

Sustainable Development Report 2016
Siam City Cement Public Company Limited

Making the world a better place to live



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Sustainable Development Report 2016

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กองทัพ
เรือ
บุนช์เมนตันคราชนา



Making the world
a better place to live

Executives' Foreword

The year 2016 came with the great loss for Thailand -- the passing of King Bhumibol Adulyadej.

It was a very difficult time for people of Thailand, who struggled to deal with their heartfelt grief over his departure.

It is not due to his kingship that spanned 70 years but more for his great virtues, reflected in his achievements during those years, that have deeply touched the hearts of Thai and non-Thai alike.

His Majesty had been a guiding light and a pioneer of sustainable development (SD) concept, which gave birth to an extensive array of projects raising the quality of life of his subjects.

Siam City Cement Public Company Limited (SCCC) has followed in the footsteps of the inspirational monarch.

Building dykes, constructing schools, installing water tanks and implementing green village concept are among some undertakings the Company has supported, in line with His Majesty's SD philosophy.

In 2016, Thaipat Institute, the advocacy of corporate sustainability and socially responsible practices in business organisations, included SCCC in the ESG100 list.

Such inclusion recognised SCCC for its environmental, social and governance performance, abbreviated as ESG, based on the Institute's global initiative for sustainable rating (GISR).

For seven years, SCCC has been the patron of Integrated Green Schools which sought to promote education along community development in rural areas.

Thirty schools have been built so far, the most recent in Chiang Rai, and thus providing education opportunity for 50,000 under-privileged people.

SCCC's sustainable development began in earnest in 2010 focusing in six elements which created values for stakeholders, society and environment.



Mr. Paul Heinz Hugentobler
Vice Chairman of the Board of Directors



Mr. Siva Mahasandana
Director and Chief Executive Officer

Vision

We will continue to build on our long heritage of shared loyalty, creating trusting relationships with our business partners, our people and our community. We want to achieve the best value and a sustainable future for all our stakeholders.

Commitments

Working as a team

One group, one vision, one team united in heart with our business partners for the good of all.

Doing what is right

Staying true to ourselves and each other, maintaining the highest standards of discipline and integrity in everything we say and do.

Challenging conventions

We are imaginative and always open to new ideas. We approach every business challenge with enthusiasm and strive to deliver innovative solutions beyond expectations.

Caring about our future

We are committed to creating a positive future for generations to come. Caring for our people, our environment, our community, our nation.

Mission

SCCC provides world-class construction materials and services that are vital to economic growth in Thailand and the wider region.

Combining sustainability and innovation, we strive for operational excellence and to exceed the expectations of all our stakeholders.

Our reputation is built on outstanding performance in the quality of our products and customer service, the dedication and skill of our employees, our respect for the communities in which we operate and our ambition to set the standards for the industry of tomorrow.



Working as a team



Doing what is right



Challenging conventions



Caring about our future

UN Sustainable Development Goals

Making the world a better place to live



Siam City Cement Public Company Limited and its Group companies is a staunch supporter of the United Nations' initiative for the Sustainable Development Goals (SDGs) which set an agenda for 17 aspirational objectives which could transform the earth by 2030.

The 15-year SDGs cover three key spectrums conducive to sustainable development - economic, social and environment - in an integrated and balanced manner.

SDGs were adopted by 193 UN member states including Thailand which are expected to use to frame their agendas and policies over the next 14 years to make the world a better place to live.

The success of the 17 SDGs would rely on cooperation from all parties, supports from government and private sectors.

Our corporate social responsibility (CSR) activities, both in the past and future, are mostly aligned with SDGs before the UN resolution for those initiatives were adopted in September 2015.

What we have been doing specifically in compliance with the SDGs are as follows:



Goal #1: _____
No Poverty:

- SCCC has engaged in activities which help raising income of communities by means of job creation, vocational training for housewives and youths and offering distribution channels for community-based products at SCCC's Ming Mongkol Park.



Goal #3: _____

Good Health and Well-being:

- SCCC has ensured that its employees and parties concerned work in the environment with safe and sound environment as recognised internationally.
- We support healthy lives and promote well-being for employees through a fine health welfare programme as well as providing mobile medical services to communities living nearby the Company's workplace.



Goal #4: _____

Quality Education:

- SCCC has been committed to provide inclusive and equitable quality education and promote lifelong learning opportunities for parties concerned.
- Every year, over 400 pupils and students in communities surrounding SCCC's Saraburi facilities are granted scholarships from the Company, up from elementary schooling to university level.
- Since 2010, SCCC has sponsored construction and renovation of Border Patrol Police-run schools located in rural border areas. A total of 29 schools have come under this SCCC initiative which has already benefited over 8,000 under-privileged pupils.



Goal #6: _____

Clean Water and Sanitation:

- The Green water tank project is a cooperative scheme with Chaipattana Foundation under royal patronage

to build water storage tanks in communities, a tank would be able to hold 20,000 liters of water, now numbered 252 tanks so far in locations nationwide.

- Water preservation is a priority at SCCC which aims to reduce water consumption by 20 percent, from 276 litres per ton of cement produced in 2012 to 220 litres in 2016.



Goal #7: _____

Affordable and Clean Energy:

- At its Saraburi plant, SCCC has successfully operated a power generation plant that captures waste heat released from three cement kilns to generate 40 MW in electricity supply. That output reduces the plant's total power consumption by 23 percent and cutting carbon dioxide emission by 162,400 tons a year.
- Plans are afoot to further capture the waste heat with the installation of power generation systems in 2017-2019 at the kilns No.1 and No.3 with the capacity of 8 and 9.9 MW, respectively. It will then ramp up combined generation capacity from the waste heat recovery process to 57.9 MW, representing a 33 percent reduction in power consumption and cutting back CO₂ emission by 229,040 tons a year.



Goal #8: _____

Decent Work and Economic Growth:

- SCCC has created a direct employment for over 4,000 local people plus more than 5,000 of those employed by contractors whose works support SCCC's operations.
- Our business philosophy has been clearly geared towards supporting societal and national growth in a sustainable fashion under the corporate governance that involves all parties it engages.



Goal #12: _____

Responsible Consumption and Production:

- Our long-term sustainable development strives to achieve six key objectives. They are reducing carbon dioxide emission; zero waste to landfill; water resource conservation; developing eco-friendly products and services; promoting community development; and embedding green mindset among stakeholders.
- SCCC has been the country's first cement producer to obtain the Green Industry Level 5 award from the

Ministry of Industry. The award signifies SCCC's priority it places on environmental protection through its entire supply chain.

- All of SCCC's nine cement products have been certified to carry the carbon footprint labels with eight them being officiated for contributing less carbon emission by the Thai Green House Gas Management Organisation.



Goal #13: _____

Climate Action:

- SCCC has put in place a long-term goal to cut carbon dioxide emission by 20 percent.
- The Company has striven to reduce coal usage in its production process by replacing it with alternative fuels and bio-energy.
- SCCC strives to develop products which contributes less to global warming problems with such action is certified by national entities.



Goal #15: _____

Life on Land:

- SCCC's commissioning of biodiversity study around its mine sites is consistent with the goal of promoting sustainable use of terrestrial ecosystems.
- The study has evolved into an action plan to promote biodiversity and the launch of rehabilitation programme at the mining areas.



Goal #17: _____

Strengthening the means of implementation and revitalise the global partnership for sustainable development:

- SCCC's membership of the World Business Council for Sustainable Development under the Cement Sustainable Initiative (WBCSD-CSI) underscores its commitment to the global industry campaign for sustainable development in the internationally-accepted levels.

SCCC is resolved to grow its business along with the well-being of the society under the good principle of SDGs in wherever it operates.

The Company is mindful about conducting its business responsibly in parallel to supporting the philosophy of sustainability.

SD Roadmap Performance & Highlights



CO₂ Emission Reduction



Stakeholders Engagement with Green Heart Activities



Community Involvement & Development



Zero Waste to Landfill



Green Product & Service Innovation



Water Conservation

SCCC's sustainable development plan speaks volumes in our determination to create greater values to the environment, societies and stakeholders. Our SD roadmap on six major aspects with challenging long-term goals set forth between 2009 and 2020. We have fared relatively well so far in our journey and we are strongly confident that we are indeed moving in the right direction in spite of more challenges, mostly external factors beyond our control.

We are committed to do our utmost according to the timelines by applying innovative means and fostering cooperation with various stakeholders as a prime strategy to achieve our SD agenda. Moreover, SCCC became a member of the Cement Sustainability Initiative (CSI) - an alliance of leading global cement producers who pursue cooperation in the name of driving their business operations towards global standards of sustainability in various areas which came under the World Business Council for Sustainable Development (WBCSD) umbrella. Participating in WBCSD-CSI allows SCCC to work with the world's leading cement producers to develop a SD programme that is truly globally-accepted.

Summary of the Performance and Highlights



CO₂ Emission Reduction

The effort to reduce carbon dioxide emission in the year fell short of target, but that was not our intention.

With the CO₂ emission at 717 kilograms per ton (kg/t)

of cement produced recorded in 2016 underscored the upward trend starting in 2014.

But the root cause of this was entirely external, driven by rising demand for OPC cement which has relatively high content of clinker which uses more energy.

Yet, we were unable to use alternative fuel as much as we wanted because of the declining price of coal, our main fuel.

That situation forced us to adjust our energy strategy in order to strike a better financial balance at the time of economic slowdown.

Since the base year of 2007, SCCC managed to cut back CO₂ reduction by 33 kilograms per ton cement, or 4.4 percent, still a far cry from the 20 percent goal for 2020.

However, the Company will strive to achieve the goal by researching and developing low-carbon cement in cooperation with its global network.



Stakeholders Engagement with Green Heart activities

The year 2016 saw SCCC continued with its mission to create ecological awareness among stakeholders as it expanded the green network and strengthening relationship with them.

Major activities supporting this course were:

- * Encouraging suppliers to obtain the Green Industry 2 certification under the category of "Green Activity"
- * Expanding the "Green Village" concept to communities in Tabkwang sub-district, Saraburi province.
- * Supporting transporters to set up "Green Garage" and organising corporate social activities.
- * Gearing up the Green Heart Bank's function to encourage SCCC employees about waste sorting and recycling.
- * Pursuing the Ministry of Industry's "Green Industry" standards which envisaged its entire SCCC manufacturing plants proudly earning the apex GI Level 5 in Green Network certification in 2014.



Community Engagement and Development

SCCC has since 2009 required all manufacturing units to come up with annual action plans to enhance relationship and engagement with communities.

The outcome of this endeavour, in the name of corporate social responsibility, has been positive both from the perspective of "in process" and "after process".

Our Green School development project celebrated its 7th anniversary in 2016 with the opening of the 30th location in Chiang Rai's Ahka community.

Over the past seven years, this SCCC initiative has provided education to over 8,000 underprivileged children in remote rural areas in Thailand.



Zero Waste to Landfill

SCCC's cement plants, Conwood factory, the alternative fuel preparation facility and INSEE Aggregate sites have all accomplished the zero waste to landfill agenda.

They have successfully fulfilled the objective by applying the principle of 3Rs -- reduce, reuse and recycle - in their workplaces.

Our ready-mixed cement production unit has been pursuing the same objective but facing more challenges.

The impediments lied on customers' tendency to order more concrete than they need, resulting in some quantity being returned to our Company as "waste" that called for management.

Came in 2016 was the installation of the first concrete recycling machine at the Klongtoey plant in Bangkok

which allowed us to retrieve sand and stone from the returned waste for new production while reducing waste volumes and cutting costs.

With the successful performance of such machine, we intend to add many more units at high-production sites in 2017 to further our waste reduction mission.

Between 2009 and 2016, our concrete business was able to reduce waste by as much as 41.2 percent, or from 2.89 percent on the base year of 2009 to 1.70 percent in 2016.



Eco-friendly Product and Service Development

Developing environmental friendly product and service to respond to customers' needs have been at the heart of our business.

In 2016, sales of eco-friendly products and services constituted 31 percent of SCCC's overall revenue.

The percentage grew slightly from the previous year's level but has yet to fulfill the 2017's target of 40 percent.

But it was the strong market demand for OPC, which was popular for structural construction, for holding up the progress.

On SCCC's part, the Company remained committed to develop more eco-friendly products to support its CO₂ reduction bid with the release of INSEE Mortar, among others.

We have embarked on various forms of campaign to encourage customers to choose our green products and engaging sustainable development in their operations.



Water Resource Conservation

Water scarcity is a national problem and SCCC has been mindful of its contribution in helping to conserve this important resource.

That is evident in our target to decrease water usage in the cement production by 20 percent from 2012 base year in 2016.

Vigorous campaigns enabled our Saraburi works to reduce water consumption in 2016 by 21.7 percent from 2012's base level, or from 270 litres per ton of cement produced to 216 litres, better than the 220-litre target.

Concerted effort was behind this successful record as we attempted to use more surface water.

SCCC's Safety culture evolves

Safety performance gains traction



The evolution of INSEE safety culture at SCCC has reached the acme in 2016, marked by declining accident rates considered one of the industry's best.

The third-stage safety culture development, which promotes concerted best safety practice among all stakeholders within SCCC's operating environment, took off to a good start.

The introduction of "Interdependent Culture" followed in succession of safety culture themes introduced in earlier timelines with different focuses in accordance with the progression in SCCC's journey toward accident-free workplace.

SCCC's safety culture development commenced in 2009 with the roll-out of "Dependent Culture" that emphasised on management to ground floor levels and contractors strictly enforcing "Five Cardinal Rules" which were later transformed into "5 Dos and 2 Don'ts" for greater comprehensiveness.



The phase-II saw the introduction of "Independent Culture" which sought individual commitment to lead safety-related action under the "Visible Safety Leader" programme under a common slogan "Safety Starts with Me."

"Our safety culture has matured to the stage whereby all stakeholders need to orchestrate their efforts to ensure all of them can go on with their works accident-free," said Mr. Prasert Kasikigkupol, Sr. Department Manager for Compliance and Group Occupational Health and Safety (OH&S) at SCCC.

A colourful five-point star icon with the slogan "Safety First, We Alert Together" attached was introduced to inspire and herald the Interdependent Culture.

Our multi-stage safety culture evolution reflects SCCC's belief that all fatalities, injuries and work-related illness can and must be prevented within its operating environment under the catch phrase "Zero Harm to People."

In 2016, SCCC's safe-centric promotion gained further traction with a wide range of initiatives and works being successfully launched and implemented.

According to Mr. Prasert, in 2017 every operating unit under SCCC will require to come with at least OH&S initiative that drive the interdependent safety culture.

Others are organising a course on INSEE OH&S Interdependence Development, producing safety tips video and staging INSEE Safety Road Shows.

Meanwhile, SCCC has ensured that its leadership in fostering safe and healthy workplace does not only confined to the core company but is transpired to its recently-acquired subsidiaries and affiliates both at home and abroad.

Improved scoreboards

SCCC's vigorous safety campaign has continued to upgrade its fatality and road accident scoreboards that were considered among the best for the cement industry.

Audits conducted over 46 SCCC operating sites in 2016 showed overall impressive scores of 82.3 percent, or a B+ ranking.

Road accidents have since 2012 been declining, with the numbers in 2016 fell to 79 from 108 in the previous year.

There was no fatality involved SCCC's entire spectrum of operations including those performed by contractors and sub-contractors in 2016.

The last time when fatality was reported was in 2014 with two perished.

Other key rulers which measure OH&S performance - frequencies of working times lost due to injuries, technically known as Lost-Time Injury or LTI, and Total Injury Frequency Rate (TIFR), which takes into account

"Our safety culture has matured to the stage whereby all stakeholders need to orchestrate their efforts to ensure all of them can go on with their works accident-free"

Prasert Kasikigskupol

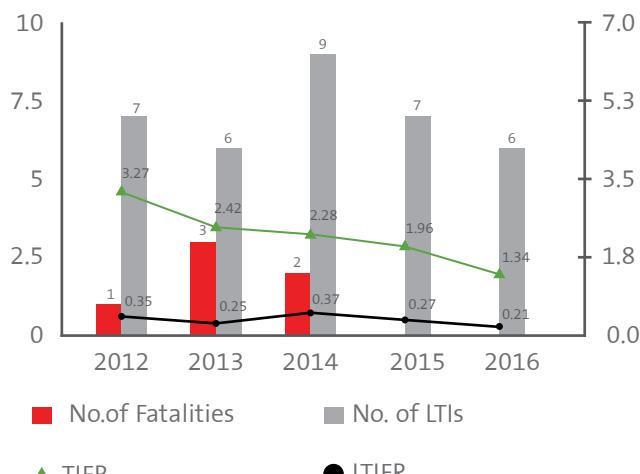
Sr. Department Manager for Compliance and Group Occupational Health and Safety (OH&S), at SCCC



the frequencies of injuries causing death or permanent disabilities; injuries causing lost working time, injuries requiring medical treatment and minor injuries, have continued to fall since 2012.

LTI dropped from 0.37 in 2014 to 0.21 in 2016, while TIFR decreased from 2.28 in 2014 to 1.34 in 2016.

"While our safety records are regarded excellent in industry standards, we can never be fully satisfied and we need to press on until all the yardsticks become zero," Mr. Prasert concluded.



* Only employees and contractors

Our Safety officer wins award

Awarding underpins SCCC's best safety practice



Mr. Cherrngchai Phothito, the Professional safety officer at Plant 3 of SCCC's Saraburi operations, has a good reason to congratulate himself.

The 44-year-old staff is a proud recipient of the Outstanding Professional Safety Officer Award 2016 from the Ministry of Labour.

The prestigious award recognises his dedication to enhance safety and health performance in workplaces that is in compliant with all regulatory requirements and best practices adopted by SCCC.

The honour extended to Mr. Cherrngchai personally is a testimonial of SCCC's long-standing focus in making its workplaces safer and healthy.

Mr. Cherrngchai reckoned that SCCC's outstanding safety performance played a crucial part in unlocking the door to earn him this award which was granted in June 30, 2016.

“Our company's commitment to health and safety is making their attempt to get this award easier than others”

Cherrngchai Phothito
The Professional safety officer at SCCC

The prime requisite qualifying the safety officers to contest for the award is that their enterprises must have achieved exceptional safety performance at least for two consecutive years.

In the Plant 3 case, it has shown impressive safety records, reducing the numbers of safety-related incidents to merely six in 2015 from 12 in 2014 and 21 in 2013.

That is a record hard to beat by this industry and underscoring the trend for further reduction and leading towards a zero-accident workplace.

The award granted to Mr. Cherrngchai was based on Plant 3's safety performance in 2014 and 2015.

Only 12 professional safety officers working for companies across the country received this kind of awards presented during the 30th National Safety Week, held between June 30 to July 2, 2016 by the Ministry to promote occupational safety consciousness.

Mr. Cherrngchai is the first safety officer working for a cement industry in Thailand honoured for this award.

“SCCC's significant emphasis on safety performance and best practice which I and two teammates have pursued proactively is a major contributor to my earning this personal award,” said Mr. Cherrngchai, whose 14 out of 22-year career with SCCC has been in safety practice.

He believed that his fellow safety officers working for other branches of SCCC works have the strong potential to earn this particular accolade as they already have track records to show to the ministry's award selection committee.

“Our company's commitment to health and safety is making their attempt to get this award easier than others,” he added.

SCCC Says No to Foam



The polystyrene foam became a dirty word at SCCC so much so it was declared contraband. The Company has since March 16, 2016 issued a directive banning the use of disposable foam food containers, sometimes referred to as Styrofoam, within its workplaces.

Such ban raises the bar for health and environmental protection at SCCC to another level beyond regulatory requirement.

“It (using foam) poses a health risk and is environmentally problematic, best to do without it,” said Mr. Prasert Kasikigskulpol, Sr. Department Manager for Compliance & Group Occupational Health and Safety of SCCC Group.

Styrene and benzene, the petrochemical materials used in producing those foam containers, are regarded by many institutions and health agencies worldwide, as a carcinogen, an agent causing cancer.

Such view was also taken by both the International Agency for Research on Cancer, part of World Health Organization, and the United States Environmental Protection Agency.

Those hazardous substances can melt if the food or liquid is of a sufficient temperature and thus migrate into food.

Thailand’s Department of Health reported that the chance of getting cancer in a person who consumes a meal a day from foam containers on a continuous basis for ten years, is six times over an average man.

Men run the risks of having prostate cancer and for women, breast cancer, while both genders can also develop kidney cancer as well.

Because foam food containers do not biodegrade easily with some researches saying it needs up to 100 years, they affect the environment.

Though the Ministry of Public Health banned the use of substandard foam as food containers for over ten years, its use in Thailand has increased at an alarming rate.

According to latest available figures from the Pollution Control Department, daily foam consumption jumped from 34 million pieces in 2009 to 61 million in 2013, an equivalent of one piece a day by every Thai in the year.

That gave rise to “INSEE Say No to Foam” campaign which was successfully rolled out at SCCC’s six operating units in Saraburi in April 2016.

With SCCC owned employees at Saraburi works along with over 4,000 Contractors/subcontractors supporting the operations are subject to the ban, the Company is making a meaningful contribution in phasing out foam from its system.

That contribution will become greater when the seven remaining work units, involving over 2,000 people, in the Group fully implement the ban in 2017.

SCCC’s Saraburi works became the first private sector entity in the province to be certified by the Department of Health on June 3, 2016, as an organisation with 100 percent foam free.

Employees and Contractors/subcontractors at SCCC Saraburi Operations have turned to alternative food containers which have no health and environment issues.

“It (using foam) poses a health risk and is environmentally problematic, best to do without it”

Prasert Kasikigskulpol
Sr. Department Manager for Compliance & Group Occupational Health and Safety (OH&S), at SCCC



Challenges in Low Carbon Journey

Remains determined to fulfill CO₂ target



Though SCCC strived to advance its low-carbon journey, there were challenges which slowed the bid.

But the factors which caused SCCC to miss the SCCC's ambitious target to reduce carbon dioxide (CO₂) arising from its cement production in 2016 was purely external and beyond our control.

The surging demand for the cement used for structural construction, notably INSEE Dum brand, was largely attributed to the average CO₂ emission of 717 kilograms per ton of cement produced recorded in 2016, exceeding the ambitious 600 kilograms per ton target set forth since 2009.

That particular type of cement has relatively higher content of clinker which uses more energy and thus emitting more greenhouse gas in such process.

As the result, the average clinker input to SCCC's overall cement production was at 84.7 percent, up from 83.6 percent in 2015, and compared to the target of 75 percent.

In addition, SCCC was not able to use a great deal of alternative fuel as planned due to issues related to viability in the wake of declining price of coal, the main fuel.

"It's hard to change the perception of many consumers that the more clinker in cement means greater strength property," Mr. Yutthapon Jaidee, Manager of Environment Department at SCCC, explained.

The long-established quality reputation of INSEE Dum also played a part causing reluctance among several consumers to switch to other environmentally-friendly varieties which SCCC has developed and offered to the market, he said.

Government regulations which require the use of cement which complies with TISI-15 standard for structural construction in public infrastructure projects do not promote consumption of other eco-friendly cement versions which still provide strength property, he said.

However, the presence of these roadblocks did not mean that SCCC was losing track of its commitment towards reducing CO₂ emission by 20 percent from the level of 2007, the base year of the journey.

"We take these impediments as challenges and we are looking for ways to overcome them, noted Ms. Sawitri Phataganon, Manager for Environmental Controlling & Development Division at SCCC.

"Changing consumers' perception is one thing (SCCC needs to do) and developing products with low CO₂ is another," she added.

An amendment to government regulations favouring eco-friendly cement is also essential to stimulate green cement demand which will go a long way to cut back on overall CO₂ emission, Mr. Yutthapon pointed out.

Applying in-house research and development and outside technologies, SCCC is on course to develop alternative raw materials such as fly ash as clinker substitutions.

That will go hand in hand with attempt to cut down overall energy consumption.

More certified for Co₂ labels

SCCC's progress made in 2016 has not gone without notice. Two additional SCCC products - INSEE Petch Ngarn Lor and INSEE Petch Rak Loke - made it to the list of products allowed to carry the Carbon Footprint Label to show their CO₂ coverage, raising the total numbers of SCCC products certified for such labelling by the Thai Green House Gas Management Organisation (TGO) to nine.

***"We take these impediments as challenges
and we are looking
for ways to overcome them"***

Sawitri Phataganon

Manager for Environmental Controlling
& Development Division Manager at SCCC.



Furthermore, the total numbers of SCCC products which were certified to carry a label that signified the reduction of carbon footprint resulting from the usage of such products jumped to eight in 2016 from three in the previous year.

All in all, SCCC had the largest numbers of products certified for these two categories of TGO labelling by any cement producers in Thailand.

Last but not least, Thailand Business Council for Sustainable Development (TBCSD) honoured SCCC's unwavering determination in continuing reducing greenhouse gas over the years in a coveted award presented on June 9, 2016.



INSEE Ecocycle continues improvement on sustainability

Facility acquisition broadens waste coverage



INSEE Ecocycle has been offering industrial waste management services for more than 15 years. In June 2016, INSEE Ecocycle acquired part of assets in industrial service business from Valence Corporation Limited, which has enabled the Company to provide both waste management and specialized chemical cleaning service for the industrial sector. INSEE Ecocycle continues to work towards becoming a leading environmental service business in Thailand.

As a specialist in managing sustainability, INSEE Ecocycle has partnered with its customers and stakeholders to develop and deliver “peace-of-mind” environmental management solutions. INSEE Ecocycle is committed to best practices in sustainable environmental management through projects in collaboration with various parties. The Company’s prime task is to earn respect and trust by safeguarding its customers’ reputations.

In order to ensure sustainability, INSEE Ecocycle aims to strengthen relationships with its customers through various engagement programmes and networking activities, such as key account engagement and relationship building at all levels.

With respect to stakeholders, INSEE Ecocycle took part in various sustainability programmes launched by various agencies throughout 2016.

INSEE Ecocycle participated in two projects with Department of Industrial Works (DIW). One is Industrial Hazardous Waste Movement Tracking System using Global Positioning System (GPS). The Company had one of its industrial hazardous waste trucks demonstrated at DIW in March 2016. The entire fleet of trucks has now been equipped with GPS.



The other is “Auto E-License Project”, which INSEE Ecocycle signed the MOU with DIW on September 27, 2016. Only nine waste processors whose operations met the government’s standards for waste management were selected to participate in this project. The objective of the project is to facilitate the issuance of e-license for moving industrial waste from waste generators to treatment facilities. It is expected that the project can be implemented in April 2017. DIW views this as a pilot project and will encourage other waste processors to improve their operating standards.

Regarding collaboration with Department of Alternative Energy Development and Efficiency, INSEE Ecocycle won “Thailand Energy Award 2016” for its best practice in renewable energy projects for two consecutive years.

This time around, the Company’s processing facility in Chonburi won the award for the Off-Grid-Thermal category.

INSEE Ecocycle, moreover, won “Green Star Award” from Eastern Seaboard Industrial Estate (Rayong) for its best environmental practices and corporate social responsibility (CSR). The Company’s Alternative Fuel Preparation Platform in Chonburi was inspected and certified by community leaders surrounding the plant.

INSEE Ecocycle is aware that the Company’s responsibility is more than just managing its customers’ waste. It cares and protects customers’ reputation. INSEE Ecocycle takes pride in being the trusted partner for its customers and stakeholders.



SCCO moves on its SD journey

Artificial coral reefs and recycling machines highlight progress



Considerable progress made in 2016 to two specific major initiatives stood out to witness Siam City Concrete (SCCO)'s unwavering commitment to sustainability development.

Making artificial reefs out of returned concrete and installing concrete waste recycling machines have been geared up at the subsidiary of SCCC Group.

These undertakings tangibly highlighted the Company's on-going contribution to the SD philosophy of being environmentally friendly, yet creating values to the society and stakeholders.

In parallel, SCCO has striven to reduce waste, cutting down on consumption of both water and electricity in its operation process, mitigating delivery of waste to landfill and being a good neighbour to communities.

Year-end evaluation showed that SCCO performed satisfactorily in line with the set five-point objectives.

"In a nutshell, we fared pretty well in our SD journey," Mr. Yuthawat Metheepalakornchai, Vice Chairman of Environment Committee for Sustainable Development at SCCO, said.

Artificial reefs

SCCO has progressively turned surplus concrete left from construction sites of customers into man-made coral reefs as part of its philanthropic mission to restore Thailand's marine environment facing destruction.

Three SCCO's production sites, located in Rayong and Phuket, were on course to produce about 150 pieces of artificial reefs in the shapes of a cubic square and a dome with holes on their sides.

The first batch of twenty pieces of dome-shaped artificial reef were turned over to Department of Marine and Coastal Resources (DMCR), the state agency in charge of restoration, from SCCO's Talang plant in Phuket in April 2016 for experimental purpose.

SCCO is prepared to deliver 100 pieces, each weighing one ton, to DMCR before August 2017.

SCCO is determined to increase the output based on consultation with DMCR over the numbers and timeframes required in the future.

These units will continue to be handed over to the department free of charge to support the attempt to revive the precious coral reef ecosystems.

Building artificial reefs has been a key restoration method which has been used effectively in several areas on the kingdom's eastern coast, Gulf of Thailand and Andaman Sea for 38 years ever since coral reefs destruction was detected.

SCCO is bearing the entire costs of production including the cost of making molds and donating the concrete required.



Making artificial reel is SCCO's new way of transforming the surplus concrete into useful purpose, in addition to turning it into road barriers, footpath blocks, plant pots, benches and construction bases, all for public benefits.

Recycling machines

Two machines, which basically retrieve sand and stone from concrete being returned from construction sites, at SCCO's Bangkok sites in Klongtoey and Rama IX Road areas came on stream in 2016.

The locally-built machines, costing one million baht each, enable SCCO to re-use the retrieved materials, at 10 tons per hour, for new concrete production.

This course of action represents a good waste management that is economically viable yet eco-friendly.

SCCO is moving strenuously with the recycling machine programme with up to 20 busy plant sites earmarked for installation in 2017.

That will be the largest numbers of its kind by any concrete producers in Thailand, noted Mr. Pattana Ploypapar, Member of Environment Committee for Sustainable Development at SCCO.

There is an intention to introduce the recycling machines at SCCO's other sites where viability justified in the future.

SCCO operates 105 owned production sites across the country with a combined capacity of 25 million tons a year.

"In a nutshell, we fared pretty well in our SD journey"

Yuthawat Metheepalakornchai

*Vice Chairman of Environment Committee
for Sustainable Development at SCCO*

Green Industry

Seventeen SCCO sites gained "green" credentials in 2016 by obtaining the coveted "Green Industry" Level 3, or GI-3, certification from the Ministry of Industry.

The GI-3 recognises an enterprise for having green management system which is compliant with several environmental standards such as ISO 14001:2004 and or being credited by awards.

The 17 SCCO sites were the initial batch of locations submitted for the certification and the Company has the intention to seek accreditation for its other major sites in the near future.

Scoreboard

SCCO has made headway in several key measurements in 2016.

In 2016, SCCO was able to narrow the percentage of waste to total production to represent 41.21 percent by reduce waste to landfill from 2.89 percent waste concrete base on 2010 to 1.70 percent waste concrete 2016.

It managed to cut overall water consumption to 316.22 litres per each cubic metre of concrete produced, close to the target of 310 litres.

Electricity consumption also dropped to 1.99 kilowatt hour per each cubic metre of concrete produced, lower than the two kWh hour target.

Meanwhile, no community complaints on any issues related to SCCO nationwide operation were raised.



ESG100 certificate and excellent scores in good corporate governance

Environmental, social performance and governance distinguished



Yet another testimony of commitment towards environment, society and good governance, SCCC made its way to the ESG100 list in 2016.

SCCC became one of the latest firms listed on the Stock Exchange of Thailand (SET) whose operations have been recognised by Thaipat Institute to encompass environmental, social responsibility along good corporate governance.

Thaipat Institute is the advocacy of corporate sustainability and socially responsible practices in business enterprises.

“Getting the ESG100 certificate attests SCCC’s business conduct which places great importance on environment, society and governance,” said Mr. Pongpinit Tejagupta, Director and Chairman of Governance, Risk Management and Supervision at SCCC.

“Being honoured with the certificate shows that SCCC is moving in the right direction of sustainability, not just being obsessed with financial performance,” added SCCC Sustainable Development Manager, Mr. Yongyut Sangangam.

Thaipat has applied the Global Initiative for Sustainability Rating (GISR) in qualifying companies into the ESG100 list.

A total of 621 SET-listed firms were screened for ESG100 listing based on six sources of information made available to the public including those from the 56-1 Annual Information Disclosure Report, Annual Report and Sustainable Development Report.

Over 11,500 data points were used by Thaipat in determining whether a company is entitled for the ESG100 listing.

“Getting the ESG100 certificate attests SCCC’s business conduct which places great importance on environment, society and governance”

Pongpinit Tejagupta
Director and Chairman of Governance,
Risk Management and Supervision at SCCC

Testimonies of SCCC's commitment for environmental and social care and good governance abound.

Constructing dykes, building schools, installing water tanks, engaging in public services are some of philanthropic contributions consistently made over years by SCCC.

There have also been activities which drive SCCC's sustainable agenda in the name "Green" such as Green Factory, Green Village and Green School.

SCCC has vigorously pursued good governance with clear policy and practice guidelines against corruption, fraud and bribery within the Company's realm.

Mr. Yongyut concluded that receiving the ESG100 certificate reflects SCCC's core operating values.

They are working as a team; doing what is right; challenging conventions; and caring about our future.



SCCC gets "excellent" scores in good corporate governance

Meanwhile, SCCC has demonstrated it was a cut above the rest when it came to raising corporate governance (CG) performance. SCCC was defined as "excellent" (five emblems) for the Corporate Governance Report (CGR) of Thai Listed Companies 2016 and was in the Top Quartile of listed companies with market value of at least 10,000 million baht, rated by the Thai Institute of Directors Association (IOD) in association with the Stock Exchange of Thailand (SET). The "excellent" CG scores showed SCCC's dedication to improve its CG practices and culture.



SCCC reaps fruits of early ICT adoption

Tangible CRM performance witnessed



Long before such words like “cloud” and “digitization” became a common place, SCCC Group has been one of the early Thai industry leaders to successfully embrace Information and Communication Technology (ICT).

SCCC revolution through ICT, as a major tool aimed to effectively handle sales and create chains of values for customers, dated back to 1999.

Since then, its ICT platforms have evolved as SCCC continued to adopt more efficient and sophisticated ICT solutions to cope with more complex operating environment, supporting its enhanced roadmap for sales and customer excellence and raising SCCC's overall business agility.

Before 2000, most of SCCC operations were conducted in the old and different paper-based modes and were not well integrated and coordinated.

But by May 2000, a dramatic change came as SCCC embarked on the sales and customer excellence journey until now.

“Thus, this will improve our customer relationship and help to determine the true value of each customer”

Naruporn Piyavanich
CRM & Process Intelligence Manager

Since that landmark year, SCCC has spent some 1.7 billion baht so far in the world-class ICT solutions and best practices to increase not only the operational excellence but also customer value and satisfaction.

“Our SCCC management has always been a strong advocacy in proactively tapping ICT to improve work efficient, especially supporting our customers,” said Ms. Naruporn Piyavanich, CRM & Process Intelligence Manager.

“They really dare and are willing to spend big bucks on ICT in the way, which has probably not seen by other companies in the same field,” she noted.

The management's advocacy saw of a dozen of ICT programs and applications deployed to good use between 2000 and 2014.

But the most significant change in SCCC's ICT history took place in 2015 when it adopted a comprehensive group-wide platform and tools for CRM (Customer Relationship Management) with a capital outlay of 1.3 billion baht.

“What these platform and tools essentially do is to allow SCCC Group to see a single 360 degree view of the customer across all companies and to provide the integrated cloud application to support the growing Digital Economy.

“Thus, this will improve our customer relationship and help to determine the true value of each customer,” she said.



The CRM platform and tools cover vital aspects related to customers like sale projection, managing call centre, on-line sale solution, mobile sales application, e-commerce and loyalty card program -- mostly through cloud applications. The SCCC's Business & ICT Sustainability has been realised by means of Digital Business Transformation that zeroes in on profitability, customers' satisfaction and expedite response to customers' needs in all spectrums.

The strategy underpinning this transformation is achieved by three key words - design, build, and run, according to Ms. Naruporn. "Design" means to formulate digital/analog strategies, identify and recommend options. "Build" means to translate the business requirements / strategies into IT / adopt digital technology & business model to improvement performance. "Run" means to differentiate through digitization, include normal operation change requests / new business requirements. (notes for information: the definition of design/build/run can revise into short but should elaborate the meaning)

Outcome

SCCC has reaped tangible and remarkable benefits from its ICT leadership programme from the CRM perspective.

First, customers have obtained utmost benefits conducive in conducting their businesses.

Secondly, surveys show customer satisfaction in business dealing with SCCC has exceeded 80 percent mark.

Customers' complaints about SCCC's products and services have dropped sharply to as little as 5 complaints a month. (notes for information: the average complaints/

month in 2013=14 complaints, 2014=10 complaints, 2015=6 complaints, 2016=5 complaints.)

SCCC's call centre, operating 24/7, has been able to constantly respond up to 96% of all inquiries by customer callers.

SCCC Group's loyalty programme has boosted its membership to about 5,000 in 2016 from about 1,000 at the 2009 debut.

Awards

SCCC's ICT endeavour has been recognised externally with four awards between 2014 and 2016.

- SCCC's call centre was twice honoured by the Office of the Consumer Protection Board (OCPB) and The Management System Certification Institute (Thailand) (MASCI) in 2014 and 2015.

They acknowledged the high quality standard of complaint handling and thus reducing any direct complaints to OCPB.

- In 2015 and 2016, SCCC received Thailand ICT Excellence Awards from Thailand Management Association (TMA) in the two of four specific categories.
 - The 2015 award recognised SCCC's core process improvement for its INSEE Mobile Sales Application, one of CRM tools, that connects sales team with customers.
 - In 2016, SCCC was one of the three entities, receiving the prestigious awards in the category of Business Enabler. This award honoured INSEE Connect, a CRM tool strategically designed to provide an ecosystem playground for SCCC Group to create and leverage their own customers' communities.

Having seamlessly connected with dealers and sub-dealers in its CRM journey, Ms. Naruporn said SCCC is striving to reach its last miles control - linking with final end of supply chain, the home owners and end-users - in the next few years.

Green product-service move

List grows, new initiative and product development launched



SCCC's endeavour to advance its development of eco-friendly products has made a mark in 2016.

The year was highlighted by the extended list of its Green Heart products and services to 30, launching a research for a new breed of cement that uses alternative components and requiring lower energy in process, and developing a new concrete that deals with the durability problems at swine farms.

Meanwhile, more SCCC products were entitled to carry nationally recognized environmental labels which reflect their contribution to the global greenhouse gas emission.

“We have made a fairly good progress in our mission to go green in our products and services,” said Dr. Wonchalerl Chalodhorn, Product Development Manager at SCCC.

A key yardstick that speaks volumes of SCCC’s success in such endeavour is being able to sustain the contribution of Green Heart products to the Group’s overall revenues at 2015’s level, 30 percent.

PCC development

One of the most notable developments in 2016 was the upgraded version of INSEE Portland Composite Cement (PCC) which boosted further utilization of alternative material in the overall content in 2015, thus made the product greener.

As Dr. Wonchalerl explained, by increasing the alternative material, there is less requirement for clinker use and therefore reduces CO₂ emission in cement production process.

In other words, the production of INSEE Petch Rak Loke, the new PCC, support the clinker factor reduction and thus decreasing CO₂ emission by 5-7 percent from the Ordinary Portland Cement (OPC).

It is important to note that the new PCC came without sacrificing the product quality in terms of both fresh and hardened properties, he stressed.

Market response to INSEE Petch Rak Loke has been enthusiastic with 2016 usage volumes leaped more than twice from its 2015 records.

Sales of INSEE Petch Rak Loke in 2017 are expected to grow significantly further over 100 percent from the 2016 volumes.

INSEE FarmCrete

Development of INSEE FarmCrete, as a solution to solve the cracking and spalling on the slab and floor of swine farms due to the piglet scour in the feeding area, has successfully been carried out in 2016.

This is a new product that meets the market need which has not been satisfied earlier but will be available in 2017.

“The magnitude of spalling problem is significant when considering that there are over 150 operators of swine farms in Thailand,” said Dr. Wonchalerl.

The issue has had implication on eco-system because these swine farms’ floor will otherwise need to be repaired from time to time with new Concrete whose production process will involve greenhouse gas emission,” he explained.

The key characteristic of INSEE FarmCrete lies in its high abrasion resistance that extends the floors' lifetime and minimising repair.

Three new green products

INSEE Motar 32 Easy Floor Screed, INSEE Mortar 52 & 53: Dry Concrete joined SCCC's list of expanding green product and service portfolio in 2016.

INSEE Motar 32 was designed for floor leveling work with good flowability and thinner floor, thus reducing workload and consume less resources.

INSEE Mortar 52 & 53 are both green because they comprise alternative material that cuts its original cement content by 10-15 percent.



“By increasing the alternative material, there is less requirement for clinker use and therefore reduces CO₂ emission in cement production process”

Dr. Wonchalerlern Chalodhorn
Product Development Manager

Carbon Footprint & Carbon Footprint Reduction label

Two additional SCCC products - INSEE Petch Ngarn Lor and INSEE Petch Rak Loke - made it to the list of products allowed to carry the Carbon Footprint Label to show their CO₂ coverage, bringing the total numbers of SCCC products certified for such labelling by the Thai Green House Gas Management Organisation to nine.

At the same time, the total numbers of SCCC products which are certified to carry a Carbon Footprint Reduction label that signifies the reduction of carbon footprint resulting from the usage of such products were doubled to eight in 2016 from four in the year before.

Environmental product declaration

In 2016, SCCC set in motion a process of showing information environmental impacts of its products in great transparency.

Concrete Environmental Product Declaration (EPD) discloses the environmental impact of specific concrete mix, and is an independently verified and registered document in accordance with the environment-focused ISO:14025 global guidelines.

Being part of the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development, SCCC was one of the first in Thailand to adopt CSI tool to issue pre-certified Environmental Product Declaration for its selected cement and concrete products.

The EPD details environmental impacts, resource use, waste and output flows calculated by a certified product category rule.

SCCC expects to have its EPD verified for its main cement and concrete products in upcoming years to facilitate for construction project owners to get the US Green Building Council's LEED (Leadership in Energy and Environmental Design) standards certification.

A total of 14 construction projects in Thailand, which used SCCC products in one way or another, earned or applied for the “Green Building” status either under the LEED standards or the Thai Green Building Institute's TREES (Thai's Rating of Energy and Environmental Sustainability) benchmark.

SCCC is committed to extend its range of green product and services in the coming years as well as striving to encourage the public to make use of eco-friendly construction materials to help addressing the environmental problems, Dr. Wonchalerlern concluded.



INSEE Green School

Chiang Rai's Ahka community gets first school in 60 years



The Integrated Green School concept has evolved with the development scope at the third site being further refined and expanded.

The INSEE Arsa Border Patrol Police School in an impoverished Ahka hill tribe community in Chiang Rai province has what it takes to be another ideal model for future Green School development.

The school, built from scratch in the remote Baan Huay Nam Kuen, 31 kilometer from Mae Suay district in a valley at 1,200 metre-elevation, not only addresses critical need for education but encompassing the principle of sustainability initiated by His Majesty the Late King Bhumibol Adulyadej.

Though sharing broad similarities with the Baan Pa Ka Yaw School SCCC launched in 2015 along the Thailand-Myanmar border in Petchaburi, the Baan Huay Nam Kuen scheme contains elements which deal with specific local needs.

“When we develop new Green School, we don’t just universally put an old blueprint used successfully in the previous projects on a new site,” said Dr. Sunee Sornchaitanasuk, Independent Director and Chairperson of Audit Committee of SCCC Board.

“But we tend to look at some different features which are really required in a specific local site and applying them in order to garner utmost benefits as set forth in our objectives,” she explained.

More importantly, the development has taken on board valuable suggestions from HRH Princess Maha Chakri Sirindhorn when she graciously opened Baan Pa Ka Yaw School early in 2016, she added.

Costing eight million baht to build, the SCCC-funded Green School scheme at Baan Huay Nam Kuen includes an integrated water supply management system to tackle severe water shortage in the drought season.

There is a solar-powered water pump, dykes and two 20,000-litre water storage tanks which will upgrade the quality of life among some 1,200 people who have been living barely in a subsistence level mostly on farming.

It is the third consecutive development that is primarily meant to eradicate illiteracy along the Thai borders, raising the standard of living and cultivating sustainability not only among rural juveniles but the villagers as a whole.

Baan Huay Nam Kuen extends the original Green School model emerged in 2015 at Baan Nam Sapeh, the far-flung highland in Pang Mapha district of Mae Hong Son, which redefined the next generation of SCCC’s Green School development which dates back to 2013.

First learning centre

Baan Huay Nam Kuen is the 30th school which SCCC has either built from scratch and or renovated in Thai rural and remote areas in conjunction with the Border Patrol Police Bureau.

It is the first establishment of its kind in a community with 80 years in history and where illiteracy is widespread among members who mostly can only communicate in their native tribal language.

The new Green School in Chiang Rai is developed over an 800-sqmsite to provide education for up to 500 children in Baan Huay Nam Kuen and its neighbourhood from kindergarten level to grade six with nine teachers, six of whom are assigned by Border Patrol Police Bureau.

The facility comprises three classroom buildings, a workshop, a library and recreational centre, a cooperative, a clinic, a teaching staff room, a house for teachers and a dormitory for 30 female and 20 male pupils.

Construction of the complex began in July 2016 based on a winning design from a contest held at Chulalongkorn University's Faculty of Architecture with a conscious aim to inspire and involve students in socially responsible activities.

Preparation works for the project involved about 80 SCCC employees volunteers banded under the INSEE Arsa philanthropic group and some members of the public from outside areas.

It is slated for official opening by Princess Sirindhorn in August 2017.

Sustainability platform

True to the models envisaged in the two preceding Green Schoolschemes, Baan Huay Nam Kuen serves as a catalyst for a change for the betterment in education, quality of life, and environment," said Natreudee Katintes, the SCCC officer in charge of the undertaking.

The water usage management, efficient energy supply, waste management system, food supply chain, farming and communal marketing are incorporated in a self-contained manner and all within the Green School' environment.



Vocational training, mushroom cultivation, Rhode Island Red free-range chicken farming as well as construction of a plant nursery will form part of the Baan Huay Nam Kuen development, she said.

Work in process

Since its inception, SCCC's Green School project has benefited nearly 10,000 underprivileged pupils in Thailand who would otherwise have no access to formal education and opportunities to adopt eco-friendly lifestyle and green economy.

However, Pattraradanai Inpongnuwat, Head of Corporate Communications at SCCC, said the success of Green School development should not be measured solely by the numbers of school delivered to the public.

"We would rather count on the improving the human quality in our society, he said.

"That's why we have post-delivery programs with parties concerned to strive to improve the community well-being and to grow sustainably along with the caring for environment, in consistent with what SCCC has aspired for," he concluded.

"We tend to look at some different features which are really required in a specific local site and applying them in order to garner utmost benefits as set forth in our objectives"

Dr. Sunee Sornchaitanasuk
Independent Director and Chairperson
of Audit Committee of SCCC Board

Ministry honours SCCC for good CSR well done

SCCC strives to keep its track record



SCCC's philanthropic mission in the form of corporate social responsibility reads like a never-ending story.

The CSR activities have evolved over the years and continued with success, not a vague claim from the Company but an official endorsement from the Ministry of Industry.

In 2016, SCCC's Saraburi operations - specifically plants Nos. 1, 2, 3 and Siam City Power's facility - earned the coveted CSR-DIW Continuous Awards from the Ministry's Department of Industrial Works for keeping with the jobs well done in such field.

SCCC CSR was among the first industrial concerns in Thailand to receive the recognition from the Ministry when the CSR award was first introduced in 2011.

The Company continued to be the recipient of the annual honour through 2013 when the Ministry temporarily switched the theme of the award to Sufficient Economy in Agricultural Sector.

"The CSR-DIW Continuous awards endorsed the real course of action we have taken in pursuit of CSR excellence"

Sunan Sumrianra

Community Relations Manager at SCCC, Saraburi Operations

But when the award was reverted back to the CSR theme in 2015, SCCC's Saraburi works have also returned to such a hall of fame.

Another important development in 2015 was Siam City Power began to win the Ministry's award for good CSR performance for the first time.

"The CSR-DIW Continuous awards endorsed the real course of action we have taken in pursuit of CSR excellence," said Sunan Sumrianram, Manager for Community Relations at SCCC, Saraburi Operations.

What is more, the action is an evidence of our adherence to the CSR Policy which has been evolved since 2004 to be regarded as one of the industry's best references, he said.

SCCC's CSR practice is geared towards fulfilling the seven principles which encompass anything from good corporate governance to human rights, and from environmental care to anti-bribery and corruption (see info-box for detail).

"Ours is not a one-off exercise but a CSR in process that supports our Green Heart sustainable development, Mr. Sunan stressed.

More than 20 CSR projects have been on-going over the past decades and with some a score of ad-hoc undertakings have been successfully completed annually due to their specific needs.

SCCC's CSR covers a wide range of activities that address issues governed by its CSR principles.

They encompass education, health-care, environment, charity, community development and safety, to name just a few.

Over the past few years, SCCC has allocated over 10 million baht annually to fund its CSR works whose perimeter has expanded in its three focussed areas in Saraburi province.

The results of SCCC's CSR works have been relatively impressive with direct benefits to some 2,600 pupils in the seven schools, some 40,000 community members, raising the green area in the land of its neighbourhood by 30 percent, according to Mr. Sunan.

Community satisfaction of CSR projects, at least for those related to cumunity members, soared to 81.44 percent in the 2016 survey conducted by the Management System Certification Institute (MASCI), an upgrade from 74.1 percent in 2015.

There have been no complaints in whatever sorts from any external parties concerned about SCCC's CSR performance at least between 2015 and 2016, a merit that entitled the Company for the 2016 CSR-DIW Continuous Awards.

Mr. Sunan said the awards will encourage SCCC to do more in CSR which has now embedded in the Company's corporate culture.

SCCC's 7-principle CSR Policy

- **Corporate governance:** SCCC shall operate business with good corporate governance, ethics with transparency, accountabilities and respects for



human rights and fair treatment to all stakeholders including employees, shareholders, customers, suppliers and communities.

- **Human rights and employment practices:** SCCC shall abide by the human rights principles, related laws and regulations, and fair treatment and equality to all employees.
- **Customer and supplier relations:** SCCC places importance on customer needs to ensure sustainable relationship with customers and to achieve ultimate customer satisfaction.
- **Environmental care and sustainable development:** The Group shall promote environmental development activities to protect and reduce impact on the environment and community from its business operations by adhering to the highest regulatory standards.
- **Community and social development:** the Group shall place importance on participating and supporting sustainable development in the communities surrounding its operation sites and society at large.
- **Controlling and reporting:** The Group shall regularly and strictly monitor and report all business and CSR performance to the public.
- **Anti-bribery & corruption:** The Company shall operate the business ethically and transparently to ensure that all business policies, rules and provision are strictly followed.

Best practice in labour relations honoured

Endeavour makes it an industry “model” in 2016



It is a record that seems hard to beat by the industry of its kind.

For ten consecutive years to 2016, SCCC has been named the industrial operator with outstanding industrial relations and welfare performance by the Ministry of Labour.

To top it off, the Ministry on September 9, 2016 made the Company a model organization on labour relations management in the sector of cement, mining and quarry in Thailand.

These awards are testimonies of the long-standing best practices adopted by SCCC in fostering cooperative relations with employees.

“The fact that all these awards came from the way we work base on mutual understanding, trust and positive labour relations management. These was certified by the Tripartite involving together labour unions, employer organization and government show that we have been truly a top performer in this field,” said Mr. Pijig Promkaew, Manager of Employee Relations Department.

These coveted awards were granted to SCCC through external audits characterised by transparency and honest systems, added Mr. Somboon Mahaveeratragool, Labour Relations Division Manager.

However, the proudest accolade was the Thailand's Model Organization on Labour Relations Management Award which culminated SCCC's endeavor to create ideal work relationships which dates back to early 2000s.



In the competitive contest for such an award, SCCC has been distinguished by a track record of having absolutely no strikes, work stoppage or any disputes by any natures between employees and employers for ten consecutive years prior to the application.

The 2016 awards were supposed to extend to a top performer in each of 17 selected industrial categories, though 12 companies were actually honored as some were unable to match stringent selection process.

To be eligible for the contest entry, applicants must have earned honours in the field for at least five consecutive years.

All in all, we demonstrated SCCC employees and management have mutual respects in each other roles, understanding needs, supporting each other and working towards the same corporate goal in a win-win atmosphere, Mr. Chalard Yookhok, president of SCCC Labour Union, acknowledged.

SCCC management and the union meet at least once a month on a sub-level to discuss issue of mutual interests, and conducting full-scale meetings four times a year as legally required, he said.

"The national honours extended to SCCC inspire us to strive harder to sustain the long-held status as a champion of labour relations in the future," said Mr. Chalard, who has worked as a mechanic at SCCC's Saraburi works.

Furthermore, he wants to get other SCCC affiliates such as Conwood to come on board to pursue similar best practice.



Mr. Wittaya Meesomwong, Head of Electrical Division at Siam City Power, part of SCCC's Saraburi operations, expressed the pride of his unit was part of the overall success in the past years which underpinned that fact that SCCC is an exceptional good workplace.

"The fact that all these awards came from the way we work base on mutual understanding, trust and positive labour relations management. These was certified by the Tripartite involving together labour unions, employer organization and government show that we have been truly a top performer in this field"

Pijig Promkaew

Employee Relations Department Manager at SCCC



CSI Highlights



In 2016, SCCC became a member of the Cement Sustainability Initiative (CSI), a grouping of 24 major global cement producers operating in more than 100 countries committed to pursue sustainable development (SD).

The CSI is operated under the umbrella of the World Business Council for Sustainable Development (WBCSD) which seeks to create corporate growth while offering values to the society and environment.

The CSI requires members to operate with adherence to SD management standards through charters in seven key parameters.

SCCC has formed a CSI working group with members drawn from various operating units to ensure that the Company's pursuit of sustainable development matched the CSI global yardsticks.

It was discovered that our SD performance has a strong foundation that meets the CSI charter in almost all areas.

However, SCCC continued to undertake more works in 2016 to deepen its SD commitment as follows,

1. Climate Change:

- 1.1 Revising procedure, calculation methods and reporting in line with CSI.
- 1.2 Becoming a member of the Getting Number Right (GNR), a mechanism for the exchange of information related to climate change and energy in the common and transparent standards among CSI members.

2. Fuel & Material Use:

- 2.1 Starting to report the percentage of biomass utilisation in its SD Reports.

3. Health & Safety:

- 3.1 Revising the Occupational Health and Safety (OH&S) Policy, improving the definition and calculation of key indicators to align with those of CSI.
- 3.2 Continuing to promote a safety culture among contractors and transport service providers.

4. Emission Monitoring:

- 4.1 Adjusted reporting of key indicators in line with CSI specifications.
- 4.2 Seeking qualified third-party entities to verify information and reports related to this field.

5. Local Impact on Land & Community:

- 5.1 Organising Open-House activity for local communities to enhance two-way communication and creating mutual trust.
- 5.2 Carrying out rehabilitation of mines with participation from nearby communities and schools.
- 5.3 Setting up long-term rehabilitation plan of post-mining land.

6. Water Reporting Protocol:

- 6.1 Improving measurement of water used in the production systems and non-process both in quality and quantity terms to align with CSI yardstick.

7. Reporting & Communication:

- 7.1 Continuing to communicate with stakeholders on its CSI engagement and the resultant values for the society and environment.
- 7.2 Preparing SD reports to constantly update SD development and including its functioning as measured by the CSI's Key Performance Indicators (KPI).

In addition to its pursuit of CSI charter compliance, SCCC has actively involved in technical conferences, seminars and workshops held by CSI in order to exchange information and knowledge that support SCCC's human resource development to the global level.

On September 27-28, 2016, CSI managing director Mr. Phillippe Fonta had a meeting with SCCC chief executive officer Mr. Siva Mahasantha and visited SCCC's Saraburi works.

Mr. Fonta complimented SCCC for creative ideas and a job well done in the area of SD as well as the determination of conducting businesses based on the SD philosophy.



Key Performance Indicators of the CSI				
Key KPIs	2016	2015	2014	2013
Climate protection				
Total CO ₂ emissions - gross (million tons)	10.3	10.06	9.58	8.66
Total CO ₂ emissions - net (million tons)	10.1	9.76	9.32	8.45
Specific CO ₂ emissions - gross (kg / ton cementitious material)	732	721	709	694
Specific CO ₂ emissions - net (kg / ton cementitious material)	717	699	690	678
Responsible use of fuels and raw materials				
Specific heat consumption of clinker production (MJ / ton clinker)	3,115	3,120	3,146	3,090
Alternative fuel thermal substitution rate (%)	6.9	10	11.3	12.3
• Alternative fuel rate (%)	6.9	9.8	8.8	7.7
• Biomass fuel rate (%)	0	0.2	2.5	4.6
Alternative raw materials rate (%)	0.94	1.2	1.9	1.7
Clinker / cement ratio (%)	84	83.6	82.7	82.5
Safety				
Number of fatalities (directly employed)	0	0	0	1
Number of fatalities per 10,000 directly employed	0	0	0	4.65
Number of fatalities (indirectly employed)	0	0	2	2
Number of fatalities (third party)	0	0	0	1
Number of lost time injuries (directly employed)	0	2	1	1
Total Number of lost time injuries	4	5	4	3
Lost time injuries per 1 million man-hours (directly employed)	0.00	0.36	0.18	0.20
Emissions reductions				
Overall coverage rate : percentage (%) of clinker produced with monitoring of all pollutants mentioned in the emissions guidelines	100	100	100	100
Coverage rate continuous measurement : percentage (%) of clinker produced with continuous monitoring of main pollutants, dust, NOx, SO ₂	100	100	100	100
Dust - coverage rate (%)	100	100	100	100
NOx - coverage rate (%)	100	100	100	100
SO ₂ - coverage rate (%)	100	100	100	100
Dust - specific emissions (grams / ton clinker)	52.1	55.6	41	68
NOx - specific emissions (grams / ton clinker)	832.0	1,281.3	980.5	1,002.7
SO ₂ - specific emissions (grams / ton clinker)	72.2	73.5	64.1	63.3
Local impacts on land and communities				
Percentage (%) of sites with community engagement plans in place	100	100	100	100
Percentage (%) of sites with quarry rehabilitation plans in place	100	100	100	100

Awards & Recognition 2016



ESG100 Certification (Environment Social Governance)

Awarded to SCCC by Thaipat Insititute



“Excellent” recognition level of Corporate Governance Performance of Thai Listed Companies

Awarded to SCCC by Thai Institute of Directors Association (IOD)



Outstanding Workplace Award for Excellent Labour Relations & Labour Welfare (consecutive years 2007-2016)

Awarded to SCCC by Department of Labour Protection & Welfare Ministry of Labour



Thailand's Model Organization on Labour Relations Management Award

Awarded to SCCC by Department of Labour Protection & Welfare Ministry of Labour



Thailand ICT Excellence Award 2016

Awarded to SCCC by the Thailand Management Association (TMA)



Safety Occupational Health & Environmental Workplace Excellence Awards

Awarded to SCCC (Plant 2 & Plant 3) by Department of Labour Protection & Welfare Ministry of Labour



CSR-DIW Continuous Award (Corporate Social Responsibility)

Awarded to SCCC by Primary Industries and Mines, Ministry of Industry



No Foam Organization Award

Awarded to SCCC by Department of Health, Ministry of Public Health



Carbon Footprint for products certification and Carbon Footprint Reduction

Awarded to SCCC by the Thailand Greenhouse Gas Management Organization (TGO)



Certified ISO/IEC 270001:2013 (Secure Manage Information)

Awarded to INSEE Digital Co., Ltd. by Bureau Veritas Certification (Thailand) Ltd.



CIO Asia Award

Awarded to INSEE Digital Co., Ltd. by CIO's Asia Magazine's



Green Mining Continous Award-Mine Category

Awarded to SCCC (INSEE Supanburi) - 4th consecutive years by Primary Industrial and Mines, Ministry of Industry



Thailand Energy Award 2016

Awarded to INSEE Ecocycle, Chonburi Plant Alternative Energy Excellence, Offgrid type. by Ministry of Energy



Green Star Award 2016

Awarded to INSEE Ecocycle, Chonburi Plant by Industrial Estate Authority of Thailand



Excellence in Labour Relations and Labour Welfare

Awarded to INSEE Superblock Co.,Ltd. by Department of Labour Protection & Welfare Ministry of Labour



Bronze Award - Best Booth Design (Open Structure Category)

Awarded to Conwood Co., Ltd. by Archidex 2016, Malaysia

SD Data

Economic Performance

SD Index - Economic Performance				
	GRI	2016	2015	2014
Sales (in million baht)				
Net sales	EC1	34,192	31,120	31,862
Input Factor (cost of all goods, materials and services)	EC1	22,552	19,790	20,661
Depreciation and amortisation	EC1	1,929	1,592	1,253
Value Creation (in million baht)				
Benefit to employees	EC1	4,088	3,604	3,265
Benefit to government (taxes)	EC1	979	1,101	1,228
Benefit to shareholders	EC1	3,450	3,450	3,450
Benefit to creditors	EC1	730	453	373
Retained in business	EC1	464	1,129	1,632
Sustainable Products (%)				
Cement products containing mineral components	EN2	0.9	1.2	1.9
Suppliers (%)				
Suppliers screened (OH&S, labour standards, legal compliance, environmental standards, as percentage of spending)	HR1	99	99	99
Government Relations (in million baht)				
Political contributions	SO6	0	0	0
Government subsidies received	EC4	0	0	0
Customer Relations				
Customer satisfaction surveys conducted	PR5	YES	YES	YES

SD Data

Environmental Performance

SD Index - Environmental Performance				
	GRI	2016	2015	2014
Materials Used				
Limestone (%)	EN1	80.6	79.4	81.3
Shale (%)	EN1	18.0	16.9	16.4
Additives (%)	EN1	0.5	2.5	0.5
Alternative Raw Materials (%)	EN1	0.9	1.2	1.9
Environmental Investments and Compliance				
Environmental investment (million baht)	EN30	80.2	111.5	550.8
Provisions for site restoration (million baht)	EN13	57.7	54.9	67.5
Non-compliance cases	EN28	0	0	0
Associated fines and penalties (million baht)	EN28	0	0	0
Energy				
Fuel consumption (MJ/ton clinker)	EN3	3,114.9	3,120.1	3,146.3
Electricity consumption (kWh/ton cement)	EN3	96.59	95.96	97.6
Alternative fuel thermal substitution rate (%)		6.91	10.0	11.3
CO₂ Emissions				
Net CO ₂ Emissions (kg CO ₂ /ton cementitious material)	EN16	717.0	699.1	690.0
Clinker factor (%)		84.0	83.6	82.7
Other Atmospheric Emissions				
NOx (grams/ton cementitious material)	EN20	717.9	979.5	825.2
SO ₂ (grams/ton cementitious material)	EN20	62.2	55.7	53.9
Dust (grams/ton cementitious material)	EN20	44.9	37.2	34.5
Water				
Water withdrawn from wells and rainwater collected for cement production (m ³)	EN8	2,815,657	2,887,780	2,791,451
Water withdrawn from wells and rainwater collected for waste heat recovery (m ³)	EN8	1,453,406	1,295,386	1,189,966
Water recycled or reused (%)	EN10	81	84	66

SD Data

Social Performance

SD Index - Social Performance				
	GRI	2016	2015	2014
Employee Practices				
Number of employees	LA1	3,961	3,823	3,652
Proportion of employees by level (%)	LA1			
• Top & senior management		3	3	3
• Middle level management		40	38	36
• Other employees		56	59	61
Portion of female employees by level (%)	LA12			
• Top & senior management		20	22	17
• Middle level management		37	36	36
• Other employees		11	11	11
Ratio of female to male salary	LA13			
• Top & senior management		0.89	0.84	0.81
• Middle level management		0.96	0.96	0.97
• Other employees		0.87	0.86	0.85
Portion of local employees (%)	LA12	99.75	99.95	99.92
Employee turnover (%)	LA1	5.81	7.38	7.01
Employee satisfaction survey conducted		NO	YES	NO
Training				
Average hours of training per employee	LA9	49.52	49.02	47.42
Occupational Health and Safety				
Number of fatalities (employees, contractors and third-party)	LA6	1	2	3
Lost time injury frequency rate (employees and contractors per million man-hours)	LA6	0.21	0.27	0.37
Community Involvement				
Donations, CSR and Community Spending (million baht)	EC1	36.8	36.2	40.9
Stakeholder Engagement				
Needs assessments	SO1	YES	YES	YES
Stakeholder Engagement in CSR planning	SO1	YES	YES	YES
Stakeholder dialogues	SO1	YES	YES	YES
Community advisory panels	SO1	YES	YES	YES



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