



Climate Actions Business, Environment and Social impact

The Green Construction Solution

The 'Green Construction Solution' aims to elevate construction standards in Thailand by taking advantage of digital technologies, e.g. Building Information Modelling (BIM),



Augmented Reality (AR) and Virtual Reality (VR), and advancement of modular construction. These bring the ability to tackle the most difficult construction tasks in more sustainable ways such as using resources and construction materials to its maximum value to lower the impact on the environment and achieve standards, utilizing renewable resources, and turning waste or loss to wealth. Since modular construction happens in the factory where a number of parts are built concurrently, building materials can be reused and recycled at SCG's precast factory instead of being wasted or discarded at the construction site. Moreover, with its efficient timelines, shorter and faster than the traditional construction around twice as on average, it has much lower energy expenditures leading in turn to reduced dependence on fossil fuel consumption with a

consequent drop in carbon emissions as a whole. As a result, not only can SCG give back to the society through the increased community capability of local construction contractors, but also help them earn more income and improve their quality of life.

Business Benefit KPI

1. Improve business performance to achieve commitment on climate change

- Reduce over 10% of construction waste
- Reduce the GHG emissions equivalence to 616,000 tons of carbon dioxide (t-Co2)

2. New business development

- Increase revenue of 1,200 Million Baht

3. Uplift overall brand reputation

- Recognized as a leading company in the “Low Carbon and Sustainable Business Index” for the second consecutive year by the Thailand Greenhouse Gas Management Organization

Social/ Environmental Benefit KPI

1. Positive Impact on the environment

- Reduce construction wastes over 10% of conventional method
- Reduce the GHG emissions equivalence to 616,000 tons of carbon dioxide (t-Co2)

2. Increase community's income

- Increase community and local contractors' income 30 Million Baht/ Year

3. Behavior Change from raising environmental awareness

- Increase awareness and exploit new way of construction

4. Increase community capability of local construction contractors and farmers

- 200 local construction contractors joined in Green Construction ecosystem

The Zero Burn

Farmers across Thailand traditionally clear their fields of waste such as sugarcane leaves, corncobs and rice straws by burning them after harvest. As a result, Thai people live with

air pollution from various sources like smoke, smog, PM 2.5 particles, global warming and other health consequences. The idea of helping farmers to maximize the resource use, utilize rice straws and other agricultural waste instead of burning them is implemented through the Zero Burn Project.

The Cement and Building Materials Business of SCG sets up stations to buy rice straws, sugarcane leaves, corncobs, and the like through the Zero Burn Project for processing them into energy pellets for use as the alternative fuel in the kiln at SCG's cement plants. The project not only reduces the environmental problem of PM 2.5 dust, but also generates income for Thai farmers and maximize resource efficiency in line with the Circular Economy approach.



Business Benefit KPI

1. Improve business performance to achieve commitment on climate change

- Reduce over 42,000 tons of agricultural wastes equivalence to 21,000 tons of coals
- Reduce the GHG emissions equivalence to 42,000 tons of carbon dioxide (t-Co₂)

2. Uplift overall brand reputation

- Received Sustainability Excellence Awards at SET Awards 2020 for the sixth consecutive year by the Stock Exchange of Thailand.
- Increase company PR value by 53.9 Million Baht

Social/ Environmental Benefit KPI

1. Positive Impact on the environment

- Increase alternative fuel from agricultural wastes 42,000 tons
- Reduce the GHG emissions equivalence to 42,000 tons of carbon dioxide (t-Co₂)
- Reduce 40,000 rais field burning and PM 2.5 dust emissions

2. Increase 660 rais green areas to absorb approximately 25,593 tons of carbon

Increase community's income

- Increase farmers' income 29 MB

3. Behavior Change from raising environmental awareness

- Reduce field burning

4. Increase community capability of local farmers

- More than 60 communities around cement plant join in project

Constructing check dams to restore ecological balance

SCG has adopted His Majesty the Late King Bhumibol Adulyadej's sustainable water management approach in its operations for more than 10 years and has continued, preserved, and built upon the royal legacy on "Water is life" through the "Conserving Water from Mountain to Mighty River" project.

The initiative aims to empower the community to solve drought and flooding problems by engaging the community in the process, allowing the locals to fully understand water management in their areas. The construction of check dams in the once arid land helps retain moisture in watershed forests and restore ecological balance. It also helps local communities solve the drought in summer and the flooding in raining seasons, as well as storing water for consumption and agriculture by navigating water down to connected

ponds in the foothills or distributing water on lowland through the 'Monkey Cheek' water retention system to allow farmers to fully utilize water for agriculture.

Business benefit KPI

1. Uplift overall brand reputation

- Received Sustainability Excellence Awards at SET Awards 2020 for the sixth consecutive year by the Stock Exchange of Thailand.
- Increase company PR value by 96 MB

Social / Environmental Benefit KPI

1. Positive Impact on the environment

- Total 100,466 check dams have resulted in restoration of nature and absorption of carbon dioxide

2. Increase community's income

- Community having water for irrigation all year round compared to only three months a year during the rainy season, with their income increasing four times.

3. Behavior Change from raising environmental awareness

- Role model mindset help scale up community development