

# Community and Social Development




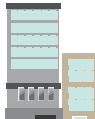
## Significance

Bangchak operate its business according to its founding mission to continuously contribute to the well-being of Thai society both local level and national level by using the Green Society strategy to address social problems and respond to the specific expectations of community. While recognizing potential negative impacts on communities and society, whether on the environment through pollution or on society through the safety of the neighboring communities from the company's principal business operations (oil refineries and gas stations). In 2022, the company has actively driven this mission on both levels as follows:

### 1. Taking Care for Bangchak's neighbors (Disclosure 413-1)

#### Goals and Strategies for 2022-2027

Because oil refineries are important areas of operation of the company (90%) (Disclosure 413-1). The community relations operation classifies the target groups of residents around into 4 sub-target groups in order to respond appropriately to the needs and expectations of each group. Most of the expectations are (1) safe business operation, (2) communicating in advance in the implementation of planned, (3) communicating quickly in case of emergencies, (4) continually organization of activities, (5) including the communities in activities that are beneficial to the communities and society, (6) helping to alleviate problems during COVID-19 pandemic, (7) continuously supporting the quality of life and the economy after COVID-19 is resolved, and before economic recovery, could include initiatives such as providing health examinations, glasses purchases, and supporting ways for communities to generate income, etc., and (8) additional promotion in environmental areas, such as supporting for community waste-sorting program, etc.

	 Community	 Family	 Schools	 Condos
Population Estimate	10 communities in Bang Na/Phra Khanong. 1 military flat. 1 Bang Nam Phueng Sub-district, Phra Pra Daeng Distrit, Samut Prakan. 17,885 people.	5,098 households that are members of Khrop Khrua Bai Mai Pamphlet. 5,098 people.	19 schools in Bang Na District, Phra Khanong, and Bang Nam Phueng Sub-district. 14,363 people.	29 projects around oil refinery. 6,316 people.
Activity Participants (amount/Percentage*)	81,119 people. 76.23%	5,342 people. 5.02%	16,826 people. 15.82%	3,120 people. 2.93%
Social Investments 16.60 million baht (Development Budget / Donations Budget)	Development Budget: 69.58%. Donation Budget: 3.91%	Development Budget: 7.83%.	Development Budget: 11.45%. Donation Budget: 3.62%	Development Budget: 3.61%.

\*Percentage of all participants in community relations activities in year 2022 = 106,407 (with repeat counting).

Bangchak's community relation comprise of eight areas: safety, education, sports, quality of life, environment, community relations and culture preservation, economic improvement, and corporate social responsibility. In 2022, over 166 activities were organized with more than 106,407 people benefiting from activities.

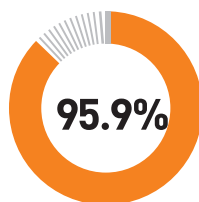
Goals in 2022		Community Relations Strategy
1. Evaluating of community engagement assessment	≥ 86%	<ul style="list-style-type: none"> <li>Organize activities that consistently meet the needs of community, creating friendliness, usefulness and safety.</li> <li>Promote communication with reach, sincerity, and consistency by using a variety of media and communications channels appropriately and in a way that reaches target groups.</li> </ul>
2. Evaluating of safety confidence	≥ 86%	
3. Friendliness and helpfulness assessment	≥ 86%	
4. Benefits assessment results	≥ 86%	
5. Complaints from the wider community:	0 complaints.	
6. Satisfaction rate of participants in the community	≥ 90%	

## 2022 Performance

Bangchak received performance assessment results covering four areas: friendliness, benefits, safety, and engagement. According to the graph, the figures for each year show a trend of continuous increases since year 2019.



Satisfaction rate of participation in the company's community.



No widespread complaints from surrounding communities.



## Community Communication

The company has provided appropriate communication channels for various groups living in the areas surrounding Bangchak's oil refineries consisting of multiple channels for a total of 332 times for 43,662 people, 10 communities, 5,098 households, 19 schools and 29 condominiums as follows:

- Direct communication with community relations personnel who visit the communities or via telephone conversation.
- Continuously organizing community relations activities.
- LINE groups for community committee, condominium residents, and teachers/instructors in schools in the communities around oil refinery.
- Community and condominium public announcement boards.
- Khrop Khrua Bai Mai pamphlet subscribers and Bangchak Khrop Khrua Bai Mai Facebook page for Khrop Khrua group.

Media/Communication Channels	Communication with Stakeholders				Resp.	Status
	Target Group					
	Community	Families	Condominiums/ Military Flats	Schools		
1. Loudspeakers.	✓				CAF Co. with MSD	Continuous–depending on activity/event.
2. Printed media.					CAF	
– Khrop Khrua Bai Mai Pamphlet (book/e–book format).		✓	✓ (Condominiums only)			Every 2 months.
– Posters, banners, leaflets, stickers/ calendars, BCP contact telephone numbers and importantly	✓	✓	✓	✓		Depending on activity/event/ year.
3. Online media/social media.					CAF	
– LINE group (work coordination)	✓		✓	✓		Continuous–depending on activity/event.
– Khrop Khrua Bai Mai Facebook group.		✓				Continuous–depending on activity/event.
4. People media					CAF Co. with Stakeholders.	
– Corporate relations personnel (local visits/ telephone calls/emails/others).	✓	✓	✓	✓		Depending on activity/event
– Work coordination through community chairmen/directors.	✓					Depending on activity/event
– Coordination through condominium juristic persons/civil servants overseeing military flats (residential housing buildings under the Office of the Permanent Secretary for Defense).			✓			Depending on activity/event
– Work coordination through school executives/ teachers.				✓		Depending on activity/event
5. Other						
– Bangchak Customer Call Center.	✓	✓	✓	✓	CAF Co. with CMD	Depending on activity/event
– Air quality display monitors.	✓	✓	✓	✓	CAF Co. with	Depending on activity/event
– Community relations activities	✓	✓	✓	✓	ECD&MSD CAF	Depending on activity/event

## Beneficial Activities for Communities and Society in 2022

### Economic:

#### 1. Dontri Pansuk” Project

This project was launched in 2022 when the intensity COVID–19 diminished and the government’s monitoring and preventative measures were relaxed, making it possible to organize to gatherings of people according to regulations and control measures. The purpose of this project was to support musicians and singers who were among the initial group to be hit by different Covid–related measures, leading them to lose their constant source of income. Therefore, the project was launched to hire and provide income to musicians and singers at CSR events on the national level. The project was implemented in collaboration with the Musicians Association of Thailand under Royal Patronage, sponsoring artists, musicians, and singers to perform at Bangchak gas stations in suitable locations in the Bangkok Metropolitan

Region and the rest of the nation such as at Si Nakharin Branch, Phatthanakan 34 Branch, Kanchanaphisek KM. 41 Branch, etc. In addition, on the community relations level, artists, musicians, and singers living in communities near Bangchak oil refinery and the company were sponsored to hold performances at Bangchak Sukhumvit 62 gas station from 15 January to 13 March 2022.

In 2022, the “Dontri Pan Suk” project was able to generate revenues of 60,000 baht/100 people for the participating artists, musicians, and singer thereby helping artists, musicians and singers who participated in the project to earn income again and make use of it in managing various matters in their living and daily life, including supporting their families through paying rent, tuition for their children, repairing their homes, etc.



## 2. “Bangchak Dee Tor Jai” Project (to support locally owned shops in community)

This project supported locally owned stores and in the communities around oil refinery during COVID-19 outbreaks by ordering food and snack as well as supporting products, handicrafts and various services such as renting community vans to be used in the company’s various activities. As a result, community stores and entrepreneurs were able to earn income during the spread of COVID-19 on 30 occasions 130 people for a total value of 835,637 baht.

### Quality of Life:

#### “Bangchak Huang Yai Su Phai COVID-19” Project

The COVID-19 situation has impacted both the quality of life and economy of many families in the communities. To lend a helping hand, Bangchak launched projects and special activities during COVID-19 to support the neighbors around the refinery as follows:

- **Distribution of facemasks, hygienic masks, home use ATKs, liquid alcohol, alcohol gel for hand-cleansing, trash bags for hazardous wastes (red trash bags), and (clean) drinking water.** In total, the company distribute 20,000 face masks, 18,000 home use ATKs, over 5,000 liters of liquid alcohol, 6,000 bottles of hand-cleansing alcohol gel, 12,000 hygienic mask boxes, 5,000 hazardous waste bags (red trash bags) and 5,000 bottles of (clean) drinking water to community residents, condominiums, families, school personnel/ students and government agencies around oil refineries to support neighbors with equipment for preventing disease outbreaks along with necessities to reduce risk of infection and for appropriate management of contagious wastes.



#### • **Pan Suk Bags Bangchak Happiness Bag to School**

The company donated Bangchak Happiness Bags to school in communities around oil refineries. The goal was to motivate students during semester closures caused by COVID-19 situation, and to ease the burden of parents who would otherwise need to procure learning supplies, stationery and face masks for children. Each sets included cloth bags for holding items, face masks, and a stationery sets consisting of pencils, erasers, rulers, pens, correction fluids, and coloring pencils. Additionally, each set contained Vitamin C supplements to help enhance students’ immunity against COVID-19. In total, the company donated to students from 19 schools based on the total number of students or a total of 13,363 people (sets).

- **Bangchak Happiness Kit for Teacher** Bangchak Happiness Kits were distributed to teachers executives, and schools workers who caring for and teaching students during the COVID-19 pandemic, whether online or on-site. These kits featured water-proof fabric bags for carrying masks, items and COVID-19 prevention equipment such as cloth face masks and portable alcohol spray. In total the company donated to teachers, executives and personnel from 19 schools for a total of 1,000 people (kits).









## Safety

### Accident Evacuation Drills, Fire Evacuation Drills, Firefighting Training, First-aid Training, and Basic Life-saving Techniques

Every year Bangchak organized emergency evacuation drills in the event of an accidents as well as providing training to provide knowledge in the use of basic fire extinguishing equipment to teachers, students and personnel at school along with the residents of condominiums around oil refineries.

In 2022, Bangchak organized an emergency evacuation drills and provided training and knowledge in the use of basic fire extinguishers, and how to provide first-aid/perform basic life-saving techniques such as CPR, and how to save a person from choking to 8 communities, 7 schools, and 22 condominiums around the oil refineries in Phra Khanong-Bang Na Districts to ensure that teachers, students and personnel at school and condominium residents have knowledge and understanding. In addition to being prepared to handle potential fires, disasters and accidents. Accordingly, the drills were held 30 times to the participation of 8,705 people.



## Environment:

### “Bangchak Huang Yai Chumchon” Project to Alleviate Dust Problems

With care for the neighbors around refinery, the company participated in alleviating problems caused by PM 2.5 by donating 20,000 N95 masks to the community residents in Phra Khanong-Bang Na Districts and Bang Nam Phueng Sub-district, as well as condominium residents, school personnel/students and government agencies surrounding the refineries. This initiative aims to reduce the impact of PM 2.5 and provide protection for those living and working in the area.

## Education:

### Rak Pan Suk Junior Project

The company collaborated with Chemicals SGC and the Bai Mai Pan Suk Foundation to launch the Rak Pan Suk Junior project. This project focuses on waste management and establishing waste bank, utilizing the 3Rs waste management principle and the circular economy principle in schools. The project was implemented at the CSR level nationwide, with schools from all over the country applying to participate, as well as on local community relations level with the schools around Bangchak oil refineries in Phra Khanong District, Bang Na District and Bang Nam Phueng Sub-district, Phra Pra Daeng District, Samut Prakan Province, or a total of 11 schools.

In 2022, one lecture was organized to provide participating schools with knowledge on how to implement the project, and learning materials project implementation equipment were donated, including green fermentation bins and green cones along with budgetary support for running the project. School visits were conducted on 1 occasion to follow-up on implementation. The follow-up found that the schools properly prepared the learning bases chosen by each school, and that the students were following the project's guidelines effectively. Actions were taken, such as crating a system to sort wastes according to the 3Rs principle, recycling of milk boxes, using of composting barriers to produce organic fertilizer from falling leaves, and the cultivation of household vegetables at the "Ru Pho Phak Phak" learning station, etc. Accordingly, it is estimated up to 2,630 kgCO<sub>2</sub>e of wastes were managed according to the guidelines of the project up to the present or in the project's first year.

### Environmental Learning Schools for Sustainable Development (Eco-Schools)

Bangchak, together with the Department of Environmental Quality Promotion, Phra Khanong District Office and Bang Na District Office, has launched the Environmental Learning Schools for Sustainable Development ("Eco-Schools") project. The aim of this project is to support executives and teachers in the subjects of science and the environment along with other related systems from 11 schools around the refinery in learning how to develop programs and activities to provide systematic environmental education, including science and other related subjects. The project has the following goals:



- Executives and teachers should be able to successfully apply environmental knowledge in actual teaching programs.
- Schools should continuously develop personnel and students in environmental learning according to the government's policies and global trends.
- Personnel, students and schools should gain knowledge and understanding, and coexisting sustainably with the environment, communities, and society with greater happiness.

In 2022, the company worked continuously to improve its performance by organizing knowledge exchange activities. These activities involved summarizing the results and extracting learning lessons from activities that took place in 2021. The company then presented and monitored the school performance according to project work plans on three occasions during the New Normal. The online presentation and follow-up format were used for this purpose. During 2022, the participating school prepared programs, projects, and activities for students. They also implemented actual learning projects and activities with outcome measurements in the education system. These programs were developed consistently with the school openings during COVID-19. In the 2022 academic year, when full on-site education resumed beginning in Semester 1/2022 in all 11 schools. The efforts of the schools resulted in the creation of 11 programs, projects, and activities that included direct environmental study programs, school waste management programs, and school wastewater management programs, etc.



**Relations:****Support for Community Activities/Events**

Bangchak has continuously supported activities and events that benefit communities and the public in area around Bangchak's refinery. In 2022, the company supported several initiatives, including the "Happy Families Prevent Depression" activity, the repair of community lights, trimming of trees obstructing traffic, and a volunteer activity to clean the water courses intersecting Khlong Bang Chak. Additionally, the company donate sporting equipment such as hats and arm bands for pétanque and other activities, including cheerleading activities at student sports events in schools in Bangkok.

The company also sponsored the Chang Noi Games for schools in Phra Khanong District and Bang Na District, as well as the annual Kathin ceremonies for temples in community relations areas. Finally, the company sponsored community sports activities such as Bang Nam Phueng Community Sports and Bang Nam Phueng Games, etc.

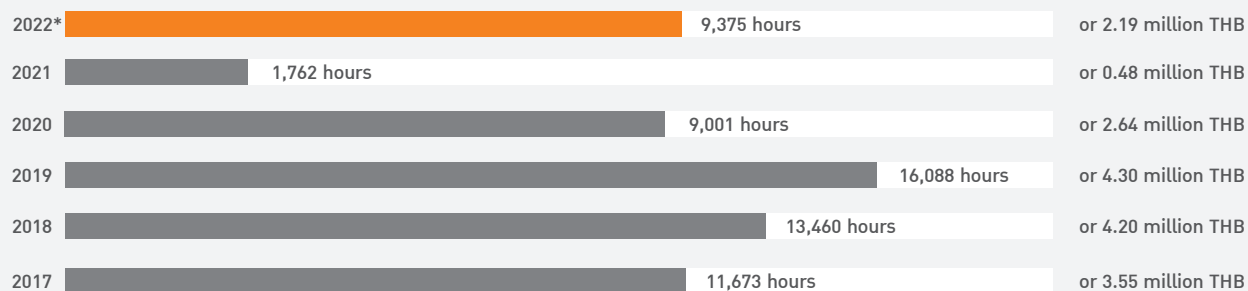






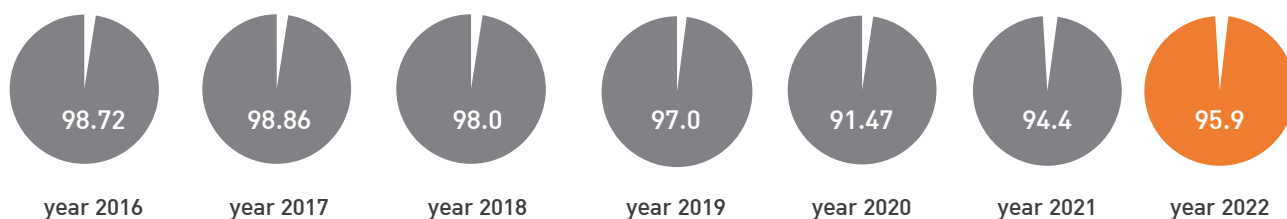


### Total Volunteer Work Hours of Employees around Refineries (Hours/THB)



\* Due to the COVID-19 situation, the company was required to change the format for its activities.

### Satisfaction for Community Relations Activities around Refineries (%)



## Receiving Complaints

In 2022, Bangchak's refinery and the company continued to prepare to handle complaints according to standards and procedures, while also implementing preventative measures to minimize the chances of incidents and complaints occurring at any level. Although there were no widespread or general complaints during this period, the company remains committed to seeking prevention methods and ways to prevent future occurrences. To maximize effectiveness and minimize environmental impacts, the company continued to use the enclosed ground flare system in 2022, as it did in 2021, to prevent the burning of excess raw materials during the production process. Additionally, the company installed backup power supply systems for loudspeaker systems to ensure that community announcements can still be made during power outages. Bangchak also operated projects aimed at obtaining approval for the installation of additional power production and management systems inside its refineries. This initiative is part of the company's ongoing efforts to enhance stability in its production processes.

### Ongoing Projects

Area	Expectation	Ongoing Project
Safety 	<ul style="list-style-type: none"> <li>– Believe in the safety of oil refineries.</li> <li>– Have safety immunity and able to deal with emergencies from situation or disasters.</li> </ul>	<ul style="list-style-type: none"> <li>– Training for emergency plans and firefighting drills for schools/condominiums, Year 18<sup>th</sup>.</li> <li>– Provide fire extinguisher and equipment, Year 18<sup>th</sup>.</li> </ul>
Economy 	<ul style="list-style-type: none"> <li>– Making money and providing opportunities for people in the community using knowledge and abilities to create beneficial work for themselves and their families.</li> <li>– Financial management and investment knowledge promotion.</li> <li>– Support and sponsoring of the forming of groups for economic development and community enterprises with the aim of developing them into enterprises for society.</li> </ul>	<ul style="list-style-type: none"> <li>– Community enterprises make extra money, increasing business potential, expand support and group integration to establish more professional groups (Community Enterprise Project Year 7<sup>th</sup>).</li> <li>– Support of use of community products and services in company activities to distribute income in communities (Year 18<sup>th</sup>).</li> <li>– Opportunities for community restaurants to sell food in the cafeteria of the headquarters without charge in order to generate income for communities.</li> </ul>
Environment 	<ul style="list-style-type: none"> <li>– Aware of environmental problems and worthwhile use of resources.</li> <li>– Development of environmental learning in the educational/learning system.</li> <li>– Promoting conscience and good behaviors regarding the environment.</li> </ul>	<ul style="list-style-type: none"> <li>– Sen Thang Hing Hoi, Path of Conservation Project, Year 9<sup>th</sup></li> <li>– Our Khung Bangkachao Project, Year 5<sup>th</sup>.</li> <li>– Phueng Chan, Bang Nam Phueng Refinery Project, Year 4<sup>th</sup>.</li> <li>– Environmental Learning Schools for Sustainable Development (Eco-Schools) Project, Year 3<sup>rd</sup>.</li> </ul>
Quality of Life 	<ul style="list-style-type: none"> <li>– Enhancing quality of life, physical health and psychological health.</li> </ul>	<ul style="list-style-type: none"> <li>– Khrop Khrua Diao Kan Project, Year 30<sup>th</sup>.</li> <li>– Yaowachon Khon Di Bangchak Project, Year 7<sup>th</sup>.</li> <li>– Bangchak Huang Yai Su Phai COVID-19, Year 3<sup>rd</sup>.</li> </ul>
Education 	<ul style="list-style-type: none"> <li>– Age-appropriate learning and development among children. Proper grooming and behavior.</li> </ul>	<ul style="list-style-type: none"> <li>– Bangchak Youth Scholarship Project, Year 18<sup>th</sup>. (In 2022, scholarships were increased to 850 scholarships from 631 scholarships to ensure consistency, provide access and reduce expenses for students and parents in the face of the current economic situation and inflation).</li> <li>– Teacher and School Potential Development Project, Year 18<sup>th</sup>.</li> </ul>
Sports 	<ul style="list-style-type: none"> <li>– Drug-free living among the youth.</li> <li>– Able to make money/ income when there is opportunity.</li> <li>– Having opportunity for good education from sports.</li> </ul>	<ul style="list-style-type: none"> <li>– Bangchak Youth Football Club Year 15<sup>th</sup>.</li> </ul>
Relationship-Building and Preservation of Culture and Traditions 	<ul style="list-style-type: none"> <li>– Strengthen good relations between refineries and surrounding communities.</li> </ul>	<ul style="list-style-type: none"> <li>– Khrop Khrua Bai Mai Pamphlet, Year 16<sup>th</sup>.</li> <li>– Phuean Ban Condo Project, Year 10<sup>th</sup>.</li> </ul>



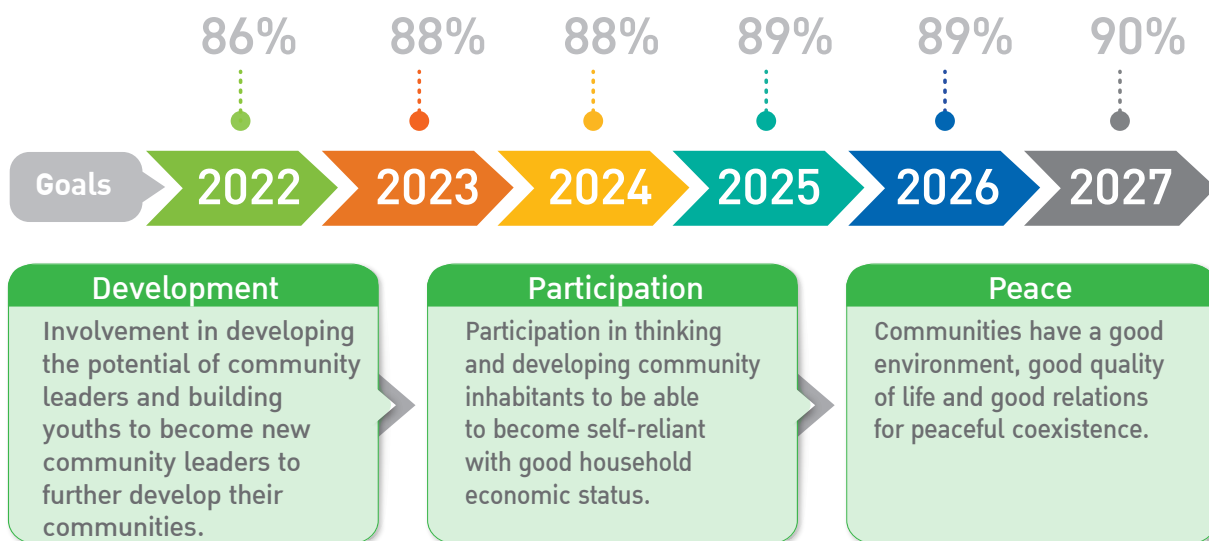




## Future Plans

The company focuses on the participation in caring for the communities around the refinery in parallel with its business operating and part of the plan is identifying potential young leaders in the community and providing them with opportunities to further grow and become self-reliant with good and establish a better life. For the work plans in 2023 and beyond, the company aims to continue its operations in all area while striving for success with the help of assistance and support. The goal is to promote financial stability and sustainable economic development and neighboring groups, through initiatives such as by developing community enterprises and social enterprises.

### Community Relations Goals for 2022-2027



## Supporting the Society

In order to respond to the BCP316 Network plan, social activities are focused on achieving Sustainable Development Goal (SDGs) No. 13 Climate Action, beginning with employee participation within the organization. Accordingly, employees are encouraged to exhibit environmentally responsible behaviors in their daily life, such as properly sorting trash, using green energy, and reducing electricity usage (climate action behaviors). These climate action behaviors have been included as key performance indicator assessments (KPIs) for employee assessments, in addition to corporate social activity (CSR activity).

The BCP316 Network plan aims to achieve carbon neutrality by year 2030 and to become a net zero GHG emission organization by year 2050. To achieve this goal, CSR activities have been modified to align with the development of natural carbon dioxide absorbers and reservoirs in land and marine ecosystems (C: conserving nature and society) by reducing 10% of all of the organization's greenhouse gas emissions. As such, Bangchak Group has begun to study and create work plans in green and blue carbon in various forms, with the aim of integrating community and social development efforts through engagement with various stakeholders including customers, communities, government agencies, academics, and non-governmental organizations. The goal is to support a sustainable way of life of the people through four key formats as follows:

Format	Land Ecosystem Development (Green Carbon)		Marine Ecosystem Development (Blue Carbon)	
	Reforestation	Community Forest Conservation	Mangrove Planting-Conservation	Sea Grass Studies
Area of Operation	Prachin Buri/ Chachoengsao	Chiang Mai	Samut Sakhon/ Samut Songkhram	Trat
Amount (Rai)	3,172 rai	2,650 rai	300 rai	22.3 rai of study area.
Duration (years)	10 years	6 years	10 years	5 years
Key Partners	Royal Forest Department	Community forest committees and Mae Fa Luang Foundation	Department of Marine and Coastal Resources	Coral Conservation Group/ Koh Mak Sub-district Administrative Organization/ Designated Areas for Sustainable Tourism Administration and Kasetsart University.
Guidelines	Plant, nourish, conserve and restore forest areas to absorb greenhouse gases in accordance with government's carbon credit sharing rules.	Manage forest carbon credit to develop community potential in forest conservation and fund management for sustainable improvement in quality of life.	Plant, nourish, conserve and restore forest areas to absorb greenhouse gases in accordance with government's carbon credit sharing rules.	Study feasibility of using seagrass to store greenhouse gases, find solutions to restore sea grass sources/produce sea grasses.
Activities in 2022	Received approval/ prepared sites.	Developed an understanding with communities and provided training on processes, as well as how to measure and assess the current carbon credit.	Received approval/ prepared sites.	Developed an understanding and cooperation with partners on Phase 1 research findings, which include the factors for selecting capable areas for sea grass restoration, as well as areas/ measurement and assessment of soil carbon accumulation where sea grass is located.
Work Plans for 2023	Cultivation and maintenance work. T-VER registration.	T-VER registration./ Forest-jobs fund management.	Cultivation and maintenance work. T-VER registration	Work to develop techniques for measuring carbon./Survey of capable sites./Sea grass production./Trial cultivation of sea grass in capable area and survival rate.
Project Goals	Increase forest areas and ownership of carbon credit resulting from related activities.	Conserve forests, reduce forest fires in water source forests to reduce PM 2.5, and improve the well-being of communities near forests. Additionally, receive carbon credit from community forests.	Increase forest areas and ownership of carbon credit resulting from related activities.	Explore sustainable tourism community models, low-carbon destinations, and suitable model for using seagrass sites to absorb greenhouse gases in Thailand.

### Koh Mak, the Path to Low-Carbon Destination

Bangchak Group began work at Koh Mak by sponsoring a project to study the feasibility of the use of sea grass in collaboration with the Department of Fisheries of Kasetsart University, and through local visits to reveal the potential of communities and strong collaboration with partner agencies, such as the Designated Areas for Sustainable Tourism, which aims to drive and push for Koh Mak to become a model for sustainable tourism consistently with the Global Sustainable Tourism Criteria. Thus, Bangchak Group expressed interest in expanding the project to transform it to a low-carbon destination through collaborating with 5 agencies: Koh Mak Sub-district Administrative Organization, Ban Ao Nit Mixed Agriculture Community Enterprise, the Designated Areas for Sustainable Tourism Administration (Public Organization) DASTA, Kasetsart University, and Thailand Greenhouse Gas Management Organization (Public Organization), TGO. The work plan is set for 3–5 years and includes studies on greenhouse gas emissions from important activities, reducing greenhouse gas emissions in daily living (waste management, clean energy use, transportation, etc.) and rehabilitating and conserving land and marine ecosystems. In 2022, Koh Mak became certified as The Green Destination TOP 100 of the World with the support of DASTA and the people of Koh Mak. This is an important success in developing



sustainability work in other dimensions, which Bangchak Group will sponsor in work structured manner to build the BCG Economy.

### **Carbon Markets Club**

In order to promote exchanges of carbon credit management techniques and trading practice in the Thai market and increase awareness, Bangchak Group and 11 founding partners expanded their work and started accepting membership applications from organizations and individuals to join the network. Currently, there are members from 53 organizations and 150 people. In 2022, they supported the trading of carbon credit and certificates for digital renewable energy production, resulting in a reduction of greenhouse gas emissions by over 400,000 tons of carbon dioxide equivalents.

### **Annual Environmental Seminar Year 12<sup>th</sup>: Energy Security and Carbon Sequestration**

This event was organized to raise awareness in society. Bangchak Group holds an environmental seminar every year, covering issues consistent with changes in the world and business, to reaffirm the period of transition from fossil energy toward clean energy, which requires both time and capital, not to mention the use of appropriate technology. Tax mechanisms (taxonomy) or categorization of business investments that reduce carbon emissions and that are environmentally friendly are being used as important factors for more swiftly pushing for the energy transition, while generating greater value in investments that reduce carbon emissions and promoting greater investments through various resource privileges in the private sector, in line with the new vision of “crafting a sustainable world with evolving greenovation” of Bangchak Group. Thus, the company gives importance to establishing balance among the 3 energy challenges, namely, energy security, energy affordability and environmental sustainability to ensure balance among the energy sources used in the world that contribute to carbon dioxide emissions while maintaining the environment and ensuring sustainability in the world.

### **“Phuet Phan Pan Suk” Project**

This project was organized to commemorate the 90<sup>th</sup> birthday anniversary of Her Majesty the Queen Mother Sirikit and National Mother’s Day on 12 August 2022. Accordingly, Bangchak Group launched the “Phuet Phan Pan Suk” project as another collaboration with multiple sectors involved in environmental conservation in Bangkok and the Expressway Authority of Thailand, the Royal Forest Department, Bang Nam Phueng Sub-district Administrative Organization, among other, to add green spaces. The project also aims to support communities around oil refineries, executives, and company employees, as well as the general public by planting trees. The goal was to increase green spaces, reduce dust and carbon dioxide by natural means while promoting ecological balance.

On the social dimension, Bangchak Group continues to work regularly to support communities. They have helped purchase overproduced goods in the market that are suffering from low prices to process them into gifts for customers. These were “dry-baked longan and Nuan Chai plum” products that were processed from plums (mountain cherries) to alleviate the suffering of farmers while boosting their income. In addition, Bangchak Group designed community care processes for neighbors of Bangchak gas stations. Key communities were chosen, and strategies were implemented to cover 4 work areas that reflect the model for safe and high quality gas stations to serve as environmentally and socially-beneficial models, with implementation and monitoring of progress and assessment of outcomes taking place monthly.

### **Education**

On the occasion of the 5<sup>th</sup> anniversary of the founding of Bai Mai Pan Sook Foundation, which has led to the development of educational activities alongside partners, 3 important projects were launched. These are the “An Khian Rian Sanuk Pan Dek Jew Pen Dek Jaew Project”, Rak Pan Suk Junior Project”, and “Solar Pan Suk Project.” These projects aim to emphasize the foundation of sustainability by developing youths academically and environmentally in line with the UN Sustainable Development Goal No. 4 Quality Education, which is the primary objective. They aim to drive consistent implementation with sustainable development and national policy according to the BCG Economy Model covering over 15,000 youths from nearly 200 schools in 52 provinces nationwide.

Table Showing Percentages and Proportion of Costs in Business Activities and Processes to Support Society in 2022

Type of Philanthropy Activities	Percentage of Total Cost
Public donations	2.83
Social investments	11.72
Business processes to respond to society	85.45

Type of Contribution	Total amount in Million THB.
• Money	214.68
• 9,375 hours of volunteer employees	2.19
• Organization items/products	4.47
• Management	14.70
Total	235.75

### Future Plan for Community and Social Development Caring for Society

Bangchak, as part of the BCP316 NET plan, has establish a path towards achieving sustainability. Consequently, social projects are being prioritized to reduce emissions and increase sequestration of greenhouse gases. This includes implementing various methods measure and certify carbon. To achieve this, internal work processes need to be developed, employees need to be trained for greater expertise; and business feasibility studies must be conducted with greater consistency with greenovation goals.

### Spill Prevention and Management

The company understands the impacts of spills of raw materials and products in the petroleum refinery industry, which can lead to economic, social, and environmental impacts such as damage to raw materials and products, impacts on the health and safety of operational employees, and communities, and chemical contamination in the soil and waterways at an incident sites. Therefore, the company is determined to reduce risk of spills and has create measures for effectively handling emergencies caused by spills covering the entire company value chain from crude oil transportation to refinery and transportation of oil products for storage in oil terminal and service stations as follows:

- Select oil tankers that feature ship inspection and assessment systems that meet the specifications and standards of the petroleum industry.
- Establish transportation safety measurements from ship acceptance to use of tug boats for directing vessels in and out of ports at the same plane as the port and attaching ship ropes according to standards before transferring oil and installing booms around vessels to prevent oil spills in waterways and to keep oil within a confined area for rapid collection and restoration, a connection of hoses with ships and constant monitoring during pump operation.
- Establish prevention and mitigation plans in case of oil spills with annual emergency drills and give opportunities for the community to observe.
- Prepare emergency equipment and hold training sessions on how to use oil removal equipment and give opportunities for the community to observe.
- Develop the capabilities of personnel in responding to situations by participating in training and holding joint training operations continuously with other parties involved such as the government and other companies in the petroleum industry.
- Develop and improve safety technologies for equipment, systems and tools continuously in line with the Oil Company International Marine Forum (OCIMF) such as improvement of port-side fire-extinguishing systems to ensure that they are modern, and additional CCTV installations.
- Design oil tanks and oil hoses and install equipment according to international standards such as automatic tank gauges and overflow alarm systems to measure the level of oil and to prevent oil overflows, and design areas to be able to contain oil in cases of spills (containment dikes), along with gas detector systems and prevention and surveillance