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SIAM CITY CEMENT

Sustainable Development Report 2014
Siam City Cement Public Company Limited

Green Network and Green Innovation

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Green Network and Green Innovation

Executives' Foreword

2014 was another year that Thailand was faced with a natural calamity, albeit of a type that is not often experienced in this country – a relatively strong earthquake measuring 6.3 on the Richter scale that centered in Chiang Rai Province's Mae Lao District on May 5th at 6.08 p.m.

The initial earthquake followed by more than 300 subsequent aftershocks that were between 3.0 to 4.0 in magnitude – caused extensive damages to over 3,500 houses, and 10 Buddhist temples. At least three schools were severely affected as well. One person, unfortunately, died when the wall of her house collapsed.

Siam City Cement Public Company Limited immediately rushed to provide initial aids to people in Chiang Rai affected by the earthquake with the support of our dealer in Phan District, close to the earthquake epicenter, and our customer, namely Amata City. Most notable was the support provided to Mae Lao Vittayakhom School in Mae Lao District whose major buildings were all severely damaged. Cement, building materials, construction expertise and monetary support were provided to the school by the three strategic partners to enable the students to temporarily attend classes in makeshift classrooms in time for the 2014-2015 school year.

Even more significant and meaningful was SCCC's sustainable project to design and build earthquake-resistant homes for the villagers living in risky areas in Chiang Rai Province. Following the meticulous design process to ensure that the finished houses would be able to withstand earthquakes of at least 7 Richter magnitude, SCCC joined with Television Channel 7, to construct the houses for the May 5th earthquake victims in Mae Lao on September 25th, 2014. Most of the villagers in the program had their homes completely destroyed in the initial earthquake and subsequent aftershocks.

On July 21st, 2014, SCCC's commitment to the Green aspirations was recognized when the Ministry of Industry presented SCCC with the "Green Industry – Level 5: Green Network" Award for extending its Green practices beyond its operations throughout the entire supply chain network, such as, customers, suppliers, contractors, transporters as well as neighboring communities and the general public. SCCC thus became the first and only Thai cement producer to receive this prestigious Green award for all its factories.

Another major recognition for the Company's Green credentials was the certificate for the Carbon Footprint Organization (CFO). SCCC was the first Thai cement producer to be awarded with the CFO certificate.

In regards to the Company's Sustainable Development Roadmap launched since 2010 with the aim to achieve six 'Green Heart' targets, namely: CO_2 Emission Reduction, Stakeholder Engagement with Green Heart Activities, Community Involvement & Development, Zero Waste to Landfill, Green Heart Products & Services Innovation and Water Management & Conservation, the achievements have been exemplary.

The initial 2010 to 2020 targets have either been reached their stated goals or are on-track to achieve.

In 2015, SCCC will join the Kingdom to celebrate the 60th birthday anniversary of the beloved Her Royal Highness Princess Maha Chakri Sirindhorn by dedicating a greenfield Border Patrol Police school in her name in one of the remotest areas of Mae Hong Son Province as part of the SCCC Integrated Green School project which has been on-going since 2010 involving a total of 28 schools in remote rural areas.

Our sincere thanks to all stakeholders for their belief in us and things that we do to make Thailand – and this world – a better place to live for the generations to come.

Veraphan Teepsuwan
Chairman of the Board

Vorathep Rangchaikul
Director & CEO

Major steps foreward for the Sustainable Development Roadmap in 2014

Siam City Cement Public Company's Sustainable Development (SD) Roadmap targeting six important areas to create shared value for all stakeholders especially in regards to the environment and the society was put in place in 2010 and has made steady, impressive progress from 2010 to 2013. In 2014, although many external factors have led SCCC to adjust its business strategy, the Company was still determined to reach the long-term SD Roadmap targets.

Despite the fact that a few indications in the SD Roadmap targets were lagging in some areas due to increasingly tougher challenges which have been constantly adjusted and implemented, the Company believes that with the support of all our stakeholders and the continuous innovations in regards to the SD management, we will no doubt achieve all our long-term SD Roadmap goals.

CO_2 Emission Reduction

We have achieved 690 kilograms/ton-cement in 2014 - a meaningful increasing over 2013 although not quite up to target which should have traced a straight decline. This was due to the below-target utilization of alternative fuel (% TSR) and the higher percentage of clinker factor due to the unexpected growth of OPC cement in all markets. However, it was found that we have done exceedingly well in CO_2 emission reduction since 2007 as until 2014, we have reduced the CO_2 emission by 60 kilograms/ton-cement, or a 8.0 percent reduction. (The new stretched target of a 20-percent reduction by 2020 was upped from 12 percent from the 2007 base figure – or the target of 600 kilograms/ton-cement, from the previous 750 kilograms/ton-cement.)

Stakeholder Engagement with Green Heart Activities

Under the theme "Green Heart" aimed to promote activities and projects to instill public conciousness among all SCCC stakeholders since 2010. In 2012, the Company succeeded to become Thailand's first cement producer to be presented with the Green Industry-Level 4 (Green Culture) Award from the Ministry of Industry. Since then we have pushed forward until we once again became the first Thai cement producer to be given **the highest Green Industry – Level 5 (Green Network) Award** covering all our production facilities in 2014. This could only come about due to the cooperation given by all our stakeholders, and we are determined to even further improve our performance in this area.

Community Involvement & Development

It was found that, in many years past, SCCC has constantly created cordial and close relations with communities within the vicinity of all our facilities, while also striving to continuously develop the Thai society. All our production facilitites have been mandated to prepare the annual Community Involvement & Development plan by concentrating on interactions. Furthermore, we have adopted the tool "Social Engagement Scorecard - SES" to systematize our community relations activities. This is especially true in the cases of our business expansion involving INSEE Aggregates and INSEE Superblock which have several facilities in the Central region. For these, we have implemented our social projects and activities, in relations to CSR-in-Process to protect and reduce the environmental impact of our business processes, and initiated CSR-after-process to support many sustainable community projects such as those involving education, environment and others.

Zero Waste to Landfill & Utilization of Alternate Fuels

The SCCC, Alternative fuel preparation platform, Conwood and INSEE Aggregates have made their targets since 2011. Currently, we are looking forward to the ready-mixed concrete plants making the Zero Waste to Landfill target within 2015. From 2010 to 2014, the concrete business managed to reduce production waste by 56.4 percent, or from 2.8 percent of production to only 1.2 percent in 2014 through the cooperation from all concerned. At present, we are experimenting with ways to further reduce the amount of waste concrete to landfills which is expected to see the target being reached in 2015, in order to preserve the natural balance in terms of economy, environment and society.

In addition to our Zero Waste to Landfill targets, the management team is well aware of the importance of managing wastes and recycled materials to reduce to impact on the environment in relations to garbage and waste in the Thai society. One suitable method is to process waste into alternative fuel to replace fuels derived from nature. This year, the Company has set a long-term stretched goal to utilize at least 25 percent of the so-called thermal substitution rate (TSR) by 2020. In 2014, our TSR stood at 11.3 percent.

Green Heart Products & Services Innovation

In 2014, our sales figures of Green Heart products and services amounted to about 27.5 percent, which admittedly did not make much progress in comparison to 2013, as well as the aim of reaching the 40-percent target by 2017. This was due to the continuous growth of OPC cement in all markets. However, in 2014, the Company has developed five new environment-friendly products which received our “Green Heart Label”, such as INSEE FloorCrete, INSEE Marine Concrete, INSEE MatCrete, INSEE Self-Compacting Concrete and INSEE Superblock . SCCC remains committed to develop new environment-friendly products and services to add value and fulfill the customers’ needs culminating in Green construction.

Water Management & Conservation

The study and development of the water management system at our Saraburi Operations have led to the gradual reduction of the water usage over the years. For the first time in 2014, the management decided to set an ambitious target Water Management & Conservation covering Group SCCC units (SCCC, Conwood, RMX) to reduce water usage by at least 20 percent by 2017, based on the 2012 figures. To date, the progress has been satisfactory. Where the production facilities in Saraburi are concerned, the Zero Water Discharge goal has been reached by the end of 2014. Also notable were the initiation of the project to alleviate the risks of water shortage in the long term, such as the Pasak River Project. It is expected that the team of expert consultants will be able to submit the result of the study along with a proposal to the management early in 2015.

Intensified OH&S drive shows improved safety result

Fatalities and road accidents drop in 2014

Safety culture and practice at SCCC have heightened in 2014 so much so that it could rightly claim to be an industry leader in fostering safe and healthy workplace.

Activities in the name of occupational health and safety (OH&S) were intensified in the year as SCCC stepped up the effort to make its operation environment, not only within its own scope but those at all parties serving it, truly safe-centric.

It has always been SCCC's belief that all fatalities, injuries and work-related illness can and must be prevented within its operating environment - all summed up in the catch phrase ''zero harm to people."

SCCC ended 2014 with an improvement in its OH&S drive over 2013, especially from in the perspective of fatality and road accident scoreboards.

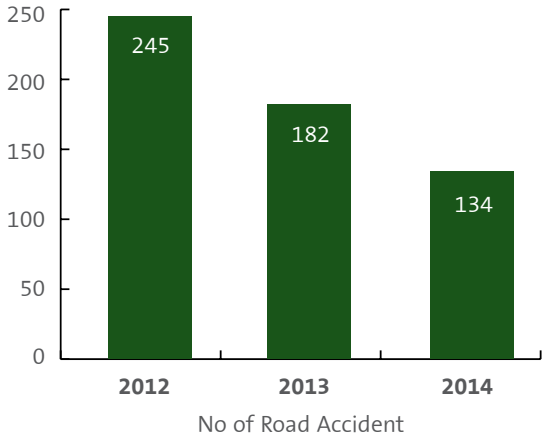
There were three fatalities in 2014, compared to seven years ago, while the numbers of road accidents declined by 26.37 percent to 134 from 182.

Two other key rulers which measure OH&S performance in 2014 - numbers of working times lost due to injuries, technically known as Lost-Time Injury or LTI, and numbers of injuries requiring medical treatment, or Medical Treatment (MTI), showed slight variations from 2013's levels.

The LTI in 2014 were nine compared to six in the previous year, whilst the MTI numbers dropped to 18 from 19 recorded in 2013 (only own personnel, subcontracted personnel and third party service provider personnel).

"We are particularly pleased with the 2014 performance of the most critical indicators - fatality and road accident - showing that our effort has indeed paid off," said Mr Prasert Kasikigskupol, Group OH&S Manager for SCCC group.

The reduction in road accidents in 2014 was significant as they account for 70-80 percent of all accidents which take place each year within SCCC's operation environment.



"But we still have to work harder on two other indicators (LTI and MTI) to achieve across-the-board improvement to lift TIFR and LTIFR indices over the years to come," he cautioned.

TIFR, standing for Total Injuries Frequencies Rate - takes into account the frequencies of injuries causing death or permanent disabilities; injuries causing lost working time, injuries requiring medical treatment.

LTIFR - Lost Time Injury Frequency Rate (LTIFR) - measures the frequencies of injuries which lead to work stoppage.

All the three fatality cases did not involve SCCC employees but external parties working for the Company and other party.

Two of three cases were road accidents involving transporters while the other related to an electrical short-circuit by a third-party contractor.

Headway in Core Activities

Five main OH&S activities made notable headway in 2014, paving the way for a further improved performance for the years ahead.

Defensive Driving Program for Light Vehicle: Launching in 2014, this compulsory training aims at enabling SCCC employees to stay clear of accidents while driving particularly by anticipating dangerous situations caused by mistakes of drivers of other vehicles or other parties.

A total of 560 SCCC personnel, who drive cars provided by the Company have successful completed such trainings conducted by ID Driver Co, a government certified driving school, between August and November.

INSEE Driver Academy: Starting out in April 2011, this SCCC unit has dedicated itself to enabling truckers of all registered transporters serving SCCC to go about their jobs safely.

A series of schemes were implemented over the years and in 2014 saw the Academy, in collaboration with ID Driver, continued to provide comprehensive training courses for 3,000 drivers.

Such training courses, funded entirely by SCCC with eight million baht being spent in 2014, have been mandatory for any drivers serving the Company.

Defensive Driving Program at SCCO: Training course for external truckers serving subsidiary Siam City Concrete Co was upgraded to become more intensive with a focus on defensive driving technique.

Over 270 truckers have completed the two-day training courses conducted by ID Driver and funded entirely by SCCO at about two million baht.

Visible Safety Leadership Program: In its fourth year under the slogan of "Safety Starts with Me," the scheme has successfully encouraged SCCC personnel and employees of contractors to be on the lookout for elements in workplaces where risks and unsafe can be an issue.

Through a monthly contest running from July to December each year, "leaders in safety" are recognized and awarded with prizes.

The 2014 edition focussed on the theme of mitigating the risks related to electrical systems and disposal of unused apparatus and tools.

More than 50 initiatives were submitted in the 2014 contest.

Safety Leader Program for SML/MML: 2014 marked the second year when the scheme to develop a profound safety mindset among SCCC personnel on the senior and middle management levels.

The year witnessed a total of 36 executives undergone a five-day intensive practical training on OH&S.

Among others, they learned the essence of OH&S, basic tools available and how to make use by interacting with staff on the ground, how to build up a visible safety leadership and the skill to persuade people to change their behaviour in improving safety.

Those SML and MML are given two months to transform what they learned from the courses into action at their functions.

A landmark year in SCCC's campaign for carbon reduction in products

It was a landmark celebration in 2014 for SCCC in expanding its industry leadership in striving to cut carbon emissions for its products.

The year saw the number of SCCC cement product brands certified by Thailand Greenhouse Gas Management Organisation (TGO), a public entity, as having shown firm commitments for lowering carbon emissions during the production process, extended to six.

Three of them, namely INSEE Dang, INSEE Tong and INSEE Super, took a major step forward to win the coveted Carbon Footprint Reduction Label (CRL) from TGO in recognizing their success to achieve CO_2 reduction by at least 2 percent in a given time from the levels in the base years when they joined the programme.

The expanded SCCC product list in the TGO's carbon footprint of products and the CRL awarding in September 2014 marked an important milestone in the company's low carbon journey that began in earnest back 2007.

The CRL awards have especially made SCCC the first cement producer in Thailand to demonstrate its relentless endeavour to curb the greenhouse gas (GHG), a main contributor to the climate change.

While over 200 products from more than 280 companies in the kingdom have obtained permission to carry TGO's mark to display the exact volumes of GHC emission stemmed from their production process on packages, only a handful of products have made it to receive the CRL hallmarks so far.

SCCC's active participation in TGO's campaign in carbon footprint for products and CRL certification followed SCCC's successful admission in 2013 to TGO's Carbon Footprint for Organisation (CFO) scheme.

All these exercises underscore the steady progress SCCC has strived to achieve the target to reduce CO_2 emission by 20 percent from its 2007 level by the year 2020.

"Reducing carbon dioxide emission forms a critical part in SCCC's sustainable development (S) roadmap which emerged in 2009."

Reducing carbon dioxide emission forms a critical part in SCCC's sustainable development (SD) roadmap which emerged in 2009 and aimed at making its operation eco-friendly through its entire product life cycle.

Challenge

The TGO certification proudly achieved by SCCC this year resulted from the determination and foundations the company has in place across its structure to turn what seemed to be a lofty target to reality.

"It is a big challenge and a lot of hard work is involved, but we are confident that it is not beyond our ability," said Ms Sawitri Phataganon, manager for Environmental Controlling & Development Division at SCCC.

In the process of collecting information from various work stations involved for TGO certification, she found that they have already made consistent headway to meet the CO_2 reduction objective.

The TGO certification serves to show where the company stands in the issue and motivating itself to involve other products in its spectrum in the carbon reduction scheme, she said.

SCCC's ready-mixed concrete products are next in line for TGO carbon certification in 2015.

"This low carbon journey is what we voluntarily and deliberately want to take because that is the right way." Ms Sawitri noted.

Aside from being friendly to the globe, SCCC's carbon reduction will drive efficiency in energy consumption, increasing product appeals in local and international markets where environmental concerns becoming a growing major consideration for purchase decision.

When hot air is substantiated

SCP turns waste gas exhaust into valuable energy

Thermometers installed around K5 and K6 kilns at SCCC's Plant 3 in Saraburi show that the air within their vicinity has become less warm.

This is by no means a result of the country is getting cooler nor the temperature at the kilns, which rises up to 1,450°C (2,640°F) inside, has dropped.

But this is a deliberate work of SCCC to capture and recycling the high-temperature exhaust gas which previously discarded from the kilns into the atmosphere for useful purposes.

At K5 and K6, the waste gas from cement production process, with temperature of up to 380°C, is captured to heat water at high pressure, then expanding the fluid through a turbine to power an electric generator.

Converting the waste gas into electrical power bring about numerous economic and environmental benefits.

It adds to efficiency of the process and thus decreasing the costs of fuel and energy consumption needed for that process.

It also substantially reduces the thermal and air pollution as flue gases of high temperature which is otherwise emitted from the plant is retained within the system.

Siam City Power Co (SCP), a wholly-owned subsidiary of SCCC, has witnessed tangible values derived from this endeavour that was launched back in 2008.

Over the past five years in operation, the Waste Heat Recovery Power Plant, referred to as WHR by the industry, has shown consistent improvement in electricity production that replaces fossil fuel-based power from national grid and bringing about remarkable energy cost saving for SCCC.

The SCP's WHR facility, currently with 28 MW in generating capacity and built at the cost of 2 billion baht, would have yielded a cumulative total of 621 gigawatt hours (GWh) in electrical output, worth 1.7 billion baht, by the end of 2014.

In 2015, SCP targets to increase electrical output from the facility to 183 GWh from 179 GWh in 2014, boosting the energy cost saving for SCCC to 590 million baht from 540 million baht in 2014.

The in-house power production reduces SCCC's electricity purchase from the grid, 70 percent of which generated by natural gas, by 25 percent.

"We capture the most valuable source of clean power that has long been overlooked."

Mr Somboon Suksombatcharoen
SCP Operation Manager

Taking into account the older WHR system installed at SCCC's Cement Plant 2 which is not operated by SCP and has an 8 MW capacity, the reduction of grid purchase would be 20 percent of SCCC Saraburi's total power demand of around 200 MW.

"What you see here is the result of marriage of economic and environmental consideration at its best, said Mr Somboon Suksombatcharoen, manager for Operation at SCP.

"We capture the most valuable source of clean power that has long been overlooked and others have ignored," he pointed out.

From the ecological perspective, the SCP's WHR facility is 100 percent environmentally-friendly as the exhaust gas is not only clean but is almost entirely trapped in the system, said the electrical engineer who has served SCCC for 20 years.

The facility also serves as a testament to SCCC's sustainable development (SD) roadmap that embraces eco-friendly practices to zero in on greenhouse gas reduction.

Upgrade

SCP's existing WHR facility will undergo further upgrade to raise its efficiency and electrical output in the future as it had done over the past few years.

The company will leverage on its in-house innovation, experience and green mindset to further maximise the benefits from WHR technology.

Studies are underway to have all of SCCC's kilns, totaling five, harnessed the WHR technology to enhance the economic and environmental benefits.

Meanwhile, SCP is engaged in a study to further reduce water consumption in its current WHR system as part of the green-inspired conservation.

Having been able to reduce water intake by 7 percent over the past three years by means of system improvement, the company intends to achieve a further 7 percent reduction by 2015.

There are 8,000 cubic metres of water in WHR facility and about 3,000 cubic metres needed to be replenished each day into the system as the water is lost through evaporation.

Accolades

The company obtained four major certifications, namely ISO 9001, ISO 14001, TIS 18001 and OHSAS, in 2012, marking a distinction for a company to receive that many certifications in a span of just one year.

In the following year, SCP saw its certification as "Green Industry" issued by Industry Ministry advanced from Level 3 in March to Level 4 in September to signify the company's adoption of "Green Culture" within the organisation.

SCCC's Green Industry journey reaches apex milestone

Official GI-5 certification endorses best practice in entire value chain

SCCC has made history by becoming Thailand's first cement producer to win the coveted hallmark from Industry Ministry for thoroughly embracing green practice at its three plants in Saraburi.

The presentation of Green Industry (GI) Level 5 certificate to SCCC on July 21, 2014 underscores the acme the Company has reached in its eco-friendly commitments which are well beyond industry standards.

The GI-5 recognises SCCC's attempt in inducing entities in its entire spectrum of supply chain - business counterparts and partners - to adopt green practice at least the entry level of GI certification, and being accepted by communities around their workplace.

In the ministry's terminology to signify such achievement, SCCC was declared the Company with "Green Network."

The GI-5 represents the final upgrade of SCCC's green industry journey, advancing from GI-4 (Green Culture), which is defined as a company for having ingrained the environmental culture within its umbrella, the Company won in 2012.

SCCC was the first in Thailand's cement industry accredited for GI-4, and the extension of GI-5 made it one of a handful of Thai indutries officially recognised for seriously committed to the green path, from cradle to grave.

Having personally involved in GI-5 certification process, Dr Witoon Simachokedee, Permanent Secretary for Industry, said SCCC, along with two other GI-5 accredited firms, have demonstrated all the qualities which entitle them with certification in the highest level.

"They have shown their adherence to Green Culture, promoting, supporting and developing their supply chain to gain access to GI-2 level," he said.

"They have exhibited that their organisations are accepted by communities, society and consumers.

Yet, they have demonstrated that they have struck a good equilibrium in the economic, social and environmental dimensions-the foundations for Sustainable Development," the top ministry official noted.

Particularly referred to SCCC, Dr Witoon hailed the Company for cultivating "Green Heart" culture across all levels while striving to create environmentally-friendly innovation.

To his gratification for receiving the GI-5 certification, Mr Siva Mahasandana, SCCC Senior Vice President for Saraburi Operations, stressed the award does not mean the end of the Company's green industry journey.

"That's not the end to it. We will soldier on with the Green Network mission in accordance with our green industry policy," he added.

GI-5 Checklist

Mr Siva explained that the Green Network cannot be achieved with the sole purpose of growing business, but being accountable for social, economic and environment development.

Accomplishing GI-5 certification requires active engagement from seven stakeholders who have extended excellent cooperation to SCCC to align with the 'Green Industry' philosophy.

The GI-5 chain starts with suppliers who are required to see to it that their products are able to meet SCCC's eco-friendly procurement standards.

Secondly, contractors must comply with SCCC's occupational health, safety and environment guidelines which are transpired to them through SCCC-sponsored trainings.

Contractors are encouraged to set up garbage collection centres, adopting the "5Rs" practice in workplaces and setting aside "Green Zones."

Thirdly, transporters are required to pursue "INSEE Green Logistic" principle which zeroes in on the choice of vehicles, safety of driver and efficient logistic management.

Fourthly, SCCC employees need to integrate environmental preservation with their works by means of engaging themselves with Corporate Social Responsible (CSR) activities.

Fifthly, SCCC has actively promoted the use of its green products and services among customers and consumers which allow them to reduce production costs and achieving greater energy efficiency.

Sixthly, SCCC's "Green Village" projects established around Saraburi operations have introduced the green concept among communities through training and community development such as setting up garbage bank and cultivating native plants.

Lastly, for the society, SCCC has joined hand with various public and state agencies in promoting green education and environmental improvement.

SCCC is a patron of "Green Schools" which have been developed in rural areas nationwide in conjunction with HRH Princess Maha Chakri Sirindhorn's initiation and the Border Patrol Police (BPP).

Building village water tanks and dykes at 880 locations throughout the Kingdom are other testimonies forming part of SCCC's green network creation.

"We earnestly hope that the GI-5 accreditation SCCC received should motivate others in the private sector to do the same, so that we can contribute to make Thailand a better place to live," Mr Siva concluded.

"The consciousness derived from such best practice among staff has been passed on to members of their families."

Ms Intira Sumethchotimaytha
Logistic service provider

Stakeholders' reflections

Parties involved in the chain which led to SCCC's GI-5 certification have paid tributes to the Company's endeavour to bring them along the green journey.

Ms Intira Sumethchotimaytha of Transuwan Co., Ltd.,one of SCCC's major logistic service providers, and Mr Winai Swang-arom, the Kamnan of Moo 1 of Tubkwang sub-district in Saraburi province, were the most vocal of SCCC's commitment towards sustainable development that underpins the GI-5 accreditation.

Ms Intira said her company's participation in SCCC's Green Heart programs in the Green Garage and Energy Conservation initiatives has created a profound result.

"It is a good start in helping us to cultivate a culture among our staff to keep our garages clean and tidy, mitigating environmental impact and using energy efficiently.

"Furthermore, the consciousness derived from such best practice among staff has been passed on to members of their families and people within their circles to create a multiple effect.

"Thank you INSEE for this and please continue to support these excellent activities," she said.

The fruit of SCCC's contribution to community development at Moo 1 of Tubkwang is abound - more greenery, "garbage bank," scholarships, and community infrastructure, to name just a few.

"In my opinion, SCCC represents an ideal business enterprise which shows true care to communities and demonstrating commitment to pursue sustainable social activities, said Mr Winai.

Earthquake Resistant House

Chiang Rai quake victims get dream homes with peace of mind

Nobody has ever imagined that this could happen in the Land of Happiness.

The unexpected earthquake measuring 6.3 on the Richter scale struck Chiang Rai in the evening of May 5, 2014, followed by more than a thousand of aftershocks.

The earthquake, the biggest ever recorded in the Kingdom, was such a life-changing experience for countless families in this Thai northern province.

Some lost their lives, many saw their dwellings crumbled and a sense of hopelessness pervaded.

The greatest loss was observed in Dongmada and Maelao Districts, the epicenter of the powerful earthquake, where both the government and private buildings sustained extensive damage.

Over 3,500 houses, schools, temples and hospitals in those areas were devastated by the relatively shallow tremor 7 kms deep.

The toll of damage was significant and not all families were able to rebuild and repair their properties by themselves.

SCCC closely monitored the development and has its North Regional Sales and Technical Support engineers teamed up with Hill Area and Community Development Foundation (HADF) and The Mirror Foundation to conduct onsite post-quake inspections.

The Company gathered information and grouped victims into two categories as part of the assistance program.

The first group was identified as self-supported families whose houses were partially damaged but were able to do fixing by themselves and shouldering the costs involved.

The other group was those families who could not bear the burden of the repairs either due to financial reasons or the severity of the damage.

SCCC dispatched its INSEE Technical Support team to provide the first group with professional advice for the repair and how it should be carried out with safety coming first.

For the second group, 20 of households were selected for the restoration and another five for reconstruction.

The restoration process took between 20-30 days to complete with a good support from foundations, organisations and individuals.

Over the three locations in Maelao District, SCCC simultaneously built five new houses to replace those collapsed entirely.

Two of these re-built houses are in Ban Huaysandonchan of Chommokkaew Sub-District; two in Ban Huaysanakha of Pongprhrae Sub-District; and one in Dongmada Sub-District.

"The houses which SCCC built for those Chiang Rai victims possess earthquake-resistant qualities whilst incorporating special features."

The houses which SCCC built for those Chiang Rai victims possess earthquake-resistant qualities whilst incorporating special features which went into the design of flood-enduring house by Professor Bundit Chulasai, former Dean of the School of Architecture at Chulalongkorn University, in 2012.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The outstanding features of SCCC's anti-earthquake houses come in four key components:

The foundation: Using reinforced concrete to provide solid building base to help better resisting earthquakes while the pillar is protected by a cement pipe at the foundation post.

The walls: Fiber cement board was used as it is very lightweight and when collapsed by earthquake would result in minimal harm to people or property within the premises.

The roof: By using a single piece of metal sheet, the roof would not be fallen off into pieces of debris in the event of an earthquake like tiled roof and thus minimising potential injuries.

The structure: A flexible structure allows energy absorption and transfer, thus preventing energy accumulation that can cause fractures and structural collapses.

The total utility space of the earthquake-resistant house is 58 square metres, comprising a bedroom, one bathroom, and one multi-purpose room. The floor of the house is two metres above ground.

This SCCC project is of tremendous benefit to the affected people, returning their homes in a relatively short period of time and allowing them to get back on their feet.

Understanding this urgent need of those affected families, SCCC, along with Bangkok Broadcasting & TV Co, have succeeded in carrying out the mission within three months.

The result was the newly-built houses which are earthquake-resistant, airy and constructed with the hygienic and eco-friendly principles in mind.

These houses will be used by SCCC as a model for other villagers whose habitats were affected by an earthquake.

This successful design can also be used for those who want to re-build houses which can cope with future natural disaster of this kind.

This earthquake-resistant house is one of the successful schemes developed by SCCC to fulfill its commitments towards sustainability and building a better future for the world.

"These houses will be used by SCCC as a model for other villagers whose habitats were affected by an earthquake."

Green School redefined

Pioneering integrated concept adopted to give profound meaning

After having successfully built and renovated 27 schools in Thai rural and remote areas over the past four years, the CSR (corporate social responsibility) task force trusted to implement SCCC's "Integrated Green School" initiative sat down in 2014 to take a long hard look at what has been achieved with a view for further improvement.

In retrospect, members asked themselves several critical questions and one that stood out was how comprehensive "green" they were as those existing schools did not posses all elements necessary to implement the integrated green concept due to certain limitations.

Then they challenged themselves to build from scratch a "Green School" which is "green" in the truest sense and a model for future establishment.

For a school deserved to be an Integrated Green School, it needs green elements which cover much wider aspects of a school that really embraces the sustainability principle from which SCCC's corporate social responsibility (CSR) was built on.

The greenness will be extended to components like education, activities and facilities which address environmental friendliness and sustainability.

For instance, the water usage management, efficient energy supply, waste management system, food supply chain, farming and communal marketing are incorporated in a self-contained manner.

To ensure their success, these elements need to be guided, conducted and reviewed by experts from their respective fields of specialisation.

Hence, various government and non-government organisation were drawn into this collaboration.

Chiangmai University's Engineering Department deals with education on environmental and sustainability issues; Ministry of Energy's Alternative Energy Development and Efficiency Department provides solar energy supply: Huai Hongkhrai Royal Development Study Centre handles the food supply chain and farming topics; and Ministry of Labour's Skill Development Department is responsible for water supply system and community outreach programmes to create economic opportunity and others.

Consultations were conducted with the Border Patrol Police (BPP) regarding the need for building new schools in strategic locations along its border bases that respond to community requirements as well as matching different demographic and terrain possibilities.

Thus emerges the first newly-built INSEE Integrated Green School at Pang Mapah District of Mae Hong Son as the next generation of SCCC's Integrated GreenSchool that offers more comprehensive and profound meaning.

This school was also built to commemorate HRH Princess Maha Chakri Sirindhorn's 60th Birthday Anniversary Celebration in April 2015.

It will be the first BPP-run school in the northern region to be officially named "Chalerm Prakiert" to mark this significant and auspicious occasion.

The enhanced Integrated Green School, or IGS, concept will serve to cultivate sustainability concept among rural juveniles as young as three and up to 12.

GreenSchool

SCCC also wishes to set this school as a role model for the communities to adopt green lifestyle and green economy within their neighbourhood, particularly in areas rich in natural resources.

"This INSEE Integrated Green School is a tough nut to crack, requiring much more thinking, planning and resources than before with everything thrown in," said Mr Somyos Udomsinkul, CSR manager at SCCC.

"But the good news is the first fully IGS got off to a good start in May2014 and the project's first stage is due for up and running in early 2015."

Mr Somyos Udomsinkul
CSR Manager

"But the good news is the first fully IGS got off to a good start in May2014 and the project's first stage is due for up and running in early 2015," he added.

First green-field school

The launch of IGS, located in Baan Nam Bor Sapeh, the far-flung highland in Pang Mapha district of Mae Hong Son, is the first school built from scratch by SCCC.

It is constructed over a 14-rai land where 240 housholds, mostly impoverished hill tribe people who make a living by slash-and-burn farming, live with no running water and electricity.

There was no school in close vicinity and the nearest school, run by BPP, is about five kilometres away on a hilly trail.

The closest source of water supply is Nam Sapeh pond a small natural pond from which the village took its name-a good two kilometers' walk from the village.

Formal education does not exist in Baan Nam Bor Sapeh and access to one was an uphill task, providing ideality for SCCC to put in place the IGS initiative and see the fruit of the endeavour, explained Mr Somyos.

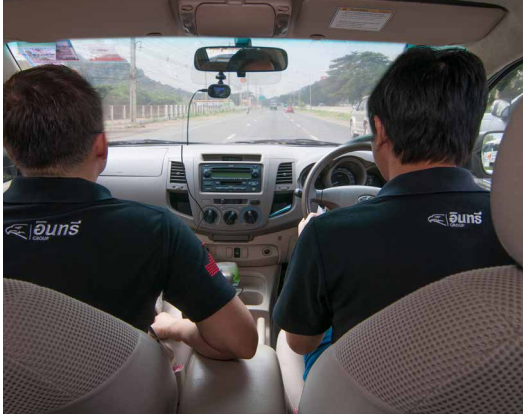
Scheduled for completion in 2015, the facilities, finished partly by SCCC volunteers banded under the INSEE ARSA philanthropic group, can serve up to 180 primary pupils, from kindergarten level to grade 6, and six teachers from BPP.

The Baan Nam Bor Sapeh IGS will serve a pilot project for SCCC, as it strives to spread this concept, totally funded by the Company, in other needed locations in the kingdom.

The Company carries out that task in close consultation with the Office of HRH Princess Maha Chakri Sirindhorn, the kingdom's prime education patron, and in conjunction with BPP, the champion of school builders in rural Thailand and other strategic partners for their expertise needed by the IGS.

Since the GreenSchool initiative took off in 2010 to the end of 2014, a total of 6,000-7,000 underprivileged pupils at 27 rural locations, from Chiang Rai to Prachuab Khiri Khan, and from Tak to Ubon Ratchathani, have had more decent places to receive formal education while serving as a role model for the communities to adopt eco-friendly lifestyle and green economy.

These numbers, to be multiplied over the years to come as additional schools are built, underscore SCCC's unwavering commitments in CSR and sustainable development which form the crucial part of corporate policy.



SCCC raises the bar of road safety

INSEE road safety library project launched

The numbers look scary: Up to 26,000 people are killed in road traffic accidents every year in Thailand, infamous for its dangerous roads.

The Kingdom ranks third in the list of countries compiled by the World Health Organization (WHO) for having highest road traffic deaths worldwide.

There were 38.1 fatalities on Thai roads per 100,000 inhabitants in the WHO's 2010 rate, trailing behind Eritrea with 48.4 Libya 40.5.

Worldwide, WHO estimated that 1.24 million died of road accidents in 2010, or one person killed every 25 seconds.

These figures have constantly served as a reminder for the management team and 10-member team at SCCC's Logistics, Occupational Health and Safety Division how deadly it is for road accidents and that with sufficient effort and determination, road traffic fatalities can be averted and accidents prevented.

This has been ingrained in the division's mindset over the years, propelling the drive to at least make roads on which vehicles involved in SCCC's operations travel are safer.

That is an open-ended mission at SCCC which in spite of improved road safety record within the Company's realm, has continued to challenge itself to do even better.

The Company was served by 2,800 trucks and 2,900 registered drivers, hauled from 41 different logistic service providers, who in 2013 made 900 trips a day covering a combined distance of around 70 million kilometres, or 94 trips between the Earth and the Moon.

The 2013 road accident record involved trucks delivering SCCC cement was used as a new target to strike new scores.

In 2013, there were 21 road accidents involved SCCC- commissioned trucks and 12 of them were related to insufficient rest of drivers during the journey and the emergence of unexpected hazards on the roads.

There was one most serious accident when a truck skidded on the downhill section of a highway's edge and killed the driver.

In a deeper analysis, it was found that 17 of these road accidents stemmed from the so-called human errors, or the faults of the drivers themselves.

"We are positive that this sort of accident can be averted if we tackled the issue at its root."

Mr Pongpat Charoenkul
Manager, Logistics OH&S

"We are positive that this sort of accident can be averted if we tackled the issue at its root - the human error element," said Mr Pongpat Charoenkul, manager of Logistics OH&S Division.

This aspiration brought to life the INSEE Road Safety Library Project, an evolution of the INSEE Leadership Excellence Awards-winning (3rd Place) road safety endeavour at SCCC.

The essence of the scheme, launched in 2014, is to create a road safety database by combining GPS tracking system with the internet and a newly-conducted road safety survey that pinpoints in detail road sections along the

cement delivery routes where accidents can occur and how to avoid them, according to Mr Pongpat.

The survey also locates specific areas along the routes where truck drivers can rest, thus reducing their fatigue which has been identified as one of the key causes of accidents.

Transporters and related parties can access to this comprehensive road safety information including instructions on safe driving and communicate to their drivers or employees.

"With this information in hand, the drivers can be better prepared themselves for a safe journey, thus reducing the risk and likelihood of accidents," he explained.

Three routes originating from SCCC's Saraburi production complex came under the initial safety road survey- Saraburi-Lampang via Inburi, Singburi province (600 km), Saraburi-UdonThani (500 km) and Saraburi-Chachoengsao (60 km).

Benefits

SCCC has seen the fruits of its intensified road safety campaign, an integral part of the Company's sustainability development drive, in 2014.

The number of actual road accidents involving SCCC's cement delivery stood at nine cases, below 16 in the key performance index (KPI) set for the year, according to Mr Pongpat.

Stakeholders in the entire SCCC cement supply chain have been benefitting from the realisation of this initiative, not to mention the motoring and general public who can access the wealth of information through SCCC's website, Facebook and on YouTube.

For the cement truck drivers, they can better plan their journey and rest, being alerted of potential hazard and preventing accidents.

As for transporters, they can reduce damage and insurance cost from accidents, being able to achieve on-time delivery and making more money.

For SCCC customers, they can be assured of punctual SCCC product shipments and hence being able to meet delivery commitments made with their buyers.

As far as SCCC is concerned, the Company will be able to mitigate risks of accidents, making on-time delivery to clients, and raising the bar of customer satisfaction and the Company's overall reputation to a higher level.

Finally, public road users, through this initiative, can see improved road safety with reduction in accident, saving lives and property.

Testimony

Sinchai Lonkuntod, a driver of Mena Transport Co, one of the major transporters of SCCC cements, said he has been a better trucker as he fell into SCCC's road safety discipline.

The 29-year-old native of Nakhon Ratchasima has found driving for SCCC over the past four years taught him a lot what it takes to be a truly professional trucker.

The SCCC's road safety guidelines and practice also dispel the myth that truck driving is a deadly job, he said, adding "my family is not worried whenever I am behind the steering wheel."

INSEE Power unleashes new energy

Shop floor employees make notable contribution to SCCC's sustainability

Launched 21 months ago, the SCCC's endeavour to encourage shop floor workers at its Saraburi operation to give their advices on performance improvement in a bottom-up management style has yielded tangible results.

Through the INSEE Power, a permanent unit dedicated to drive performance excellence, SCCC has fulfilled its mission in engaging frontline employees on what improvements within their operating areas can be done.

SCCC's Saraburi operation is blessed with capable long-serving shop floor members, with a working experience of over 15 years, and who truly know inside out their work stations, and are therefore qualified to render their valuable opinions.

"They are people who know which part of the machine tends to leak and know exactly how to fix it, yet having fairly good idea what modification should be made to make the machine run smoother and more efficiently," said Mr Taweesak Nawawitrattana, head of INSEE Power.

The establishment of INSEE Power has created a structure conducive to bring out best ideas and practical suggestions in terms of cost saving, safety and environment, from some 900 blue-collar workers at the three Saraburi plants for implementation.

The structure gets rid of rigid hierarchy, flattening the structure, and reorganising so workers they no longer wait for supervisors to tell them what to do.

"I think what we have succeeded through the INSEE Power platform is changing the mindset of our colleagues that they belong to the machinery they are with everyday," Mr Taweesak said.

"The key word to the success is the active "involvement" of motivated floor shop personnel," he noted.

Being instrumental to the success of INSEE Power initiative is the creation of individual "teams," each consists of 7-8 members from a certain function, who put their heads together to come up with specific improvement ideas within their working environment.

"The key word to the success is the active "involvement" of motivated floor shop personnel."

Mr Taweesak Nawawitrattana
Head of INSEE Power

In the process, they obtain mentorship and motivation from INSEE Power's head and eight coaches who are hand-picked from functions for their talents and knowledge in specific fields and future leadership potential.

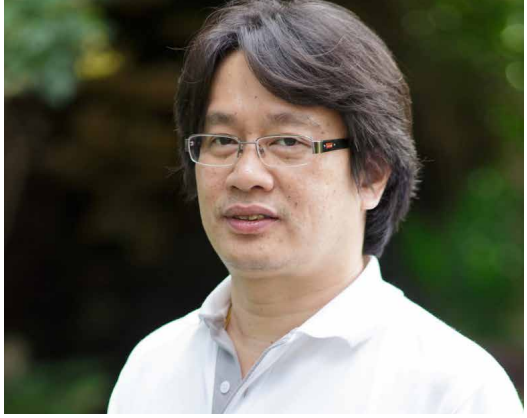
Since their inception in April 2013 to the end of 2014, a total of 26 teams, each identified by unique icons and names, had been set up.

Altogether they generated 213 initiatives in operation cost reduction, workplace safety enhancement and environment protection.

Four "waves" of implementation of numerous initiatives were duly carried out in a continuous basis with more than 22 activities, known as "Dream Runs," have achieved the set targets.

Measurable Result

The success of those INSEE Power initiatives applied so far is translated into an overall cost of 13.5 million baht for SCCC.



Other measurements of the success are in the records of breakdown of mills, the electricity consumption required for each tonne of cement produced, the percentage of gross added value (GAV), and thermal substitution rate (TSR).

For 2014, Plant 2 Cement mill #1 was able to run 327.42 hours uninterrupted before a stoppage could take place (144.76 hrs in the 2012 base year), 459.0 hrs at Cement mill #2 (109.43 hrs) and 376.30 hrs at Cement mill #3 (99.22 hrs).

For 2014, 39.45 kWh was needed to produce a tonne of cement compared to 42.14 kWh in 2012.

The TSR, which spells out what can replace coal which is used for cement production, improved to 12 percent in 2014 from 9 percent in 2012.

At the same time, GAV has risen to 535 million baht in 2014, improving from 522 million baht in 2013 and 460 million baht in 2012.

This outcome of INSEE Power initiatives has made a worthwhile contribution to EARN, an on-going platform that enables the Company to expedite and deepen energy cost reduction across the entire operation.

EARN, an acronym of Energy Activation across Regional Network, allows SCCC, along with fellow Holcim companies in seven other Asian countries, to tap the best practices, initiatives and experiences in energy excellence through a regional collaboration under a dedicated network.

SCCC is a founder member of EARN which was launched in Bangkok in August 2012 with a declaration to collectively cut energy costs by 10 percent a year, or realising a combined annual energy cost saving of US$200 million, by 2015.

In Thailand, the saving derived from the implementation of EARN was amounted to over 72.3 million baht in 2014, a big jump from 1.3 million baht in 2013 as implementation of several action plans became more mature.

INSEE Power Coach

Embedding in the INSEE Power structure is the development of the new generation of technical leadership at Saraburi operation.

Under SCCC's overall INSEE Leadership Excellence program, eight talented employees who have demonstrated their potentials are drawn from their specific fields of expertise into INSEE Power led by Mr Taweesak.

The first batch of coaches, two of them women, and with an average age of 33, has successfully completed the process and assumed higher positions to allow them to carry their higher tasks.

Greater Role

According to Mr Taweesak, the INSEE Power intends to concentrate not only on its effort to cover the length and breadth of the five pillar steams under the EARN aspiration at the Saraburi operation but also all cost of produce cement.

"With the newly-found INSEE Power team spirit, we have torn down the hierarchical gap and are able to cash in on benefits hidden in the previous top-down structure"

Mr Tanapon Rojtinnakorn
INSEE Power Coach on Reliability

ILEA's 4th edition draws to a successful conclusion

More projects nominated and greater employee participation

The fourth edition of INSEE Leadership Excellence Award (ILEA) contest drew to a successful conclusion in 2014.

By all accounts, the year's ILEA outcome raised the bar of SCCC's drive to foster and recognize creativity, continuous innovation and improvement across its entire functions for sustainability and corporate excellence.

The Company saw the numbers of nominated projects and employees' participation rate reached an all-time high since the in-house competition was launched in 2009.

In 2014, a total of 503 projects were nominated for the awards, up by 19 percent from the 2012 edition, or 72 percent more than the 2009's figures.

The numbers of SCCC employee participated in projects nominated in 2014 were 2,756, representing 84 percent of SCCC Group's total manpower, or 24 percent higher than the previous round in 2012.

"If one message came through loud and clear from the 2014 ILEA, it is that the strong enthusiasm shown by the majority of SCCC employees in contributing to the Company's goals for excellence," said Ms Suchitra Pipattanapong, Head of INSEE Academy at SCCC.

Being judged by a 10-man panel led by SCCC chief executive Ted Rangchaikul, six teams walked away with the 2014 ILEA awards for the best in performance and best in Innovation.

"If one message came through loud and clear, it is the strong enthusiasm shown by the majority of SCCC employees."

Ms Suchitra Pipattanapong
Head of INSEE Academy

The three winning projects in Performance League are related to the Reduction of Thermal Energy on Kiln Process K5-6 at Saraburi Operations (First place winner), Bagged Cement Dispatching Capacity Expansion at Saraburi Operations (second) and Improving Water Treatment from Fiber Preparation by Using DAF at Conwood (third).

The first place winner for the Innovation League went to the IPK (INSEE Poon Keaw) Separate Grinding Process at Saraburi Operations, with the runner-up being the INSEE Club Card and INSEE Road Safety Library Project for the third prize.

These awarding winners have proven to offer cross-functional learning opportunity and tangible benefits to the Company and parties involved.

"That is the heart of our enhanced ILEA contest, Ms Suchitra pointed out, adding, "that is the reason why we choose to stage the contest every two years to see the results of those nominated projects being put to work"

Generally speaking, projects nominated for ILEA must address how they are relevant to SCCC's Sustainable Development (SD) roadmap from the aspects of environment, economic and social contributions.

INSEE Leadership Excellence Awards 2014

More specifically, those initiatives must support at least one of the eight priorities of INSEE Leadership Excellence and Sustainable Development:

They are excellence in Commercial; Logistics; Energy (through EARN -- Energy Activation across Regional Network); Maintenance and Reliability; Procurement, Organisation Efficiency; Leadership and People Development; and Sustainable Development which embraces Occupational Health and Safety, Environment, and Corporate Social Responsibility.

A good part of 1,628 projects nominated for ILEA have been successfully implemented, resulting in an estimated total economic value of 1.98 billion baht.

They contributed to the betterment of environment and society, significantly reducing greenhouse emission over the past five years.

It is SCCC's intention to raise the bar of ILEA to bring the best projects and practices to global awards. This is to benchmark SCCC performance and innovation with world-class organizations and enhance people development opportunities through international exposure, she added.

Green and sustainability lead innovative drive

Mr Sampan Rodpan, leader of a ten-man team which won the top 2014 ILEA prize in the League of Innovation, is all smiles for being honoured.

His team's innovative brainchild rethinks the way cement is made with greater efficiency, lower energy requirement, less clinker input, and higher quality product output.

The team's separate grinding process successfully introduced at SCCC's Cement Plant 3 in Saraburi in January 2014 reduces the percentage of clinker required in the production, also known as clinker factor by the industry, to 44.6 percent from 52.1 percent, a 7.5 percent difference.

Lower clinker factor does not only provide economic benefits but embracing the philosophy of sustainability.

Lesser amount of clinker required for each tonne of cement produced is translated into less greenhouse gases generated from clinker manufacturing.

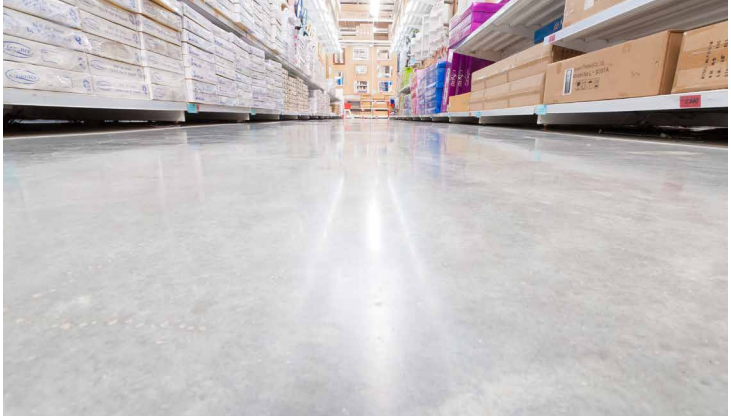
From the investors' point of view, it is a sound investment, capable of recovering the outlay used in putting the process in place in just two years.

"But at least from our team's perspective, the environmental and sustainability benefits outweigh the financial gains," Mr Sampan said, adding "that's our original prime driving force."

"But at least from our team's perspective, the environmental and sustainability benefit out weigh the financial gains."

Mr Sampan Rodpan

Electrical Project Division Manager



SCCC extends its list of green products

Five more get certified in 2014

Siam City Cement Public Company Limited has further boosted its industry leadership in offering green construction materials with an expanded list in 2014. Five special-purpose products were successfully certified and registered as "Green heart label" under the globally-recognised ISO:14021 guidelines for meeting eco-friendly criteria in one way or another.

The inclusion of INSEE FloorCrete, INSEE Marine Concrete, INSEE MatCrete, INSEE Self Compacting Concrete and INSEE Superblock, brought the list of SCCC's green products to over 20 by 2014, according to Dr Wonchalerm Chalodhorn, manager of SCCC's Product Development Department.

The five entries in 2014 marked SCCC's relentless stride that started over a decade ago to develop products and services which are environmentally friendly while addressing sustainability.

"INSEE FloorCrete has 2.7 times more abrasive resistance than conventional concrete"

More specifically, they match one or more of the SCCC's 7-point Green Heart Label criteria which are ;

- Reducing resource use
- Recovering energy
  (including usage of alternative energy)
- Reducing energy consumption
- Extending product life
- Using recycled content
- Reducing waste
- Being compostable

For instance, INSEE FloorCrete, a specialty ready-mixed concrete for industrial floors with high abrasion resistance and shrinkage minimising property, meet the "extended life product" reference.

Tests showed that INSEE FloorCrete has 2.7 times more abrasive resistance than conventional concrete, underscoring its durability.

On the other hand, INSEE Marine Concrete, which is ideal for structures exposed to sea water and those located in coastal areas, has long service life, high chloride resistance (2.1 times over conventional concrete) and requiring less maintenance, meets the criteria of extended life products and reduced resource use.

Meanwhile, INSEE Superblock, the light weight building block, has fulfilled the Green Heart criteria on reduced resource use and reduced energy consumption.

INSEE Superblock has earlier been certified as being the first light weight building block brand for Green Label Thailand, the kingdom's major hallmark for environmentally friendly products and services.

With the addition in 2014, SCCC has one of the most extensive lists of green products and services in the Kingdom's construction material industry.

"The sales of SCCC green products represent roughly a third of SCCC's annual turnover," said Dr Wonchalerm, pointing out that such big percentage underlines a major role the Company has played to make the world greener.

That contribution has a multiple subsequent effect when these eco-friendly products are utilised by project owners, contractors and eventually by end-users like consumers on their common journey to sustainability, he noted.

By using SCCC green products, it is easier for owners of construction projects, buildings and structures to gain the coveted "Green Building" status from the US Green Building Council for its LEED (Leadership in Energy and Environmental Design) standards and the Thai Green Building Institute for the TREES (Thai's Rating of Energy and Environmental Sustainability) benchmark.

SCCC has continued to strive to expand the list of its green products with five entries targetted for 2015, said Dr Wonchalerm.

"Of course, there are challenges but the top priority the SCCC management has placed on this endeavor as key pillar of its sustainability development policy, the on-going research and development effort, and resources given, we should be able to achieve the target," he concluded.

"The sales of SCCC green products represent roughly a third of SCCC's annual turnover,"

Dr Wonchalerm Chalodhorn
Product Development Manager

Siam City Cement boosts its modern-day scavenging role

New world-class waste management offshoot launched in Chonburi

The successful launch of the state-of-the-art waste management facility in Chonburi in November 2014 augurs an important next step forward for SCCC's enhanced commitment towards sustainability.

The state-of-the-art plant is a crucial additional platform that turns diverse wastes into energy and raw material for cement production, building on the award-winning concept that shaped SCCC back in 2005.

SCCC becames one of the pioneers which introduced world-class waste management technology that embed sustainability to Thailand.

Built in Hemaraj Industrial Estate in Chonburi province's Born and Surasak sub-districts, the facility is operated by Energy and Environmental Services Co, Ltd (EES).

EES enables SCCC to strengthen its role as a waste-to-energy company, raising SCCC's overall waste processing capacity significantly.

The decision to locate EES facility right in Hemaraj Chonburi underscores the Company's intent to effectively offer total waste management solution to one of Thailand's prime industrial zones.

There are more than 1,000 factories, involving in iron and steel, electronics, automotive parts, energy and export-oriented industries, located within Hemaraj Chonburi's 100-km radius where industries now have an easy access to EES' one-stop service 7/24.

"These are industries which each year churning out tens of millions of wastes which need to be handled professionally."

Mr Krairat Sriwaranard
SCCC's Vice President

"These are industries which each year churning out tens of millions of wastes which need to be handled professionally," Mr Krairat Sriwaranard, SCCC's Vice President said.

These wastes come in different forms and shapes - liquid, solid and sludge.

They can be oil sludge, paint waste or contaminated materials from a production process, obsolete or sub-specification manufactured items or surplus at the end of a production run.

EES offers a modern eco-friendly and sustainable alternative to disposing those wastes rather than by traditional methods of landfilling or incineration.

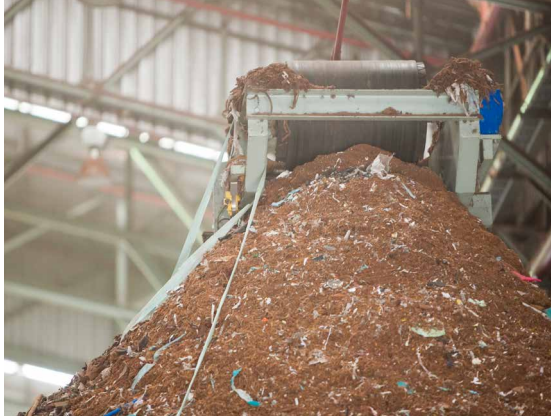
Mr Krairat explained: "In landfills waste is not destroyed. As waste breaks down it can release methane gas, which is a greenhouse gas many times more potent than carbon dioxide (CO_2).

Yet if a landfill is not properly constructed and maintained, it poses a serious risk of long term groundwater and soil contamination causing a major threat to human health and natural resources"

"Together these factors create potential risks for liability and negative publicity of companies," he added.

Incineration reduces the volume of waste and converts it into bottom ash, flue gases, particulates, and heat that can then generate electric power.

However, incinerators, if not properly controlled, still emit varying levels of heavy metals such as vanadium, manganese, chromium, nickel, arsenic, mercury, lead, and cadmium.



Furthermore, solid wastes not destroyed during incineration and then disposed in landfills can be toxic.

Like landfilling, incineration leaves companies open to possible liability issues as well as damaging negative publicity, particularly when dealing with hazardous wastes, Mr Krairat pointed out.

At EES, the Company adopted the same means of waste management, known as AFR pre-processing and co-processing, applied successfully by SCCC at Saraburi plants .

"Co-processing is by far the most socially and environmentally responsible method."

Co-processing is by far the most socially and environmentally responsible method by completely destroys the waste while also recovering any embedded energy and mineral content through integration in the cement manufacturing process, reduces emissions of greenhouse gases and lowers the need for landfill space.

The alternative fuels derived from the wastes have up 4,500 kcal/kg, equivalent to the coals, lignite and sub-bituminous coals.

Using the thermodynamic technology, there is a zero residue generated from co-processing in cement kiln and all the ashes are entirely used for clinker product, and ultimately into finished cement, pollution free.

It is beneficial for the environment as well as communities, and directly helps companies to reduce their ecological footprint, according to Mr Krairat.

Based on the combined capacity of Saraburi and Chonburi facilities, the amount of alternative fuel derived from the waste processes can substitute low-rank coals significantly for SCCC.

Expansion

While EES' immediate target is geared towards realising its full design capacity by ramping up the numbers of its client to 100 in 2015 from about 20 in 2014, plans are afoot for SCCC to set up facilities similar to EES elsewhere in Thailand.

The fact that the amount of total wastes in Thailand has been on the rise, by 3-5 percent per year to 50 million tonnes in 2013, has made it compelling for SCCC to boost its role.

Industries, in particular, contribute up to 80 percent of the aggregate waste volumes and the trends towards industrialisation with factories, which stood at 138,177 by the of 2013 in the Department of Industrial Works' registrations, mushrooming will only result in greater disposition.

"We're eyeing Prachinburi and Nakhon Ratchasima as our next possible sites because of the high concentration of industries which require our services," the executive noted.

Ideally in the future, SCCC would have facilities operating at all key industrial parks nationwide Thailand where factories can tap SCCC's expertise and knowledge in world-class waste management for the greener world.

Awards & Recognitions

Green Industry Award Level 5 – Green Network
Awarded to SCCC,
by Department of Industrial Works,
Ministry of Industry

Outstanding for Excellent Labour Relations and Labour Welfare Year (consecutive years 2007-2014)
Awarded to SCCC,
by Department of Labour Protection & Welfare
Ministry or Labour

Certificate of the standard for Preventing and solution to Drug Problem in a Establishment Year 2014
Awarded to SCCC,
by Saraburi Province and Department of Labour Protection & Welfare
Ministry of Labour

Carbon Footprint for products reduction Label (Gold Label) Certification
Awarded to SCCC for INSEE Dang, INSEE Tong, and INSEE Super,
by Thailand GreenHouse Gas Management Organization

Carbon Footprint for products certification
Awarded to SCCC for INSEE Petch, INSEE Dam,
INSEE Dang, INSEE Tong, INSEE Poon-Kaew and
INSEE Super , by Thailand Greenhouse
Gas Management Organization

Consumer Protection Thailand Call Center Award 2014
Awarded to SCCC, by The Office of the Consumer Protection Board, or OCPB, (OCPB) and The Management System Certification Institute (Thailand), or MASCI

CSR-DPIM 2014 Continuous Award
Awarded to SCCC and Aggregates, by Department of Primary Industries and Mines
Ministry of Industry

Authorized Economic Operator (AEO) Award
Awarded to SCCC-logistics,
by The Customs Department
Ministry of Finance

2014 National Occupational Safety, Health and Environment Award
Awarded to Conwood, by Department of
Labour Protection and Welfare
Ministry of Labour

Zero Accident Campaign
Awarded for 1,000,000-2,999,999 hours of operations without severe accidents (for 2nd year) Awarded to Conwood, by Department of Labour Protection and Welfare
Ministry of Labour

Green Industry Award Level 3 - Green System
Awarded to Conwood, by Department of Industrial Works
Ministry of Industry

Green Industry Awards Level 4 – Green Culture
Awarded to Geocycle
by Department of Industrial Works
Ministry of Industry

Green Label Certification
Awarded to INSEE Superblock
by Thailand Environment Institute Foundation

100% Wearing Cycle Helmets Campaign
Awarded to INSEE Superblock, by Department of Labour Protection and Welfare Singburi Province
Ministry of Labour

Drug Free Workplace
Awarded to INSEE Superblock, by Department of Labour Protection and Welfare Singburi Province
Ministry of Labour

ISO 9001/2008 Certification
Awarded to INSEE Superblock,
by AJA Registra Limited

SD Index - Economic Performance

	GRI	2014	2013	2012
Sales (in Million Baht)				
Net Sales	EC1	31,862	29,949	26,427
Input Factor (Cost of all goods, materials and services)	EC1	20,661	19,601	18,134
Depreciation and amortisation	EC1	1,253	1,166	1,149
Value Creation (in Million Baht)				
Benefit to employees	EC1	3,265	2,928	2,417
Benefit to government (taxes)	EC1	1,228	1,153	822
Benefit to shareholders	EC1	3,450	3,220	2,990
Benefit to creditors	EC1	373	305	267
Retained in business	EC1	1,632	1,576	648
Sustainable Products (%)				
Cement products containing mineral components	EN2	1.9	1.7	1.9
Suppliers (%)				
Suppliers screened (OH&S, labour standards, legal compliance, environmental standards, as percentage of spend)	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 Index - Environmental Performance

	GRI	2014	2013	2012
Materials Used				
Limestone (%)	EN1	81.3	82.2	82.0
Shale (%)	EN1	16.4	15.4	15.3
Additives (%)	EN1	0.5	0.7	0.7
Alternative Raw Materials (%)	EN1	1.9	1.7	2.0
Environmental Investments and Compliance				
Environmental investment (million baht)	EN31	550.79	656.9	233.9
Provisions for site restoration (million baht)	EN13	67.5	69.3	67.8
Non-compliance cases	EN29	0	0	0
Associated fines and penalties (million baht)	EN29	0	0	0
Energy				
Fuel consumption (MJ/ton clinker)	EN3	3,146.0	3,090.0	3,072.0
Electricity consumption (kWh/ton cement)	EN3	97.6	96.7	95.9
Alternative fuel thermal substitution rate(%)	EN3	11.3	12.3	8.8
CO_2 Emissions				
Net CO_2 Emissions (kg CO_2/ton cementitius material)	EN15	690	678	680
Clinker factor (%)	EN15	82.7	82.5	81.0
Other Atmospheric Emissions				
NOx (grams/ton cementitious material)	EN21	825	824	962.0
SOx (grams/ton cementitious material)	EN21	53.9	52.0	52.0
Dust (grams/ton cementitous material)	EN21	34.5	55.0	47.0
Water				
Water withdrawn from wells and rainwater collected for cement production (m^3)	EN8	2,791,451	2,609,164	2,565,817
Water withdrawn from wells and rainwater collected for waste heat recovery (m^3)	EN8	1,189,966	1,101,827	-
Water recycled or reused (%)	EN10	66%	64%	58%

SD Index - Social Performance

	GRI	2014	2013	2012
Employee Practices				
Number of employees	LA1	3,652	3,510	3,174
Proportion of employees by level (%)	LA1			
• Top & senior management		3	3	3
• Middle level management		36	36	36
• Other employees		61	61	61
Portion of female employees by level (%)	LA12			
• Top & senior management		17	15	16
• Middle level management		36	37	37
• Other employees		11	9	10
Ratio of female to male salary	LA13			
• Top & senior management		0.81	0.80	1.01
• Middle level management		0.97	0.92	0.93
• Other employees		0.85	1.00	0.98
Portion of local employees (%)	LA12	99.92	99.94	99.94
Employee turnover (%)	LA1	7.01	5.46	5.18
Employee satisfaction survey conducted		NO	NO	NO
Training				
Average hours of training per employee	LA9	47.42	43.72	47.18
Occupational Health and Safety				
Number of fatalities (employees,contractors, visitor and other)	LA6	3	7	3
Lost time injury frequency rate (employees and contractors per million manhours)	LA6	0.37	0.25	0.35
Community Involvement				
Donations, CSR and Community Spending (million baht)	EC1	40.9	35.7	129.6
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 pannels	SO1	Yes	Yes	No

Siam City Cement Public Company Limited

Column Tower, 7th- 12th Floor.,
199 Ratchadapisek Rd., Klongtoey, Bangkok, Thailand 10110
Phone: +66 2 797 7000
Fax : +66 2 797 7001-2

Business Unit:

Geocycle

Geocycle is our waste management business unit
providing state-of-the-art waste disposal.
Phone: +66 2 797 7000
Web: www.geocyclethailand.com

Subsidiaries:

Siam City Concrete Company Limited

Siam City Concrete produces a wide range of ready-mixed
concrete for sale in Bangkok, the Eastern Seaboard
and in many locations around Thailand.
Phone: +66 2 797 7000
Web: www.inseeconcrete.com

Conwood Company Limited

Conwood produces high-quality, innovative
and superior design fiber cement products
used as decorative and building materials.
Phone: +66 2 797 7000
Web: www.conwood.co.th

INSEE Superblock Company Limited

INSEE Superblock innovates and produces
light-weight concrete solutions.
Phone: +66 2 797 7000

Siam City Power Company Limited

Siam City Power generates electricity from waste heat
recovered from cement production process.
Phone: +66 2 797 7000

Energy and Environmental Services Company Limited

Energy and Environmental Services specializes in
intermediate waste reception and treatment.
Phone: +66 2 797 7000

INSEE Digital Company Limited

Tasked with building leading
information technology solutions for SCCC group.
Phone: +66 2 797 7000