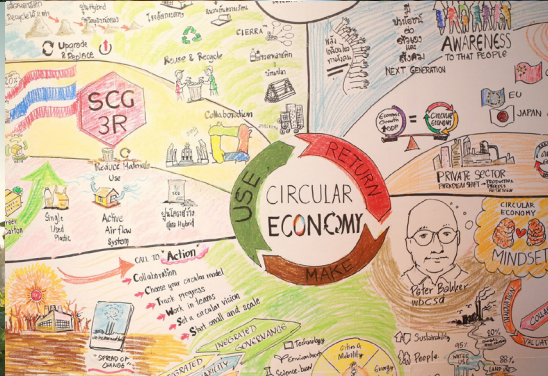


South-South in Action A Decade of SCG Sustainable Development Symposia



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United Nations Office for South-South Cooperation

United Nations Development Programme
304 East 45th Street, FF 11-th Floor
New York City, NY, 10017
<https://www.unsouthsouth.org/>

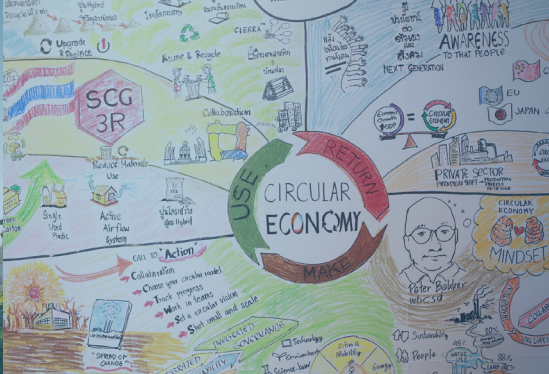
Siam Cement Group (SCG)

1 Siam Cement Road, Bangsue
Bangkok 10800 Thailand
www.scg.com

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Designed by KLENKA

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Abbreviations and Acronyms

ASEAN	Association of Southeast Asian Nations
DEQP	Department of Environmental Quality Promotion
DJSI	Dow Jones Sustainability Indices
EITI	Extractive Industries Transparency Initiative
EU	European Union
IUCN	International Union for the Conservation of Nature
SCG	Siam Cement Group
SD	Sustainable Development
SDGs	Sustainable Development Goals
SEP	Sufficiency Economy Philosophy
SSC	South-South Cooperation
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNOSSC	United Nations Office for South-South Cooperation
WBCSD	World Business Council for Sustainable Development
WTO	World Trade Organization

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We also wish to extend our appreciation to the UNOSSC Headquarters team for editorial review, design and printing of this publication.

Foreword

Siam Cement Group (SCG) strives to conduct its business in strict adherence to sustainability goals and create a balance among economy, society, and environment, as noted in SCG's four Core Values, "Concern for Social Responsibility", for the benefit of all stakeholders. SCG has also been recognized as a member of the Dow Jones Sustainability Index (DJSI) for 15 consecutive years, starting in 2004, and is one of first private sector companies within the Association of Southeast Asian Nations (ASEAN) to be so recognized.

The increase in global population will inevitably have impacts on the environment, including by depleting natural resources, increasing marine debris, and intensifying global warming. Recognizing that the key to solving this problem depends upon the engagement of all sectors, SCG's efforts have included hosting Thailand's first Sustainable Development Symposium starting in 2010, an event that has continued for 10 years. This symposium aims to broaden the knowledge of sustainable development concepts to other organizations and to serve as a platform for sharing ideas and exchanging experiences and knowledge at the global, ASEAN and national levels. This is in addition to sharing SCG's knowledge and expertise, such as its sustainable innovation in manufacturing environmentally-friendly products and services, water management, and the global embrace of the principles of the circular economy.

This decade of the symposium's continued success has involved key opinion leaders from more than 20 countries across various sectors - including governmental, educational, private and other non-governmental organizations - sharing their knowledge. This has inspired sustainable development projects in Thailand and other ASEAN Member States. The Government of Thailand has transformed proposals to address the country's water management problems into national policy and concrete actions. These actions have created cooperative synergies among civil society, local communities, government entities, the private sector and global organizations to jointly develop and implement a prototype of the circular economy.

SCG seeks to be an active player in and facilitator of a collaborative network focused on achieving sustainable development and building a resilient society by working at the corporate and global levels.



Roongrote Rangsiyopash

President and CEO, SCG

Foreword

The outcome of the Rio de Janeiro+20 United Nations Conference on Sustainable Development signalled a revitalized international commitment to sustainable development. Conference participants also broadened the concept of sustainability beyond the environment to include the human dimension as well. The Outcome Document called for “sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting integrated and sustainable management of natural resources and ecosystems that supports, inter-alia, economic, social and human development while facilitating ecosystem conservation, regeneration and restoration and resilience in the face of new and emerging challenges.”

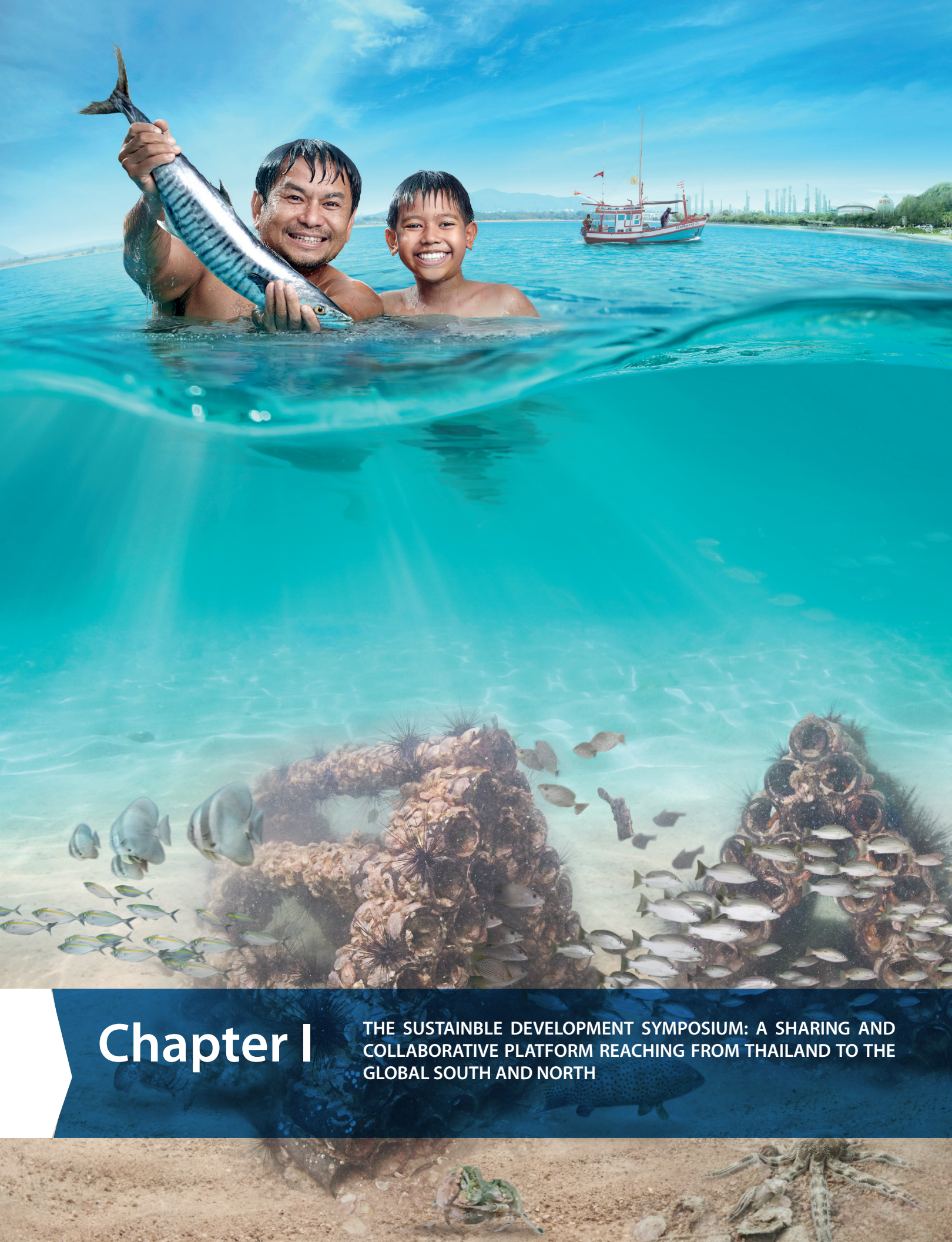
This broad vision led to the 2030 Agenda for Sustainable Development and, subsequently, to the 17 Sustainable Development Goals (SDGs), adopted by the international community in 2015. Through this visioning and defining the goals for action, it became clear that sustainable development is everyone’s business; that is, the North, the Global South, governments, intergovernmental organizations and non-state actors, including the private sector. These developments, backed by the call for a multi-stakeholder approach to South-South Cooperation (SSC) at the March 2019 Second United Nations High-Level Conference on South-South Cooperation (BAPA+40), led to this collaboration between the United Nations Office for South-South Cooperation (UNOSSC) and the Siam Cement Group (SCG).

UNOSSC is pleased to be a partner in compiling this unique publication as part of the South-South in Action series. In it, SCG documents its journey as an eminent promoter of sustainable development. This journey even precedes the SDGs, thus establishing SCG as a pioneer. Linking this approach to the late King Bhumibol Adulyadej’s Sufficiency Economic Philosophy underscores its strengths as a foundation for sustainable development. We are particularly pleased that SCG is committed to sharing lessons learned along this journey with other institutions from the Global South. We are proud to be a partner in that endeavour.



Jorge Chediek

Envoy of the Secretary-General
on South-South Cooperation
and Director, United Nations
Office for South-South
Cooperation



Chapter I

THE SUSTAINABLE DEVELOPMENT SYMPOSIUM: A SHARING AND COLLABORATIVE PLATFORM REACHING FROM THAILAND TO THE GLOBAL SOUTH AND NORTH

SCG was founded in 1913, based on King Rama VI's royal command calling for domestic cement production as a prerequisite for national development and prosperity. More than 100 years later, SCG has grown, expanded, adapted and weathered volatility, all while giving priority to caring for the environment and the community. Thanks primarily to the four core values that management and staff have adhered to over the last four decades - adherence to fairness, dedication to excellence, belief in the value of the individual and concern for social responsibility - SCG withstood the most serious challenge of the 1997 financial crisis, known worldwide as the Tom Yam Kung crisis, which affected Southeast Asia and beyond.

In the decades prior to 1997, the Thai economy was growing rapidly. Thailand was often portrayed as Asia's "new economic tiger." At the same time, SCG was aggressively expanding its operations, which grew to a total of 10 units, including cement; building materials; ceramics; distribution; petrochemicals; paper; iron and steel; auto accessories; electrical products; and machinery. SCG had also just begun its ASEAN expansion, with additional loans totalling 110 billion baht, or approximately US\$4.4 billion.

When the Asian financial crisis occurred in mid-1997, the Royal Thai Government floated the Thai baht against the US dollar, leading the baht to plunge from its fixed level of 25 to the dollar to up to 50 to the dollar. Ultimately, the baht settled at 47.25 to dollar late that year. SCG lost earnings of more than 52 billion baht, while its loans spiked to 240 billion baht. We have all since learned that the 1997 Asian economic crisis, which led to many business failures, was fuelled by overinvestment and short-term financial speculation against the backdrop of a relatively weak financial regulatory framework.

To survive the crisis and remain sustainable, SCG adopted and implemented King Rama IX's

Sufficiency Economy Philosophy (SEP). This meant changing the direction of our business practice by incorporating the principle of moderation, which focuses solely on core strengths. The 10 business units were consolidated to five - chemicals; paper; cement; building materials; and distribution - and the company scaled down its non-core operations. The sufficiency mindset also created efficiencies through optimal use of resources, especially human capital. SCG did not downsize its workforce to cut costs. Throughout the crisis, it continued to strengthen the knowledge and competencies of its staff so that they could be the force to lead SCG out of the crisis.

Doing business with the SEP mindset has enabled SCG to become more prudent by implementing risk diversification and broadening the market base domestically and internationally, while adhering to the principle of knowledge and virtues. It involves seeking knowledge and experience to gain an understanding based on reasonableness. This can generate innovation to increase competitiveness and to pursuing business in a balanced way that extends beyond economic profit to caring for society and the environment and expanding the business prudently and cautiously, based on a strong corporate governance framework.

Adhering to the four core values and the Sufficiency Economy Philosophy laid the foundation for SCG to survive, thrive and achieve sustainability. The company has gained prominence based on the combination of sound business practice and promotion of sustainability. SCG has three core business lines today: cement-building materials; chemicals; and packaging.

Along its growth path, SCG realized that in addition to the need to generate knowledge for internal use, it was essential to enhance its business partners' knowledge and capacity throughout the value and supply chains -

upstream, midstream and downstream. In particular, together with SCG, clients, consumers and stakeholders must understand and appreciate eco-friendly products and services designed to achieve sustainability. Furthermore, SCG learned that, given limited resources in a single company, it would be unlikely to achieve its sustainable development goals on its own. Expanding collaboration with and including multiple stakeholders are essential in order to have a meaningful impact on sustainability.

In 2010, while commemorating its 96th anniversary, SCG initiated the Sustainable Development (SD) Symposium as a sharing platform and activated a network, starting with Thailand and extending to the ASEAN nations and region-wide, to scale up sustainable good practices. Now, as a proven pioneer, SCG is expanding this collaborative network to the Global South with support from developed countries and the multilateral development system, specifically, the UNOSSC. The ultimate objective is to achieve the SDGs.







Chapter II

THE SUSTAINABLE DEVELOPMENT SYMPOSIUM: A SHARING AND COLLABORATIVE PLATFORM REACHING FROM THAILAND TO THE GLOBAL SOUTH AND NORTH

2010: Taking the First Step to Understanding Sustainable Development

In planning the 18 October 2010 Thailand SD Symposium, SCG sought to raise awareness of sustainable development at a time when the concept was still obscure. At the symposium, His Excellency Lyonpo Dr. Kinzang Dorji, former Prime Minister of the Kingdom of Bhutan, delivered a keynote speech titled “SD through Gross National Happiness.”

Breakout sessions explored the themes of “doing well by doing good,” “technology innovation towards sustainability,” and “harmonizing industry with society, a lesson from Japan.” The main outcomes of the sessions are presented below.

Unleashing powerful collaboration

“For people to enjoy a good life, we must start by opening our eyes to what exactly we are

living amidst, looking beyond GDP figures as a development indicator, “H.E. Dr. Kinzang told the audience. “We must ensure that economic progress goes hand-in-hand with sustainability and ecosystem and biodiversity protection.” Challenging the old development paradigm with the perspective that “Gross National Happiness is far more important than GDP numbers,” he emphasized action, saying, “We must demonstrate this with clarity and transparency.”

Kan Trakulhoon, SCG President and CEO, told the audience that SCG’s vision, which was developed based on global trends, required businesses to address climate change and resource depletion challenges within the context of population growth. He suggested that calls for business actors to operate sustainably were gaining traction, as reflected in investors’ preference for businesses with a sustainability policy. The single focus on profitability would no longer be sufficient.



H.E. Lyonpo Dr. Kinzang Dorji, former Prime Minister of the Kingdom of Bhutan, delivered a keynote speech titled “SD through Gross National Happiness.”

As Kan explained, SCG's vision was to become an innovative-driven organization and a role model in sustainable development and corporate governance. He added that success requires collaborating with a range of actors. The Symposium thus opened a new chapter by establishing multi-sectoral collaboration.

To demonstrate sustainability in action, the learning and sharing sessions at the SD Symposium 2010 featured corporations that managed to balance business goals and environment and social concerns, based on the following themes.

1. Doing well by doing good

This breakout session explored the definition of sustainable development, why it matters and whether it is fact or myth that pursuing a sustainable business approach is a difficult undertaking that only adds cost to an organization.

Examples included an initiative by the Bangchak Petroleum Public Company Limited to produce biodiesel from locally sourced material. Participants also learned from the example of VPP Progressive Co. Ltd., which produces D'Oro Coffee. It sourced coffee beans from highland communities that received training from the company, resulting in improved income and livelihoods. The company expanded its involvement by working with schools to grow coffee. A portion of coffee bean sales was allocated for school development activities, such as improving playgrounds.

2. Technology innovation towards sustainability

This session was built on the World Business Council for Sustainable Development's Vision 2050, which states, "In 2050, some 9 billion people will live well, and within the limits of the planet." The vision thus advocates technology and innovation to balance growth and population increases with environmental conservation, wise resource use and a liveable society.

The examples offered focused on renewable energy. Renewables were still novel and nascent in the Thailand of 2010. Innovations in the field of renewable energy sources from around the world showcased at the Symposium included converting seaweed to fuel and domestic waste to energy and process improvement technology for green industry processes, such as biotech in fuel production and waste treatment.

"All these are aimed at better, environmentally-friendly products and services that bridge social gaps and cut costs, leading to sustainable development and improved living and livelihoods," said participant Dr. Sakarin Phumirat, President of King Mongkut's University of Technology in Thonburi. Dr. Sakarin also pointed out that apart from technology advancement, "human capital development is another mechanism to support sustainable development."

3. Harmonizing industry and society, a lesson from Japan

Japan offered an example from the North. The country has excelled in environmental protection and industry management. In the past, it struggled with serious industrial pollution, which has had detrimental effects on public health and the environment. Examples include Itai-Itai disease (cadmium poisoning) and Minamata disease (mercury poisoning). Public pressure, multi-sectoral collaboration and systematic management led to the formulation of a sound legal framework for enforcement, with accountable agencies and rigorous compliance. In addition, an inclusive decision-making model that engages stakeholders is considered a priority. The Japanese approach and model thus provide an interesting case study for industries operating in the Global South.

Dr. Chulapong Taweessrit, Minister-Counsellor (Industry) at the Royal Thai Embassy in Japan, shared the story of a steel plant that discharged pollutants into the sea, causing acidification and killing marine life. Its impacts on air quality could be seen in the multi-coloured plumes that spread across the sky. Industrial expansion created

multiple impacts on urban areas and required action. This led to a pact between business, industry and the state and the establishment of pollution emission standards that prompted factories to install pollution detection systems and pollution control devices and to use energy-efficient and environmentally-friendly fuels.

“Trust is important and it cannot be established overnight,” said Prof. Dr. Thongchai Pansawat, an environmental expert and member of the Sub-Committee to Reform Environment and Natural Resource Management in Thailand. “Industries must forge unity among themselves first, and then reach out to engage the public.” He underlined the importance of inclusiveness, a point raised and reinforced by other panellists.

Payungsak Chartsitthipol, Chair of the Federation of Thai Industries, pointed to the important issue of governance, noting, “What we can learn from Japan is to have a clear policy and strict and serious law enforcement.”

Although the discussion lasted just one day, the knowledge and experiences shared at the Symposium’s plenary and breakout sessions inspired participants from a variety of sectors and paved the way towards sustainable development. The gathering helped them visualize the path ahead so they could move forward with confidence and walk along it with others, towards a good life for all in the future.

2011: Learning from and Sharing with Global Business Actors

The Thailand SD Symposium 2010 raised general awareness, but some continued to ask why business conduct must be based on sustainability principles. The second Thailand SD Symposium, held on 19 September 2011, sought to communicate the imperative of sustainability in business. The keynote speakers, Dr. Surin Phitsuwan, Secretary-General of the Association of Southeast Asian Nations (ASEAN), and Bjorn Stigson, President of the World Business Council for Sustainable Development (WBCSD), outlined challenges and opportunities for the business sector. Stuart L. Dean, President of General

Electric (GE) ASEAN and Davide Vassallo, Global Practice Leader, DuPont Sustainable Operations, joined the global business sharing session. The afternoon breakout sessions explored issues relating to a sustainable and happy life, including Better Policies for Better Lives, Eco Products Make Our World Better, and Enhance Human Value with Social Enterprise.

Global business sharing

The participating global business operators shared a diverse range of experiences, outlining global trends and ongoing sustainability efforts by business actors around the world.

Bjorn Stigson noted that business sectors in the United States (USA), European Union (EU), the Republic of Korea, Japan, India and China were adapting and competing to optimize resource use in the face of population pressure. With the world’s population projected to reach 9.2 billion in 2050, he noted that corporations need strategies to make the most of resources and minimize environmental impact in their operations.

Stuart Dean shared GE’s Ecomagination concept, which targets the production and innovation of an energy-efficient product line by doubling its research and development budget with the goal of reducing greenhouse gas emissions (GHGs) and reducing water use or recycling water. He explained that the effort had produced a new generation of products that address customer needs and create value for clients and investors, while protecting the environment. “This effort generated over US\$85 billion in revenue for GE,” he said, pointing to GE’s success to reassure the audience that businesses can do both - meet their financial goals and protect the environment.

Davide Vassallo stressed the importance of science in addressing sustainability challenges, reporting that Dupont has invested in R&D for eco-friendly products that achieve environmental goals, such as reducing GHGs and water consumption. He pointed to a critical success factor: organizational culture, which must begin by changing attitudes across the

workforce and putting in place appropriate processes and institutional structures.

Dr. Surin Pitsuwan highlighted the need for a change in attitudes at all levels, particularly within big business. "The world is facing a challenge on a scale unresolvable by any single country on its own," he stated. "It's a call to duty for all. SD is not an option, it is the only path for ASEAN."

Domestic business sharing

Thailand SD Symposium 2011 also included breakout sessions focused on the following three themes, with participants from the public and private sectors, NGOs and academia.

1. Better Policies for Better Lives: This session dealt with governance and regulatory oversight through laws, standards, regulations and policies that provide a clear direction for implementation and continuity. Businesses

must still develop multi-stakeholder engagement and disclose information to build trust and confidence. At the same time, civil society must be aware of and exercise its rights to advocate, comment and lobby for action where appropriate.

2. Eco Products Make Our World Better:

Innovating to generate eco-friendly products and services can help maintain sustainable business growth by adding value, while responding to customers' needs. This session highlighted the experience of Panasonic A.P. Sales (Thailand) Co., Ltd. and its drive to become a leader as a green innovation company in the electronics industry. Participants also learned about Plan Creations Co., Ltd., which produces educational toys from rubberwood. Its innovative designs incorporate environmental concerns throughout the product lifecycle. SCG shared its development of the SCG eco-



Social entrepreneurs showcased their stories of business models aligned with sustainable development

value label, a product line that seeks to set higher standards for eco-products available in the market and motivate its business peers to bring more eco-friendly product choices to the market.

3.Enhance Human Value with Social Enterprise:

The social enterprise business model is not as prevalent in Thailand as in developed countries such as the UK, Canada and USA. Social entrepreneurship seeks to resolve social or environmental problems with a business model that can generate sufficient income to sustain operations and then expand to achieve its full potential. Social entrepreneurship is, therefore, a sound business model that is aligned with sustainable development. This session featured Doi Chang Coffee Original Co., Ltd., a Thai social enterprise. It was founded to substitute coffee crops for opium in highland communities.

The business has focused on improving the quality of coffee beans to achieve premium value and helping growers resist downward price pressure from intermediaries. Proceeds from sales are used to improve community schools and hospitals. Other case studies included Swift Company Limited and Grassroot Innovation Network. Both shared the same strategies on building business models and promoting self-reliance. They trained farmers on organic methods to replace mono-cropping and supported villagers through interest-free or low-interest loans, buying produce at guaranteed prices and arranging farm-to-table (sustainable approach to agriculture and dining) logistics. As a result, a network of farmers is practicing sustainability and enjoying better livelihoods.

In his closing remarks, SCG President and CEO Kan Trakulhoon reflected on the possible impact of the Thailand SD Symposium 2011. "It is encouraging to us that top executives and other stakeholders attended the Thailand SD Symposium 2011," he said. "Breakout sessions drew full house attendance, which is a good sign for sustainability in business practice. SCG sees its role as promoting, motivating and enabling collaboration between the public and private sectors and communities."

In 2011, the Dow Jones Sustainability Indices (DJSI) ranked SCG the world's Industry Leader in Construction Materials. (DJSI is a family of indices that evaluates the sustainability performance of thousands of publicly-traded companies. It operates under a strategic partnership between the S&P Dow Jones Indices and RobecoSAM (Sustainable Asset Management)). This ranking confirms that SCG is a credible and motivational leader.

2012: The First ASEAN SD Symposium

After holding the Thailand SD Symposium for two consecutive years, SCG extended the forum to the regional level. The ASEAN SD Symposium took place on 5 November 2012 with participants from ASEAN countries, drawn from the public and private sectors, including SCG business partners and media representatives. SCG sought to widen the reach of ideas about sustainability idea and collaborative networking based on the theme, Sustainable Future in a Challenging World. Keynote speakers included Dr. Supachai Panitchpakdi, Secretary-General of the United Nations Conference on Trade and Development (UNCTAD), who shared his perspective and analysis of global trends to help Thai and ASEAN businesspeople understand the imperative of sustainable business practice; Peter Bakker, the President and CEO of the World Business Council on Sustainable Development (WBCSD), who challenged the business sector to collaborate in building a sustainable society and world; and SCG President and CEO Kan Trakulhoon, who shared lessons from his experience in adopting sustainable business practices.

Keynote by Dr. Supachai Panitchpakdi, Secretary-General of the UN Conference on Trade and Development

Dr. Panitchpakdi emphasized the key challenge of managing limited resources; that is, how to use, offset and substitute and conserve resources so that they are available to posterity. He observed that some resource-rich countries in the Global South remain poor, beset by problems of non-transparent business practice, corruption and exploitation by multinational corporations. He

stated that it is essential to implement regulatory mechanisms to ensure compliance, along with grievance mechanisms. He underscored the need to provide benefits to the community and mobilize community participation to protect natural resources.

A former Director-General of the World Trade Organization (WTO), Dr. Panitchpakdi cited the example of EITI (the Extractive Industries Transparency Initiative), a non-profit organization working to engage natural resource extractive industries to collaborate on corporate oversight mechanisms to ensure compliance with social and environmental regulations. He also mentioned WTO's role in holding a direct dialogue with pharmaceutical companies on pharmaceutical intellectual property, which he described as a humanitarian issue.

"We have to think about people with little income," he noted. "They need medicine too, which they cannot afford. In sustainable development, sometimes you have to give. Where is the line then between sustainability and return? As

we extract medicinal properties out of natural resources, it's done without oversight or offset."

He also referred to the Yasuni Project in the Amazon River, in Ecuador. With the goal of protecting the natural forest, it succeeded in ending oil extraction at that location. "To me, this is the first project that prioritizes sustainability over greed," Dr. Supachai said.

In his discussion of sustainability and the uneven playing field in terms of Northern companies dealing with developing countries, he stressed the importance of the individual's deepest personal attributes.

"What we have to develop is not just sustainable development but spiritual development, ethics," he said. "Even if one is rich but if one is unethical, it will not benefit the society, and will not avoid waste. There is a story about Mahatma Gandhi, who lost a sandal when he jumped on board a train. He threw away the other one, saying that having one is useless. The person who grabbed the pair can make use of it."



Dr. Supachai Panitchpakdi, Secretary-General of the United Nations Conference on Trade and Development (UNCTAD), delivering his keynote address, Sustainable Future in a Challenging World.

Mr. Peter Bakker, WBCSD; Dr. Supachai Panitchpakdi, UNCTAD; and Kan Trakulhoon, SCG participated in the Forum and offered their opinions about collaborating to build a sustainable society and world



A Word on Sustainability to the Business Sector, from Peter Bakker, President of the World Business Council for Sustainable Development (WBCSD)

Peter Bakker provided an overview of climate change, noting that massive deforestation and GHG emissions continue. He added that poverty and lack of access to clean drinking water are the main causes of the deaths of 18,000 children every day. He suggested that climate change has had impacts on the business sector, as was evident in the U.S., when the stock exchanges closed due to Hurricane Sandy (2012), and the Thai stock market's response to the country's devastating floods in 2011. These events remind us of the problem. All stakeholders, especially the business sector, must be part of the solution.

"The question is not why, but how to contain the problem," Mr. Bakker said. "I am confident that the business sector plays an important part in that answer. Everyone can be part of that by incorporating it in their daily life and working with peers in the same sector."

Practically speaking, business plays an important role in setting emission reduction targets, developing environmentally-friendly products, reducing resource and water use, implementing reforestation, and achieving zero waste in urban centres.

"Everybody can do this; that is, living and using resources in our daily lives sustainably, incorporating this in our daily work, and finding peers from the same industry to collaborate with. As a business sector, you can move financial capital to manage social and environmental capital if you start acting." He concluded by saying that the business sector cannot achieve these goals alone, but must collaborate with governments and other stakeholders.

The ASEAN SD Symposium 2012 drew more than 1,000 participants, including industry leaders and sustainability officers of organizations from Thailand and ASEAN.

2014: Towards Regional Collaboration

In 2014, the DJSI ranked SCG a global Industry Leader in Construction Materials.¹ The ASEAN SD Symposium on 14 November 2014 addressed Collaboration for ASEAN Sustainable Growth to support business networks ASEAN-wide. More than 700 participants from the public and private sectors, financial institutions and business networks.

The symposium format emphasized sharing experiences and recommendations from participants from multiple global organizations. ASEAN Secretary-General Le Luong Minh delivered a keynote speech on the role of the ASEAN Community in sustainable development. This year, SCG added a visit to its site in Saraburi Province to offer participants a real-life example of how to implement sustainable development.

ASEAN Economic Community and the Sustainability Challenge

“ASEAN must make sure that as our economy advances, natural resources are used in a sustainable way,” said Le Luong Minh at the outset of his keynote address. He then outlined the challenges that sustainable development poses for ASEAN. They include developing stakeholder understanding of the processes involved in achieving sustainable development in the economic, social and environmental realms. As the ASEAN population grows, consuming more natural resources and emitting more pollution, the entire region faces the problem of climate change. He pointed out that ASEAN must explore a joint sustainable development mechanism, setting common goals to ensure clean industry and protect the environment (including air, water and other natural resources). Collaboration among the public and private sectors, academia and various institutions helps smooth and expedite policy advocacy and implementation.

“ASEAN plays an important role in advancing sustainability at the global level, given our large population base and our status as an important

world food supplier,” he concluded. “Sustainable industry and business development will thus have global implications. The key ingredient for ASEAN to achieve those goals is to act as one, not each on its own.”

In 2013, one year prior to that symposium, the year 2015 was deemed a milestone as the first year of the ASEAN Economic Community (AEC 2015). Thai Minister of Finance Sommai Phasesee explained, “Moving towards an ASEAN Economic Community presents us with yet another very serious challenge, not only economic, but also social, environmental, among others.” He shared the challenges that Thailand overcame in the aftermath of the 1997 financial crisis and reminded the audience of the unsustainable development policies that preceded the crisis in Thailand. He expressed his hope that, guided by the Sufficiency Economy Philosophy, Thailand could achieve balanced growth, take the views of all stakeholders into account, manage risk and collaborate based on a shared understanding of society’s goals and needs.

Keys to ASEAN’s Success

Four leading global business executives shared their thoughts and offered advice at ASEAN SD Symposium 2014.

Yvo de Boer, Director-General, the Global Green Growth Institute

- The private sector is the main engine for advancing sustainability in the face of slow-moving policy formulation by the state, versus rapid economic advancement and socio-environmental destruction;
- The real challenge lies in facilitating collaboration and common goals among public and private sector actors. This question outweighs the issue of budgets or sourcing of technology;
- The business sector must be aware of the drive to sustainability, formulate and implement policy, and achieve concrete results; and,

¹ <https://www.nationthailand.com/business/SCG-tops-Global-DJSI-for-fourth-year-30249944.html>, December 16, 2014

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- Businesses should communicate with investors, advocate for investment in sustainable enterprises, and change investors' views from seeing investing in sustainability as a risk to an investment for the future.

David Pearson, Chief Sustainability Officer, Deloitte Global

- Businesses must study and identify their positive and negative impacts on specific groups of people and sectors to develop mitigation and sustainability measures;
- Stakeholder communication is a top priority. Top executives are the main drivers. They are responsible for policies that integrate sustainability into the organizational culture, together with good performance; and,
- Business no can longer operate in a vacuum, but must be subject to investor and shareholder scrutiny and expectations. Business activities must be transparent and ethical. Sustainability is mandatory, not optional, for organizations.

Keryn James, Regional CEO, Environmental Resources Management Asia Pacific

- Learn from others. Don't lose competitive advantage. Differentiate, adapt and adopt quickly;
- Look out for opportunities. ASEAN's strengths lie in its cultural identity, talent and creativity. These attributes should form parts of the customized sustainability process;
- Take into account stakeholder buy-in; and,
- Identify your own strengths and reflect on your business to address socioeconomic and environmental challenges relevant to your organization.

Philippe Fonta, Managing Director, WBCSD-CSI (The Cement Sustainability Initiative)

- It is important for groups of businesses to develop a common approach to sustainability to facilitate data sharing and a collaborative pact and mechanism, resulting in continuity of work and network expansion;



Four top global business executives share their thoughts and advice at ASEAN SD Symposium 2014.

- The cement industry group must prioritize safety issues, biodiversity and water resource use; and,
- Businesses must seek insights into and analyses of public perceptions towards business.

2015: Innovation for Sustainable Development

Based on its experience with implementation, SCG has found that innovation and technology are the critical elements for sustainability. Given resource constraints and impacts in many areas, innovation can produce change faster than old approaches and can accelerate the achievement of sustainability goals through products that add value and services benefiting the consumer, while mitigating environmental impact.

The theme of the 2015 SD Symposium, held on 6 November 2015, was Innovation for Sustainability: The Power of Collaboration. Participants included top executives from public and private enterprises, researchers and academics. At a side event open to the public, the SCG Innovative Exposition 2015 showcased innovation for better living, focusing on an ageing population.

Driving Innovation through R&D and Collaborating with Business

The main focus was the case study on VTT Technical Research Center of Finland Ltd., represented at the Symposium by its President and CEO, Dr. Antti Vasara.

VTT receives support from the Finnish government and has positioned itself as a technology research institute that takes the country's qualitative scientific research to the cutting edge. It supports businesses and SMEs in applying technology to drive business and commercializing research to generate products and services.

VTT has 3,000 clients per year, generating annual revenue of €277 million. Dr. Vasara noted that the

Center is a top performer in resource mobilization supporting science and technology research in Europe.

"R&D is an engine driving national growth," he said. "Strong public-private sector collaboration, along with financial support, form the key to generate innovation and business that answer the needs of the world community."

Symposium attendees also learned about A*STAR, a Singapore company. A*STAR Managing Director Prof. Raj Thampuran explained that as an R&D entity working with the Singaporean Ministries of Trade and Industry and Education and Health, A*STAR directs R&D work to align with national development needs. It also fosters collaborative mechanisms for that purpose. A*STAR matches research laboratories with investors, financial institutions and the business sector to commercialize R&D outputs. "What we see is economic value from the collaboration we connect," he said. "Entrepreneurs became owners of value-added products and services, building new businesses, generating more employment and skills."

Today, A*STAR is the source of over US\$1 billion funding for research and development. Similarly, Houston Technology Center-Asia (HTC-Asia) supports investment in science and technology research companies focusing on clean energy, bioenergy, IT and space exploration. Chairman Sid Vinyard said, "Between 1999 and 2014, the company mentored more than 300 companies and mobilized US\$2 billion in resources to support new ventures."



Panellists from several R&D entities

Innovation for a Better World

Innovation for Sustainability 2015: The Power of Collaboration session featured another keynote speaker, Ralph L. Boyce, President of Boeing Southeast Asia and Vice President of Boeing International. Boeing is the world's largest aerospace company and a leader in innovation and environmental conservation.

Mr. Boyce told the forum that the corporation's commitment to and investment in innovation was propelled by intense competition and the need to maintain its industry leadership. He noted that technology provides answers to customer needs and ensures that the company delivers excellent service.

He shared examples of technological innovations such as new design of passenger cabins, seating arrangements and layout, application of biotech to reduce engine noise, green materials for fittings, such as ECO Door, and alternative fuel sources, such as green diesel for Boeing aircraft. The latter is a joint project with other airlines. Boeing also collaborated with NASA on equipment to optimize aviation performance and safety.

"In the future, we will think of electric, noiseless aircraft," Mr. Boyce said. "We believe that anything is possible, as long as we think forward and invest in research and development."

Diethelm Keller Siber Hegner Thailand (DKSH) also shared its experience. DKSH applies innovation to constantly improve its products and services. John Clare, Vice President for Healthcare, explained that innovation to meet customer's needs helped DKSH become Asia's top logistics provider. In 2015, DKSH had 750 offices worldwide and 710 in Asia and revenues of US\$112 billion. He emphasized the key drivers: efficiency improvements; internal communications; and investment in systems development for competitive advantage. "Our aim to constantly develop our products and services in collaboration with stakeholders allows us to grow sustainably," Mr. Clare noted.

SCG and Innovation for Sustainability

In addition to presentations on international experience and case studies, SCG also shared its experience. SCG President and CEO. Kan Trakulhoon discussed SCG's policy of nurturing an R&D network, through which the company worked with domestic and international actors including Chulalongkorn University; Mahidol University; the National Metal and Materials Technology Centre (MTEC); University of California at Berkeley; and Norner Holding (AS) of Norway. This network works on innovations that are subsequently integrated into SCG's line of high value-added products and services (HVA) to address customers' needs.

Examples included the collaboration between the SCG R&D team and the Faculty of Dentistry at Mahidol University to convert normal cement into cement for dentistry work. This added value of 1 million baht per kg to the finished construction cement product. Another example focused on the collaboration between SCG's packaging business and KTH Royal Institute of Technology of Sweden to develop nano-cellulose fibre from eucalyptus pulp to produce a more durable packaging material.

In 2014, the SCG HVA line of products and services generated revenues of 169,071 million baht (US\$5.3 million), or 35% of sales volume. The R&D budget totalled 2,710 million baht (US\$85 million). Kan noted that SCG would continue to increase its R&D spending every year going forward.

The SCG President & CEO credited these achievements to its commitment to R&D, with the goal of commercialization, and to creating a team of in-house innovators to pursue the HVA line over a decade. He also expressed SCG's willingness to collaborate with partners.

"SCG is willing to support extensive collaboration and work with the public sector to take the collaboration to a national scale. SCG will support a R&D collaborative network with the private sector, educational and research entities that will lead to innovation commercialization in earnest."

2016: Towards Sustainable Water Resource Management

In 2016, Thailand faced water-related extremes, from drought to floods and pollution. **More than 30 state agencies were responsible** for water resource management. SCG has supported and implemented water conservation projects for decades. Recognizing the urgency of convening an international learning forum on this topic, the company organized the Thailand Sustainable Water Management Forum on 20 June 2016.

SCG partnered with the Utokapat Foundation under Royal Patronage of H.M. the King and the Thai Journalists Association to host the Forum. It brought together leading experts from three developed countries with experience in managing water-related challenges: the Netherlands, where most of the land is below sea level; Singapore, which lacks an adequate domestic supply of fresh water; and, Israel, a world leader in water-related technology. The experts were asked to share their rich range of experiences, management approaches and good practices. Following their presentations, breakout sessions brainstormed solutions for Thailand. These were presented to the Prime Minister, who attended the closing of the symposium.

The participants recommended that a single, independent agency be responsible for integrated water resource management. This idea was taken up by government and is currently a work in progress. This concrete result emerged from the forum.

Water Resource Management Lessons from the Developed Countries

Israel: Dr. Weinberger Gavriel, Director of the Hydrological Service, the Governmental Authority for Water and Sewage, told forum participants that in Israel, all forms of water - rain, ground and sewage - must be regarded as public resources under legal governance and managed in integrated fashion with clear linkages. After the country's 2004 water crisis, the government



established an integrated water authority in 2007. It is responsible for the entire system, including production from desalination and reuse of treated brown water. Israel currently has 39 desalination plants and capacity expansion is planned to accommodate future growth in demand. The country also has a system to treat all waste water for reuse, enabling it to treat up to 86% of total used water. "Still, we must plan for changes in the future, in the event of natural disaster or any other contingency," Gavriel noted. "That is why we established an agency dedicated to forecasting future demand so as to anticipate future scenarios and to plan and prepare ahead."

Singapore: Ridzuan Bin Ismail, Director of Catchment and Waterways, PUB, of Singapore's national water agency, stressed the importance of integrated management and shared his country's experience with flood management. He stressed the need to emphasize planning and prevention, starting with installing drains prior to property development, establish clear legal frameworks and ensuring compliance, and maintain drainage systems and water retention systems to manage floods. "We manage water according to three principles: retain every single drop; capture used water; and recycle at least once," he said. "This allows us to cope with climate change impact, along with a flexible system that can be adapted to a changed future." He added



THAILAND SUSTAINABLE WATER MANAGEMENT FORUM 2016

Roongrote Rangsiyopash, current SCG President and CEO, discusses the water situation in Thailand and the importance of water management.

that the key is to engage all stakeholders in integrated management to monitor water use and loss prevention within the system.

The Netherlands: Tjittle A. Nauta, Strategic Advisor, Integrated Water Management, Deltares, discussed the importance of innovation in water management, particularly flood prevention through a range of simulation programs to forecast impacts, extent, damage and affected populations. He noted that flood management options and decision-making on options should emerge from a dialogue between the State and with fully informed stakeholders. He advised Thailand that it “must change from reactive to proactive, and planning must span 100 years, not five to 50 years.” He also emphasized that modern tools must be used and all stakeholders included.

Thailand’s Water Situation

In his keynote address, Dr. Sumet Tantivejkul, Chair of the Utokapat Foundation, explained that Thailand retains only 5.7% of its 750 billion cubic meters of water from rainfall each year. At the same time, water demand is projected to increase by 100 billion cubic meters, or 35% over a decade. These figures reflect an imbalance

that makes the business-as-usual approach untenable. He pointed to the success of small-scale community initiatives by King Rama 9 to manage water resources as the sustainable way forward. These initiatives include building check dams in deforested watershed areas, digging drainage canals in flooded areas for the dual purpose of water retention and flood prevention, and building small-scale reservoirs to provide villagers with access to water during droughts. He explained that all these actions were implemented by the communities themselves without state-assisted water management schemes. They were based on the royal initiative of King Rama 9, who directed that the successful pilot projects be scaled up to other communities affected by drought-flood problems. He noted that at the time of his presentation, 603 communities were participating in these schemes. Data from the drought of 2016 showed that 21 out of 23 communities were able to manage, unaffected, with sufficient and consistent supply. “The success was the result of communities able to survey and identify their own problems, understand and develop solutions that address their own issues,” Dr. Sumet said of the success of the community-led water management model.

Brainstorming on Water Management

After participants heard about developed countries' water management experiences and an overview of the water situation in Thailand, they joined discussions to discuss water supply, water demand and water management leading to sustainable water management approaches based on collaboration among all sectors - public, private and civil society.

Water Supply Group: presented a plan for the integrated management, maintenance, rehabilitation and optimization of use of water sources from upstream, midstream and downstream areas. This requires a collaborative network among the community, local government, and public and private sectors.

Water Demand Group: shared water management approaches within different sectors relating to consumption in agricultural and industrial sectors, as well as maintaining a balanced ecological system. The emphasis was on planning, optimal use, and contextualized reduction of loss and pollutant discharge into water sources.

Water Management Group: featured water management based on geographical attributes ranging from watershed forest to highlands and valley plains, irrigated and non-irrigated areas, flooded/drought-stricken lands, and urban/community/industry areas. The group called for the establishment of a single focal point agency to plan and coordinate water management across sectors and decentralize water management to community and local governments. The groups recommended that the State provide support and advice. They also recommended establishing a system to forecast water supply and demand and using information technology to operate and maintain drainage systems and equipment.

Conclusion: Towards Sustainable Water Management

At the closing plenary, Dr. Sumet Tantivejkul presented the following five recommendations to the Prime Minister:

1. Create a focal point agency to plan and coordinate integrated water management for the short, medium and long term, (similar to the National Economic and Social Development Board).
2. Accelerate the replication of successful community-managed water initiatives from the current 600, with support from local government bodies.
3. Conduct a legal and regulatory review to standardize the overlapping zoning of forests, reserve forests and national parks. The current system restricts communities from collaborating with State agencies.
4. Rehabilitate and increase efficiency of waterways and ensure that groundwater sources are maintained and replenished.
5. Institute a system to maximize water use. For example, the water in water-logged rice fields should be reused instead of being discharged.

The Thailand Sustainable Water Management Forum 2016 illustrated the strength of multi-sectoral collaboration and cooperation between developed countries and developing countries. The forum's recommendations led the government to form a single agency for integrated water management, as well as amend a number of laws. The additional actions included rehabilitating canals and waterways, improving water-related laws and enacting new regulations.

At the closing, His Excellency, Prime Minister General Prayut Chan-o-cha said, "Today I must thank all corporations contributing to this joint effort. We have to plan as a region, and develop the country in an integrated, connected approach. Thank you all for being part of it. I'd like to see you all steer the country along a common direction to resolve the country's problems."

2018: Towards the Future of a Circular Economy

We face population growth, urbanization, accelerated consumption and competition to expand industrial activities, which will result in greater use of resources and energy. These are the issues of our times. Limited natural resources are being depleted at an accelerated rate and growing volumes of waste places stress on land and water resources. The waste finds its way to watercourses that are connected to rivers, seas and oceans, thus threatening marine life and coastal areas. **Given** the negative impacts of the linear model's "take-make-dispose" **approach**, the European Union advocated for and has adopted the Circular Economy **approach**, which takes a "make-use-return" approach to production and consumption. This vision thus drove the shift from the model of a linear economy to that of a circular one, in which every production and consumption process is based on optimal resource use.

The 9 July 2018 SD Symposium on Circular Economy: The Future We Create, sought to raise awareness of the circular economy and sustainability. The circular economy is a new concept within Thai society. This was probably the first time that most Thai citizens had ever heard of it. The forum featured extensive sharing of experiences from Thailand and other countries that have applied the concept of the circular economy to drive sustainability in their society, community and environment. The format included plenary discussions and breakout sessions focused on four topics. More than 1,100 people participated, with local and ASEAN media representatives providing coverage and publicity.

Mechanism Leading to Circular Economy

Peter Bakker explained that a circular economy approach aligns itself with SDG 12 on responsible production and consumption. Five key considerations for business include product life extension, sharing platform, resource recovery, product as a service, and how to achieve circular supplies. To be effective, a clear policy framework

must be in place that promotes collaboration and a transparent process. The transformation to a circular economy is an innovation-driven process.

"Resource use is the important matter to answer the economic equation of an organization and an opportunity," Bakker said. "To change is challenging and it is not easy to succeed. It takes system transformation towards making the most effective use of our resources and a quest for innovation is a key driver to generate new thinking."

Representatives of top international companies, including Michelin, DuPont and Dow Chemical, joined the forum. They reinforced the importance of innovation in driving the circular economy, from R&D to product design, choice of appropriate materials and re-use considerations. SCG also shared the perspective of its packaging business on durable paper and materials as substitutes for plastic.

Circular Economy in Global Trends

Highlights from the breakout session, with representatives from Lux Research, Dow Chemical, USA and SCG Chemicals Europe and the Dutch Ambassador to Thailand, Kees Rade are presented below:

- **Role of the government:** The government of the Netherlands has implemented many projects that help build a circular economy, setting clear goals for total reuse of raw materials by 2050 and the 50% reduction of virgin material use by 2030. Together with effective enforcement of these rules and regulations, incentives are offered to the private sector to promote innovation and nation-wide collaboration. By 2020, the country's circular economy sector will be worth US\$7.3 billion (approximately 1% of GDP), generating over 45,000 jobs.
- **Business leadership:** A circular economy cannot be created if top management does not recognize the value that it generates. This requires top-level commitments and clear targets.

- Innovation-driven processes: They are required to add value throughout the entire lifecycle of products and services. Innovation must be injected into the entire production process, consumers' use of products, and recycling to generate benefits to both users and vendors. Examples include Honda cars that use natural materials, Coca Cola and its PET bottles made of bio-based material, Teracycle's single-use plastics, and Dow Chemical's innovation to extend the shelf life of food to reduce food waste.

"Circular economy is an important issue requiring all parties to play a role, collaborate and act at all levels in earnest, as well as monitor and validate, for maximum efficiency," said H.E. Mr. Kees Rade. "All parties must dialogue on where they can fit into the circular economy ecosystem and what they must do."

Role of Community in a Circular Economy

Representatives from Japan's International OVOP (One Village One Product) Exchange Committee and from three Thai communities (northern Chiang Rai province, Rayong on the east coast and Tha-takraw in Kanchanaburi) were the lead discussants at the breakout session.

Tadashi Ushida, President of International OVOP Exchange Committee, said OVOP aims to make a community self-reliant and proud of its heritage of craftsmanship. The OVOP scheme generates income and employment, particularly for the elderly. OVOP products are subject to regulatory standards and marketed through state-sponsored events and fairs. The circular economy concept aligns perfectly with an agricultural lifestyle, in which the materials on a farm are never wasted.

To qualify for the OVOP label, products must demonstrate consistency of quality and supply and obtain product standard certification. Local government agencies support OVOP by hosting annual fairs and events and providing outlets for OVOP products.

Examples of collaboration highlighted OVOP's Paper Band Project, through which SCG's packaging business supplied paper band materials from its Wangsala factory to the neighbouring community of Tha Ta-kraw. These served as raw materials for villagers to weave into handicraft products, such as baskets and handbags to support themselves.

"Cottage industry development is something easily understood and can be implemented instantly by mobilizing the community force towards circular economy," said Mr. Tadashi Ushida, President of International OVOP Exchange Committee. "Thailand is well prepared, with support from various sectors. I hope that Thailand will be the inspirational hub for ASEAN."



H.E. MR. KEES RADE,
AMBASSADOR OF
THE KINGDOM OF THE
NETHERLANDS, DELIVERING HIS
KEYNOTE ADDRESS, CIRCULAR
ECONOMY IN GLOBAL TRENDS

Digital Ventures: The Circular Economy Way

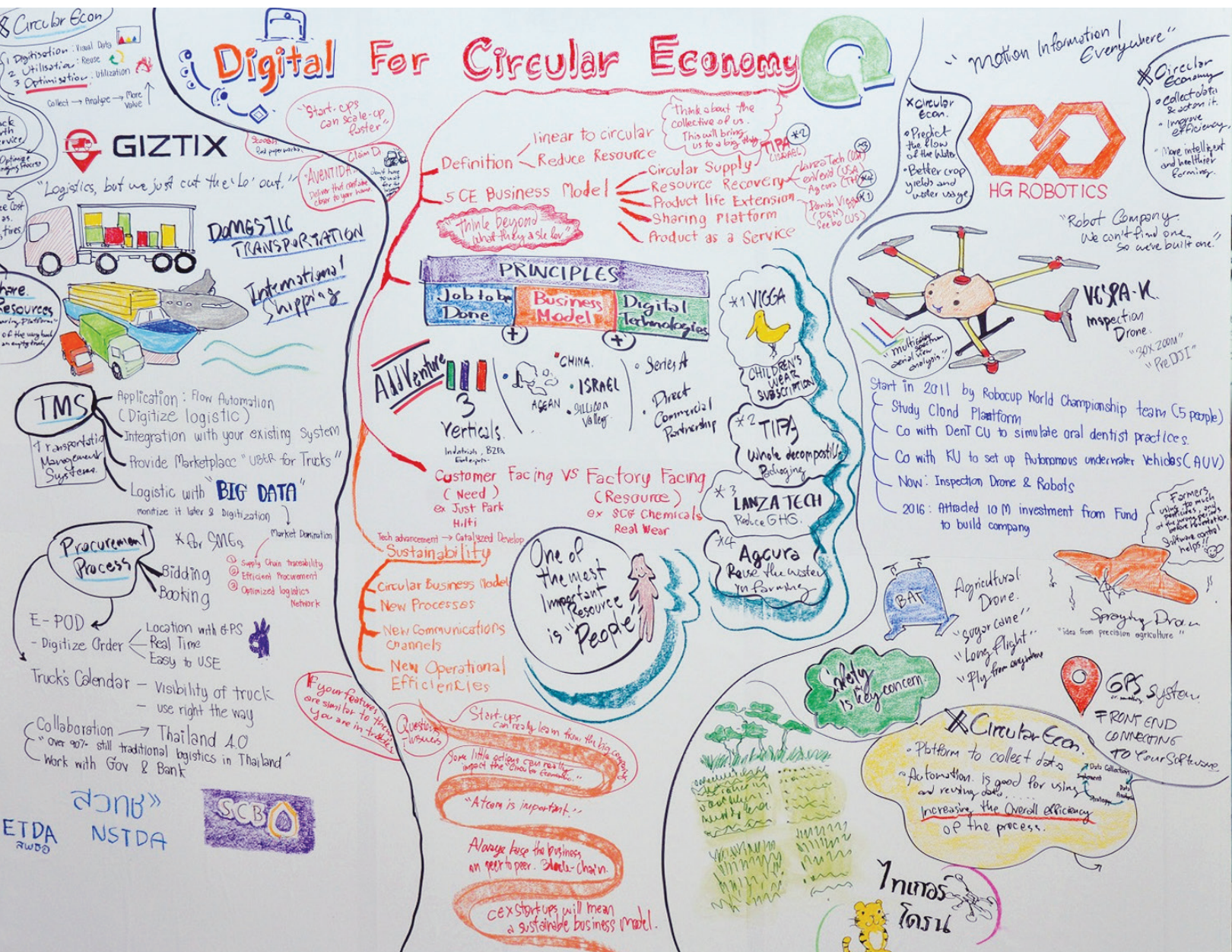
Digitalization is transforming the world, but how is it connected to the circular economy? Three business corporations – SCG's AddVentures and start-ups GIZTIX and HG Robotics - shared their thoughts.

- Start-up ventures can be the driving force for a circular economy through five key business models: 1. circular suppliers; 2. resource recovery; 3. product life extension; 4. sharing platform; and 5. product as a service.
- GIZTIX operated a sharing platform service on its online logistics platform for courier service.

It optimizes resource use while enabling many people to access products and services.

- Recycling can be challenging in the area of robotics and automation. One possible fit with the circular economy is the machine learning application to reduce repetitive processes.

"To adjust the business to align with a circular economy approach, one must think beyond what consumers expect and collaborate with all sectors and actors within the ecosystem of business and industries," said Joshua W. Pas, Corporate Innovation Director and Managing Director of AddVentures.



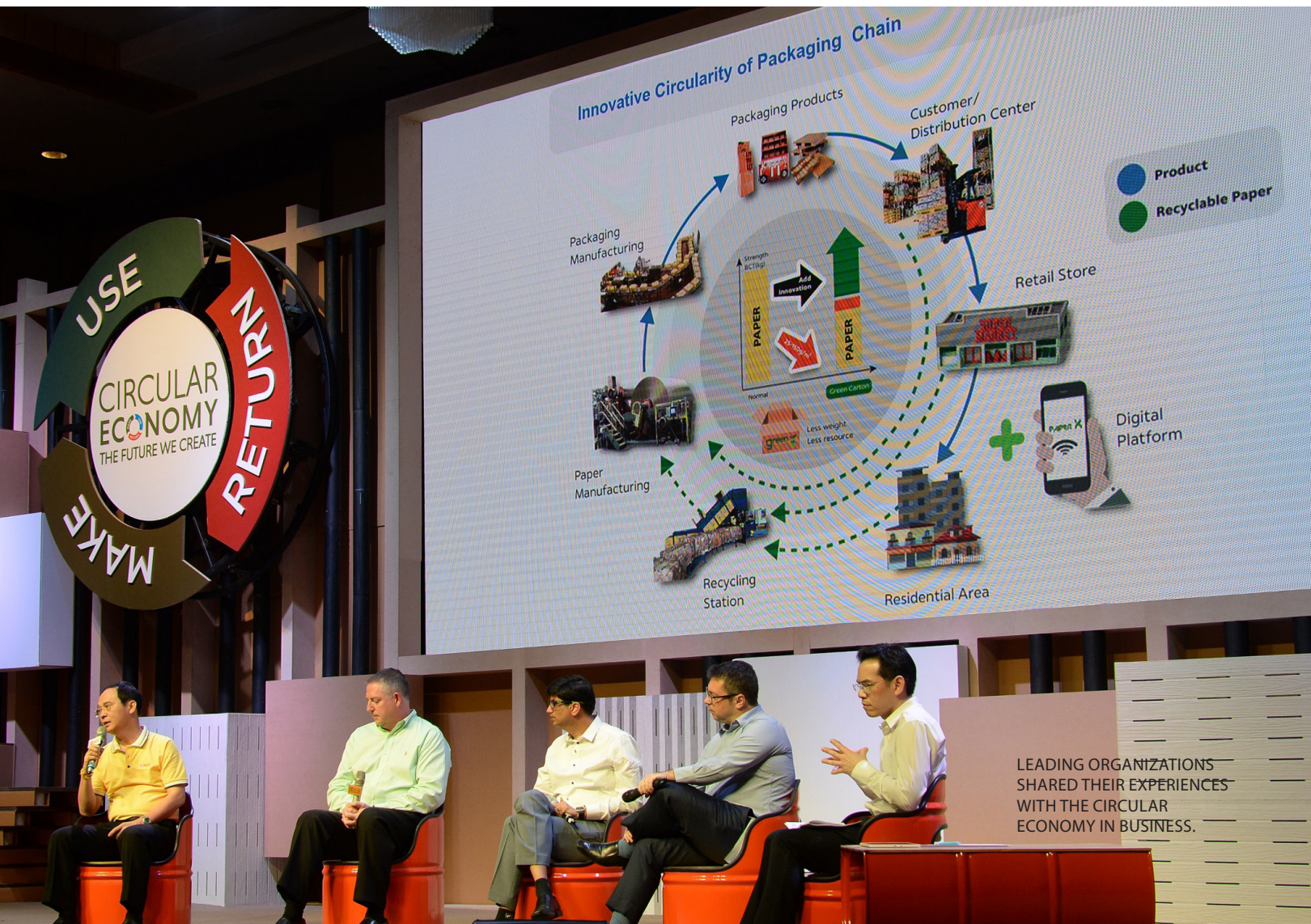
Waste Management Strategy

Waste management has emerged as an enormous challenge for Thailand. According to the Department of Environmental Quality Promotion, the country handles 1.1 kilograms of waste per capita per day, 31% of which is retrievable and recyclable. The government declared waste management a national agenda item. Speakers at this breakout session on waste management in the context of a circular economy included representatives from the Department of Local Administration, Bangkok Metropolitan Administration, the Federation of Thai Industries, International Union for Conservation of Nature (IUCN) and SCG's Chemicals Division.

- Multi-sectoral collaboration in waste management: The session focused on the producer, distributor, consumer, scavengers and recycling plants. These key actors must

understand that waste management is not simply disposal, but involves recovery throughout the chain.

- Setting up model communities to promote consumer awareness of waste separation at source: Consumers must separate waste at the source and a mechanism must be created to deliver trash to a recycling destination.
- A social enterprise model for waste management using the Close Loop Packaging method and engaging elders to be involved is essential.
- Advocacy for behaviour change and strict law enforcement are major hurdles.
- Plastic trash and single-use plastics are the most problematic. Behaviour change among consumers must go hand-in-hand with



LEADING ORGANIZATIONS SHARED THEIR EXPERIENCES WITH THE CIRCULAR ECONOMY IN BUSINESS.

A Decade of SCG Sustainable Development Symposia

plastic-substitute materials innovations that will last longer and can be recycled multiple times. Advocacy must be used to encourage the population to separate waste to reduce single-use plastic.

Business Sector Collaboration

SCG organized a CEO Forum with 60 companies to present case studies and discuss collaboration on the evening of the SD Symposium 2018. The symposium did not end with sharing knowledge and experiences; rather, it also opened up a new dimension for a national seminar with the launch of a new project or pilot on the circular economy. This action followed from the business sector's intention to conclude with a tangible action. The CEO Forum ended with a commitment to undertake the following four pilot projects:

1. Greenovation lube packaging circular economy: Bangchak Corporation and SCG's chemicals business will collect used plastic lube gallon containers to be cleaned and crushed, with recycled plastic pellets produced to mould new gallon containers.
2. Plastic waste mixed asphalt, a circular economy for road construction: This collaboration between Dow Thailand and SCG's chemicals business will develop the right mixture of plastic waste and asphalt for road construction in Thailand.
3. Paper recycling through value chain collaboration between Ekachai Distribution Systems and SCG's packaging business: this project will return used carton boxes from Tesco Lotus outlets to the paper factory to be used as raw materials to produce packaging paper and new packaging.



SCG HAS OFFSET THE CARBON FOOTPRINT OF ALL DELEGATES' TRANSPORT, FOOD AND BEVERAGE AND AIR CONDITIONING SYSTEM FOR THE SCG SD SYMPOSIA SINCE 2011. THIS WAS THAILAND'S FIRST CARBON OFFSET PROGRAM.

4. Glass wool insulation waste recycling collaboration: Panasonic Appliances Refrigeration Device (Thailand) and SCG's cement building materials business will work together to extract insulation waste from used appliances and glass bottles to be processed into a material to substitute for natural materials in insulation.

Participants pledged to provide an update on these four pilot projects at SD Symposium 2019.

SD Symposium: Practicing Responsibility and Global Sustainability at the Event

In organizing every SD Symposium, SCG is fully aware of the implications of bringing people together, particularly in terms of the GHG emissions produced by their transportation. The company has thus created a policy to address the symposium's impact. It includes selecting a venue accessible by public transport and documenting the event's carbon footprint. In addition, through surveys and by calculating the emissions from all participants' travel, SCG shows the participants their GHG footprint and the energy used within the building (primarily for air

conditioning). The venue's hosts are asked to set the temperature at 25 degrees Celsius, compared to the standard 22-23 degrees. Participants are also advised not to wear suits.

SCG also takes particular care in terms of other aspects of resource use. For example, it ensures that the event is paperless by making SD Symposium proceedings and papers available for downloading, orders catering from neighbourhood service providers and calculates food requirements carefully to minimize food waste. This preparation includes confirming the exact number of participants. At the end of every symposium, SCG discloses its emission reduction to all participants. This helps people feel proud of collaborating for a positive purpose.

Starting in 2010, SCG implemented a voluntary carbon offset to ensure that the symposium itself is carbon-neutral, with a total of 296 tons of CO₂ equivalent (see Box 1- Carbon Offsetting for Symposia). In order for the event to be carbon-neutral, the SD Symposium is considered a contributor to GHG emissions reduction, in accordance with to the Paris Agreement of 2015.

Box 1- Symposia Carbon Offsetting

Voluntary carbon offsetting

Emission and carbon offset from seven SD Symposia

- Carbon offset of 296 tons CO₂ equivalent
- Carbon offset projects include biomass and waste heat power generation for cement production
- A carbon offset is a credit for greenhouse gas reductions achieved by one party that can be purchased and used to compensate (offset) the emissions of another party. Carbon offsets are typically measured in tonnes of CO₂ equivalent (or CO₂e) and are bought and sold through a number of international brokers, online retailers and trading platforms.

Source:

1. "Guideline for Carbon Footprint for Organization" by Thailand Greenhouse Gas Management Organization (Public Organization)
2. "2006 IPCC Guidelines for National Greenhouse Gas Inventories" by Intergovernmental Panel on Climate Change (IPCC)

A Decade of SCG Sustainable Development Symposia

Between 2010-2018, the seven SD Symposia, Innovation for Sustainability and Water Management Forum, have hosted 5,000 participants from seven ASEAN countries - Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand and Viet Nam. The Symposia have hosted participants from over 20 developed countries.

To ensure that people in Thailand and throughout the ASEAN region are aware of, understand and implement sustainable development, the Symposia have focused on proven successful practices. In addition, SCG has supported the transformation of learning into action through collaboration. Since the adoption of the SDGs in 2015, signed by more than 190 countries,

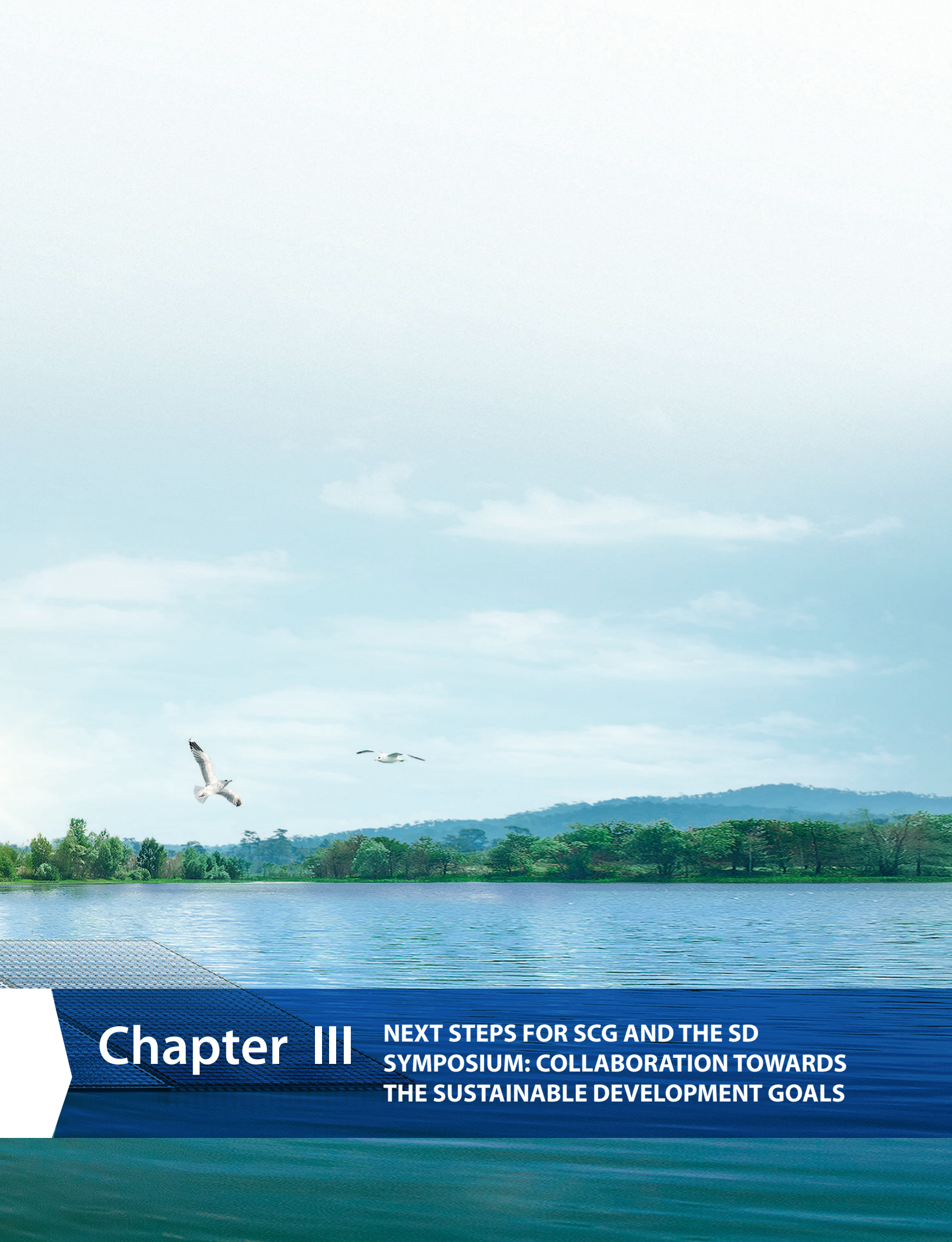


SCG MADE A GRANT OF 100,000 THAI BAHT TO THE APPROPRIATE TECHNOLOGY ASSOCIATION (ENERGY ASHRAM) FROM CARBON OFFSET ACTIVITIES AT THE SCG SUSTAINABLE DEVELOPMENT SYMPOSIUM.

SCG has guided the Symposia towards attaining these goals. The company hopes that efforts by SCG and its partners have contributed to a better understanding of sustainability and collaboration towards achieving the SDGs in Thailand and the ASEAN region.







Chapter III

**NEXT STEPS FOR SCG AND THE SD
SYMPOSIUM: COLLABORATION TOWARDS
THE SUSTAINABLE DEVELOPMENT GOALS**

SCG held the first SD Symposium in 2010. Its objective was to promote and advocate for sustainability in business practices in Thailand to align with global sustainable development goals. Over the last 10 years, SCG has addressed issues that matter to the world, such as advancing sustainable development in Thailand, ASEAN innovation for sustainability, sustainable water management and a circular economy for sustainability.

These commitments - to sustainability in Thailand and in ASEAN, prioritizing the circular economy, climate change resilience and transportation safety - will continue to drive the next steps for the SD Symposium. Furthermore, SCG will continue to address natural resource depletion resulting from massive waste, the impact of climate change on habitat, biodiversity, quality of life, and many issues pertinent to the 17 SDGs.

Circular Economy Collaboration

In SCG's view, a circular economy can be realized successfully over a short period of time with the help of technology and, especially, digital technology. Digital technology has the potential to transform production and consumption modalities. In particular, digital technology, in the hands of multi-stakeholders such as the public and private sectors, civil society, other organizations and the mass media, can achieve the desired favourable impact. For SCG, collaboration beyond its business sector to engage other stakeholders is the norm, not the exception. SCG is committed to participating in a circular economy collaborative network. The company set this in motion at the SD Symposium 2018 by inviting business actors to work together on scalable pilot projects that can be scalable. Some of these projects turned out to be successful beyond expectation, as narrated in the next sections.

The joint Dow Chemical Thailand-SCG pilot for used plastic-mixed asphalt to build stretches of road was tested for evaluation on a small scale at the SCG Industrial Estate Compound. Later, the pilot was expanded to build a road from

recycled plastics at the Amata Industrial Estate' 7-11 convenience store and from concrete waste at another site.

The joint pilot project between SCG's packaging business and Tesco Lotus (supermarkets) to recycle cardboard boxes was later expanded to include replacing plastic bags and Styrofoam boxes with paper packages for food packaging. The initiatives engaged other large retailers as well.

As a result of these pilots, SCG developed a digital collaboration platform, an online waste exchange platform (a data centre on business-sector waste), to exchange and share information about what waste can be reused or recycled. The objective was to use waste to substitute for increasingly scarce natural resources.

All these initiatives offer examples of business sector collaboration resulting from the SD Symposium. They demonstrate the power of collaboration, taking concepts further, and generating innovations that can scale-up such collaboration in Thailand to other countries both within the ASEAN region and globally.

Build Strength Inside to Collaborate with the Outside

The success of the SD Symposium series is the result of SCG's determination, dedication and intent to conduct business transparently manner and focus on sustainability. This collaboration among actors in the public, private and civil society sectors would not have occurred without credible and inspirational leadership to inspire and motivate staff and partners. To achieve this, all components of the enterprise - particularly SCG's management and workers - had to understand and participate actively in the journey to build the circular economy. SCG encouraged its more than 7,000 employees to follow the SCG "Circular Way" (see Box 2 – SCG Circular Way) in their daily lives. The Circular Way involves changing behaviour in terms of reducing waste and single-use plastic, focusing on reuse or longer use and becoming more aware of waste management. After proper separation, some types of waste

can be reused or transformed into value-added products. For example, white paper trash can be used as material for Idea Green paper, which is 50% eco-fibre, a high-quality, environmentally-

friendly fibre obtained from waste and post-consumer materials. Brown paper can be used for packaging. In the future, the SCG head office plans to compost food waste to improve soil.

Box 2 - SCG Circular Way

SCG Circular Way

SCG adopts and adapts a circular economy into the way we work and operate under a framework called the SCG Circular Way. It ensures sustainability in our business practices by optimizing resource use, from use and reuse in production to waste management. The SCG Circular Way covers:

1. **Reducing material use and maintaining durability:** By reducing the amount of resources used in manufacturing, such as the corrugated Green Carton, which requires 25% fewer raw materials but remains durable.
2. **Upgrading and replacing:** By innovating to replace existing products and raw materials with new ones that offer higher efficiency, but use fewer resources or make them recycle-friendly. For example, the SCG Hybrid Cement can replace traditional structural cement, but uses fewer raw materials in the production process.
3. **Reusing and recycling:** By recycling used products instead of using new resources and promoting all recovery processes, such as developing CIERRATM a functional material that improves plastic's property, allowing a single material to offer versatile packaging applications, rather than using multi-materials, which are difficult to recycle.

SCG is confident that if employees can change their behaviour and lifestyle, they will inspire members of their families and people around them to change their behaviour, too. In the end, our society will be better off.

SD Symposium in the Context of Advancing the SDGs

The SD Symposium series provides opportunities to learn from good practices and successful models, while motivating collaboration towards a circular economy. Through the SD Symposium, SCG and its partners contribute to progress towards achieving the following SDGs:

- SDG 1: No Poverty;
- SDG 8: Decent Work and Economic Growth;

- SDG 9: Industry, Innovation and Infrastructure;
- SDG 11: Sustainable Cities and Communities;
- SDG 12: Responsible Consumption and Production; and
- SDG 13: Climate Action.

SCG hopes that the collaboration and network initiated through engagement with the SD Symposium series, with actors from both the Global South and North, will contribute to accelerating joint efforts to preserve the planet, so that the Earth can accommodate the growing population and allow all people to enjoy decent living standards.

Conclusion: Lessons Learned from the Success of the SD Symposium

The SD Symposium is a model of an effort to foster multi-sectoral collaboration to achieve sustainability at national and international levels, including the Global South and North. The foundations of the initiative are based on a Southern idea, the Sufficiency Economy Philosophy. After achieving success and stability by applying the SEP, SCG, a private company created in the South, decided to share its practices with like-minded partners from the region, the Global South and the North. This decision reflects the solidarity principle of South-South Cooperation and the call issued by the Sustainable Development Agenda - to leave no person behind. The practices and experiences shared at this forum have led to concrete actions within both the business and public sectors.

Based on its decade-long sustained efforts to convene the SD Symposium, SCG learned the following lessons, which it can share with organizations interested in adapting the symposium model to their contexts:

1. The lead convener must demonstrate commitment and sincere intent through its own sustainability track record. It must be able to inspire credibility through ethical and transparent operations so that it can serve as a trusted focal point among all collaborative partners in-country and externally;
2. The forum's main theme can revolve around global challenges, trends and critical issues in sustainability and new ideas that can inspire and motivate a commitment to sustainability. Topics should not be repeated. The ability to update and revisit topical issues can generate public interest;
3. Keynote speakers and panellists should be leaders in their field or well-known experts from reputable entities from both the public and private sectors, in-country, regional and international. In addition to bringing substantive knowledge and experience that can inspire and motivate participants, these speakers will constitute a draw to engage public interest and media coverage;
4. The format of plenary sessions and contributions for the half-day of breakout sessions lays the foundation for success. Participants should be prepared adequately before the thematic breakout sessions, where they will participate actively in the discussion and share knowledge and experience. These rich exchanges and sharing should address a diverse range of interests among participants;
5. The plenary session that summarizes the breakout sessions allows participants to gain an overview of ideas and actions, which helps them to move from ideas to action;
6. Any organization that convenes seminars on sustainability must be attentive to environmental impacts of holding the event, including resource use, energy consumption, GHG emissions and waste generation. The organizer must inform participants of the actions that have been taken to minimize negative environmental impacts; and
7. The convening organization should develop a feedback mechanism for improvement.

With years of experience convening the forum, SCG believes in fostering ongoing learning and developing staff capacity in order to continue to convene the SD Symposium effectively as a forum that is open to innovation, technology and collaboration and helps to achieve concrete results post-forums. We hope that this groundwork will people to take actions that root sustainability across Thailand and the ASEAN region, whose nations still belong to the Global South, and among their populations, who seek better lives and a sustainable future.

SCG's collaboration and sharing of its development approach and philosophy constitute South-South and triangular cooperation. However, it is only after engaging with UNOSSC that this work is being defined as such. By co-hosting the

breakout session on the circular economy with UNOSSC, SCG demonstrates its commitment to continue to scale up South-South cooperation, working towards achievement of the sustainable development agenda goals. Furthermore, by publishing this document, more SCG staff will become familiar with South-South cooperation. The cases mentioned in this publication will be analysed further and shared on the Office's Galaxy collaborative platform to facilitate cooperation on South-South learning. It will offer an example of a Southern company to show that growth and a focus on sustainability are not conflicting choices for the business sector in the South. These goals must be pursued simultaneously to attain benefits for the company, its customers and the society and environment in which they operate and live.



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