)	1.4	1.4	1.4	2.7	3.5	GRI 302-1	RT-CP-130a.1
Electricity Sold (Petajoules)	0.1	0.2	0.4	0.3	0.3	GRI 302-1	
Energy Consumption outside of the organization (Petajoules)	-	-	-	-	0.4	GRI 302-2	
Total Energy Consumption within the organization (Petajoules) EN2,*	41.0	40.8	40.8	64.7	60.4	GRI 302-1	RT-CP-130a.1
Total Energy Consumption Intensity (Gigajoules per Ton of Production)	11.9	11.9	12.1	11.3	10.9	GRI 302-3	
Energy Consumption Reduction compared with the base year of 2007 (Petajoules)	3.7	3.8	2.3	4.0	4.4	GRI 302-4	
Energy Consumption Reduction compared with the base year of 2007 (%)	8.2	8.4	5.4	5.8	6.8	GRI 302-4	

* Within SGS (Thailand) limited assurance scope (page 94-95)

Total Energy Consumption Intensity



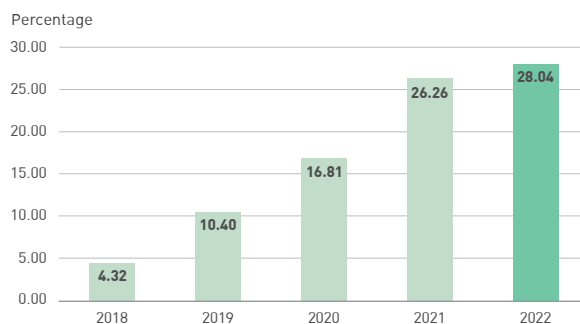
Energy Consumption Reduction Compared with the Base Year of 2007



Water Withdrawal and Effluent Quality

Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Total water withdrawal (Million Cubic Meter) ^{EN3,*}	65.49	61.32	54.77	78.8	72.8	GRI 303-3	RT-CP-140a.1
Water withdrawal from freshwater (TDS ≤ 1,000 mg/L) (Million Cubic Meter)							
• Surface water	21.10	19.50	17.08	34.2	32.0	GRI 303-3	RT-CP-140a.1
• Groundwater	44.00	41.41	30.64	39.8	36.5	GRI 303-3	RT-CP-140a.1
• Seawater	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Tap water or Third-party	0.40	0.41	0.42	4.8	4.3	GRI 303-3	RT-CP-140a.1
Water withdrawal from freshwater (TDS > 1,000 mg/L) (Million Cubic Meter) ^{EN3,*}							
• Surface water	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Groundwater	0.00	0.00	7.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Seawater	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Tap water or Third-party	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
Water withdrawal from freshwater (TDS ≤ 1,000 mg/L) in water stress area ^{EN3,*}							
• Surface water	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Groundwater	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Seawater	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Tap water or Third-party	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
Water withdrawal from freshwater (TDS > 1,000 mg/L) in water stress area (Million Cubic Meter) ^{EN3,*}							
• Surface water	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Groundwater	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Seawater	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
• Tap water or Third-party	0.00	0.00	0.00	0.00	0.00	GRI 303-3	RT-CP-140a.1
Water Withdrawal Reduction compare with business as usual at base year of 2014 (Million Cubic Meter)	2.96	7.12	11.07	28.08	28.35		RT-CP-140a.2
Water Withdrawal Reduction compare with business as usual at the base year of 2014 (%)	4.32	10.40	16.81	26.26	28.04		RT-CP-140a.2

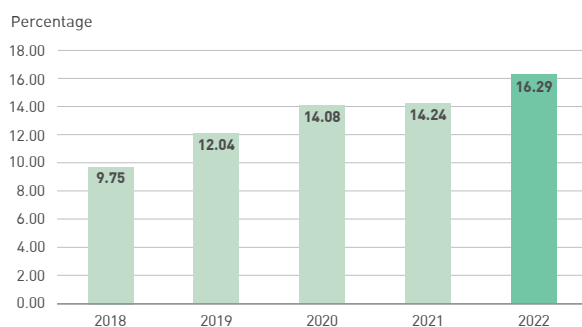
Water Withdrawal Reduction Compared with Business As Usual (BAU) at the base year of 2014



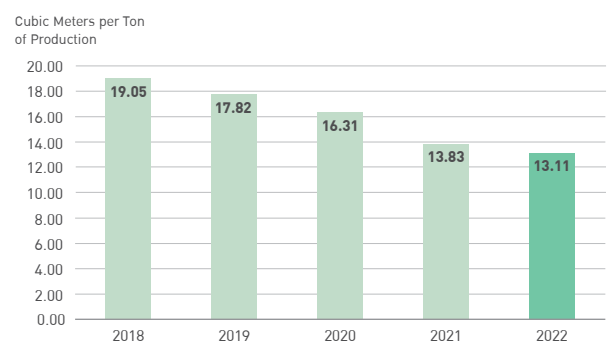
Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Recycle Water (Million Cubic Meter) *	7.07	8.39	8.97	15.86	14.16		RT-CP-140a.1
Proportion of Recycled Water (%)	9.75	12.04	14.08	14.24	16.29		RT-CP-140a.1
Water Withdrawal intensity (Cubic Meter per Tons Production)	19.05	17.82	16.31	13.83	13.11		RT-CP-140a.2
Water Withdrawal Target compare with business as usual at base year of 2014 (Million Cubic Meter)	68.45	68.44	65.84	106.88	101.11		RT-CP-140a.2
Water Withdrawal intensity Target (Million Cubic Meter per Tons Production)	19.91	19.88	19.60	18.75	18.22		RT-CP-140a.2
Water discharge to any sources ^{EN3,*}							
• surface water (Million Cubic Meter)	N/A	43.80	30.84	58.13	58.32	GRI 303-4	
• groundwater (Million Cubic Meter)	N/A	N/A	1.16	0.00	0.00	GRI 303-4	
• seawater (Million Cubic Meter)	N/A	N/A	0.00	0.00	0.00	GRI 303-4	
• third-party water (total) (Million Cubic Meter)	N/A	N/A	4.69	3.94	3.06	GRI 303-4	
• Third-party water sent for use to other organizations (Million Cubic Meter)	N/A	N/A	4.62	3.81	2.91	GRI 303-4	
Total water discharge (Million Cubic Meter) ^{EN3,*}	N/A	43.80	36.69	62.06	61.39	GRI 303-4	
Water discharge to freshwater (TDS ≤ 1,000 mg/L) (Million Cubic Meter) ^{EN3,*}	N/A	N/A	4.31	19.14	14.57	GRI 303-4	
Water discharge to other water (TDS > 1,000 mg/L) (Million Cubic Meter) ^{EN3,*}	N/A	N/A	32.39	42.93	46.82	GRI 303-4	
Water discharge to freshwater (TDS ≤ 1000 mg/L) in water stress area (Million Cubic Meter) ^{EN3,*}	N/A	N/A	0.00	0.00	0.00	GRI 303-4	
Water discharge to other water (TDS > 1,000 mg/L) in water stress area (Million Cubic Meter) ^{EN3,*}	N/A	N/A	0.00	0.00	0.00	GRI 303-4	
BOD (Tons) ^{EN3}	214	147	153	1,460	666		
COD (Tons) ^{EN3}	5,074	4,224	3,623	8,093	6,020		
TSS (Tons) ^{EN3}	792	572	505	1,155	999		

* Within SGS (Thailand) limited assurance scope (page 94-95)

Proportion of Recycled Water



Quantity of Water Withdrawal



Industrial Waste Management

Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Hazardous Waste Generation (Thousand Tons) ^{EN4,*}	1.61	2.00	2.66	63.95	48.36	GRI 306-3	RT-CP-150a.1
Hazardous Waste Generation intensity (Kilograms per Ton of Production)	0.47	0.58	0.79	11.20	8.72		
Hazardous Waste Management ^{EN4,*}							
• Reuse / Recycled / Other Recovery / Incineration with Energy Recovery (Thousand Tons)	1.24	1.77	2.66	50.24	39.45	GRI 306-4 GRI 306-5	RT-CP-150a.1
• Incinerated without energy recovery (Thousand Tons)	0.32	0.06	0.02	0.06	0.21	GRI 306-5	RT-CP-150a.1
• Landfilled (Tons)	0.00	0.00	0.77	14,804	8,731	GRI 306-5	RT-CP-150a.1
Hazardous Waste in the storage at the end of year (Thousand Tons) ^{EN4}	N/A	0.13	0.11	0.18	1.18		RT-CP-150a.1
Non Hazardous Waste Generation (Thousand Tons) ^{EN4,*}	1,065.08	1,053.91	1,042.74	1,488.86	1,467.01	GRI 306-3	
Non Hazardous Waste Generation intensity (Kilograms per Ton of Production)	309.74	306.19	310.40	261.20	264.43		
Non Hazardous Waste Management ^{EN4,*}							
• Reuse / Recycled / Other Recovery / Incineration with Energy Recovery (Thousand Tons)	1,011.10	1,074.48	1,064.32	1,469.91	1429.44	GRI 306-5 GRI 306-4	
• Incinerated without energy recovery (Thousand Tons)	0.40	0.28	0.00	36.05	36.04	GRI 306-5	
• Landfilled (Tons)	0.00	0.00	0.00	2,945.86	3,505.06	GRI 306-5	
Non Hazardous Waste in the storage at the end of year (Thousand Tons) ^{EN4}	N/A	145.22	123.63	103.10	105.12		

Air Emissions

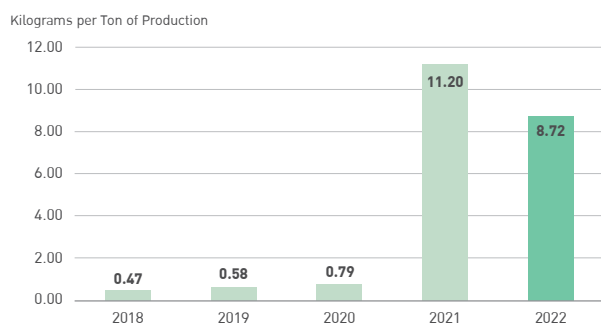
Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Oxides of Nitrogen (Thousand Tons) ^{EN5,*}	2.86	2.48	2.97	3.83	3.79	GRI 305-7	RT-CP-120a.1
Oxides of Sulfur (Thousand Tons) ^{EN5,*}	2.20	1.81	2.57	3.80	3.67	GRI 305-7	RT-CP-120a.1
Particulate Matter (Thousand Tons) ^{EN5,*}	0.39	0.34	0.31	0.95	0.90	GRI 305-7	RT-CP-120a.1

Environmental Expenditures and Benefits/Violations of Legal Obligations and Regulations

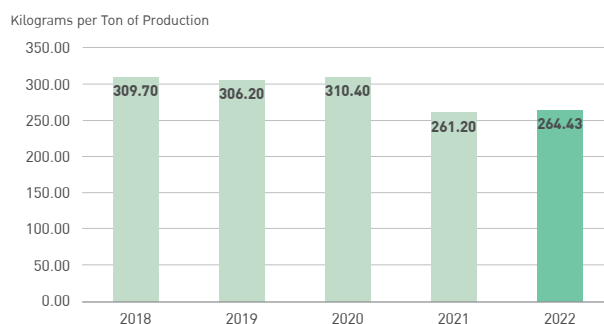
Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Operating Expenses-Environment (Million Baht)	722	681	742	739	1,005		
Capital Investments-Environment (Million Baht)	347	383	330	512	310		
Tax Incentives linked to environment investment ^{EN6}	19	17	8	70	56		
Number of violations of legal obligations/regulations (Number of Cases) ^{EN7}	0	0	0	0	0	GRI 2-27	
Amount of fines/penalties related to the above (Baht) ^{EN7}	0	0	0	0	0	GRI 2-27	
Environmental liability accrued at year end (Baht) ^{EN7}	0	0	0	0	0	GRI 2-27	

* Within SGS (Thailand) limited assurance scope (page 94-95)

Hazardous Waste Generation per Ton of Production



Non Hazardous Waste Generation per Ton of Production



Waste diverted from disposal- Thailand, GRI 306-4*

2022 (Tons)

	In SCGP		Out SCGP		Total
	Factory	In SCGP	In SCG	Out SCG	
Hazardous waste					
Reuse	0.00	0.00	0.00	290.46	290.46
Recycling	2.85	0.00	39.46	29,268.47	29,310.78
Other recovery operations	0.00	0.00	0.00	239.94	239.94
Treatment	0.00	0.00	0.00	0.00	0.00
Total	2.85	0.00	39.46	29,798.88	29,841.19
Non Hazardous Waste					
Preparation for reuse	1376.96	5,201.96	0.00	12,346.29	18,925.21
Recycling	74,579.05	447,575.99	57,855.68	387,487.02	967,497.74
Other recovery operations	0.00	0.00	0.00	3.78	3.78
Treatment	0.00	0.00	0.00	0.00	0.00
Total	75,956.01	452,777.95	57,855.68	399,837.09	986,426.73

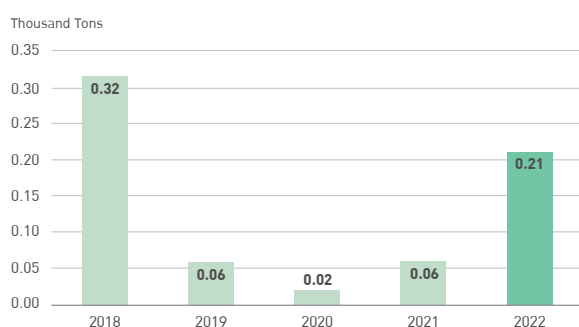
Waste directed to disposal-Thailand, GRI 306-5*

2022 (Tons)

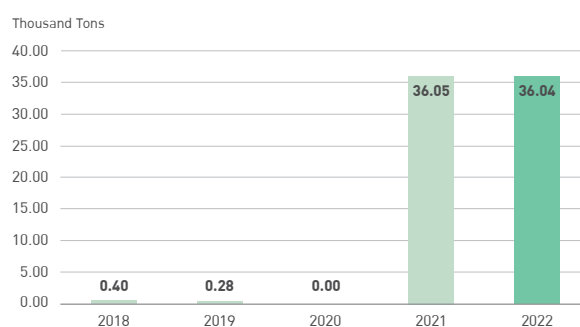
	In SCGP		Out SCGP		Total
	Factory	In SCGP	In SCG	Out SCG	
Hazardous waste					
Incineration (with energy recovery)	7,192.09	0.00	0.00	2,413.06	9,605.15
Incineration (without energy recovery)	0.00	0.00	0.00	31.01	31.01
Landfilling	0.00	0.00	0.00	8,731.16	8,731.16
Other disposal operations	0.00	0.00	0.00	182.68	182.68
Total	7,192.09	0.00	0.00	11,357.91	18,550.00
Non Hazardous Waste					
Incineration (with energy recovery)	274,718.59	21,887.97	16,272.53	130,136.85	443,015.94
Incineration (without energy recovery)	0.00	0.00	0.00	35,526.32	35,526.32
Landfilling	0.00	0.00	0.00	3,505.06	3,505.06
Other disposal operations	0.00	0.00	0.00	510.08	510.08
Total	274,718.59	21,887.97	16,272.53	169,678.31	482,557.40

* Within SGS (Thailand) limited assurance scope (page 94-95)

Hazardous Waste Management Incinerated without Energy Recovery



Non Hazardous Waste Management Incinerated without Energy Recovery



EN0.1	Production and Raw Materials
	<ol style="list-style-type: none"> 1. Total raw material and recycled raw material during 2018 - 2020, this included leftover paper used as raw material for Thailand and abroad. 2. For the year 2021-2022, the total raw material, recycled raw material, renewable raw material are reported separately according to their usage location covering Thailand and abroad. 3. Production data from abroad companies has been included since 2022. 4. In 2022, production and raw material data of Siam Nippon Industrial Paper Co., Ltd. are excluded.
EN1	EN1 Greenhouse Gas
	<p>Greenhouse gas means the amount of greenhouse gas emission from operations calculated in accordance with the WRI / WBCSD GHG Emissions Protocol "Greenhouse Gas Reporting and Calculation Guidelines", including calculation tools from the International Council of Forest and Paper Associations (ICGPA) as follows</p> <p>1. Scope of reporting</p> <p>1.1 Direct Greenhouse Gas emission (Scope 1)</p> <p>It is generated from the production process or various sources under control or own by a company or factory, such as the emission of greenhouse gas from stationary combustion source, greenhouse gas emissions from mobile combustion sources and greenhouse gas emissions from chemical reactions. Carbon dioxide emissions occurring from biomass burning and Lime Mud burning at Lime Kiln are reported separately from Scope 1 because the carbon contained in biomass, biogas and lime is from natural origin.</p> <p>1.2 Greenhouse gas indirectly generated (Scope 2)</p> <p>It is generated by indirect greenhouse gas emissions from energy use, e.g. the amount of greenhouse gases generated from electricity, heat or steam imported from outside for internal consumption.</p> <p>1.3 Greenhouse gas indirectly generated (Scope 3)</p> <p>It is generated from other indirect greenhouse gas emissions arising from activities other than those specified in Scope 1 and 2 (Existing During the study and collecting information in the section Transportation, Processing of sold products, use of sold products, End-of-life treatment of sold products).</p> <p>1.4 Carbon dioxide emission from biomass/biogas combustion (Biogenic CO₂)</p> <p>It is generated from biomass/biogas combustion such as, biomass, wastewater sludges, biogas, black liquor from pulp production.</p> <p>2. Volume reporting</p> <p>2.1 Calculation of direct greenhouse gas emissions from production processes (Scope 1)</p> <ul style="list-style-type: none"> • Combustion sources. • Report based on fuel consumption (By weight or volume), e.g. oil or natural gas x emission values referenced from the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO) Other than TGO refer to "Intergovernmental Panel on Climate Change 2006", (IPCC). • Report based on fuel consumption. (Based on heat value) such as coal content x heat value x TGO-referenced greenhouse gas emissions in the event other than TGO Other than TGO refer to "Intergovernmental Panel on Climate Change 2006", (IPCC). <p>2.2 Calculation of indirect greenhouse gas emission (Scope 2) from amount of purchased electricity or steam x emission factor from TGO/ producer/ seller.</p> <p>2.3 In 2021, SCGP has set target to reducing Greenhouse gas emissions at least 20% by 2030 compared with the base year of 2020 (4.99 million tons CO₂e), both Thailand and abroad companies.</p> <p>2.4 Greenhouse gas data from abroad companies has been included since 2021.</p> <p>2.5 In 2022, greenhouse gas data from Siam Nippon Industrial paper Co., Ltd. was excluded which could cause insignificant uncertainty (<0.05%) in greenhouse gas calculation.</p> <p>3. Greenhouse gas emissions reporting</p> <p>Greenhouse gas emissions are reporting covers CO₂ CH₄ N₂O, HFCs, PFCs and SF₆, calculated and displayed in the form of carbon dioxide equivalent to the Global Warming Potential (GWP) set by the IPCC.</p>
EN2	Energy
	<p>Total energy consumption includes all thermal, steam and electricity used in the company/factory areas. For the details on thermal energy presents the amount of renewable fuel, non-renewable fuel and electricity sold to outside and subsidiaries of SCGP</p> <ol style="list-style-type: none"> 1. Thermal energy consumption = fuel weight or steam volume (Based on the volume purchased or stockpile changed) x Low Heating Value (provided by laboratory test or suppliers). 2. Electrical energy consumption = energy used in form of electrical currents that purchased from outsources electrical generators for companies/ plants' activities and does not account self-generated electricity from fuel combustion since it can be considered as double-count for thermal energy. 3. Renewable fuel = biomass, sludge from wastewater treatment process, black liquor and biogas. 4. Biomass = fuel from wood chips, bark and bagasse. 5. Non-renewable fuel = fossil fuels and waste material rejects from the production process, which produced from fossil fuels such as waste reject and used oil. 6. Renewable energy = Clean energy derived from nature are biomass (Biomass, Biogas, Sludge, Black Liquor), solar energy, wind power, hydropower, geothermal energy to be used as a replacement for energy from fossil fuels. 7. Non-renewable energy = energy from fossil fuels and steam purchased which is produced from fossil fuels. 8. Energy data from abroad companies has been included since 2021. 9. In 2022, energy data of Siam Nippon Industrial Paper Co., Ltd. is excluded.

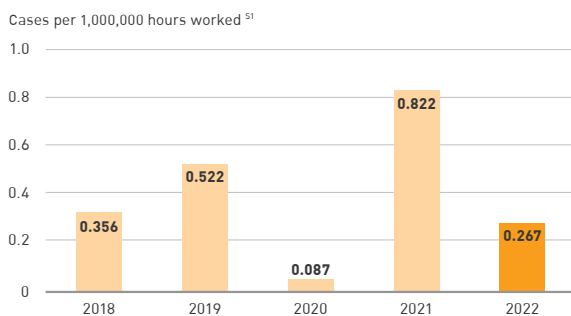
EN3	Water
	<p>1. Water management (water withdrawal, water discharge, water treatment and water recycling) is considered in order to assess efficiency of water from various sources.</p> <p>2. Water withdrawal is the quantity of fresh water taken from external sources for used in production process, offices, maintenance and utilities. Sources of water are divided into 5 type: surface water, groundwater, sea water, tap water and recycled water- the treated water returned to the process. It is obtaining data from accounting evidences or meter reading.</p> <p>3. Effluent water quality is the quality of water discharged to external by measuring the Total Dissolved Solids (TDS). According to the standard methods to categorize the quality of water sources, there are 2 types of effluent water quality as follows.</p> <ul style="list-style-type: none"> • Freshwater TDS is less than or equal to 1,000 milligrams per litre. • Other water TDS more than 1,000 milligrams per litre <p>4. Water recycling, the reused water in a factory's activities after treatment processes, excluding water that has not undergone the treatment process.</p> <p>5. Effluent water quality is the quality of water discharged to external sources, such as BOD COD and Total Suspended Solids (TSS) with the quality of discharged water measured by a standard test method and volume of released water.</p> <p>6. Water source quality is the quality of various water sources by measuring the Total Dissolved Solids (TDS). According to the standard methods to categorize the quality of water sources into 2 types as follows.</p> <ul style="list-style-type: none"> • Freshwater TDS is less than or equal to 1,000 milligrams per litre. • Other water TDS more than 1,000 milligrams per litre. <p>7. Water data from abroad companies has been included since 2021.</p> <p>8. In 2022, water data of Siam Nippon Industrial Paper Co., Ltd. is excluded.</p>
EN4	Industrial Waste
	<p>Waste Management is considered to assess the production process efficiency, product quality improvement, and a decrease in production cost. SCGP has established "Waste Reporting Guideline" since March 2010 for waste data collection and calculation.</p> <p>The quantity of industrial waste is the amount of waste generated from the production process, excluding the waste that can be recycled in the production process (Work in process, WIP). Industrial wastes are divided into 2 categories comprising hazardous waste and non-hazardous waste as listed in the Ministry of Industry's 2005 Decree on the Disposal of Wastes and Unused Materials.</p> <p>Quantification Report</p> <p>1. Waste Generation means waste or unused material at the place of origin or before entering the waste storage building is compiled from weighting scale or estimation.</p> <p>2. Industrial waste stock refers to the amount of waste that occurs but not yet managed or collected in storage areas is compiled from weighting scale or estimation.</p> <p>3. Waste Manage refers to the amount of waste, to be managed both inside and outside SCGP compiled from weighting scale only.</p> <p>4. SCGP's internal waste management (Onsite) means waste management operated by companies within the scope of SCGP's management.</p> <p>5. SCGP's external waste management (Offsite) means waste management operated by companies outside the scope of SCGP's management.</p> <p>6. Amount of waste during 2017-2020 were reported following GRI 306-2, 2006.</p> <p>7. Amount of waste since from 2021 has been reported following GRI 306-2, 2020.</p> <p>8. Data from 2021 onward is inclusive of data from abroad.</p> <p>9. In 2021, waste management data of Siam Nippon Industrial Paper is excluded.</p>
EN5	Air Emissions
	<p>Air emissions are the quantity of air pollution such as NO_x, SO_x, and Particulate Matter deriving from combustions and being the components during the production process. Types of air pollutants depend upon each production process in which chemical substance is produced. The result and measurement method shall refer to the method required by laws such as US EPA or equivalent standard.</p> <p>1. Reporting on air emission quantity will be calculated based on concentration measured from random Spot Check conducted by laboratories certified and registered to the Department of Industrial Works, multiplied by hot air flow rate and production hours. Besides, SCGP measures the stack's emissions using continuous Emission Monitoring Systems (CEMs).</p> <ul style="list-style-type: none"> • Fiber-based Packaging business and Performance Packaging business measure the air emissions from stacks by random Spot Check method on actual conditions by certified laboratory and registered with Department of Industrial Works. • Food Packaging Paper and Pulp & Paper Packaging business measures the air emissions from stacks by Continuous Emission Monitoring System (CEM). <p>2. In 2021, SCGP set the target to reduce the intensity emission of air pollution (Particulate matter, Sulfure Oxide (SO_x), Nitrogen oxide (NO_x)) per ton of production 5% by 2025 and 10% by 2030 compared with the base year of 2020, both Thailand and abroad companies. In 2020, Thailand and abroad companies have air emission intensity as follows;</p> <ul style="list-style-type: none"> • Oxide of Nitrogen 0.702 kg per ton of production • Oxide of Sulfur 0.696 kg per ton of production • Particulate Matter 0.178 kg per ton of production <p>3. Air Emission data from abroad companies has been included since 2021.</p> <p>4. In 2022, air emission data of Siam Nippon Industrial Paper Co., Ltd. is excluded.</p>
EN6	Tax priveledge from Board of Investment (BOI) for environmental project
EN7	Amount of Fines or Compare Fines in case of violation of Legal binding/regulatory obligations are over USD 10,000
	<p>1. In 2022, the report does not include the number/amount of fines in cases of legal obligations, regulations violations exceeding 10,000 USD imposed on Siam Nippon Industrial Paper Co., Ltd.</p>

Social Performance

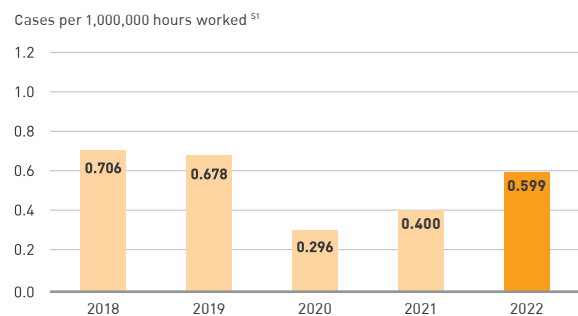
Health and Safety

Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Lost Time Injury Frequency Rate : LTIFR (Cases per 1,000,000 hours worked) ^{S1,*}							
• Employee	0.356	0.522	0.087	0.822	0.267		
• Contractor	0.706	0.678	0.296	0.400	0.599		
Injury Severity Rate: ISR (Cases per 1,000,000 hours worked) ^{S1}							
• Employee	4.528	10.200	0.831	7.644	2.241		
• Contractor	7.109	8.098	8.155	6.858	18.853		
Total Number of Work-Related Fatalities (Cases) ^{S1,*}							
• Employee (male : female)	0 : 0	0 : 0	0 : 0	1 : 0	0 : 0	GRI 403-9	
• Contractor (male : female) [Workplace and Direct Transportation]	1 : 0	0 : 0	0 : 0	1 : 0	0 : 0	GRI 403-9	
Total Number of Fatalities from Work-Related in Workplace (Cases) ^{S1,*}							
• Employee (male : female)	0 : 0	0 : 0	0 : 0	1 : 0	0 : 0	GRI 403-9	
• Contractor (male : female)	1 : 0	0 : 0	0 : 0	1 : 0	0 : 0	GRI 403-9	
Total Number of Fatalities from Work-Related in Transportation (Cases) ^{S1,*}							
• Employee (male : female)	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	GRI 403-9	
• Direct Transportation Contractor (male : female)	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	GRI 403-9	
• Other Transportation Contractor (male : female)	0 : 0	2 : 0	0 : 0	0 : 0	0 : 0	GRI 403-9	
Number of Fatalities as a result of Work-Related Injury (Cases) ^{S1,*}							
• Employee	0	0	0	1	0	GRI 403-9	
Fatalities as a result of Work-Related Injury Rate (Cases per 1,000,000 hours worked) ^{S1,*}							
• Employee	0.000	0.000	0.000	0.027	0.000	GRI 403-9	
Number of Fatalities as a result of Work-Related Injury (Cases) ^{S1,*}							
• Contractor	1	0	0	1	0	GRI 403-9	
Fatalities as a result of Work-Related Injury Rate (Cases per 1,000,000 hours worked) ^{S1,*}							
• Contractor	0.050	0.000	0.000	0.027	0.000	GRI 403-9	
Number of High Consequence Work-Related Injury (Cases) ^{S1,*}							
• Employee	N/A	N/A	0	2	1	GRI 403-9	
High Consequence Work-Related Injury Rate (Cases per 1,000,000 hours worked) ^{S1,*}							
• Employee	N/A	N/A	0.000	0.055	0.027	GRI 403-9	
Number of High Consequence Work-Related Injury (Cases) ^{S1,*}							
• Contractor	N/A	N/A	1	2	2	GRI 403-9	
High Consequence Work-Related Injury Rate (Cases per 1,000,000 hours worked) ^{S1,*}							
• Contractor	N/A	N/A	0.027	0.053	0.063	GRI 403-9	
Number of Recordable Work-Related Injury (Cases) ^{S1,*}							
• Employee	30	30	23	67	53	GRI 403-9	

Lost Time Injury Frequency Rate : LTIFR (Employee)



Lost Time Injury Frequency Rate : LTIFR (Contractor)



Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Recordable Work-Related Injury Rate (Cases per 1,000,000 hours worked) ^{S1,*} • Employee	1.526	1.423	1.006	1.836	1.414	GRI 403-9	
Number of Recordable Work-Related Injury (Cases) ^{S1,*} • Contractor	50	43	27	48	56	GRI 403-9	
Recordable Work-Related Injury Rate (Cases per 1,000,000 hours worked) ^{S1,*} • Contractor	2.521	1.823	0.727	1.281	1.765	GRI 403-9	
Hours worked (Hrs.) ^{S1,*} • Employee	19,654,401	21,078,805	22,869,683	36,498,929	37,481,036	GRI 403-9	
• Contractor	19,833,700	23,585,144	37,155,610	37,471,979	31,719,780	GRI 403-9	
Number of Occupational Illness & Disease (Cases) * • Employee	0	0	0	0	0	GRI 403-10	
• Contractor	0	0	0	0	0	GRI 403-10	
Number of Recordable Occupational Illness & Disease (Cases) * • Employee	0	0	0	0	0	GRI 403-10	
• Contractor	0	0	0	0	0	GRI 403-10	
Occupational Illness & Disease Frequency Rate (Cases per 1,000,000 hours worked) ^{S1,*} • Employee	0	0	0	0	0	GRI 403-10	

* Within SGS (Thailand)'s limited assurance scope (Page 94-95)

Employee and Social Development

Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Number of Employees (Persons) ^{S2}	6,748	6,660	6,416	23,341	22,289	GRI 2-7	RT-CP-000.C
• By Gender (Female : Male)	N/A	N/A	N/A	N/A	5,166 : 17,123		
• By Age Group (under 30 yr : 30 - 50 yr : over 50 yr)	N/A	N/A	N/A	N/A	5,854 : 12,311 : 4,124		
Female share of total workforce (%)	16.9	16.9	17.5	17.9	21.9	GRI 405-1	
Female in all management positions (%)	18.9	19.6	20.6	21.2	24.4	GRI 2-7	
Female in junior management positions (%)	20.8	21.3	23.0	23.5	23.5		
Female in top management positions (%)	6.3	10.5	7.7	8.1	8.9		
Female in management positions in revenue-generating functions (%) ^{S3}	20.1	20.1	19.6	18.2	18.0		
Female in Science, Technology, Engineering and Mathematics positions (STEM-related positions) (%)	N/A	N/A	N/A	42.1	40.9		
Proportion of local senior management (%) ^{S4}	0.6	0.9	0.8	0.7	0.7	GRI 202-2	
Average salary of Executive Level (base salary only) (Baht) * • Female	0	0	0	0	0	GRI 405-2	
• Male	6,342,000	6,723,000	6,844,000	5,368,444	6,774,800	GRI 405-2	
Ratio of average salary of female to male (Executive Level) (base salary only)*	0	0	0	0	0	GRI 405-2	
Executive level (base salary + other cash incentives) (Baht)* • Female	N/A	N/A	N/A	0	0	GRI 405-2	
• Male	N/A	N/A	N/A	8,955,339	11,029,875	GRI 405-2	
Ratio of average salary of female to male (Executive Level) (base salary + other cash incentives)*	N/A	N/A	N/A	0	0	GRI 405-2	

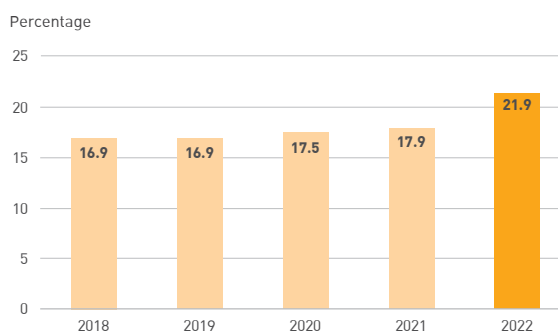
Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Average salary of Management Level (base salary only) (Baht)*							
• Female	2,203,000	2,363,000	2,331,000	2,208,303	2,233,090	GRI 405-2	
• Male	2,403,000	2,458,000	2,501,000	2,187,859	2,431,474	GRI 405-2	
Ratio of average salary of female to male (Management Level) (base salary only)*	0.917	0.961	0.932	1.009	0.918	GRI 405-2	
Average salary of Management Level (base salary + other cash incentives) (Baht)*							
• Female	3,148,000	3,170,000	3,143,000	2,942,157	3,176,664	GRI 405-2	
• Male	3,650,000	3,485,000	3,585,000	3,132,744	3,658,904	GRI 405-2	
Ratio of average salary of female to male (Management Level) (base salary+other cash incentives)*	0.862	0.910	0.877	0.939	0.868	GRI 405-2	
Average salary of Non-management Level (base salary only) (Baht)*							
• Female	533,000	563,000	584,000	584,901	596,741	GRI 405-2	
• Male	442,000	461,000	478,000	476,272	493,696	GRI 405-2	
Ratio of average salary of female to male (Non-management Level) (base salary only)*	1.206	1.221	1.222	1.228	1.209	GRI 405-2	
Average salary of Non-management Level (base salary + other cash incentives) (Baht)*							
• Female	N/A	N/A	N/A	792,075	820,962	GRI 405-2	
• Male	N/A	N/A	N/A	773,453	778,892	GRI 405-2	
Ratio of average salary of female to male (Non-management Level) (base salary + other cash incentives)*	N/A	N/A	N/A	1.024	1.054	GRI 405-2	
Number of employees with disability (person) ^{S5}	N/A	N/A	N/A	76	87		
Employees with disability share of total workforce (%)	N/A	N/A	N/A	0.86	0.39	GRI 405-1	
Employees represented by an independent trade union or covered by collective bargaining agreements (%) ^{S6}	100	100	100	100	100	GRI 2-30	
Number of new employees hire (Persons)	245	174	133	723	1,259	GRI 401-1	
New employees hire of total workforce (%)	3.6	2.6	2.1	5.0	5.6	GRI 401-1	
• By Gender (Female : Male) (%)	N/A	N/A	N/A	N/A	47 : 53		
• By Age Group (under 30 yr : 30-50 yr : over 50 yr) (%)	N/A	N/A	N/A	N/A	79.5 : 20.3 : 0.2		
• By Region (ASEAN / Non-ASEAN) (%)	N/A	N/A	N/A	N/A	100 : 0		
Number of open positions filled by internal candidates (Rotation/Promotion) (Persons)	N/A	N/A	N/A	N/A	688		
Open positions filled by internal candidates (Rotation/Promotion) of total workforce (%)	N/A	N/A	N/A	N/A	4.76		
• By Gender (Female : Male) (%)	N/A	N/A	N/A	N/A	30 : 70		
• By Age Group (under 30 yr : 30-50 yr : over 50 yr) (%)	N/A	N/A	N/A	N/A	11 : 73 : 16		
Average hiring cost of new employee (Baht/Person)	N/A	N/A	N/A	41,781	62,842		
Voluntary employee turnover (Persons)	235	228	289	1,054	920	GRI 401-1	
Voluntary employee turnover rate (%)	3.5	3.4	4.5	7.2	4.1	GRI 401-1	
• By Gender (Female : Male) (%)	N/A	N/A	N/A	N/A	40 : 60		
• By Age Group (under 30 yr : 30-50 yr : over 50 yr) (%)	N/A	N/A	N/A	N/A	49 : 48 : 3		
• By Region (ASEAN / Non-ASEAN) (%)	N/A	N/A	N/A	N/A	100 : 0		
Total employee turnover (Persons)	242	238	475	1,115	1,300	GRI 401-1	
Total employee turnover rate (%)	3.6	3.6	7.4	7.6	5.8	GRI 401-1	
• By Gender (Female : Male) (%)	N/A	N/A	N/A	N/A	50 : 50		
• By Age Group (under 30 yr : 30-50 yr : over 50 yr) (%)	N/A	N/A	N/A	N/A	47 : 42 : 11		
• By Region (ASEAN / Non-ASEAN) (%)	N/A	N/A	N/A	N/A	100 : 0		
Number of employees taken parental leave (Persons) ^{S7}	30	42	34	42	90	GRI 401-3	
Number of employees returned to work after parental leave (Persons)	30	41	34	39	87	GRI 401-3	

Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Employee engagement level (%)	74	74	80	76	76		
• By Age Group (Gen-X / Gen-Y / Gen-Z / BB) (%)	N/A	N/A	N/A	N/A	82 : 72 : 76 : 86		
• By Region (ASEAN / Non-ASEAN) (%)	N/A	N/A	N/A	N/A	81 : 56		
Average training and development of employee (Hours/Person)	48	42	24	12	15	GRI 404-1	
• By Gender (Female : Male) (Hours/Person)	N/A	N/A	N/A	N/A	16 : 15		
• By Employee level (Operation : Supervisory : Management) (Hours/Person)	N/A	N/A	N/A	N/A	9 : 35 : 31		
Average mandatory training and development program of employee (Hours/Person)	N/A	N/A	N/A	N/A	6		
Average non-mandatory training and development of employee (Hours/Person)	N/A	N/A	N/A	N/A	9		
Percentage of employee who have received training in the organization's human rights policies (%)	N/A	N/A	N/A	N/A	100	GRI 410-1	
Average cost of hiring a new employee (Baht/Person)	50,920	31,617	20,387	10,082	7,301		
• By Gender (Female : Male) (Baht/Person)	N/A	N/A	N/A	N/A	1,979 : 5,322		
• By Age Group (under 30 yr : 30-50 yr : over 50 yr) (Baht/Person)	N/A	N/A	N/A	N/A	945 : 4,873 : 1,483		
Employee volunteering during paid working hours (Million Baht)	4	3	4	2	15		
In-kind giving: product or services donations, projects/partnerships or similar (Million Baht)	28	11	7	29	7		
Management overheads related to CSR activity (Million Baht)	22	26	34	25	42		
Contribution for social and community development (Million Baht)	N/A	N/A	N/A	N/A	43	GRI 201-1	

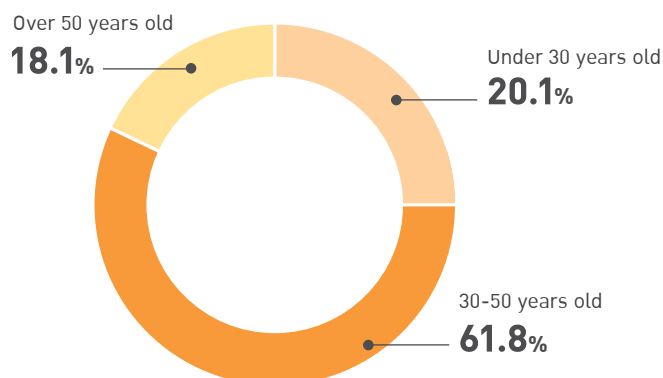
* Within SGS (Thailand)'s limited assurance scope (Page 94-95)

Remark: In 2022, Social Performance data is reported within the Sustainability Report's scope except the number of employee which reported within the Annual Report's scope. In addition, social performance data of Siam Nippon Industrial Paper Co., Ltd. is excluded.

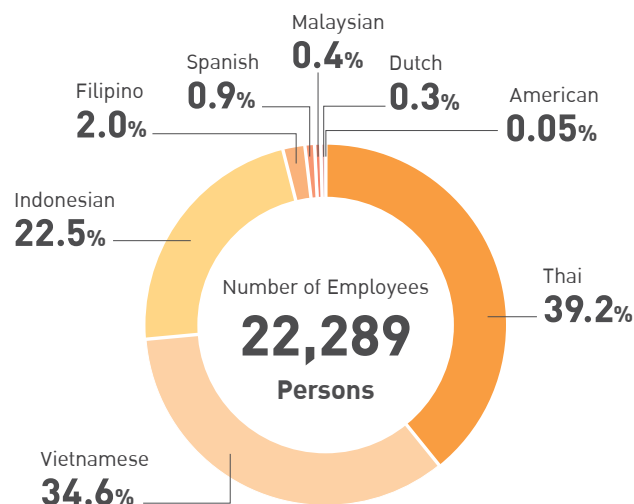
Female Share of Total Workforce



Percentage of Employees by Age



Percentage of Employees by Nationality



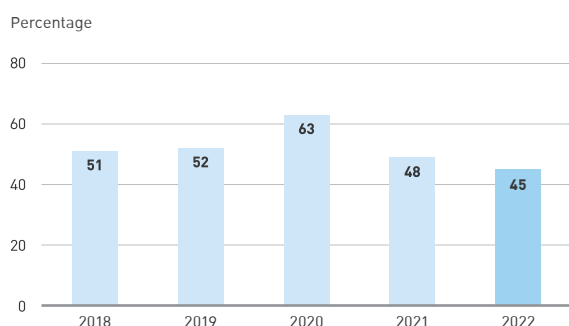
S1	Data on Number of Employees and Contractors <p>1. Employee is a full-time employee according to an employment contract such as operational level, supervisory and technical staff level, and managerial level including intern (probationary) and special contracted employee.</p> <ul style="list-style-type: none"> • Operator staffs are employees who use skills and techniques in their daily work. • Supervisory and professional staff are employees with specific duties or have subordinates at the operational level. • Management staffs are executives responsible for formulating strategies or policies and accountable for allocating work and overseeing subordinates to perform their duties according to the policy and daily work. • Special Contracts are those who work under a temporary contract with fixed starting and ending periods. <p>2. Contractor is a person who has been consented to work or provide service or benefit to the Company apart from the Company's employee as per the definition specified above, which could be divided into 3 groups as follows:</p> <ol style="list-style-type: none"> 1) Workplace Contractor is a contractor that works for the organization, and whose work and/or workplace is controlled by the organization. (Exclude Transportation contractor). 2) Direct Transportation Contractor is a transportation Contractor with operation under SCGP's brand. 3) Other Transportation Contractor without operation under SCGP's brand. <p>Employees and workplace contractors data covered in the report will be calculated for the number of man-hours. Data on transportation contractors under SCG Logistics Management Co., Ltd., will be reported in kilometer.</p> <p>SCGP also defines a not under supervision contractor that the contractor is not under the control of the organization, whose work and/or workplace is not controlled by the organization; including the third party that is anyone other than employees and not contractor who do not work for the organization, are not covered in this report.</p>
	Calculation of hours worked <p>1. Data from the clock-in system, HR database, accounting unit or relevant administrative unit.</p> <p>2. Data from documents that specify hours worked such as timesheets, time records from the accounting department that pay wages, departments that have evidence of time record the number of hours worked or collected hours from Work Permit.</p> <p>3. In case the companies/plants do not have a clock-in system or HR database, the below formula shall be employed to estimate the hours worked.</p> <p>Number of hours worked = [Number of Employees/Contractors x Number of working days x Number of normal hours worked (per day)] + number of total overtime hours worked. (only operational employees and contractors).</p>
	Recording of Health and Safety Data <p>SCGP records data on health and safety at work by dividing into 6 categories:</p> <ol style="list-style-type: none"> 1. The number of fatalities is the number of work-related injuries resulting in fatality regardless of sudden death or suffering the consequences and dying later. 2. Injury Frequency Rate is total number of recordable work-related injury case (person) per 1,000,000 hours worked. 3. Lost Time Injury Frequency Rate is total number of recordable work-related lost time injury case (person) per 1,000,000 hours worked. <p>Lost Time Injury accident refers to a work-related accident that causes an injury cannot come to work as usual on the next work day or in the next shift, including the injury and occupational illness that causes inability return to work, which is a consequence of the accident.</p> <ol style="list-style-type: none"> 4. Injury Severity Rate is total number of lost workday (day) from recordable work-related lost time injury case (person) per 1,000,000 hours worked. 5. High-Consequence Work-related injury Rate is a total number of High-Consequence Work-related injury case (person) per 1,000,000 hours worked (excluded fatality). 6. Occupational Illness & Disease Frequency Rate refer to the total number of recordable Occupational Illness & Disease (person) - per 1,000,000 hours worked. <p>SCGP changed the calculation rate based on a case or day/200,000 hours worked to a case or day/1,000,000 hours worked to be suitable to the organizational size and compared with other companies within the same industry.</p> <p>Since 2020, started to collect and calculate the data of High-Consequence Work-Related injury Rate.</p>
S2	Number of employee is reported within the Annual Report's scope.
S3	Revenue - generating functions, e.g., marketing, sales, production.
S4	Calculate from the total number of local Management Level over total staff in abroad.
S5	Visual and physical impairment and movement disabilities or others. e.g., hearing impairment, mental disability, communication disability.
S6	Employees joining trade unions or working with the company covered by the Welfare Committee.
S7	Under Thai laws, only female employees can take parental leave.

Economic Performance

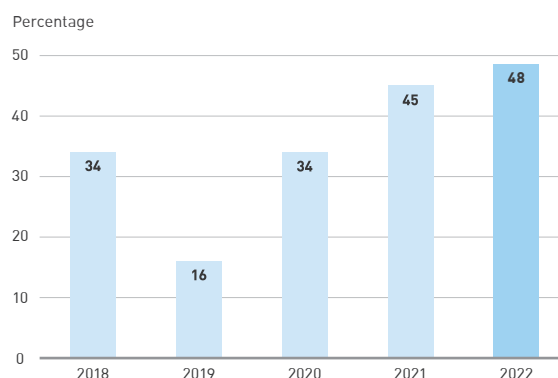
Economic Performance covers SCGP and subsidiaries both Thailand and abroad

Performance	2018	2019	2020	2021	2022	GRI Standard	SASB
Revenue from sales (Billion Baht)	87	89	93	124	146	GRI 201-1	
Profit for the year (Billion Baht)	6	5	6	8	6	GRI 201-1	
EBITDA (Billion Baht)	15	15	17	21	19	GRI 201-1	
Employee compensation comprising salary, wage, welfare and regular contributions (Million Baht)	8,673	10,025	10,603	11,687	13,542	GRI 201-1	
Dividend to shareholders (Million Baht) ^{EC1}	7,815	3,300	1,932	2,790	2,576	GRI 201-1	
Interest and financial expenses to lender (Million Baht)	1,040	1,741	1,452	1,180	1,468	GRI 201-1	
Taxes to government and local government authorities such as income tax, local maintenance tax, property tax and other specific taxes (Million Baht)	1,296	1,621	1,756	1,933	1,715	GRI 201-1	
Contributions to organizations (Baht) ^{EC2}	N/A	N/A	500,177	2,462,438	1,208,770		
Contributions to political activities (Million Baht) ^{EC3}	0	0	0	0	0	GRI 415-1	
Privilege tax and others from investment promotion, and research and development (Million Baht)	406	408	244	293	159	GRI 201-4	
Non-compliance case through SCG Whistleblowing System (Cases)	8	3	10	8	6	GRI 205-3	
Investment for Research & Development and Innovation (Million Baht) ^{EC4}	425	584	529	958	522		
Suppliers that assessed Environmental, Social and Governance (ESG) Risks (% of procurement spending) ^{EC5}	100	100	100	100	100	GRI 414-1	
Procurement Spending by Geography (% of procurement spending) ^{EC6}							
• Domestic	57	53	55	88	70	GRI 204-1	
• Regional	43	47	45	12	30		
Revenue from Sales of High Value Added Products and Services (Billion Baht)	44	46	58	59	66		
Revenue from Sales of High Value Added Products and Services (%)	51	52	63	48	45		
Revenue from Sales of SCG Green Choice Products and Services (Billion Baht)	30	14	31	56	71		RT-CP-410a.2
Revenue from Sales of SCG Green Choice Products and Services (%)	34	16	34	45	48		

Revenue from Sales of High Value Added Products and Services



Revenue from Sales of SCG Green Choice Products and Services



EC1 Dividend to shareholders is the total dividend referred to the SCGP Annual Report. In 2019, dividend was paid in cash and ordinary shares.

EC2 The first 7 Organizations contributed by SCGP are

1. Global Compact Network Association of Thailand
2. Sustainable Packaging Coalition
3. The Thai Chamber of Commerce and Board of Trade of Thailand and related
4. The Federation of Thai Industries (F.T.I)
5. Technical Association of the Pulp and Paper Industry (TAPPI)
6. ASIAN CORRUGATED CASE ASSOCIATION (ACCA)
7. Thai Medical Device Technology Industry Association

EC3 SCGP remains political neutral, and does not give financial or any kind of supports to any political party, political group or candidates in local, regional or national levels or person with political influence or Lobbying or interest representation or similar and other categories (such e.g. spending related to ballot measures or referendums).

EC4 In 2019 was reported on the Investment in Research and Development including the investment in innovations.

EC5 The Environmental, Social and Governance (ESG) risk assessment for Suppliers began in 2018.

EC6 Consider geography based on seller data and trading currency.

Subsidiaries Included in Sustainability Report 2022

Performance data of Environmental Management, Health and Safety Management

1	Business / Company	Country	Principal Business / Products	Total Direct / Indirect Holding (Percent)	Production	Environment												Society		Remark
						Energy		Air Emission			Water				Waste	Safety	Occupational Illness			
						Thermal	Electricity	Dust	SO _x	NO _x	GHG	Water withdrawal	Recycle Water	BOD				COD	TSS	
1	SCG Packaging Public Company Limited	Thailand	Office														✓	✓		
Subsidiaries																				
2	Thai Containers Group Co., Ltd. (Navanakorn)	Thailand	Fiber Packaging	70.00	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓		
	Thai Containers Group Co., Ltd. (Pathumthani)	Thailand	Fiber Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	✓	✓	✓		
	Thai Containers Group Co., Ltd. [Samutprakan]	Thailand	Fiber Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	
	Thai Containers Group Co., Ltd. [Ratchaburi]	Thailand	Fiber Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	✓	✓	✓	✓	
	Thai Containers Group Co., Ltd. [Songkhla]	Thailand	Fiber Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓	
	Thai Containers Group Co., Ltd. [Chonburi]	Thailand	Fiber Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓	
	Thai Containers Group Co., Ltd. [Prachinburi]	Thailand	Fiber Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	
	Thai Containers Group Co., Ltd. [Saraburi]	Thailand	Fiber Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	
	Thai Containers Group Co., Ltd. [Kamphaeng Phet]	Thailand	Fiber Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓	
	Thai Containers Group Co., Ltd. [Bang Sue]	Thailand	Office														✓	✓		
3	Thai Containers Khonkaen Co., Ltd.	Thailand	Fiber Packaging	70.00	✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓	
4	Thai Containers Rayong Co., Ltd.	Thailand	Fiber Packaging	70.00	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	
5	Tawana Container Co., Ltd.	Thailand	Fiber Packaging	50.40	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	
6	Orient Containers Co., Ltd.	Thailand	Fiber Packaging	70.00	✓	✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	✓	✓	✓	
7	Dyna Packs Co., Ltd. ^[1]	Thailand	Fiber Packaging	70.00	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	
8	D-In Pack Co., Ltd. ^[1]	Thailand	Fiber Packaging	70.00	✓	✓	✓	NR	NR	NR	✓	✓	✓	NR	NR	NR	✓	✓	✓	
9	New Asia Industries Co., Ltd.	Vietnam	Fiber Packaging	70.00	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	ND	
10	Alcamax Packaging (Vietnam) Co., Ltd.	Vietnam	Fiber Packaging	70.00	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	ND	
11	Packamex (Vietnam) Co., Ltd.	Vietnam	Fiber Packaging	70.00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
12	AP Packaging (Hanoi) Co., Ltd.	Vietnam	Fiber Packaging	70.00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	ND	
13	PT Primacorr Mandiri	Indonesia	Fiber Packaging	67.90	✓	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	ND
14	PT Indoris Printingdo	Indonesia	Fiber Packaging	69.96	✓	✓	✓	NR	NR	NR	✓	✓	NR	NR	NR	NR	✓	✓	ND	
15	PT Indocorr Packaging Cikarang	Indonesia	Fiber Packaging	69.99	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	ND	
16	SCGP Solutions Co., Ltd. ^[2]	Thailand	Holding Company	100.00																
17	Precision Print Co., Ltd.	Thailand	Fiber Packaging	100.00	✓	✓	✓	✓	NR	NR	NR	✓	✓	NR	✓	✓	✓	✓	✓	
18	TCG Solutions Pte. Ltd. ^[2]	Singapore	Holding Company	70.00																
19	Bien Hoa Packaging Joint Stock Company	Vietnam	Fiber Packaging	65.88																Have been M&P since 2021 and data will be disclosed through a sustainability report in 2024
20	PT Indonesia Dirlajaya Aneka Industri Box	Indonesia	Fiber Packaging	52.50																
21	PT Bahana Buana Box	Indonesia	Fiber Packaging	52.50																
22	PT Rapipack Asritama	Indonesia	Fiber Packaging	52.50																
23	Siam Kraft Industry Co., Ltd. [Kanchanaburi]	Thailand	Packaging Paper	100.00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Siam Kraft Industry Co., Ltd [Ratchaburi]	Thailand	Packaging Paper		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Siam Kraft Industry Co., Ltd [Bang Sue]	Thailand	Office															✓	✓	
24	Vina Kraft Paper Co., Ltd.	Vietnam	Packaging Paper	70.00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	ND	
25	Thai Cane Paper Public Company Limited [Kanchanaburi]	Thailand	Packaging Paper	98.20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Thai Cane Paper Public Company Limited [Prachin Buri]	Thailand	Packaging Paper		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
26	United Pulp and Paper Co., Inc.	Philippines	Packaging Paper	74.77	✓	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	ND
27	SCGP Solutions (Singapore) Pte. Ltd. ^[2]	Singapore	Holding Company	100.00																
28	PT Fajar Surya Wisesa Tbk.	Indonesia	Packaging Paper	55.24	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	ND
29	PT Dayasa Aria Prima	Indonesia	Packaging Paper	55.24																Have been M&P since 2020 and data will be disclosed through a sustainability report in 2023
30	SCG Paper Energy Co., Ltd.	Thailand	Energy And Utilities	100.00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
31	SCGP-T Plastics Co., Ltd. ^[2]	Thailand	Holding Company	51.00																
32	Conimex Co., Ltd.	Thailand	Rigid Packaging	38.25	✓	✓	✓	NR	NR	NR	✓	✓	NR	NR	NR	NR	✓	✓	✓	
33	SCGP Rigid Plastics Co., Ltd. ^[2]	Thailand	Holding Company	100.00																
34	Vexcel Pack Co., Ltd. ^[2]	Thailand	Rigid Packaging	100.00	✓	✓	✓	NR	NR	NR	✓	✓	NR	NR	NR	NR	✓	✓	✓	
35	TC Flexible Packaging Co., Ltd. ^[2]	Thailand	Holding Company	52.50																
36	Prepack Thailand Co., Ltd. [Samut Sakhon]	Thailand	Flexible Packaging	52.38	✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓	
	Prepack Thailand Co., Ltd. [Samut Songkhram]	Thailand	Flexible Packaging		✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓	
	Prepack Thailand Co., Ltd. [Rayong]	Thailand	Flexible Packaging		✓	✓	✓	NR	NR	NR	✓	✓	NR	NR	NR	NR	✓	✓	✓	
37	Tin Thanh Packing Joint Stock Company	Vietnam	Flexible Packaging	52.49	✓	✓	✓	✓	✓	✓	✓	✓	✓	NR	✓	✓	✓	✓	✓	ND
38	SCGP Rigid Packaging Solutions Pte. Ltd. ^[2]	Singapore	Holding Company	100.00																
39	Duy Tan Plastics Manufacturing Corporation Joint Stock Company	Vietnam	Rigid Packaging	70.00																Have been M&P since 2021 and data will be disclosed through a sustainability report in 2024
40	Duy Tan Long An Company Limited	Vietnam	Rigid Packaging	70.00																
41	Duy Tan Precision Mold Company Limited	Vietnam	Rigid Packaging	70.00																
42	Duy Tan Binh Duong Plastics Company Limited	Vietnam	Rigid Packaging	70.00																
43	MATA Plastic Company Limited	Vietnam	Rigid Packaging	70.00																

	Business / Company	Country	Principal Business / Products	Total Direct / Indirect Holding (Percent)	Production	Environment													Society		Remark
						Energy		Air Emission				Water					Waste	Health & Safety			
						Thermal	Electricity	Dust	SO _x	NO _x	GHG	Water withdrawal	Recycle Water	BOD	COD	TSS		Safety	Occupational Illness		
44	International Healthcare Packaging Co., Ltd. ^[2]	Thailand	Holding Company	100.00																	
45	Deltalab Global, S.L. ^[2]	Spain	Holding Company	85.00																	
46	Deltalab, S.L.	Spain	Medical Supplies and Labware	85.00																Have been M&P since 2021 and data will be disclosed through a sustainability report in 2024	
47	Keylab, S.L.U.	Spain	Medical Supplies and Labware	85.00																	
48	Nirco, S.L.	Spain	Medical Supplies and Labware	85.00																	
49	Envases Farmaceuticos, S.A.	Spain	Medical Supplies and Labware	85.00																	
50	Equilabo Scientific, S.L.U.	Spain	Medical Supplies and Labware	85.00																	
51	Sanilabo, S.L.U.	Spain	Medical Supplies and Labware	85.00																	
52	Phoenix Pulp & Paper Public Company Limited	Thailand	Foodservice Packaging/Pulp and Paper Products	69.58	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
53	Thai Paper Co., Ltd. (Paper Production)	Thailand	Foodservice Packaging/Pulp and Paper Products	69.58	✓	✓	✓	NR	NR	NR	✓	✓	NR	NR	NR	NR	✓	✓	✓		
	Thai Paper Co., Ltd. (Fest hub)	Thailand	Foodservice Packaging/Pulp and Paper Products		✓	✓	✓	NR	NR	NR	✓	✓	NR	NR	NR	NR	✓	✓	✓		
	Thai Paper Co., Ltd. (Pulp Production-Banpong)	Thailand	Foodservice Packaging/Pulp and Paper Products		✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓		
	Thai Paper Co., Ltd. (Pulp Production-Wangsala)	Thailand	Foodservice Packaging/Pulp and Paper Products		✓	✓	✓	✓	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓		
	Thai Paper Co., Ltd. (Bang Sue)	Thailand	Office															✓	✓		
54	Go-Pak UK Limited	United Kingdom	Foodservice Packaging	100.00																Have been M&P since 2021 and data will be disclosed through a sustainability report in 2024	
55	Go-Pak Vietnam Limited	Vietnam	Foodservice Packaging	100.00																	
56	Go-Pak Paper Products Vietnam Company Limited	Vietnam	Foodservice Packaging	100.00																	
57	Pheonix Utilities Co., Ltd. ^[3]	Thailand	Utilities	69.58	✓	✓	✓	NR	NR	NR	✓	✓	NR	NR	NR	NR	NR	✓	✓		
58	Interpress Printers Sendirian Berhad	Malaysia	Foodservice Packaging	68.30	✓	✓	✓	NR	NR	NR	✓	✓	NR	NR	NR	NR	NR	✓	ND		
59	The Siam Forestry Co., Ltd.	Thailand	Forestry Products	69.58	✓	✓	✓	NR	NR	NR	✓	NR	NR	NR	NR	NR	NR	✓	✓		
60	Siam Panawes Co., Ltd.	Thailand	Forestry Products	69.58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
61	Suanpa Rungsaris Co., Ltd.	Thailand	Forestry Products	69.58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
62	Panas Nimit Co., Ltd.	Thailand	Forestry Products	69.58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
63	Thai Panaboon Co., Ltd.	Thailand	Forestry Products	69.58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
64	Thai Panaram Co., Ltd.	Thailand	Forestry Products	69.58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
65	Thai Panadorn Co., Ltd.	Thailand	Forestry Products	69.58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
66	Thai Panason Co., Ltd.	Thailand	Forestry Products	69.58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
67	Thai Wanabhum Co., Ltd.	Thailand	Forestry Products	69.58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
68	SCGP Excellence Training Center Co., Ltd.	Thailand	Training and seminar	100.00														✓	✓		
69	Invenique Co., Ltd. ^[2]	Thailand	Asset and Intellectual Property Management Service	100.00																	
70	United Industrial Energy Corporation ^[4]	Philippines	Holding Company	74.77																	
71	Peute Recycling B.V. ^[2]	Netherlands	Holding Company	100.00																Have been M&P since 2022 and data will be disclosed through a sustainability report in 2025	
72	Peute Papierrecycling B.V.	Netherlands	Packaging Materials Recycling	100.00																	
73	Peute Recycling International B.V. ^[2]	Netherlands	Holding Company	100.00																	
74	Peute Plasticirecycling B.V.	Netherlands	Packaging Materials Recycling	100.00																	
75	Peute Portugal, Unipessoal Lda	Portugal	Packaging Materials Recycling	100.00																	
76	Peute Recycling Spain SL	Spain	Packaging Materials Recycling	100.00																	
77	Peute UK Limited	United Kingdom	Packaging Materials Recycling	100.00																	
78	SKIC International Co., Ltd. ^[2]	Thailand	Holding Company	100.00																	
79	Jordan Trading International	USA	Packaging Materials Recycling	90.10																	
Associates and Other Subsidiaries																					
1	Siam Toppan Packaging Co., Ltd.	Thailand	Fiber Packaging	49.00																	
2	P&S Holdings Corporation ^[2]	Philippines	Holding Company	40.00																	
3	Siam Nippon Industrial Paper Co., Ltd.	Thailand	Specialty Paper	31.31																	
4	Sahagreen Forest Co., Ltd.	Thailand	Energy And Utilities	17.40																	
5	ReUse SAS	France	Packaging Materials Recycling	45.00																	
6	Packworks Co., Ltd	Thailand	Foodservice Packaging	28.48																	

NR = Non-Relevance Information (businesses are in operation but their data is irrelevant or significant)

ND = Not disclose this year

Office/Investment/Sales/Service where the collection of data is not necessary and non-production companies

Greenfield (less than 4 years) or newly acquired companies (less than 4 years) are not required to incorporate environmental, safety and occupational illness data into SCGP

^[1] Dyna Packs Co., Ltd. and D-In Pack Co., Ltd. transferred the entire business to ORIENT on November 1, 2020 and registered the dissolution of the company with the Department of Business Development, Ministry of Commerce on December 22, 2020. It is currently in the process of liquidation.

^[2] Companies that operate the main businesses

^[3] Pheonix Utilities Co., Ltd. transferred the entire business to Phoenix Pulp & Paper Public Company Limited on October 1, 2021 and registered the dissolution of the company with the Department of Business Development, Ministry of Commerce on December 20, 2021. It is currently in the process of liquidation.

^[4] United Industrial Energy Corporation registered the termination of its business on April 24, 1997.

^[5] Visy Packaging (Thailand) Limited changed its name to Vexcel Pack Co., Ltd.

- At the Board of Directors' meeting held on February 13, 2018, approval was given for TCGS to cease operations from mid-2018 and liquidation was completed on January 25, 2022.

- The Data reporting of SCG Packaging Public Company Limited includes the Headquarters office and organizations under SCGP.

Assurance Statement



ASSURANCE STATEMENT

SGS (THAILAND) LIMITED'S REPORT ON SUSTAINABILITY ACTIVITIES IN SCG PACKAGING PUBLIC COMPANY LIMITED'S FOR 2022

NATURE OF THE ASSURANCE/VERIFICATION

SGS (THAILAND) LTD. (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 2022 (hereinafter referred to as the Report) for the year ended December 31, 2022 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 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 (with Reference to)
- 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 fulfills 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 (million tons)
 - Water withdrawal (million cubic meters) and recycled water (million cubic meters)
 - Water discharge (million cubic meters)
 - Water discharge by quality (BOD, COD and TSS (Ton))
 - Total weight of waste by type and disposal method (thousand tons)
 - Oxides of Nitrogen (NOx), Oxides of Sulfur (SOx), dust and other significant air emissions data
- 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

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 Sustainable Development 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:
 - Siam Kraft Industry Co., Ltd. (Ratchaburi)
 - PT FAJAR SURYA WISESA Tbk.

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 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 for the year ended December 31, 2022 included in their reporting.

Signed:

For and on behalf of SGS (Thailand) Limited



Montree Tangtermsirikul

General Manager

100 Nanglinchee Road Chongnonsee Yannawa, Bangkok 10120 Thailand

21 February 2023

WWW.SGS.COM

GRI Content Index

Statement of use	SCG Packaging Public Company Limited has reported the information cited in this GRI content index for 1 st January 2022 - 31 st December 2022 with reference to the GRI Standards.
GRI 1 used	GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE	LOCATION	EXTERNAL ASSURANCE
GRI 2: General Disclosures 2021	2-1 Organizational details	SR 9, OR inside front cover	
	2-2 Entities included in the organization's sustainability reporting	SR 92-93, OR 248-252	
	2-3 Reporting period, frequency and contact point	SR 76-77	
	2-4 Restatements of information	SR 76-77	
	2-5 External assurance	SR 94-95, SCGP website: ESG homepage	
	2-6 Activities, value chain and other business relationships	SR 8-10, OR inside front cover, 49	
	2-7 Employees	SR 87, SCGP website: ESG homepage	
	2-8 Workers who are not employees	SCGP website: ESG homepage	
	2-9 Governance structure and composition	OR 141-143	
	2-10 Nomination and selection of the highest governance body	OR 115-117	
	2-11 Chair of the highest governance body	OR 142	
	2-12 Role of the highest governance body in overseeing the management of impacts	SCGP website: ESG homepage	
	2-13 Delegation of responsibility for managing impacts	SCGP website: ESG homepage	
	2-14 Role of the highest governance body in sustainability reporting	SCGP website: ESG homepage	
	2-15 Conflicts of interest	OR 10-12	
	2-16 Communication of critical concerns	OR 10-17, SCGP website: ESG homepage	
	2-17 Collective knowledge of the highest governance body	OR 192-195	
	2-18 Evaluation of the performance of the highest governance body	OR 195	
	2-19 Remuneration policies	OR 15, SCGP website: ESG homepage	
	2-20 Process to determine remuneration	OR 15, SCGP website: ESG homepage	
	2-22 Statement on sustainable development strategy	SR 4-5, 16, OR 8-9	
	2-23 Policy commitments	SR 8, 16-17, OR 121-124, SCGP website: ESG homepage	
	2-24 Embedding policy commitments	SR 16-17, 26-27, 32-73, OR 88-89, SCGP website: ESG homepage	
	2-25 Processes to remediate negative impacts	SR 56-57, 63, SCGP website: ESG homepage	
	2-26 Mechanisms for seeking advice and raising concerns	SR 56-57, 63, SCGP website: ESG homepage	
	2-27 Compliance with laws and regulations	SR 63, 82	
	2-28 Membership associations	SR 28-29	
	2-29 Approach to stakeholder engagement	SR 20-22, 24-25, SCGP website: ESG homepage	
	2-30 Collective bargaining agreements	SR 88	

GRI Content Index

GRI STANDARD	DISCLOSURE	LOCATION	EXTERNAL ASSURANCE
GRI 3: Material Topics 2021	3-1 Process to determine material topics	SR 20-25, SCGP website: ESG homepage	
	3-2 List of material topics	SR 23-25, SCGP website: ESG homepage	
	3-3 Management of material topics	SR 24-27, SCGP website: ESG homepage	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	SR 91	
	201-2 Financial implications and other risks and opportunities due to climate change	SCGP website: ESG homepage	
	201-3 Defined benefit plan obligations and other retirement plans	OR 181, 392-393 SCGP website: ESG homepage	
	201-4 Financial assistance received from government	SR 91	
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	SCGP website: ESG homepage	
	202-2 Proportion of senior management hired from the local community	SR 87	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	SCGP website: ESG homepage	
	203-2 Significant indirect economic impacts	SR 60-61	
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	SR 81	
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	SCGP website: ESG homepage	
	205-2 Communication and training about anti-corruption policies and procedures	SR 63	
	205-3 Confirmed incidents of corruption and actions taken	SR 63	
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	SCGP website: ESG homepage	
GRI 207: Tax 2019	207-1 Approach to tax	SCGP website: ESG homepage	
	207-2 Tax governance, control, and risk management	SCGP website: ESG homepage	
	207-3 Stakeholder engagement and management of concerns related to tax	SCGP website: ESG homepage	
	207-4 Country-by-country reporting	SCGP website: ESG homepage	
GRI 301: Materials 2016	301-1 Materials used by weight or volume	SR 78	
	301-2 Recycled input materials used	SR 78	
GRI 302: Energy 2016	302-1 Energy consumption within the organization	SR 79	Yes
	302-2 Energy consumption outside of the organization	SR 79	
	302-3 Energy intensity	SR 79	
	302-4 Reduction of energy consumption	SR 13, 34, 79	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	SR 48-49	
	303-2 Management of water discharge-related impacts	SR 48-49	
	303-3 Water withdrawal	SR 48, 80	Yes
	303-4 Water discharge	SR 49, 81	Yes
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	SR 46-47	
	304-2 Significant impacts of activities, products and services on biodiversity	SR 46-47	
	304-3 Habitats protected or restored	SR 46-47	
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	SR 47	

GRI Content Index

GRI STANDARD	DISCLOSURE	LOCATION	EXTERNAL ASSURANCE
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	SR 78-79	Yes
	305-2 Energy indirect (Scope 2) GHG emissions	SR 78-79	Yes
	305-3 Other indirect (Scope 3) GHG emissions	SCGP website: ESG homepage	
	305-4 GHG emissions intensity	SR 78	
	305-5 Reduction of GHG emissions	SR 13, 34, 78	
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	SR 52-53, 82	Yes
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	SR 50-51, SCGP website: ESG homepage	
	306-2 Management of significant waste-related impacts	SR 50-51, SCGP website: ESG homepage	
	306-3 Waste generated	SR 82	Yes
	306-4 Waste diverted from disposal	SR 82-83	Yes
	306-5 Waste directed to disposal	SR 82-83	Yes
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	SR 68	
	308-2 Negative environmental impacts in the supply chain and actions taken	SR 68	
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	SR 88	
	401-3 Parental leave	SR 89	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	SR 54-55	
	403-2 Hazard identification, risk assessment, and incident investigation	SR 54-55	
	403-3 Occupational health services	SR 55	
	403-4 Worker participation, consultation, and communication on occupational health and safety	SCGP website: ESG homepage	
	403-5 Worker training on occupational health and safety	SCGP website: ESG homepage	
	403-6 Promotion of worker health	SR 54-55	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	SR 54-55	
	403-8 Workers covered by an occupational health and safety management system	SR 54-55, 77	
	403-9 Work-related injuries	SR 86-87	Yes
	403-10 Work-related ill health	SR 87	Yes
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	SR 89	
	404-2 Programs for upgrading employee skills and transition assistance programs	SR 58-59	
	404-3 Percentage of employees receiving regular performance and career development reviews	SR 58	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	SR 87, 89, OR 142-143	
	405-2 Ratio of basic salary and remuneration of women to men	SR 87-88	Yes
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	SR 63, SCGP website: ESG homepage	
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	SCGP website: ESG homepage	

GRI Content Index

GRI STANDARD	DISCLOSURE	LOCATION	EXTERNAL ASSURANCE
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	SCGP website: ESG homepage	
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	SCGP website: ESG homepage	
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	SCGP website: ESG homepage	
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	SCGP website: ESG homepage	
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	SCGP website: ESG homepage	
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	SR 68, 91	
	414-2 Negative social impacts in the supply chain and actions taken	SCGP website: ESG homepage	
GRI 415: Public Policy 2016	415-1 Political contributions	SR 91, SCGP website: ESG homepage	
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	SR 70, SCGP website: ESG homepage	
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	SR 70, SCGP website: ESG homepage	
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	SCGP website: ESG homepage	
	417-2 Incidents of non-compliance concerning product and service information and labeling	SR 70	
	417-3 Incidents of non-compliance concerning marketing communications	SR 70	
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	SR 73	

Sustainability Accounting Standards Board Response (SASB)

SASB Content Index					
Topic	Disclosure Code	Disclosure Title	Page	Disclosure or Additional Explanation	Unit
Greenhouse Gas Emissions	RT-CP-110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	78-79		Metric tons (tCO ₂ e) Percentage (%)
	RT-CP-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	32-35, 78-79		N/A
Air Quality	RT-CP-120a.1	Air emissions of the following pollutants: (1) NO _x (excluding N ₂ O), (2) SO _x , (3) volatile organic compounds (VOCs), and (4) particulate matter (PM)	52-53, 82		Metric tons (t)
Energy Management	RT-CP-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	79		Gigajoules (GJ) Percentage (%)
Water Management	RT-CP-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	48-49, 80-81		Thousand cubic meters (m ³) Percentage (%)
	RT-CP-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	48-49		Number
	RT-CP-140a.3	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	48	0 Case	Number
Waste Management	RT-CP-150a.1	Amount of hazardous waste generated, percentage recycled	82-83		Metric tons (t)
Product Safety	RT-CP-250a.1	Number of recalls issued, total units recalled	70-71	0 Case	Number
	RT-CP-250a.2	Discussion of process to identify and manage emerging materials and chemicals of concern	70-71		N/A

Sustainability Accounting Standards Board Response (SASB)

SASB Content Index					
Topic	Disclosure Code	Disclosure Title	Page	Disclosure or Additional Explanation	Unit
Product Lifecycle Management	RT-CP-410a.1	Percentage of raw materials from: (1) recycled content, (2) renewable resources, and (3) renewable and recycled content	78	[3] 99.5%	Percentage (%) by weigh
	RT-CP-410a.2	Revenue from products that are reusable, recyclable, and/or compostable	91	70,812 Million baht (SCG Green Choice and ECO Product)	Reporting Currency
	RT-CP-410a.3	Discussion of strategies to reduce the environmental impact of packaging throughout its lifecycle	40-43, 71		N/A
Supply Chain Management	RT-CP-430a.1	Total wood fiber procured, percentage from certified sources	46	2.46 Million tons 100% of FSC™-CW/COC : FSC-C133879	Metric tons (t) Percentage (%)
	RT-CP-430a.2	Total aluminum purchased, percentage from certified sources		Not Applicable	Metric tons (t) Percentage (%)
Activity Metric	RT-CP-000.A	Amount of production, by substrate	78		Metric tons (t) Percentage (%)
	RT-CP-000.B	Percentage of production as: (1) paper/wood, (2) glass, (3) metal, and (4) plastic		Annual Report 2021 P.40 (1) 84.5%, (4) 12.4%	Percentage (%) by revenue
	RT-CP-000.C	Number of employees	87		Number

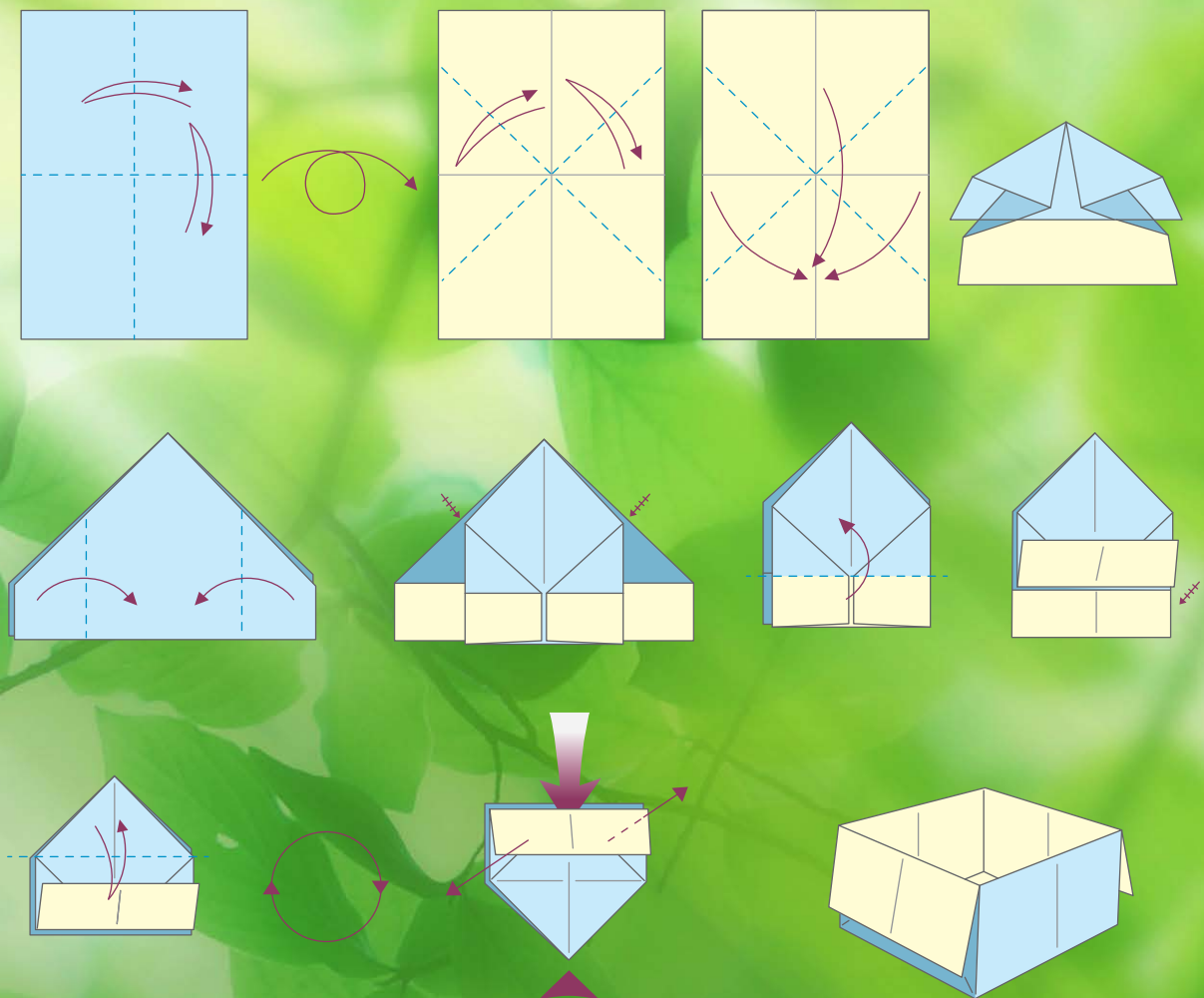
Plant Trees with SCGP

Because every tree is crucial, not only do they produce oxygen for every living being on Earth to breath, they also absorb carbon dioxide in the atmosphere, which is cause of global warming. This help maintain a stable climate and slows down climate change.

SCGP invites readers to participate in the "Plant a Seedling" project by using recycled paper to make biodegradable plant pots and planting seedlings in them. This can be done easily with just four simple steps:

1. Cut the paper with scissors along the spine.
2. Fold the paper according to the recommended pattern, step by step, until you get a biodegradable plant pot as shown in the picture.
3. Fill the pot with soil and plant the seedling, and water regularly and provide proper sunlight.
4. When the seedling grows strong, plant it in the ground along with the biodegradable pot, which will decompose naturally over time.

Alternatively, decorate the plant pot and use it as a beautiful decoration in your home.



- Folding Lines
- - - Folding Directions
- ➔ Fold in Direction of Arrow
- ⌘ Fold Backward
- ⬇ Press to Open the Box

Use the paper on the Right ➔
to Fold Biodegradable Plant pots



SCGP

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The mark of
responsible forestry

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