Green Growth

SET Awards 2025

Sustainability Excellence

15 September 2025 10.30 - 12.00 hr. Green Growth

ร่วมสร้างเศรษฐกิจสีเขียว สังคมและสิ่งแวดล้อม ให้โตด้วยทรีน โตด้วยทัน

Driving Low Carbon Society, Creating Sustainable Competitiveness, And Fostering Inclusive Prosperity



Green Growth

Agenda

- Navigating the Economic Slowdown
- Climate Change
- Al and Technology
- Just Transition



Navigating the Economic Slowdown

The current economic downturn presents significant challenges, underscoring the need for robust strategies and long-term resilience



Thailand's
Structural
Challenges and
Sub-Par Growth

High domestic household debt weakens purchasing power. Aging population means shrinking income-producing workforce.

Decelerating GDP growth keeps domestic demand at bay

Weaker Housing
Demand amid High
Real Estate Supply

New project launch drops 54% YoY in H1/25. Unit transfer in Bangkok Metropolitan Area drops 11% in Q2/25. Housing inventory is expected to grow until 2027

Tariffs, Trade War, and Intensifying Price Competition

U.S. tariffs will slow global trade. U.S.-Chaina trade war forces China to increase export to Southeast Aisa, causing intensifying price competition



SCG'S Strategy

Green Growth

1) Saving Money **AND** The Planet

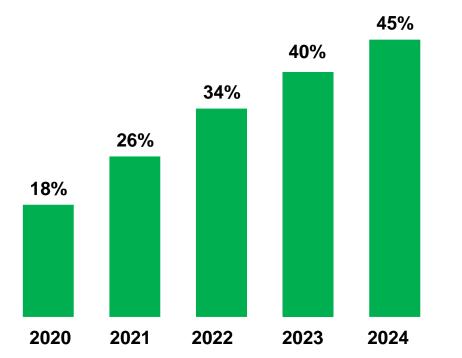
- 1.1 Alternative Fuel (AF)
- 1.2 Renewable Energy
- 1.3 LSP Ethane Project
- 1.4 Financial Resilience



Accelerating Cost Reduction Through Alternative Fuel (AF) Use

Domestic cement operation is using increasing amount of cheaper and greener alternative fuel



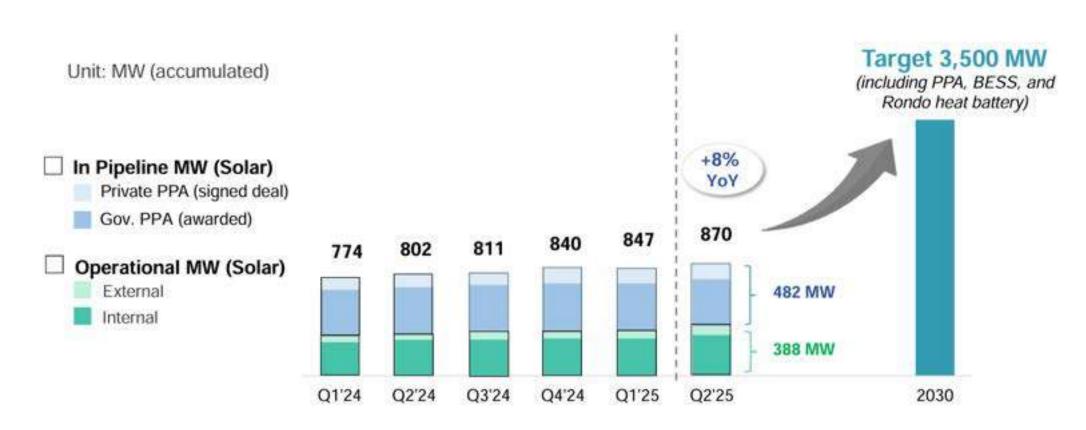


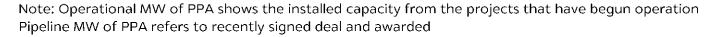




Lowering Energy Cost By Using Renewable Energy

Green power generation achieved 388-operational MW with 482 MW in the pipeline helping to lower cost for SCG and its partners









Investing in greener and cheaper feedstock at LSP Petrochemicals Complex

LSP Ethane Project leverages low-cost ethane from the U.S. to enhance competitiveness and cut carbon footprint

Maximum impact to SCGC, with minimal CAPEX

Lower feedstock cost



- Landed Ethane is \$250/ton cheaper than Naphtha
- Utilizing 1 MT per year

Feedstock Flexibility up to 70%



LSP is designed as a highly flexible cracker

Payback is a few year



- Investment of approx. \$500 million level (~18,000 MB)
- · Funded by SCC's internal sources
- Start up by end of 2027

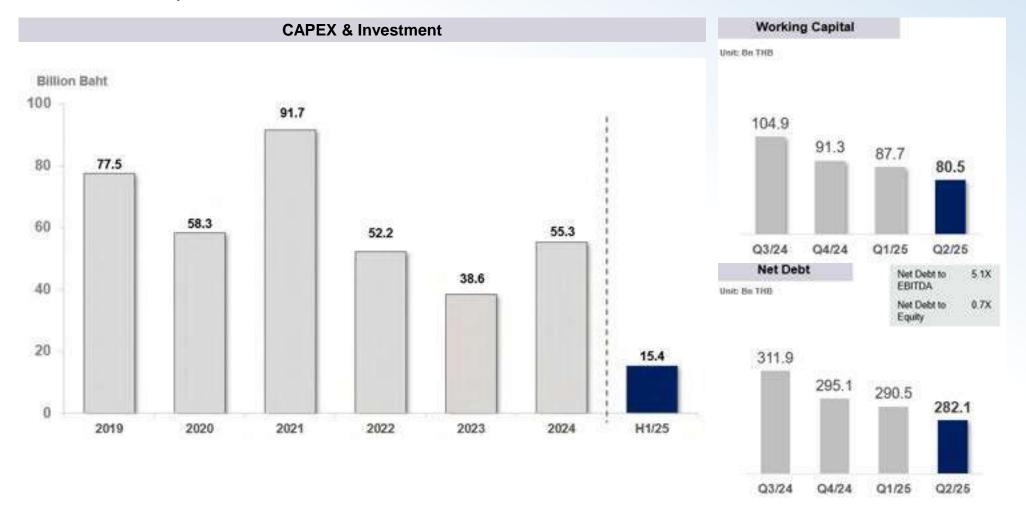
Ethane supply chain Vietnam Ethane From shale oil and gas basins Qatar Propane Naphtha



Reinforcing financial resilience

Prudent Capex & Investment budgeting, working capital management, and continued deleveraging

- Lower CAPEX by 40% to 30,000 MB in 2025
- Working Capital reduced to 80.5 bn THB in Q2/25 vs. 104.9 bn THB in Q3/24
- Net Debt reduced by 29 bn THB to 282.1 bn THB in Q2/25 vs. 311.9 bn THB in Q3/24





SCG'S Focus Areas

Green Growth

2) Pursuing <u>Green Business</u> Opportunities

- 2.1 Low carbon cement
- 2.2 Green polymer

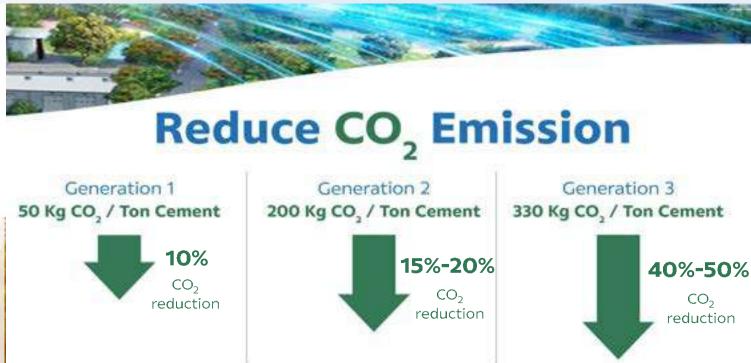


Accelerating Adoption of Low Carbon Cement in Thailand

Leading the way in green innovation via the promotion and development of next-generation low carbon cement









Exporting Low Carbon Cement To New Markets

SCG's Low Carbon Cement making its way ASEAN, Australia, and the U.S.



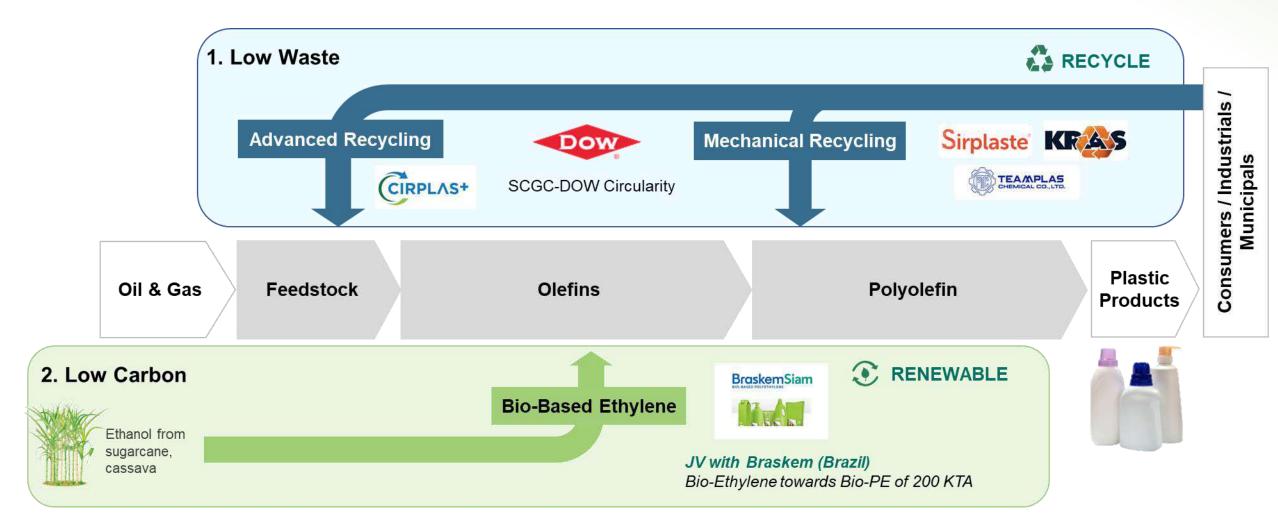




SCGC GREEN POLYMER*

Expanding Green Plastic Businesses

SCG Chemicals is investing in advanced recycling, bio-based ethylene, and post-consumer resins







Acquiring and Transferring Know-How to Thailand

Scaling EU recycling businesses with the aim of brining back the know-how and customers



Mechanical Recycling





Product

PCR HDPE, PCR LDPE, PCR PP

Capacity 45,000 mt/year



Presence in Thailand

Mechanical Recycling





Product

PCR HDPE, PCR PP, PCR LLDPE

Capacity

36,000 mt/year in 2025







The Netherlands



Waste Collection & Trading

Plastic 160,000 mt/year

Paper 120,000 mt/year

Advanced Recycling (2nd Generation)







Product **Recycled feedstock**

Capacity 2,000 mt/year



Innovating Green Products Through Partnerships Across industries GREEN POLYMER"



Making PVC tiles from used dialysis solution bags, food-grade recycled packaging for Knorr, and sustainable shampoo bottles for Kao







SCGC, PRINC, Baxter Healthcare, and Dynoflex launched Thailand's first eco-friendly recycled PVC tiles from used dialysis solution bags.



Unilever Partners with SCGC to Launch ASEAN's First ISCC PLUS-Certified Food-Grade Recycled Packaging for "Knorr Professional"



SCGC has been awarded the SX TSCN Sustainability Award 2024 for eco-friendly packaging using SCGC GREEN POLYMER™.



HDPE

Kao Thailand partnered with SCGC to develop sustainable recycled bottle for "Feather" hair care products from high quality PCR HDPE.



Bangchak, SCGC, and Panjawattana Plastic launched eco-friendly packaging "FURiO Ultra HD" from high quality PCR HDPE.



Addressing challenges by pursuing green opportunities





Alternative Fuels Use (Domestic %)

Approx. **45-50%** in FY2025



Renewable Power Generation

388 MW achieved **482 MW** in pipeline (approx.)

Target **3,500 MW** in FY2030



Ships and tanks on progress

US Ethane usage \$250/ton advantage



Lower CAPEX by

40% in FY2025

Net Debt reduced by 29,800 MB



Low Carbon Cement

Penetration Rate 87% in H1/2025

Accelerating adoption of Gen III



Green polymer - Recycling business in EU & TH

8 Mechanical Recycling 1 Advanced Recycling







Green polymer – Recyclable products

Partnerships across industries





- **Increasing Use of Alternative Fuels**
- **Scaling Renewable Energy**
- **Investing in Greener and Cheaper Ethane**
- **Reinforcing Financial Resilience**

- **Accelerating Adoption of Low Carbon Cement**
- **Expanding Green Plastic Business**
- **Acquiring and Transferring Know-How To Thailand**
- **Innovating Green products with Partners**

Saving Money AND The Planet

Pursuing Green Business Opportunities

Climate Change



Climate change presents a multifaceted and global challenge with far-reaching consequences that impact every sector of society.

NDC 3.0

Stricter climate targets force deep transformation across industries

Climate Change Act

Reshapes business with carbon rules and costs

SBTi Alignment Enable carbon reduction while enhancing business competitiveness and resilience

Physical Risk

Threaten business continuity, operations, and asset value

Nationally Determined Contribution: NDC 3.0

- More ambitious than NDC 2.0, to be announced at COP in Brazil
- Shift from business-as-usual projection to an absolute emission target, using 2019 as the base year

Thailand NDC 3.0 absolute emissions reduction in 2035

Sector	Emissions (MtCO ₂ eq) 2019 Latest information	Emissions Reduction/Removal in 2035 Compared to 2019 (MtCO ₂ eq)			Emissions (MtCO ₂ eq)
		NDC 3.0	Uncon.	Cond.	2035
Energy	185.2	68.1	48.1	20.0	117.1
Transport	76.8	22.6	16.6	6.0	54.2
IPPU	38.0	4.2	1.5	2.7	33.8
Agriculture	60.5	7.6	5.1	2.5	52.9
Waste	18.7	6.7	5.1	1.6	12
Total sources	379.2	109.2	76.4, 70.0%	32.8, 30.0%	270.0
LULUCF	-92.0	-26.0			-118.0
Net GHG	287.2	9	-	-	152.0



ร่างพระราชบัญญัติการเปลี่ยนแปลงสภาพภูมิอากาศ พ.ศ.



สภาพแวดล้อมที่เอื้ออำนวย

สร้างและพัฒนาสภาวะแวดล้อม ในการลงทุน



เครื่องมือและกลไก

จัดทำเครื่องมือและกลไกเศรษฐศาสตร์ และการเงินเพื่อกระตุ้นการลงทุน



งบลงทุนของเอกซน

สร้างการมีส่วนร่วมจากภาคเอกชน และดำเนินมาตรการตามแผน



งบลงทุนของรัฐ

บูรณาการจัดสรรงบประมาณ ของรัฐให้บรรลูเป้าหมาย



ติดตามและประเมินผล

ปรับปรุงและพัฒนาการดำเนินงาน อย่างต่อเนื่องจากผลลัพธ์

นโยบายและแผน

หมวด 1 บททั่วไป

ниро 3

คณะกรรมการนโยบายการเปลี่ยนแปลง

สภาพภูมิอากาศแห่งชาติ

HUDO 2

เป้าหมายการดำเนินงานด้านการเปลี่ยนแปลงสภาพ ภูมิอากาศของประเทศไทย

HUDO 5

แผนแม่บทรองรับ การเปลี่ยนแปลงสภาพภูมิอากาศแห่งชาติ

HUDO 6

ข้อมูลก๊าซ เรือนกระจก

ниоо 9

กลไทการปรับราคา คาร์บอนข่ามพรมแดน

หมวด 7

แผนปฏิบัติการลด ก๊าซเรือนกระจกของประเทศ

HUDG 10

ภาษีคาร์บอน

การลดก๊าซ

HUDO 8

ระบบการซื้อขายสิทธิ ในการปล่อยก๊าซเรือน กระจก

หมวด 11

คาร์บอนเครดิต

HUDO 12

การปรับตัวต่อการเปลี่ยนแปลงสภาพภูมิอากาศ

หมวด 4

กองทุนภูมิอากาศ

*รวมมาตรการส่งเสริมการดำเนินงานฯ

HUDO 13

มาตรฐานการจัดกลุ่มกิจกรรม ทางเศรษฐกิจด้านการเปลี่ยนแปลง สภาพภูมิอากาศและสิ่งแวดล้อม

HUOQ 14

บทกำหนดโทษ

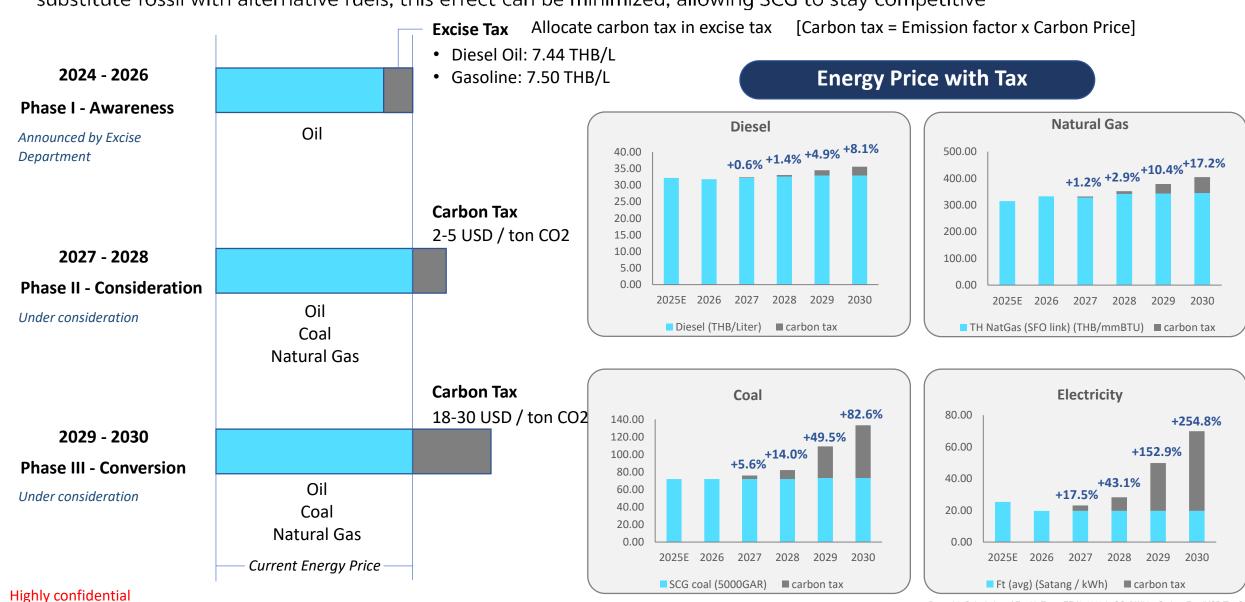
การปรับตัว

กลไกการเงิน

Source: กรมการเปลี่ยนแปลงสภาพภูมิอากาศและสิ่งแวดล้อม กระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม

Financial Effect of Carbon Tax

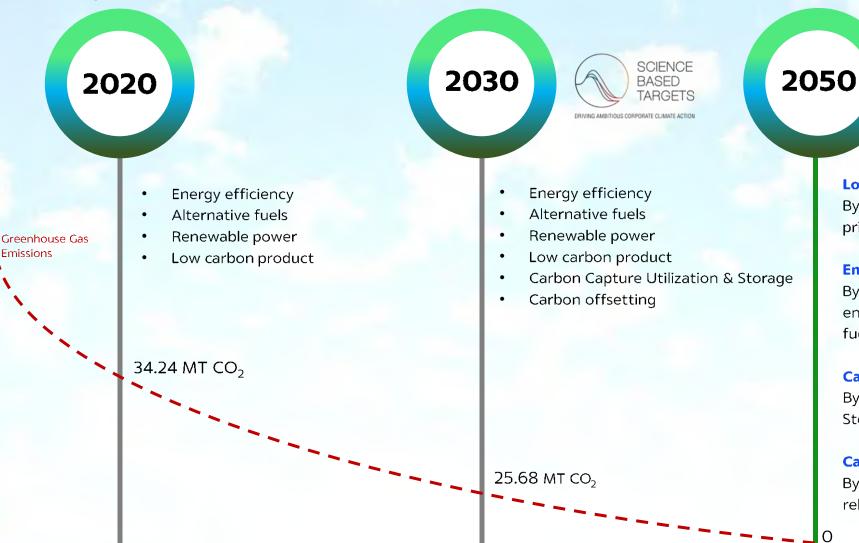
The carbon tax is expected to increase variable costs by 3-5%. However, with a proactive decarbonization strategy to substitute fossil with alternative fuels, this effect can be minimized, allowing SCG to stay competitive



Remark*; Calculation of Ft with Tax = EF (0.4999 kgCO₂/kWh) x Carbon Tax (USD/TonCO₂)

SCG GHG Roadmap Towards 2050

Step-by-step to the ambition of long term target: Aligned with SBTi



Low Carbon Product

By Innovating the products/process with circular economy principal & low carbon technologies in value chain

Energy efficiency & Transition

By exploiting state of the art technologies to improve energy efficiency and increase proportion of alternative fuels and renewable power

Carbon Capture Utilization & Storage

By developing and scaling up Carbon Capture, Utilization & Storage technology with national and global collaboration

Carbon offsetting

By collaboration with communities for forestation & rehabilitation to enhance carbon sink

Near Term Target validated by SBTi:

SCG commits to reduce absolute **scope 1 and 2** GHG emissions 25% by 2030 from a 2020 base year. SCG also commits to reduce absolute **scope 3** GHG emissions from the use of **sold fossil fuels** 25% by 2031 from 2021 base year.



34.24GHG Emission MT CO₂ at base year 2020



25.68 (25% GHG reduction)

GHG Emission MT CO₂ at 2030

SCG 2050 Net Zero Roadmap and Progress

SCG GHG Scope 1 & 2 reduction is on track with SBTi targeting to achieving 25% reduction in 2030.

Performance

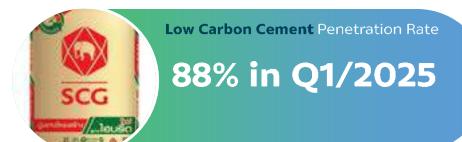


Renewable Power Generation

388 MW achieved

482 MW in pipeline (approx.)



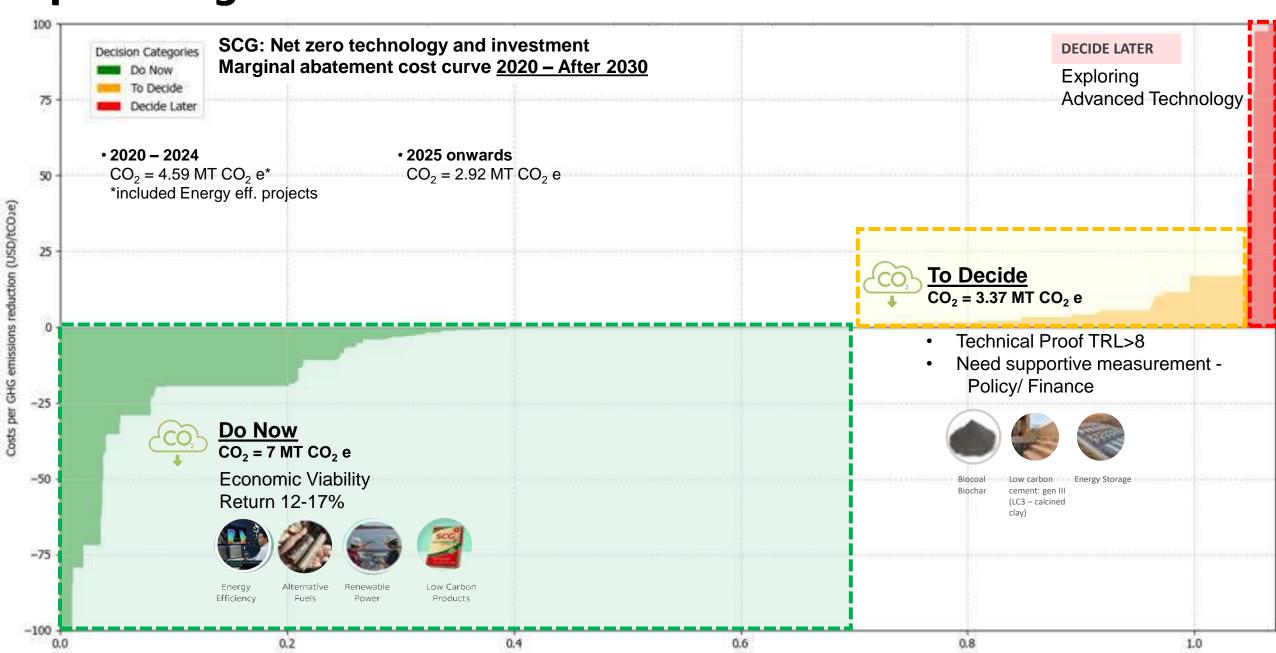




Q1-Q2/2025 is the actual of Jan-May and estimate Jun.



Optimizing GHG Reduction Investment



A Changing World – Climate Impacts Accelerating

Long-term GDP impact by mid-century





Physical Risk

SCG faces acute physical risks that disrupt infrastructure and supply chains, as well as chronic impacts such as rising temperatures, droughts, and sea level rise that threaten ecosystems, the economy, and society over time

Acute Risk

Caused by sudden events, such as the intensification of extreme weather conditions like **storms**, **floods**, **or wildfires**







Damages in infrastructure, distribution networks, and supply chains







Chronic Risk

Long-term changes in climate patterns, such as **drought**, **continuously rising temperatures**, **sea level rise**, and **seasonal variability**







Ongoing impacts on ecosystems, the economy, and society

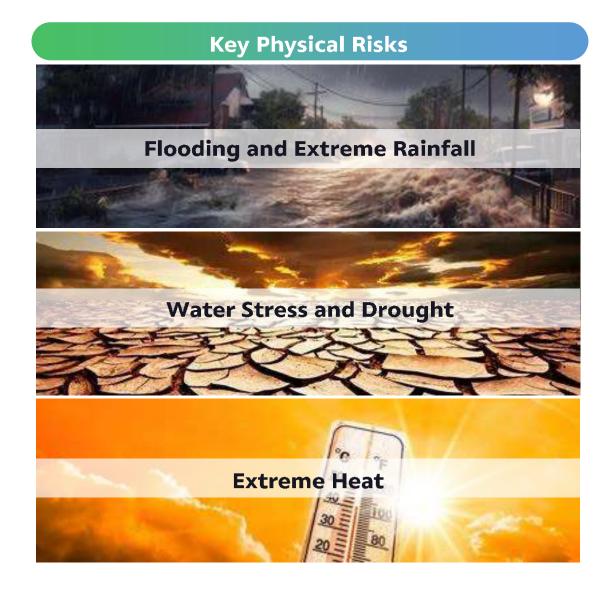






Physical Risk – Scenario Analysis

SCG has selected the SSP1-2.6, SSP3-7.0, and SSP5-8.5 to assess the physical risks



Scenarios Used

SSP1-2.6

 Low emissions scenario that stays below 2°C warming by 2100, aligned to current commitments under the Paris Agreement.

SSP3-7.0

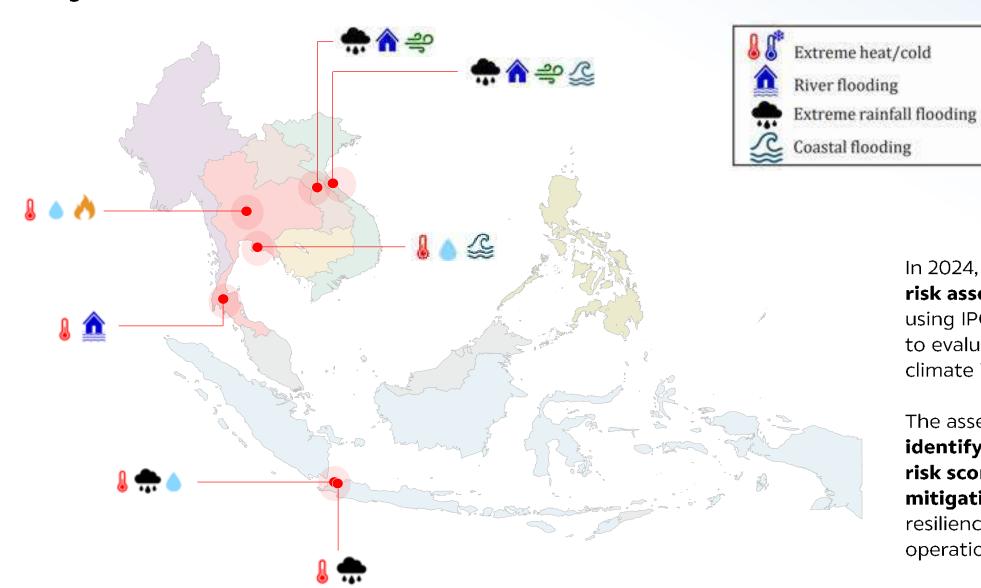
 Emissions continue to increase, driven by regional competition focused on economic growth, food and energy security.

SSP5-8.5

 High emissions scenario, which follows a 'business as usual' trajectory, assuming no additional climate policy and seeing CO2 emissions triple by 2100.



Physical Risk Assessment



In 2024, SCG conducted a **physical risk assessment** of its 25 assets using IPCC-based climate scenarios to evaluate short- and long-term

climate impacts.

Wildfires

Extreme Winds &

Storms Rainfall-induced landslides

Water stress & drought

The assessment helped SCG identify vulnerabilities, generate risk scores, and implement mitigation measures to strengthen resilience and ensure sustainable operations.



Adaptation – Building Disaster Resilience

Bolster water resilience

Ensure business continuity



- Water stewardship risk assessment
- Ecological restoration with local stewardship

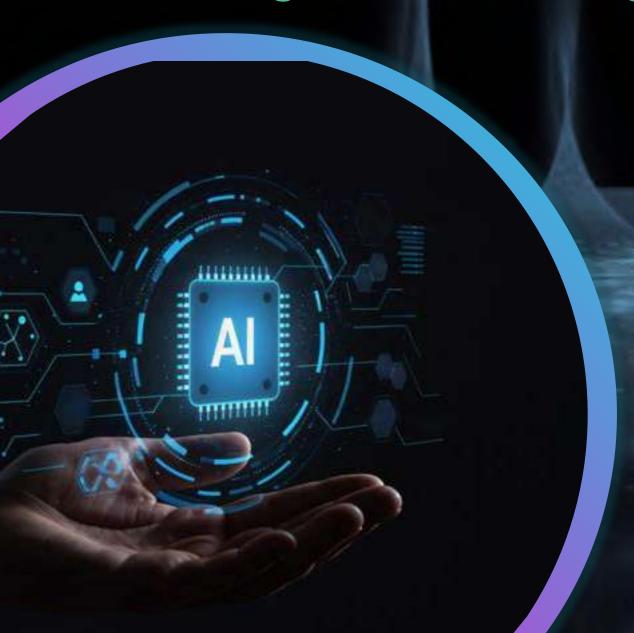
- Water forecasting model
- Water supply price hedging
- Keep internal capital reserves plus insurance for natural disaster

Minimize disaster impact



- Multi-Hazard Early
 Warning System
- Emergency Response & Crisis Management

Transforming AI and Technology Challenges into Innovation



Opportunity



- Existing Business: Efficiency and productivity enhancement
- Upskill & Reskill: Adapt workforce to new technology

Challenge



- Cybersecurity & Data Privacy: Protect critical information
- Explore business process transformation



Three layers of workstreams for today's value release with radar for tomorrow's opportunities.

CURRENT BUSINESSES

NEW OPPORTUNITIES

AI PROJECTS

Formally chartered with committed returns



New opportunities
Radar, partnership &
investment

MASS ADOPTION

Personal productivity gain in everyday-work

Build awareness & skills as well as FOMO, peer-pressure

- Events & competitions
- Community

ENABLER

Tools, infrastructures, supports, governance

Al literacy & Al tools
One-stop support center
Visibility & governance

Strategic Al Roadmap: From Quick Wins to Transformation Delivering Business Impact and Workforce Productivity

AI PROJECTS

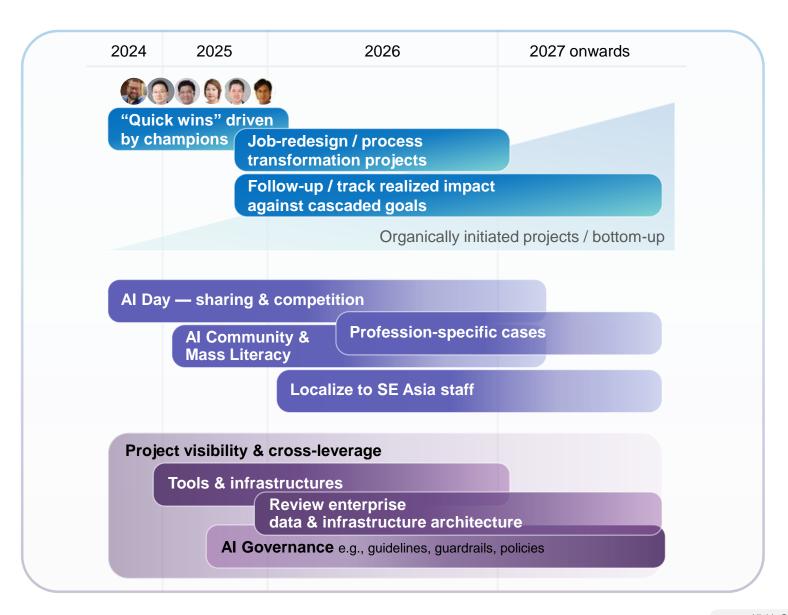
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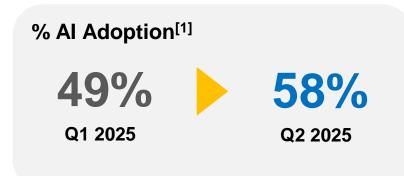


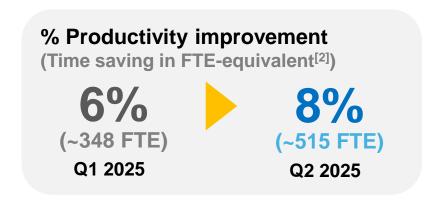
Driving Business Impact through Strategic Projects and Organization-Wide Mass Adoption



- Sales and Marketing Customer Experience & New Revenues: e.g., Al sales conversion bot, Chat assistant for sales and customer support, Al-powered lead qualification, Government data to sales lead
- **R&D/NPD Speed Time to Market**: e.g., Literature review/IP landscape & analysis, Formulation/parameter optimization, Market research & competitor analysis
- **Operations Efficiency Improvement :** e.g., Al-powered spare parts management, Energy optimization, Predictive maintenance
- Admin Workflows Cost Reduction: e.g., Al-driven working capital analysis, Al for recruitment processes,
 Al OCR for document automation







Enabling Sustainable Transformation through AI Literacy, by these Supportive AI Ecosystem

Fostering innovation and individual empowerment with "Human-AI synergy"

Sharing Events

Al-Day, Mini Al-Day

To spark AI innovation across organization by updating trends, benefit, impact

7,600 participants

Guideline

Do & Don't Guideline for Users

To demonstrate how to use AI responsibly, smartly, and safely

100% awareness

Immediate Practice

Al Fundamental, KM Builder

To increase employees capability of AI to improve their routine work

62% literacy uplift

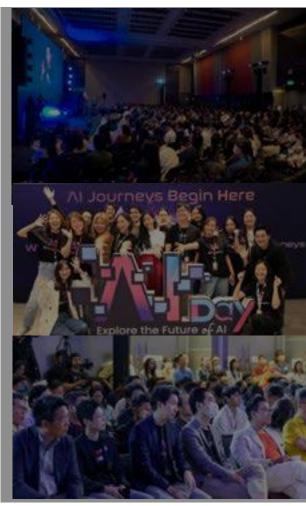
Enterprise AI Tools

Internal SCG Tools and external tools for enterprise wide

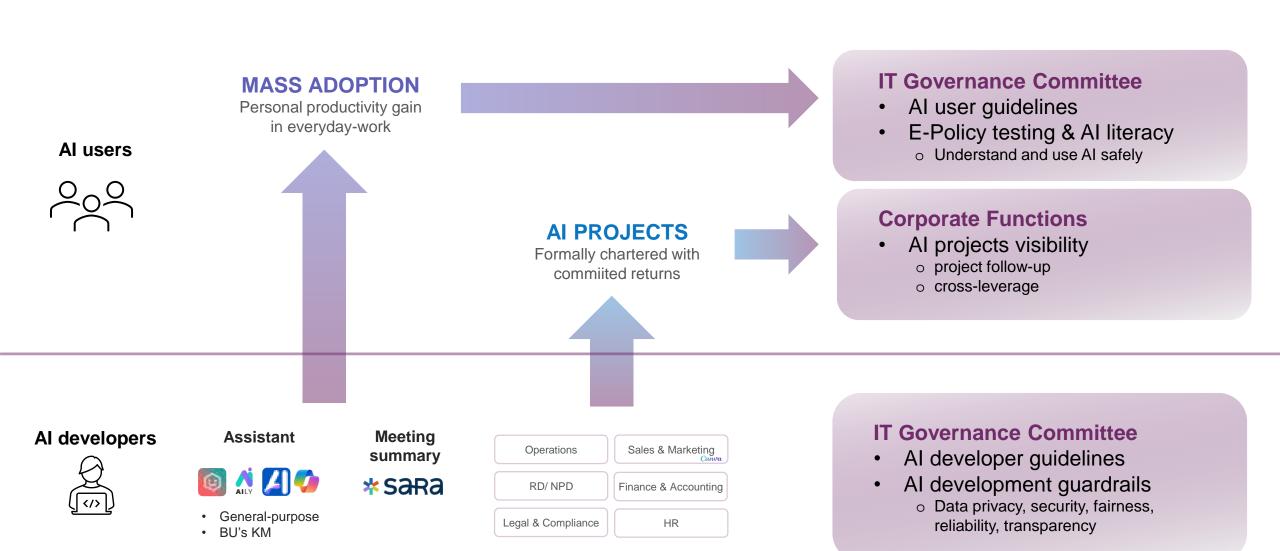
Al tools available to use within security environment for SCG

58% Adoption boosted





Al Governance: freedom to use and build Al responsibly within a clear framework & visibility



Specific tools and apps

Enterprise tools

Just Transition for SMEs

SMEs ฝ่าวิทฤติ สู่ความยั่งยืน รMEs เป็นรากฐานสำคัญ ของเศรษฐกิจไทย สร้าง GDP 35% และจ้างงานกว่า 70% ของแรงงานทั้งประเทศ

แต่ทำลังเผชิญสรงทดดับรอบด้าน ทั้งต้นทุนสูง การแข่งขันรุนแรง เทคโนโลยีที่เปลี่ยนเร็ว ทดิกาและกฎระเบียนโลก หากไม่รังปรับตัว อาจสูญเสียความสามารถในการแข่งขับระดับบานาชาติ



- มีบทบาทสำคัญทั้งส่วนที่เป็นต้นน้ำและปลายน้ำของธุรกิจ และการบรรลุเป้าหมาย Net Zero ของ SCG
- SMEs ทำลังเผชิญความท้าทายทั้งด้านเงินทุน สภาพคล่อง โอทาสทางทารตลาด และบริบทการทำธุรทิจที่เปลี่ยนไปจาก การเปลี่ยนแปลงภูมิรัฐศาสตร์ กฎระเบียบ ภาษี ซึ่งเป็น อุปสรรคสำคัญต่อการเปลี่ยนผ่าน



น่าห่วง! 8 เดือนแรก รุ<mark>รกิจ SME ปิดกิจการ 10,000 ราย</mark> เหตุต้นทุนสูง-ขาดการใช้เทคโนโลยี

Empowering SMEs in the Transition

Collaboration unlocks the path for SMEs — turning finance, skills, and innovation into sustainable growth

Short-term Measures

- Support high-potential
 SMEs to enter competitive markets
- Upgrade product standards with focus on value & differentiation over price
- Encourage innovative, socially relevant products
- Link with initiatives promoting Thai goods abroad
- Provide working capital to support market expansion

Medium-term Measures

- Build SME capacity through digital, technology, and ESG skills
- Support product and process innovation
 Facilitate access to broader markets and supply chains
- Expand access to long-term financing and credit guarantees
- **Strengthen** SME networks and partnerships

Long-term Measures

- One Stop Service for SME advisory, finance, and knowledge
- Build ecosystem for digital
 & green transformation
- Skill matching to meet future market needs
- Access to new markets for competitiveness
- Align with national strategies (NESDP 14, NDC 3.0)

Capacity Building toward Sustainable SME



Knowledge **Sharing**

Transition in Action

Collaborative Development





Key Partner

























Finance & Funding Supported

- Financial Institutions (Governmental & Commercial)
- Funding







เติบโตด้วยกัน สู่โลกยั่งยืน

Objective:

To enhance the competitiveness of SMEs.

Net Zero Overview

- Policy Law & Regulation
- Low Carbon Pathway

Energy

- Energy Transition
- Energy Efficiency

Circular Economy

- Waste Management
- Waste to Value

Adopting technology to lower costs

- M-A-R + Digitization
- Energy Cost Reduction
- Lean Process

Green Finance for SMEs

- Products & Service
- Consultation

16 Batches with 1,300 participants from 37 provinces





SCG, together with partner networks, launched the first **Net Zero Accelerator Program (Batch1)**, inviting executives from SMEs, government, and the private sector to join. The program features knowledge courses, expert discussions, experience sharing, and continuous networking to drive collective action.

A total of 106 participants joined: 72 SME executives and 34 government executives.



















GHG Scope 3 Supply Chain Decarbonization

"เพิ่มศักยภาพ และเตรียมความพร้อมให้คู่ค้า ในการปรับตัวเที่ยวกับเรื่องการเปลี่ยนแป้ลง สภาพภูมิอากาศ โดย*ไม่ทิ้งใครไว้ข้างหลัง*"

SCG Passion for Inclusive Green Growth

Supplier Engagement Program





Supplier Workshop#3

Supplier engagement Workshop#3 (TSCN)

- Focus on CFP & LCA
- How to calculate Carbon Footprint Product
- Collaborate with TSCN
- **GHG Reduction Project**

Supplier Workshop#1

Supply Chain Decemberslantion (Climate Charge Supplier Engagement Workshop

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4		*

July 14, 2023

Pilot 12 Suppliers CFO



Supplier Workshop#2

How to calculate CFP (Partials)

Supplier engagement Workshop#2

Focus on CFP (Partials)

Inspiration by Shell

(for high impact Supplier)

Aug 19, 2024

CFP (partials) & Inspiration for GHG Management



Aug 18, 2025

Call for Action (CFP, LCA and GHG Reduction Project)

Supplier Day



Dec 15, 2022

Code of conduct



Supply Chain Decarbonization Workshop 2025







ให้ความรู้ในการคำนวณ Carbon Footprint Product ผ่านการฝึกกำ จริง และแนะแนวทางในการลดการ ปล่อยก๊าซเรือนกระจกอย่างเป็น รูปธรรม พร้อมแหล่งเงินทุนผ่าน เครือข่ายพันธมิตร TSCN (Thailand Supply Chain Networking) เพื่อให้ Supplier สามารถต่อยอดและนำไปใช้ งานได้จริง



"SCG ดูแลเหมือน**เป็น partner เป็นพี่เลี้ยง** ทำให้เกิดความตระหนักว่าเรื่อง Net Zero เราจะต้อง**เดินร่วมกันไป**"

Vibrant (Thailand) Co., Ltd.







Consolidated into 3
Core Businesses
(Cement-Building
Materials, Chemicals,
Packaging Business)

1998

2013

112th year

SCG Cement & Green Solutions

2024

SCG Smart Living SCG Distribution & Retail



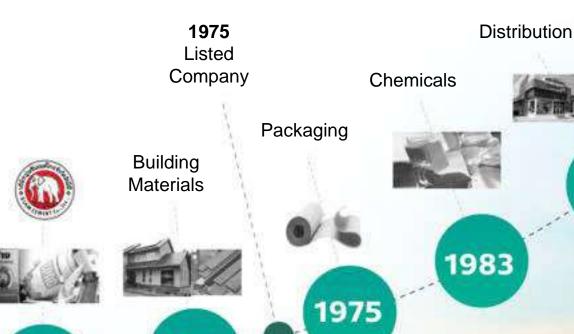
SCGP

SCGJWD









Cement was founded under the Royal Decree of His Majesty King Rama VI in 1913, to produce cement for domestic consumption, reducing reliance of cement imports, and laying a ground work of country development

1938

1913



SCG at a glance



400+ companies
Subsidiaries and Associates



511+ bn THB
Consolidated Revenue



137+ bn THB

ASEAN Revenue



50,000+ people

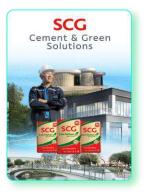
Total Employees



861,502 MB
Total Assets

*FY2024 Consolidation

Agile Organization











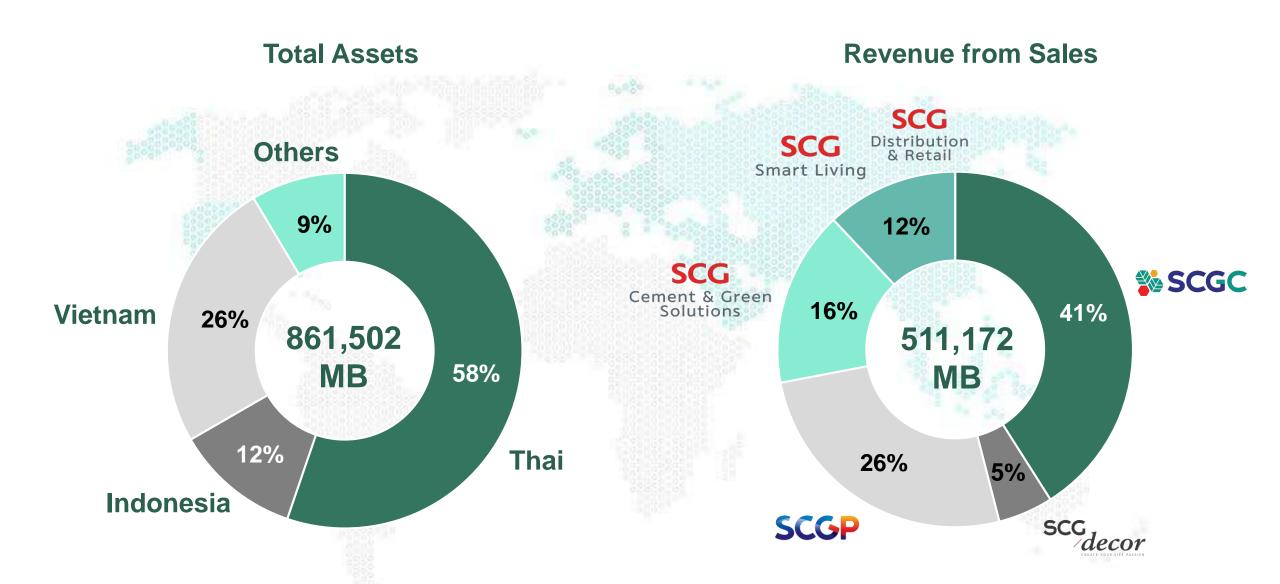




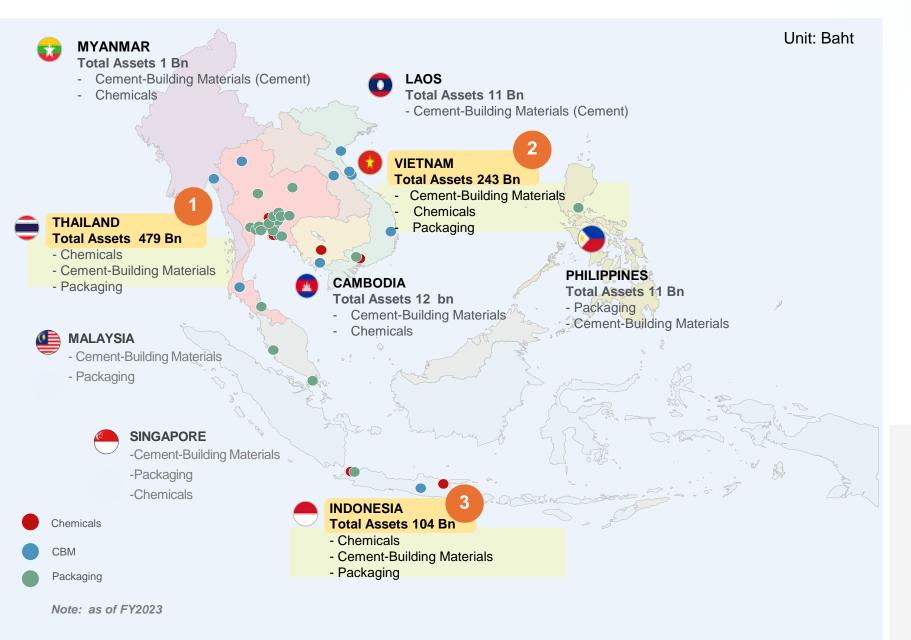


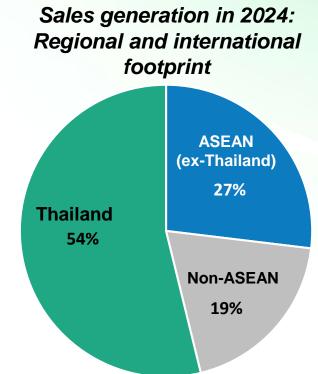


Segment Performance in 2024



Where We Are in ASEAN in 2024







Green Growth **Business Purpose** SCG is moving forward to create a Low Carbon Society with sustainable growth through green innovations, Growth together with all stakeholders -25% GHG **Emission** Reduction Low Carbon Green Process & Technology 2020 2030 2050 **Based Year Achieved Net Zero**