



# Sufficiency Economy Philosophy: Thailand's Path towards Sustainable Development Goals

Second Edition

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26 May 2017



# Sufficiency Economy Philosophy: Thailand's Path towards Sustainable Development Goals



Ministry of Foreign Affairs, Kingdom of Thailand

**Second Edition**

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Special Interview with

*Her Royal Highness  
Princess Maha Chakri Sirindhorn*

On His Majesty King Bhumibol Adulyadej's  
Guiding Principles for National Development

Her Royal Highness Princess Maha Chakri Sirindhorn graciously granted an audience to Dr. Sumet Tantivejkul, Secretary-General of the Chaipattana Foundation, in his capacity as adviser to the working group on the production of a commemorative book, *The Development King: for the Benefit of the People*, and other executives of the Office of the National Economic and Social Development Board (NESDB) and members of the working group comprising Mr. Arkhom Termpittayapaisith, Mrs. Penja Onchit, Mr. Poramettee Vimolsiri, Mr. Sutin Leepiyachart, Ms. Kanyarak Srithongrung and Mrs. Chantip Palanandana, on Monday 20 June 2011, at Chaipattana Building, Chitralada Palace. They conducted an interview with Her Royal Highness on His Majesty King Bhumibol Adulyadej's method of operating and guiding principles in development work, and Her Royal Highness's experience in accompanying His Majesty on various royal visits.

The Ministry of Foreign Affairs expresses its sincere appreciation to the Office of the National Economic and Social Development Board for permitting the use of the latter's copyrighted material to translate into English so that others may continue to benefit from applying His Majesty's guiding principles to their development needs.

## **Solving people's problems through a body of knowledge**

His Majesty's guiding principles and concepts in development, as are commonly known, focus on how things can be improved upon with a view to achieving greater prosperity and on what course of action should be taken when people encounter hardship. His Majesty relies on his existing knowledge or, if such knowledge is lacking in important areas, seeks further knowledge through research and consultation with gurus on the subject matter. His Majesty then applies knowledge thus acquired with the resolve to bring about greater benefits to his people. His Majesty does not care how much difficulty he himself will encounter. If such course of action is deemed appropriate, he has the moral courage and conviction to see it through. If His Majesty encounters problems or objections, he will consider revising his approach, and not circumvent the problems. His Majesty is patient, determined, careful and circumspect in his approach.

His Majesty has accumulated his fundamental knowledge by conversing with officials working on the case. From there, His Majesty has gradually built his own body of knowledge. After a long period of time, His Majesty has become so experienced and adept that he can give an estimate of the cost of a development project all by himself.

## **Applying knowledge in an integrated manner without forming any hypothesis**

In addition, His Majesty always deploys knowledge and technical know-how in a multidisciplinary manner, or what is referred to nowadays as "integration", without omitting any aspect. For instance, if a project is feasible from an engineering perspective but not economically viable, or if a project is economically sound and appropriate from an engineering perspective, but un conducive to the happiness and progress of the locals, then that project is not implementable.

When His Majesty comes across people in distress, he will help them right away if possible. His Majesty does not form any hypothesis beforehand and then acts in accordance with it. The New Theory, or any other theories, resulted

from His Majesty's constant efforts in solving problems until those solutions eventually became theories. I am of the opinion that His Majesty does not form any hypothesis as dictated by some philosophy or theory and then finds suitable examples to put such theory into practice. Rather, I feel that His Majesty has acquired countless examples from his travels throughout the country to witness firsthand the real problems.

## **Developing with a view to achieving sustainable development**

The objective of His Majesty's development approach is to achieve "sustainable development" to improve people's livelihoods without destroying the environment and to make people happy with due consideration to geographical conditions, religious beliefs, racial groups, economic and social backgrounds. Although there are various development approaches, the most important attributes of a development practitioner are love, caring, responsibility and respect for fellow human beings. It is plain to see that development directly relates to mankind and is a matter of having the right mindset.

Development work is not only about sacrifice but is also about self-interest. As humans are social animals, we all have to live together. If we lead easy and happy lives with all creature comforts while others suffer, we simply cannot go on living. Development practitioners should have a public mindset and care about others, wanting to see others have better lives and well-being.

His Majesty always teaches that development work must answer the needs of the target group and that all parties involved must be satisfied. Development work is difficult and time-consuming. Development workers or "development practitioners" must be patient, determined to do good deeds, always kind to others, ready to relieve others of their sufferings and make them happy. They must possess vast knowledge as development work cuts across many disciplines. Above all, development workers must have good human relations, understand, and respect others as development work cannot be carried out successfully on one's own.



*Mae Hae Royal Project Development Centre*

In addition, **development practitioners must be honest and earnest.** If development practitioners themselves were prone to corruption or cheating, they would be despised, distrusted or would not set good examples for others. When development work is complete, prosperity and happiness will be enjoyed, not only by the target group but also by the development practitioners themselves.

By doing so and with the good intention to help others despite any hardship one may face, a development worker must hold on to a course of action that he deems good and right, with strength of will, conviction, and relentless perseverance.

## **“Explosion from within” – empowering villagers first**

His Majesty’s signature approach to developing local villagers is to travel to the far reaches of the hills and forests. His Majesty would travel first to places that were inaccessible by road. The journey was made intentionally arduous as he did not want others to take advantage of the people who lived in remote areas while they were still vulnerable. Once they were properly empowered to stand up for themselves, they would be able to join the outside world of their own accord through “explosion from within.”



*Situated 5km from Angkhang Station is Nor Lae Village, home to the Palaung tribe. Handmade Palaung products are sold in front of the villagers’ houses, where tourists can learn about organic vegetable farming and try growing and harvesting vegetables and making organic fertiliser.*



But development work these days entails building roads as a top priority. The thinking behind this is that they will eventually bear fruit somehow. This happens not only in Thailand but also in China. From the documents of the ADB or the Asian Development Bank, roads are also used as an indicator of development level.

Nevertheless, development method has today been transformed as it could not possibly stay the same. Therefore, we also have to improve ourselves. For instance, a project adviser sought my counsel on what to do with surplus agricultural produce in an area where it is not feasible to set up a factory. I opined that the factory's current location was already ideal and that I was getting proper roads built that would make the farm produce accessible by road transport. The next step would be the acquisition of ten-wheel trucks to carry the produce and deliver it to the factory. The ten-wheelers must also conform to safety standards. The point is not to adhere too strictly to His Majesty's guidance against building roads into the areas before the community is ready. We must be rational. His Majesty will not object to an action that needs to be carried out for good reason.

## Developing the prototype of “public hearings”

Prior to working on the development of various localities, His Majesty always studies an aerial map of the area to determine which areas to visit or how to solve problems in those particular areas.

For instance, how to convey water from one area to rice paddies in another area, whether it is beneficial and makes economic sense in terms of the construction cost, and how long the return on investment will take. **Most importantly, we must ask the villagers whether they need our intervention. If they do not or feel uncomfortable with it, we shall move on to other areas. That is His Majesty's approach to conducting public hearings: by himself, on-site.**

Occasionally, people would express their opinions to His Majesty. Some people were constructive while others were not, particularly when they themselves alone stood to benefit from certain undertakings. Then His Majesty could not go along with them because if he did, only they

would be better off while their neighbours would be left out. His Majesty would consider these matters very carefully.

## Developing both the people and their area

His Majesty firmly believes that development must aim at the people and their surrounding area by ensuring that both the people and their community benefit from it. His Majesty once stated that if an area is developed, the people who stand to benefit are those who previously faced hardship. At the same time, the people in the area must also be developed. Only then can future generations have a good education and secure careers.

His Majesty does not agree with the development approach that evicts the poor out of an area and replaces them with the more developed residents. This approach, he believes, precludes poor people from development opportunities.

## Risk management - tried and tested method

Most of the time when people saw that His Majesty's practice or experiment had borne fruit, they would adopt the same practice. Sometimes, there would be complaints about His Majesty's experiments that seemed to take longer time than necessary. **His Majesty always argues that if the practice was not genuinely successful, he would not permit his people to adopt the practice and face negative consequences.** For instance, if His Majesty were to introduce a new variety of fruit tree, and he could not be sure whether it would grow or bear acceptable outcome, he would rather be the one who bares the damages that may arise. Having said that, not experimenting with novel approaches is also unacceptable. **His Majesty would conduct experiments until he was sure that the method yielded positive results before he passed it on to others. This is His Majesty's version of “risk management”, that is not letting others take risk.** His Majesty never allowed those who were already at a disadvantage to take further risk and suffer the consequences.

When His Majesty went to Chiang Mai over fifty years ago, he was hiking in the mountains when he came across several hill tribe villages. His Majesty noticed that the hill tribes were growing



*Cheerful blooms of cold climate plants introduced by the royal project have replaced opium which decades ago used to be ubiquitous in the mountains of northern Thailand.*

opium poppy, which made them neither rich nor healthy since some of them smoked opium themselves while selling it cheaply to middlemen who were drug traffickers. In those days, other countries would eradicate illicit opium by burning down opium poppy fields. His Majesty, however, always maintained that if we could not help others by improving their livelihoods, neither could we destroy their old ways of life. Helping others means that we must practise the method ourselves to perfection before passing it on to others. His Majesty would try to grow different kinds of fruits and vegetables to perfection before introducing them as crop substitutions to the hill tribes to grow in place of opium poppy. He conducted the whole process gradually.

Many friendly countries would offer fruit trees to cultivate on a trial basis as alternative crops to opium. This led the United Nations Office on Drugs and Crime (UNODC) to enquire after the authority working on the scheme. At that time, there were no particular agencies in charge, only His Majesty was working on it. The UNODC then offered their assistance. But all the work could have been carried out by Thai people, including the technical side because there were academics from various universities lending a helping hand, be they Kasetsart University from the central

region, or Maejo University from the North, as Chiang Mai University did not exist then. When Chiang Mai University was established, their personnel also came to work on the project for His Majesty.

## **Listening to the people before solving their problems**

When His Majesty was about to set out on a trip, sometimes even members of his entourage had no idea where he was going as he did not wish to trouble the people whom he was visiting. When I accompanied His Majesty, sometimes he would tease me by giving me a map and telling me he would like to visit such and such area with me as the navigator. I would direct the way-- left, right or forward three meters and so on. This, of course, was inaccurate but His Majesty pretended to follow my directions anyway. One day, we ended up in the middle of a paddy field with no one in sight except for a monk who was fixing tiles on the temple's roof. Once the monk saw His Majesty, he immediately climbed down from the roof and started to beat the drum on the drum tower vigorously. That was when I saw the old couplet in action:



“Over the banana leaves brushes braided hair;  
A monk beats the drum, ta-loong toong-chaе.”<sup>1</sup>

A while after the drum roll, the locals started gathering around to pay respect to His Majesty and told him their plight. **His Majesty listened to them and proceeded to solve their problems as presented to him.** They had no sooner told His Majesty of their problems than he left to see with his own eyes how they were affected. Then he would start a discussion with them on the best possible means to solve the problems.

A good example is the issue of sharing water that was used to soak jute in – a practice which we no longer see these days. Once the water was used to soak jute, it would be spoiled and could no longer be used for agriculture nor to feed cattle as the animals would fall ill. Hence, the rice farmers and the jute growers were always at odds with one another. His Majesty, therefore, asked them to separate the use of water by allocating one part for rice growing and the other for jute. Such was the case at the Pak Phanang Project, where His Majesty allocated specific areas to fresh water and sea water according to the villagers’ activities, a process of land reform that is now called “land consolidation”.

## Working towards secure livelihoods for Thai people

**His Majesty’s driving principle is to educate his people.** The publication of the encyclopaedia series is also part of His Majesty’s development work, as well as granting scholarships and building numerous schools. His Majesty initiated development for security, what is now referred to as “human security”, a concept we know and are familiar with. **His Majesty not only worked towards the stability of the nation but also towards building secure livelihoods for Thai people so that Thais could be healthy, knowledgeable, and properly educated with the desired capabilities.** We hope that they would train many more generations of development practitioners who are committed to working towards the betterment of the nation, well-

equipped with knowledge, a public mindset and determination to strive for the greater good.

To teach others to undertake their work is another priority that His Majesty maintains. One of my roles is to synthesise data that I collect here and there. The responsibility for numerous development projects is divided up amongst those involved according to regions. When there is a request for development assistance in a particular area, further studies must be conducted because sometimes there are people who may not need the assistance or see things differently.

## Putting emphasis on education for disadvantaged children

Education is the most important factor that supports the sustainable development of a country. It is crucial to incorporate science and technology into every level of education – from kindergarten to tertiary education. Students must be trained to have practical skills and critical thinking skills in the manner of scientific inquiry. They must also have good imagination that leads to creativity and innovation, so that education can achieve its objectives.

In the past, I always worked with His Majesty on development projects. Later on, I started working on my own in areas that I could, with varying formats and styles. Decades ago, when His Majesty travelled to places where people did not have enough to eat, he established the “Foundation for the Welfare of Needy Schoolchildren”. The foundation was first run by Mom Rajawongse Kukrit Pramoj, succeeded by Khunying Amporn Meesuk, who is now in her nineties but still carries on her work and is about to celebrate the foundation’s 50th anniversary.

In the beginning, His Majesty had the foundation provide school meals for students. **He taught schoolchildren how to grow vegetables and fruits so that they knew how to farm and could do it by themselves. This not only added material value but was also a scheme to unite people.** When the locals learnt that we needed farm implements like hoes and spades, villagers or dealers in farm equipment would step forward to help. Where we showed our lack of experience by not being on the right track, those learned

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<sup>1</sup> The two-line verse describes the local gathering of villagers in ceremonies.



*Inthanon Royal Project*

elders with the know-how would turn up to render assistance. Later, others also joined in to help and many people benefited from the project.

Some development sites were only accessible by motorcycle, which took hours of riding. If the site itself did not have electricity, then our assistance involved electrification of the area. If hydropower was not feasible, solar power would be introduced. **All development assistance came from His Majesty, wherever he went in those days, he would build schools.** In remote rural areas, we must start our development at the very beginning. We must build a school or a learning centre in the village. For example, the Border Patrol Police Schools in honour of His Majesty the King was an idea that the police came up with, and asked for His Majesty's assistance. Wherever His Majesty went, if there were no schools, he would build one such as Rom Klao schools and many others, including those under the Royal Project and those for the needy in Bangkok. This happened when I was very young so my memory is a bit hazy, but I recall that Chulalongkorn University students helped out with a project previously known as the "rubbish dump of Din Daeng" and the work continued until it became the community housing project that it is today.

## **Studying surrounding areas during his travels**

**Wherever His Majesty travels, he always does some research.** For instance, when His Majesty travels by plane or in a helicopter, he would appraise the area down below – including its advantages and disadvantages – and how best to improve the conditions in that area or how to enhance its strong points. I have taught this practice to my students.

**His Majesty also taught me that much can be learned while one travels by car either up the mountains or on the plain. The local vegetation in a particular area changes in accordance with the soil and rock conditions and can tell much about, amongst other things, the kind of cash crops and the living conditions of the people in the area.** All of these can be studied from nature in that area. Once His Majesty studied all these aspects and analysed them, development projects would be drawn up. His projects were not *a priori* by any means.

## **Doing his utmost to help Thai people and make them happy**

There are many ethnic Karangs living at Kaeng

Krachan. His Majesty travelled to the area to see what crops they should plant and how to help them make a decent living with enough produce to sell at the local markets, or to seek other occupations. His Majesty personally supported the education of children in that area, and all activities that would lead to better livelihood as well as giving them medical treatment should they fall ill. **His Majesty engaged in a comprehensive development approach by improving every aspect possible.**

Certain undertakings such as treatment and prevention of diseases might not have been considered as part of development efforts. My grandfather (His Royal Highness Prince Mahidol Adulyadej, Prince of Songkla) promoted tuberculosis prevention, while His Majesty the King supported the prevention of cholera and other diseases, including polio through physiotherapy. His Majesty also supported the academic side of disease prevention. **His Majesty's principle is to do his utmost to help people in every way possible, and to make them happy.**

## **“Royal Development Study Centres”: a place of learning through experiments**

To implement area-based development in different regions, **His Majesty would choose a particular site as an example for people residing in other areas to follow. This site would be set up as a study centre, an experiment centre and a learning centre, referred to collectively as “Royal Development Study Centres”. Each site is distinguished by its particular conditions and environment.**

This can be considered a kind of education, that is an education for people from different government agencies, with different knowledge, and different mindset, who have come to work together on the same site, using their various kinds of knowledge to improve that specific area so that all people could be happy. For instance, the Pikun Thong Royal Development Study Centre in Narathiwat was set up to address the local problem of acid soil, and to identify measures to resolve this problem. **Officials from various relevant government agencies, including the Royal Irrigation Department, Land Development Department, Royal Forest Department and**

**Department of Livestock Development, would not just work on areas that fall under their separate responsibilities, but would instead pool their knowledge and techniques to implement the same project. This is a new form of collective learning process that both the people and development practitioners can study and adapt the knowledge to suit the needs in their areas.** Satellite villages also adopt the practice from the study centre. Once the projects in those villages came to fruition, people in the area, who could now pay off their debts, would become trainers and care to pass on this knowledge to others. Some people who succeeded in growing fruit trees, would share the surplus produce with their neighbours who are in need.

I am now considering additional development features for the study centres, such as adding a rice mill in each centre. I want all of them to extend their reach so as to benefit more people in addition to those living in satellite villages. His Majesty the King wishes that the villagers come and study at the study centres and translate what they learn into practice, while multiplying the effects in an ever-expanding manner. The process involves not only our people, the relevant agencies or the lecturers but those who lend a helping hand to the endeavour, such as local leaders, natural leaders, local scholars, and, sometimes, local children who volunteer to come on board and expand the network of success to other areas. This is the work I have now taken on.

## **Hua Hin ... the Origin of His Majesty's Initiatives**

**My earliest childhood memory was already of His Majesty's frequent visits to villagers.** My nanny told me that I was two months old when I went to Hua Hin for the first time. From his residence at Klai Kangwon Palace, His Majesty would make short trips to visit local villagers who suffered from water shortages. What water they had was too saline to do anything with. His Majesty, therefore, worked on improving the water source by proposing the construction of the Khao Tao reservoir, which then became the first royally initiated project.

His Majesty's initiatives most likely originated in



*The Royal Agricultural Station Angkhang*

areas around Hua Hin, where there was a chronic water shortage. I recall that my nanny or palace retainers or employees would carry out His Majesty's wish by volunteering, on the days that they were off-duty, to go to different villages to help build water tanks as an informal tribute to His Majesty, and would donate money towards the building of water tanks in different places.

I, myself, used this model as a mathematics lesson when I was young and was on school holidays for three months. There were two questions. One, there was a water tank that was leaking and got filled with water, then the rain filled the tank and then the tank would leak again. The question was: how much water was leaking out of the tank. It took me three months to figure out the answer. The other was to calculate a person's monthly expenses. I had to start a project to find out the prices of basic foods, such as shrimp paste and fish sauce, of the clothes that a person must wear, and expenses for this person's children. I had to come up with the figures and tried to manage this person's life.

There was no computer back then, so there were no computer games for me to play. This would be the game I played for three months, much like keeping a ledger. His Majesty said that we should all be able to keep a household account of our expenses.

In addition, His Majesty proposed the establishment of an "agricultural cooperative village" by applying the methods used in cooperatives in Hup Kaphong village to address the problem of falling and fluctuating prices of agricultural produce, which yielded great success. It was later promoted to become a model cooperative village under the name "Hup Kaphong Cooperative Demonstration Centre", which is the first project related to the establishment of cooperatives. He was also promoting handicrafts by then, and it was around that time that Her Majesty Queen Sirikit started working on occupational promotion.

## **Planting trees to conserve the soil**

A long time ago, when His Majesty was staying at Klai Kangwon Palace, and I happened to be there, some villagers, who I was not too sure if they were Karen or Karang, came to apprise the king of their wish to move back to Burma<sup>2</sup>, because government officials were clearing the forest and cutting down trees. Those days, before building an estate or setting up an agricultural zone, they would do what His Majesty referred to as "to peel"<sup>3</sup>. The Karens or Karangs, who love nature, felt uncomfortable and so came to bid farewell to

<sup>2</sup> Now known as "Myanmar"

<sup>3</sup> To cut down trees and clear the land



His Majesty the King to move to Burma. **Later, His Majesty would tell everybody that there was no need to “peel” the land and expose the soil but to “cover” it to conserve the soil. In other words, to cover the soil is to plant trees. Vetiver grass helps improve the soil and can be used to produce handicrafts.**

## **Vetiver grass helps improve the soil and can be used to produce handicrafts**

In addition, **His Majesty the King recommended and promoted the use of vetiver to improve the soil** as its roots grow thick and straight without spreading far, so the grass can hold the soil together, preventing soil erosion, while retaining water and moisture like an underground dam. This led to the softening of hard soil such as laterite. There are many kinds of vetiver that can be used according to their suitability. The leaves of vetiver can also be used to make handicraft products. These positive attributes have motivated farmers to grow vetiver.

## **Royal benevolence in helping petitioners who appeal for assistance**

His Majesty's development work must have begun inside the palace. People would come to apprise His Majesty of what they encountered, or he would witness them firsthand. Many of these fall under His Majesty's royal duties, such as legal cases. All Thais whose cases have been heard by the Supreme Court are entitled to submit a petition to His Majesty. His Majesty would assign people to study the petition on a case-by-case basis, starting from the Courts of First Instance. Based on the affidavits and pleadings, it was plain to see that some legal cases occurred because of poverty and hardship. His Majesty would deliberate on these cases not only to ascertain their legal basis but also to help improve the petitioners' livelihood. This is what he has done throughout the years.

## **“Underground reservoir” to prevent flooding and water evaporation**

His Majesty the King realised that water is vital to life and is an important factor of production. If water problems could be solved, other problems could also be solved subsequently.

An image that is familiar to all Thais is one of His Majesty the King carrying a map while travelling to different places. His Majesty has put together a map himself to plan the construction of reservoirs and dams and other projects. The planning process requires a variety of information such as project location, site altitude, direction of water flows, water volume, geological features, and so on. All this information can be recorded on the map. Site exploration, project design and construction necessitate several areas of technological expertise.

The “Underground Reservoir” in the caves of Ban Huay Luek, Chiang Dao District, Chiang Mai Province, is a royal irrigation project with special characteristics. The area is a notable karst topography, or a predominantly limestone area, which is characterised by numerous caves. His Majesty's initiative was to retain water in the caves, the benefit being that it would neither flood the farmers' lands, nor evaporate as much as water stored in the open. A major difficulty, though, was how to conduct a survey of the cave floors to determine their attributes and prevent leakages. Such surveys required a number of methods that were tested and compared against one another, such as measuring electrical resistance and using soundwaves.

During the surveys, we were lost in the labyrinth of caves and almost ran out of oxygen. Thanks to the surveys, we found that the limestone in the caves reacted with water and released acid once the two were in contact. The limestone would become porous and fail to retain water. In order for the caves to hold water, the pores had to be filled.

These cave reservoirs also exist abroad, but on a much larger scale, while ours began as smaller projects first. The downsides are their relatively high cost, and the caves which have been used as natural sources may become inaccessible. So there are both pros and cons, but there are mostly upsides.

In flood prevention, there is the royal initiative of “Monkey Cheeks” that store water during times of excess for use in the dry seasons.



*Uthokvibhajaprasid barrage at the Pak Phanang River Basin Royal Development Project.*

## **Inventing the Chaipattana Aerator and the “Royal Rain”**

In the water-related aspects of development, His Majesty invented the “Chaipattana Aerator”, comprising seven models, to add oxygen to water and prevent water pollution. His Majesty’s patent was registered in 2002, the ninth aerator in the world to be patented. The Chaipattana Aerator received a number of international awards, and the furthest location of its use is in a public park in Brussels, Belgium.

His Majesty had concerns for farmers who struggled with water shortage for consumption and agricultural use during the dry seasons. To help them out, he initiated artificial rainmaking more than 50 years ago, known as the “Royal Rain”. The artificial rainmaking technology requires a knowledge of physics and chemistry, and is effective in areas where there remains some humidity. Environmentally-friendly chemicals are dispersed from an aircraft at the right altitude and coordinates. Moisture in the air condenses to liquid as a result, and it rains. Each environmental circumstance (meteorological ones, such as wind direction and speed, or landscape) requires different chemicals. What usually works, is to

make artificial rain over reservoirs where water can be collected and used efficiently in agriculture.

Also, directing artificial rain into canals that feed peat bogs can extinguish peat fires better than pouring water from helicopters as was the practice in the past.

## **Mitigating the problem of Bangkok floods**

Recently, a school classmate of mine remarked to me that His Majesty the King did nothing to help Bangkok residents. But the fact of the matter is, he did. As for the flooding, once the Pasak Jolasid Dam was completed, the floods have not been as severe as before, when we had to get out through the windows, or climb trees to get to work, or use submersible pumps. That was around the time of my niece’s birth, and I had ordered new curtains for her room, which had to be delivered by a rowboat to Chitralada Palace. The floods were that bad.

During the Bangkok floods, His Majesty made a point of inspecting the flooding himself. His car broke down along the way but he managed to drive as far as On Nut Road to see the water for himself. It is hard to assess the situation in Bangkok, because of the flat terrain.

His Majesty would go out to monitor the situation on-site, while using maps to assist him. Maps refer to what already exists, be it a publication, a diagram, a chart, or what has already been recorded. He would determine whether those records were correct or not, and make amendments and corrections. This is a kind of information that is gleaned from documents, or literature reviews. His Majesty would scrutinise existing documents and did the reviews himself. Once the documents were reviewed, he then decided what to do next.

## **Enduring hardships to help the disadvantaged**

Wherever he went, His Majesty would walk ahead, while I would run after with the rest of the entourage, struggling to keep up with him. His Majesty was a solid walker, perhaps because he grew up in Switzerland, where the Swiss are keen mountaineers and hikers. When His Majesty walked, he would lead in front of Her Majesty Queen Sirikit, helping her uphill, and singing a country song when on top of the hill, *"It's Now Time to Die for Sure."*

Accompanying His Majesty on visits was therefore very hard. It was impossible for us to run into shades or to snack. It is not that he disallowed eating or taking shelter, but His Majesty himself did not seek shades or eat either. Sometimes, he actually wanted members of his entourage to eat, so that they would be ready for work afterwards. But often our hosts would say that it was impolite and "sinful" for the entourage to eat while the King had not eaten. Such was a common belief. His Majesty had to endure more hardships than others; he had to brave the sun as much as we did. As a result, I must have had plenty of Vitamin D to have such strong bones.

When accompanying His Majesty on his visits, if he climbed hills and mountains, we had to follow him. His Majesty said that doing development work required a healthy body, and so we had to keep our bodies strong and healthy. I was once trained to walk uphill while carrying a load, because if highland farmers would like us to see their farmlands on the mountains, we should try to go. What they singled out for us to see, we should go and see, even if it was just one coffee plant on top of a mountain. Sometimes, we had to climb

many mountains, but we must do it to give moral support to the farmers while making new friends. Whoever and wherever they were, His Majesty would visit them all.

You may have seen a picture in many publications of His Majesty driving a car that is in the middle of a waterway. That picture was taken in Narathiwat Province. When we opened the car door, we stumbled right into some thorny bushes. So not only did we find ourselves drenched, but there were also thorny bushes in the water. Wherever he got to, His Majesty would talk to everybody, so much so that a senior official once said that if he continued to talk to everyone at every stop as he did, we would be saying "Good Morning" by the time we returned to the palace. And sure enough, each visit ended up with a "Good Morning".

Furthermore, while at school, I did not spend as much time in class as others, having to accompany His Majesty on his frequent visits. My friends were very kind and would tape-record lessons for me. I was, nonetheless, able to come up with answers by tapping into the experience gained from these visits. His Majesty's initiatives, as well as the knowledge gained from the locals and other experts who went on the royal visits whom I had befriended, that is how I managed to pull through.

## **Like a family elder who alleviates suffering**

That the people respect His Majesty is not because he is king, but because he is like family, an elderly relative who helps alleviate suffering in times of need. Whatever they have in mind, they would tell him all. Like relatives visiting each other's homes, when we arrive, they will find what they have available to welcome us, like bananas or other fruits. His Majesty has friends in all regions. They will tell him all their troubles once we get there.

## **The RDPB began at NESDB**

It could be said that it was the Office of the National Economic and Social Development Board (NESDB) that first carried out development work. It was the agency that considered the prompt allocation of budget. In the first phases of our projects we faced some budget problems, because the funds had not come in time for





*Tomatoes at Inthanon Royal Project*

development works, such as storing seasonal water for later use, rather than letting it flow out to sea for nothing. Then the Government had the idea to facilitate His Majesty's initiatives by allocating part of the budget to establish the Office of the Royal Development Projects Board, (RDPB) which at the time was placed under the NESDB.

The principle at the time was, when His Majesty initiated a project, it would first be run on a trial basis. If it worked well, the project would be submitted for funding through regular budgetary channels. This is still the case today, although the regular process to seek budgetary approval can be slow, and must follow the procedures.

## **Establishing the Chaipattana Foundation to provide comprehensive assistance**

His Majesty had a view that some tasks were urgent and could not wait for a regular budget as it might not be timely, and might result in partial development and patchy assistance. He opted for a private-sector model and established the Chaipattana Foundation. In the past, its responsibilities and those of RDPB's were hardly distinguishable, but now they can be. The foundation is run as a non-governmental organisation, or an NGO, and raises funds

through donations.

Besides, we have our investments. But our investments are made economically and cautiously. I supervise every Baht and Satang<sup>4</sup>, and we are assisted by investment advisers. We try to see what is worth investing in, as we cannot wait for donations alone. Of late, we have been running and investing in many activities, such as vendor booths at fairs, cafés, and stores selling clothing and many other types of merchandise.

## **Development as half-charity, and half-mercy**

Although I sometimes agree with modern executives, I have to hold them back somewhat. That is because some projects must be developed as half-charity, and half-mercy, where the focus on development as investments that must bear fruit and make progress is not enough. We must have compassion, or wanting to help those in dire need. Earlier on, the Chaipattana Foundation was very strict about this, and only engaged in development work *per se*, but later on this would not do, so compassion is needed as well.

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<sup>4</sup> The smallest currency unit equivalent to one-hundredth of a Thai baht.

**His Majesty advised that we must be careful when conducting business, even if it is done to raise money to help people. Business is to be conducted with compassion and love – love for the work and for the people we want to help. A solution will be figured out and we will succeed, with our willingness to sacrifice.**

Executives today are sometimes strict. They say we must carry out activities that generate income and profits. If that is the case, then it is very easy. Selling shirts, noodles, or ice-cream would achieve that result. But the benefits will not reach villagers or those we want to help. Every now and again, I have to remind them that helping villagers means that not everything may yield productive result. However, comments or budget cuts help make us more cautious. I have been able to cut a budget of 100-200 million baht down to 19 million baht before. What I cut from the budgets were mainly extravagant and luxury construction projects. But what is earmarked for the poor should be given to them.

## **Continuing the Royal Development Projects**

These days, it is not that we are not carrying on the royal development projects. We still go back to the works His Majesty has done. It is not right to say that, as His Majesty no longer goes out on visits these days, the projects are discontinued. The truth of the matter is we have been working for so long that we know His Majesty's preferences and how he would relieve people of their hardships. People must be helped and we need to do as much as we can. We know that these are the principles. What I have learned from accompanying His Majesty is that he led us by example, enabling us to figure out what we should do.

## **Her Royal Highness uses email to constantly monitor projects**

We are living in strange times. Natural disasters occur more frequently than before. We witnessed hail almost the size of mobile phones, killing all the plants with its weight so they had to be replanted. We had to help even a papaya-salad stall when its vegetable cabinet was knocked down.

In the aftermath of the 2004 Tsunami, a number of organisations provided assistance. The Rajaprajanugroh Foundation, whose mandate is disaster relief, went in to render assistance. The Chaipattana Foundation also helped in many ways. I myself was in charge of five teams that conducted inspections on different ways to help the victims.

Sometimes when I went on overseas trips and my aides-de-camp were not required on security duty, I would send them out to help flood victims. I would follow up on their work via email, and they would report to me by email. I would then forward their email to Dr. Sumet and the people concerned. That is how we kept our work going.

When a sugar barge accidentally capsized, I was travelling in Egypt. Someone proposed an idea by email that a pipe should be laid to pump in air to sink the sugar deeper, while some locals suggested laying the pipe even deeper to pump the sugar up. I probably should have consulted engineers or experts first whether these suggestions were viable, since sugar is heavier than water. Many people were interested in the incident and constantly offered suggestions.

Sometimes, people submit petitions via email. For example, when there were trespassers on Chaipattana Foundation land, the staff had to shut the gates to keep them out. So the locals petitioned that they could not reach their properties because they had to pass through Chaipattana land which used to be open for their passage. When the matter came to my attention, I looked into it, and it was resolved amicably.

## **What Her Royal Highness has learned from His Majesty the King in the field of development**

Ever since I can remember, I have been familiar with two words: development and charity. It has been explained to me that a desire to help, fulfilled by donations of money or items without expectation of any return is "charity", while an expectation that what is done will continue to flourish is "development".

Development is broad and multi-faceted. It requires ongoing efforts through a long period of time, for example, socio-economic, agricultural, industrial,



*Hilltribe villagers-strawberry growers, Royal Project*

land, water resource, medical developments and so on.

## Some thoughts on development

Having had opportunities to accompany Their Majesties King Bhumibol Adulyadej and Queen Sirikit on visits to many areas from a young age, and to engage in serious development work, I have observed and analysed the ways of life and needs of various groups of people in different environments. Some group lives in remote areas, in environments unconducive to normal living conditions, lacking in such public services as education, health and sanitation, etc. In many cases, people lack even the basic necessities.

**So I have gained an important perspective on development, that national development by “modernisation” is different from “westernisation”, while unbalanced and unsustainable development may cause more troubles than they solve.** For example, crop cultivation that uses hazardous fertilisers and insecticides excessively damages the health of both humans and animals in that area, degrades the soil and lowers yields. This kind of production is what we might call a get-rich-quick scheme.

Whereas “sustainable development”, or “enduring progress” to use an old term, means development that enables people to continue to benefit in the long term, without excessive loss of resources.

“Development” must be balanced with “conservation”. For example, in building a dam to store water, careful consideration must be given to possible loss of resources that should have been conserved otherwise.

## Tasks and methodologies of the development practitioner

Development practitioners must be systematic in their tasks and working methods. The “task”, or duty, is to help people, target areas, or enterprises under their charge thrive, or achieve greater prosperity. “Methodology” involves a number of steps and features, depending on the nature of work.

Let me cite an example of simple community development work that I have done. First, we must look for information by collecting problems and general geographic and social conditions of a locality and its community. This could be obtained from literature reviews, survey findings, and interviews, especially with the locals and those who have relevant work experience. With a knowledge of geography and cartography to determine, in particular, agricultural, industrial and settlement areas, we can ascertain distance, terrain features, and other information that may be used as a working database.

A project must then be written up, clearly pointing out the general features of the area, problems,





*Fruit and vegetables produced by farmers in the North are available at a Royal Project Foundation shop in Chiang Mai. Products from the project are also distributed to airlines, restaurants and supermarkets to help local growers.*



*Rice sacks are seen at a mill at the Chitralada Royal Project in Bangkok. Across Thailand, the quality of life of the poor and the underprivileged have been much improved through more than 5,000 projects initiated by His Majesty the King.*

methods to solve the problems, implementation time frame, the required budget and its sources (self-funding may be needed). Once the project is launched, we must show our interest by visiting the project site, providing advice to people concerned, and addressing problems which may arise in the course of implementation, so that the next steps can be executed according to the set objectives.

Once a project has succeeded, there should be technology transfer, such as training, site-visits for staff and target groups to foster better knowledge of the work at hand and other related knowledge. It may also encourage further knowledge-seeking and gaining new concepts and ideas. For example, people working in one place should be taken to observe work elsewhere. Importantly, there should be monitoring and evaluation to address any deficiencies during project implementation and to provide lessons learned for subsequent projects.

## **Development is long-term work, requiring cooperation in each phase**

In any case, development is long-term work which could not be completed in one's lifetime. Everyone must lend a helping hand in each phase. New staff must take heed of the old. For example, the map collection produced by the Royal Thai Survey Department at His Majesty's request, has a map of Bangkok that was drawn up during the reign of King Rama V. It features a canal system that allows us to see how the established system corresponds to natural waterways. If we were to build on the canal system, we should follow it, so that our work would be in the same direction and could achieve its targets, without water flowing back in obstructive paths. Old maps clearly show how water flowed into respective canals, which ran from one point to another where they connected with other canals, or how the irrigation canal systems in the Rangsit fields were laid at the time. This is helpful information for our development work.

## **His Majesty's work becomes his daily routine**

His Majesty must have been exhausted too, but he has never complained. He used to work 24/7 all year long amidst constant sounds from radio

communications, and many kinds of equipment for news updates. He has tried to pass on the knowledge to me, such as how electricity is measured in amperes, watts and volts. His Majesty listens to numerous radio networks, so he knows where the floods and fires occur, and can provide timely assistance. This, perhaps, is not development work as such, but rather "disaster mitigation".

His Majesty still keeps to this routine even today. He works like this until people feel that it is his daily routine. His Majesty would have relief kits distributed to Border Patrol Police sub-divisions, ready to be handed out to villagers right away should flashfloods occur. Lately, some of our vehicles may be in disrepair, but we are having them repaired and renovated. At the same time, we are seeking networks of working partners.

His Majesty remains very interested in helping his people, and is still at work now. If he can make it anywhere, he would, such as when he recently opened the Lat Pho Canal and the King Bhumibol Bridge. Those responsible for carrying out the various Royal Development Projects are also working continuously. When they come to present their report, His Majesty will give them guidance on how to proceed.

## **Even in hospital, His Majesty remains concerned for the people**

Although His Majesty the King is now<sup>5</sup> receiving treatment at Siriraj Hospital, he continues to work on helping his people, all the time.

He has taken the initiative to address the heavy traffic congestion around Siriraj Hospital, both on land and on the river. Since His Majesty has been working constantly on traffic issues, he judiciously assigns police officers to observe various locations, gauge the turning patterns of vehicles, and survey key traffic spots, such as at monuments, intersections or roundabouts. This is being done in order to help him determine how the roads should be designed, their shapes and sizes, and where bridges or something else should be built, so that traffic can flow smoothly.

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5 Translator's note: now denotes 2011, when the interview was given.






13 October 2016 will forever be remembered as a day of profound sorrow as the entire Thai nation lost their 'Father of the Land'. Thais from all walks of life felt the sense of irreplaceable loss and bereavement that resonated throughout the Kingdom. Whilst the nation grieves during this somber period of mourning, His Majesty the Late King Bhumibol Adulyadej's wisdom and lifelong work will continue to be the beacon of hope that guides us into a new dawn.

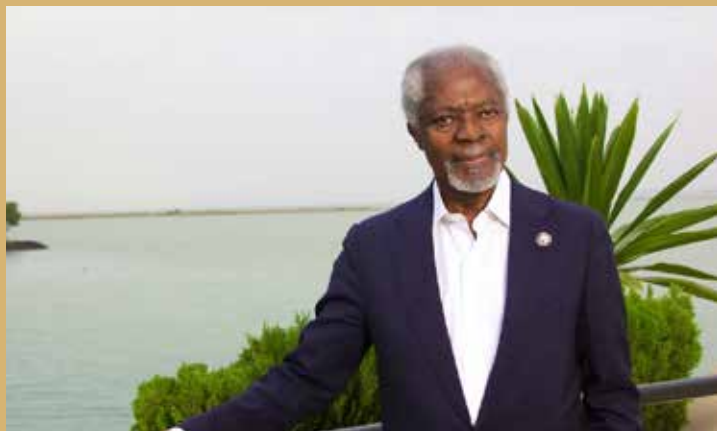
For seven decades, His Majesty ceaselessly devoted his entire reign to the advancement of the nation and the well-being of the Thai people in all aspects. The international praise and accolade he received, from monarchs of lands near and far, to numerous international organisations, including the Human Development Lifetime Achievement Award from the United Nations Development Programme in 2006, stand as testament to His Majesty's selfless devotion to his subjects. Under His Majesty's tutelage, Thailand steadily grew from an underdeveloped country to a middle-income country with more than 67 million people and the second largest economy in the ASEAN Community.

One of the greatest gifts that His Majesty the Late King bestowed upon us is the Sufficiency Economy Philosophy (SEP). A myriad of projects and initiatives have been borne out of His Majesty's working precepts under SEP. As the torch bearers of His Majesty's legacy for development and the betterment of the nation, all Thais should strive to apply the philosophical framework of SEP in each and every aspect of our lives to honour His Majesty's memory. On the international level, we shall continue to actively promote SEP to the world, as Thailand's valuable contribution to the principles and practice of sustainable development.

Ultimately, we must work together as one to help carry forward His Majesty the Late King's greatest legacy that is the Thai nation, to realise his vision and hard work.

General  (Ret.)  
(Prayut Chan-o-cha)  
Prime Minister of the Kingdom of Thailand





One of the key highlights during my tenure as United Nations Secretary-General was the adoption of the Millennium Development Goals. They served as the precursor to the current Sustainable Development Goals, which have expanded the international agenda from a global vision to nationally deliverable action applicable to every country. The political divide that hampered international development efforts has become instead a genuine partnership for development among all nations.

Thailand was ahead of the global scene on this front. Throughout His Majesty King Bhumibol Adulyadej's 70-year reign, sustainable development of the nation and the well-being of the Thai people went hand-in-hand as countless rural development projects in every corner of the country that benefit millions of Thais can well attest.

His Majesty's philosophical framework of 'Sufficiency Economy Philosophy' has played an important role in framing global dialogue towards the achievement of sustainable development. It was an honour for me to have presented to His Majesty the Late King the first United Nations Development Programme's Human Development Lifetime Achievement Award in 2006, as recognition of his outstanding commitment to the development of the nation and the improvement of Thai people's living standards.

I am heartened to learn that the Government of Thailand and the Thai people intend to build upon His Majesty's people-centered and sustainable path to development by offering partnerships that are guided by the Sufficiency Economy Philosophy, in the spirit of South-South and triangular cooperation.

Lastly, I wish to join the people and government of Thailand in commemorating the legacy of the world's "Development King" by working together to achieve our collective goal of global sustainability.

Kofi Annan

Nobel Peace Laureate and former United Nations Secretary-General  
Chair of The Kofi Annan Foundation

## People matter. Nature matters.

So whatever we do, we must always make sure that we are not stealing from future generations.

Oceans of words have been written to explain what sustainable development is. But it boils down to these simple principles — putting people and the environment first, not profit maximisation – for our children’s sake.

They happen to be the very same principles of Sufficiency Economy Philosophy (SEP), Thailand’s development thinking which has been adopted as the country’s development framework and national policy for the past two decades.

And it works.

**SEP** or Sufficiency Thinking works because it is not a one-size-fits-all policy recipe or technique. Rather, it is rational decision-making that is practical, simple to implement, and flexible to different challenges.

Whether one is a consumer choosing what to buy, a businessman deciding on operation procedures, or politicians making a call on public policies, SEP requires the decisions to be inclusive, cost-effective and environment-friendly.

But SEP is more than plain rationality. It is more than weighing the pros and cons of different choices at hand with different consequences. It is a well-rounded reasoning governed by ethics, morality and knowledge for the common good.

When the planet is under threat from conspicuous consumption and greed-driven development, moderation is SEP’s overriding principle. When globalisation brings with it economic uncertainties and risks, SEP advocates prudence and built-in self-immunity to cope with external shocks. And when things get tough, SEP’s advice is simple: persevere and strive on.

In hindsight, the 1997 economic crisis was a blessing in disguise. It gave Thailand first-hand experience of how fragile unsustainable growth is. The economic pain when the system snapped prompted a nationwide soul-searching and quest for balanced development that gives people quality of life and protects the country from global volatility.

Successive governments started to embrace sufficiency thinking in national policy to avoid similar mistakes. Businesses began to put in place measures to ensure good governance. People on the ground across the country especially welcome SEP because the bottom-up decision-making respects their voices, their environment and their way of life.

Since then, the Sufficiency Economy Philosophy (SEP) has become Thailand’s development compass.

Moderation has since become the guiding spirit of the country.

In response to the country’s long excess, SEP advocates moderation, appropriate technology, careful risk management, and flexibility with special emphasis on inclusive decision-making, care for the environment, and the well-being of small people.

SEP also respects bottom-up solutions because they are almost always informed by local knowledge that understands local cultures and geographical conditions. More often than not, local wisdom is rooted in respect for nature. Bottom-up solutions based on local knowledge then tend to be practical and eco-friendly.

True, the big part of SEP success in Thailand comes from the public’s deep faith and trust in the development visions of His Majesty King Bhumibol Adulyadej, the founder of SEP. But the widespread acceptance of SEP is owed largely to its practical and transparent decision-making process that helps tackle real problems on the ground.

Throughout the past two decades, SEP has produced many best practices. We want to share them with other countries not only because we take pride in our home-grown development thinking but also because it delivers.

Still, the most frequently asked question about SEP is “how” to make it happen, how to make people change their mindsets.

Our answer is always the same. SEP is not a one-shot, top-down solution. It is first and foremost an open, participatory decision-making process whereby everyone has an equal say. This process takes time. And great patience.

Interestingly, the change of mindset must start at the top, but having good intentions alone does not work. Enabling a bottom-up process does. Sustainable change must come from within.

People on the ground know best their problems, strengths, and constraints. When they have a say, they become active citizens, taking ownership of the efforts to solve the problems at hand. This is how SEP works.

Different countries may have different development approaches, but it helps all of us to reach sustainable development goals faster if we learn from one another. The planet cannot wait.

Thailand’s SEP experience is proof that the United Nations’ 17 Sustainable Development Goals can indeed be attained when we truly believe that our people, our environment and our future generations matter.

This is how Thailand is doing it.

“

...Sufficiency Economy is the foundation of life, the stability of the nation – the way pilings support houses and buildings. Buildings can stand firmly because of the pilings. But pilings cannot be seen and so people tend to forget about them...

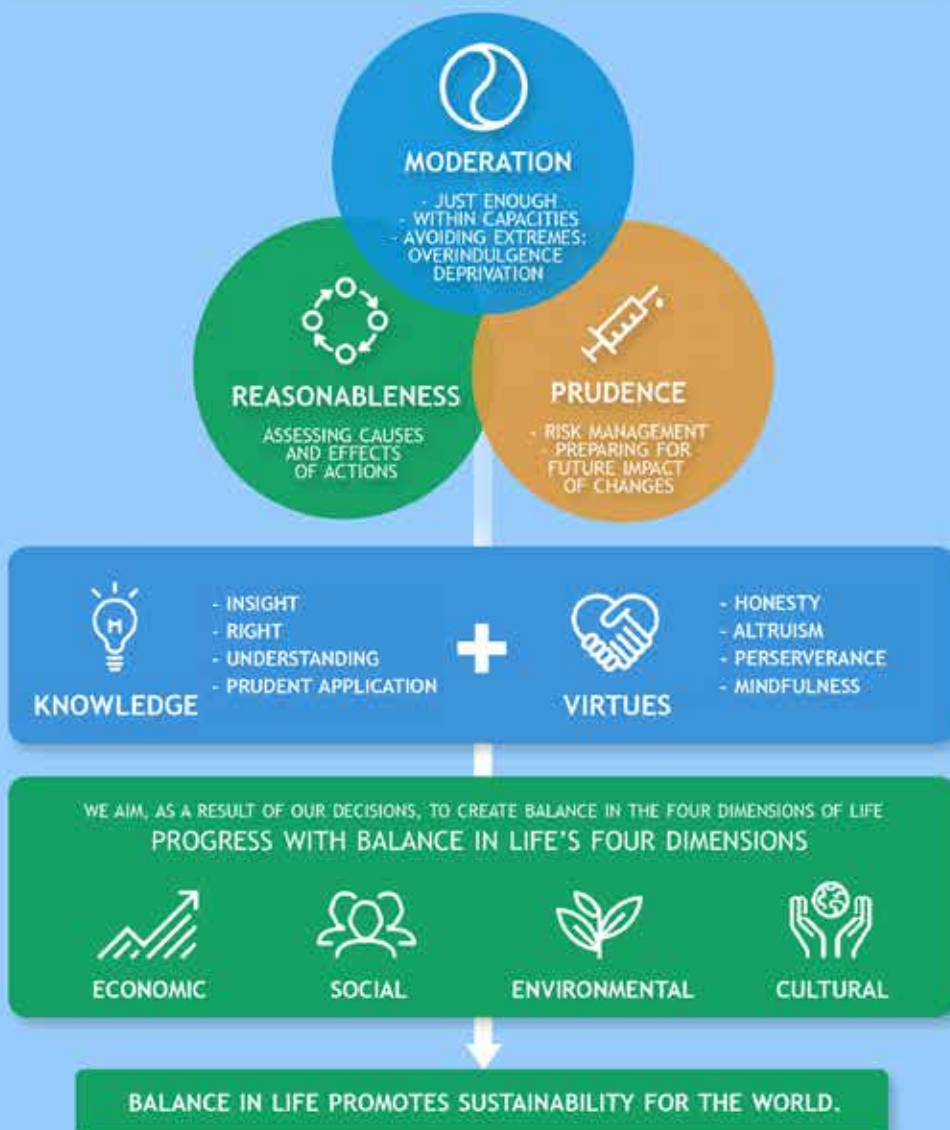
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His Majesty the Late King’s  
Speech, taken from Chaipattana  
Journal, August 1999 Issue

## HOW “SEP” GETS US TO “SUSTAINABILITY”

WE USE OUR KNOWLEDGE AND VIRTUES  
IN MAKING DECISIONS IN OUR LIVES.

WE USE THREE PRINCIPLES TO GUIDE OUR DECISION-MAKING



PRINCIPLES OF SUSTAINABILITY : [WWW.TSDF.ORG.TH](http://WWW.TSDF.ORG.TH)



## 1 NO POVERTY



### No poverty: End poverty in all its forms everywhere

#### Achievements

Thailand is rightly proud of the country's remarkable record of poverty reduction. From a low-income country in the 50s, Thailand became a middle-income country within only a few decades. Subsequently, indexes of people's physical well-being have improved across the board.

This positive trend continues despite the global economic downturn in recent years. This is proof that the government's commitment to expand social services is an important factor in reducing poverty and lifting living standards.

In 2015, some 7 million people still live in poverty moneywise, according to the National Economic and Social Development Board. Yet harsh poverty and starvation is extremely rare, thanks to universal healthcare coverage, state welfare for the underprivileged and a relatively strong kinship system and community support.

Sufficiency thinking plays an important role in poverty reduction. The livelihoods of people in the countryside rely heavily on healthy environment. People plunge into poverty when their habitat is destroyed.



It is difficult to redress the problems when community cooperation is lacking. SEP, however, encourages communities to tackle their problems together. Apart from community savings and credit groups to tackle indebtedness, many SEP-inspired community projects involve environmental protection. The locals' well-being returns when the environment becomes healthy again.

## Challenges

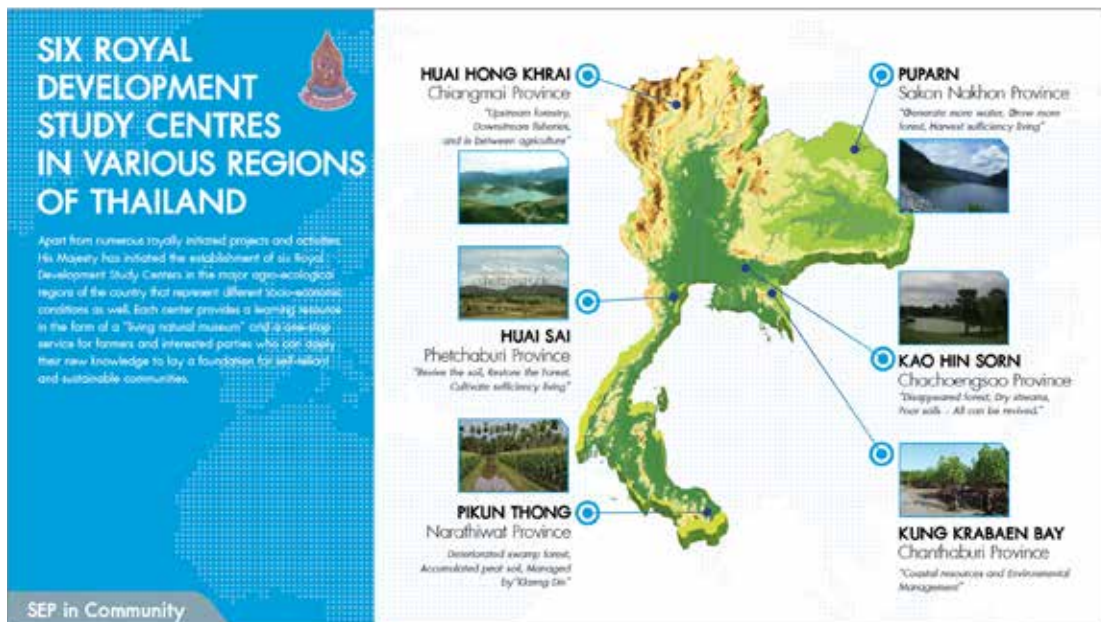
Unchecked growth carries a high cost. Excessive exploitation of natural resources benefits primarily the rich few in big cities while destroying the sources of livelihoods of the majority poor in rural areas. Ethnic minorities, in particular, are left even further behind. Disparity, meanwhile, keeps widening.

Since poverty largely exists in rural agricultural areas, Thailand's main challenge lies in restoring the environment, improving farmers' lives and building social immunity against runaway consumerism. This is where SEP comes in.

Amid environmental degradation, farmers need to rethink chemical-intensive farming and massive land-clearing that harm both the environment and their health. Amid the tidal wave of materialism, they need to resist the rich-quick temptations that only land themselves in deeper debt.

Most successful sustainable development stories in poverty alleviation in Thailand contain the same core values underscored by SEP: heal Mother Nature, live a moderate life within one's means, stand on your own two feet, and whatever obstacles one faces, don't give up.





Source: Thailand Sustainable Development Foundation.



Among SEP best practices to tackle poverty are:

## LIVING MUSEUMS

These are research and study centres to restore degraded ecological systems in different parts of Thailand. Set up by His Majesty King Bhumibol Adulyadej, the royal development study centres, otherwise called the "Living Museums," are proof that it is possible to heal the seemingly beyond-repair environment cost-effectively through learning from how nature works and from the treasure trove of local knowledge.

The centres are open for nearby communities and the public to learn about different techniques to reverse soil erosion, speed up natural reforestation, and boost biological diversity. Apart from serving as learning centres, they also function as one-stop service centres offering local people myriad types of assistance, including the setting up of cooperatives to process organic produce in order to generate more income. Group cohesiveness from these activities subsequently help the locals solve other problems on their own.

There are 6 "Living Museums" for the public to study how Mother Nature functions. They are:

- Khao Hin Sorn Royal Development Study Centre;
- Huai Hong Khrai Royal Development Study;
- Pikun Thong Royal Development Study Centre;
- Puparn Royal Development Study Centre;
- Kung Krabaen Bay Royal Development Study Centre; and
- Huai Sai Royal Development Study Centre



## COMMUNITY SAVING FUNDS

The idea is simple: get organised to set up savings groups to give members access to low-interest credit as well as welfare benefits uncovered by the state. This bottom-up community bank started at a small village in the South of Thailand, using “trust and honesty” as loan guarantee; most villagers cannot get bank credit because they cannot afford loan collateral.

Town-hall management of the fund ensures transparency and prompt loan payments. Profits are used to finance a myriad of welfare programmes ranging from transport to hospitals, gifts to new-borns, students’ tuition fees, to financial help when deaths occur in members’ families.

Community banks have become a grassroots movement with nearly 80,000 community banks across the country. Working toward self-reliance based on frugality and honesty – the values underscored by SEP – community banks significantly reduce debt and poverty. Members are also active in environmental preservation and organic farming to improve both their health and the environment.

## OTOP

OTOP stands for One Tambon One Product, the government’s scheme to support local entrepreneurship and community enterprises. Each community is encouraged to find local identity, produce locality-specific goods and build brands to generate more income more effectively. The government supports these community enterprises through technical and marketing assistance. Many OTOP products have become popular internationally, often through online marketing.

These OTOP community enterprises do not only reduce debt and poverty, it also strengthens cultural roots especially among local youth and sharpen the locals’ marketing skills which is key to business success.





## DOI TUNG DEVELOPMENT PROJECT

The Doi Tung project is one of the country's biggest success stories in sustainable development. It has successfully tackled opium cultivation and deforestation in the mountainous North by tackling its root problem – the hill tribes' harsh poverty and lack of life opportunities.

Under the stewardship of the Late Princess Mother, the project reforested the once-barren Doi Tung mountain in Chiang Rai province and improved the hill peoples' livelihoods by introducing alternative crops and turning them into popular products.

Design and marketing assistance has also made their hill tribe handicrafts, coffee and other food products under the Doi Tung brand famous domestically and internationally. They also won a seal of approval from the United Nations Office on Drugs and Crime as one of the world's best examples of alternative development.

The Doi Tung model proves poverty eradication through sustainable development works best to fight narcotics and has been adopted in several countries.

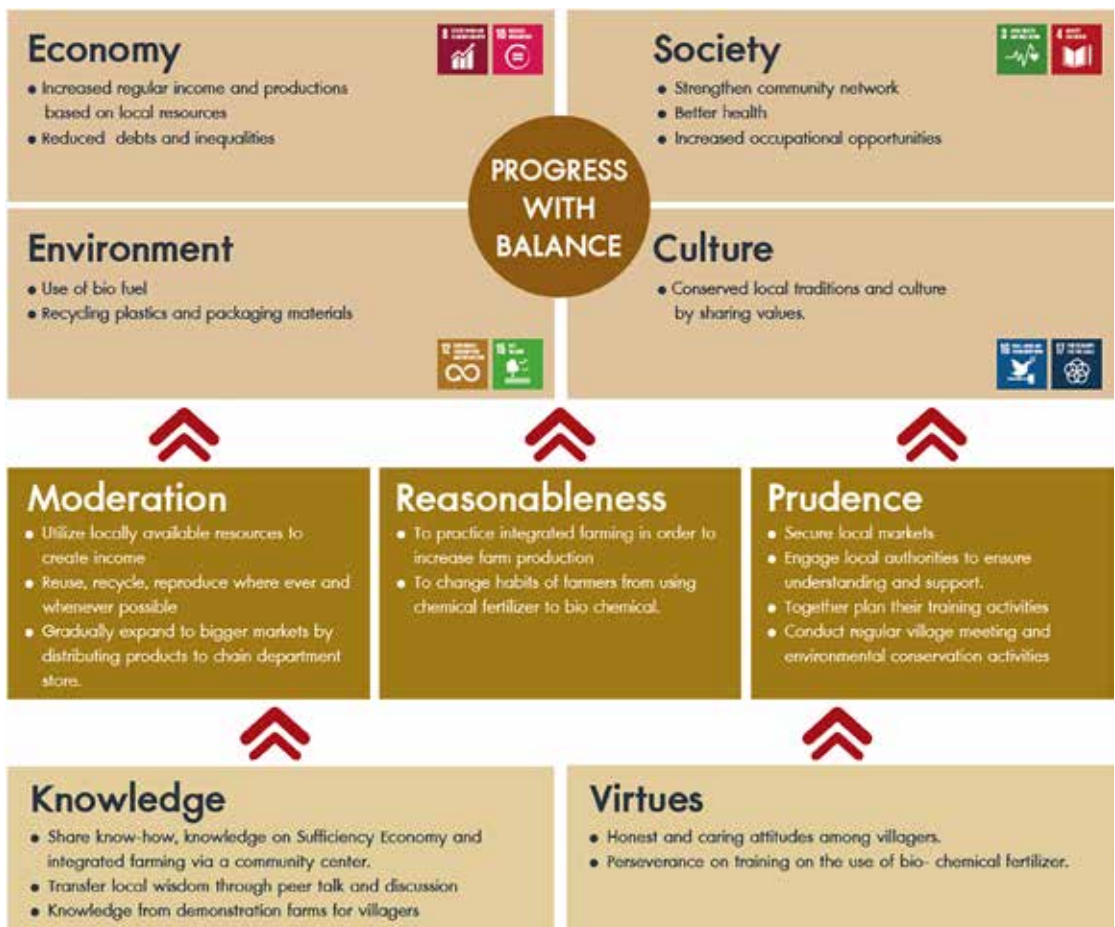
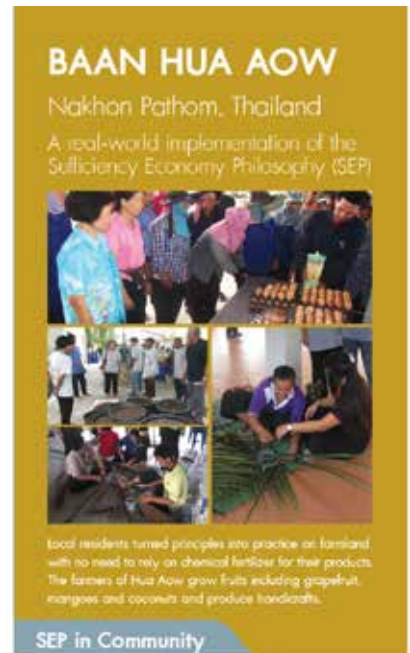
Echoing SEP values, Doi Tung upholds moderation, self-reliance, and care for the environment and cultural heritage as its core business principles. As proof of sustainability and self-reliance, the hill peoples will run the project themselves when it concludes in 2017.



## HUA AOW ORGANIC FARM GROUP

Farmers' vicious debt and poverty cycle largely stems from high investment costs and low returns due to fluctuating prices. One of the main culprits is expensive chemical fertiliser, pesticides and herbicides which also pollute waterways and pose serious health hazards to the farmers and the public.

At Ban Hua Aow village in Nakhon Pathom province, a women's group has turned things around by saying "no" to farm chemicals. Using SEP principles on moderation, self-reliance and care for the environment, the Ban Hua Aow women started producing their own organic fertiliser for own use and later for sale. Lower investment costs, increased soil fertility and their popular organic produce have freed them from debt. The group also earns more income from selling saplings and a variety of organic sweets. Other villages have followed suit with Ban Hua Aow.



Source: Thailand Sustainable Development Foundation.



**2** ZERO  
HUNGER



## **Zero hunger: End hunger, achieve food security and improved nutrition and promote sustainable agriculture**

### **Achievements**

Hunger was a daily problem for millions of people in Thailand two decades ago. Today, the problem, though not completely gone, has almost disappeared.

Thanks to economic growth during the last few decades, the standard of living of the public has improved nationwide. According to the Food and Agriculture Organisation (FAO) of the United Nations, the numbers of Thais struggling with hunger have dropped from 19.8 million in 1990 to 5 million as of 2015. Thanks to extensive community-based nutrition programmes and nationwide health campaigns targeting mothers and new-borns, the problem of malnutrition has dropped dramatically.

The first Millennium Development Goal was to reduce hunger and malnutrition by half by 2015. In July, 2016, FAO honoured Thailand as among the countries which has surpassed this goal.

## Challenges

Thailand is the world's No.1 rice-exporting country and among the world's top exporters of seafood. The country prides itself for being blessed with natural abundance. The problem of hunger is certainly not caused by the lack of food.

Poverty and hunger often occur when farmers stop producing food for their own consumption and plunge into cash crop economy ridden with uncertainties. Meanwhile, excessive exploitation of natural resources by unscrupulous investments destroys the locals' sources of livelihoods.

SEP plays an important part in returning food security to farm communities. Instead of chasing money and high risks, it recommends producing one's own food and selling the surplus for cash. It advocates eco-friendly, not chemical-intensive agriculture that destroys one's health and the environment. It also supports holistic lifestyle that nourishes both one's mind and body based on moderation and contentment.

Here are some of Thailand's best practices to end hunger, improve nutrition and promote sustainable agriculture:

## NUTRITION PROGRAMME

The Public Health Ministry plays a key role in improving maternal and child nutrition across the country. Education for mothers is the answer. Providing mothers in rural areas with prenatal care, educating mothers about proper nutrition for themselves and their new-borns, constant health monitoring at community levels – plus the nationwide campaigns for breastfeeding – resulted in a rapid decline of malnutrition among mothers, new-borns, and children under 5.





## NEW THEORY FARMING

Using a 10-rai plot of land



**30%** of the 10-rai piece of land (about 3 rai or 0.48 ha) is used for a reservoir.



**30%** of the land is devoted to rice cultivation which will produce enough rice for household needs. (about 3 rai or 0.48 ha) is used for a reservoir.



Another **30%** of the land may be used for growing more rice or horticultural crops, depending on the local conditions and the market demand.



The remaining **10%** of (1 rai or 0.16 ha) is used for building a house, paths and ditches and also for growing household vegetables and raising livestock.

## THE NEW THEORY

How to manage small farms to ensure food security and protect farmers from droughts and debts from fluctuating prices? Through his own hands-on field research to find an answer, His Majesty King Bhumibol Adulyadej offered a model of small farm management called “New Theory” based on Sufficiency Thinking.

In a nutshell, the New Theory advises farmers to divide their plots into four sections under the 30:30:30:10 formula. Farmers should use 30% of land for a reservoir to ensure year-long water supply for farming, another 30% for rice fields, another 30% for vegetables, field crops, fruit trees, firewood, herbs, etc., and the remaining 10% for residence and livestock areas. The required size of land to ensure self-sufficiency should be around 10-15 rais (4-6 acres or 1.6-2.4 hectares).

After achieving food security, the second stage of the New Theory advises farmers to get organised to improve irrigation systems and farm productivity as well as to produce, process and market their goods, preferably as co-operatives. They also should pool resources to provide welfare benefits to members. Stage Three is setting fair trade relationships between local organisations and the private sector.

This basic model can be modified to suit different geographical conditions and farm sizes. But they need sufficiency thinking to make their farms and their livelihoods sustainable.

Farmers across the country have managed their plots of land as advised by the New Theory. Apart from gaining year-round food security from integrated farming, farmers eventually become debt-free from selling organic produce and processed organic foods. Many also use their farms as learning centres to help other farmers.

## ALTERNATIVE FARMING

Monocropping promoted by the Green Revolution in the 60s promised farmers more productivity and riches. But disillusionment quickly set in. Toxic chemicals destroy soil fertility and farmers’ health while expensive farm chemicals and uncontrollable prices plunged farmers into debt.

This widespread problem has triggered an alternative farming movement to heal the land and restore self-reliance. The techniques employed are diverse. Some are engaging in integrated or mixed farming aiming for sufficiency. Others practice agro-forestry, natural farming, organic farming and the fallow system. All imitate the



intricate workings of nature and say “no” to farm chemicals.

What is more important than farming techniques, say the farmers, is respect for nature and determination not to succumb to materialism – the values highlighted by SEP.

The government also gives policy support to alternative farming, thanks to evident improvement in soil fertility, farmers’ health, biodiversity and an increasing popularity of chemical-free produce.

## SCHOOL FOOD BANK

For many rural students, free school lunch is the only decent meal they have all day, but lack of funds is a constant problem. Teachers and students in tens of thousands of Thai public schools are working together under Sufficiency Thinking to make their free lunch programme sustainable.

Ban Nong Pai School in Nakhon Sawan is one of them. There, teachers use SEP principles to encourage students to grow vegetables, raise chickens and fish as part of school activities to teach the children the importance of self-reliance, hard work and perseverance. The school will

then buy their produce for their school lunch programme. Apart from learning various skills in food producing, students get to eat healthy food, earn some money and learn to save. Students’ nutrition has improved, so has their maturity and self-immunity against consumerism.

## FOREST FOR FOOD SECURITY

If people benefit from the forests, they will become the forest guardians. This belief gave birth to community food bank projects to give food security to the hill peoples in northern Thailand by allowing them to collect edible plants from the forests for their own consumption.

Initiated by Their Majesties King Bhumibol Adulyadej and Queen Sirikit, the first project using the forest as a community food bank took place at a remote hill village in Mae Hong Son province. By protecting their community forests from land clearing and poachers, the villagers are allowed to use the forests sustainably. They also receive help to raise poultry, cattle, and fish to generate more income in order to lessen pressure on the forests.



## **RICE SEED BANK**

After attaining food security from New Theory farming, a group of rice farmers at Ban Sai Yai village in Nonthaburi province has become self-reliant in rice seed production. They pool resources to select the best from their farms in order to produce high-quality rice seeds to share among themselves and sell to other farmers.

This group also produces other organic goods such as organic fertiliser pellets, organic pesticide liquid, shampoo and other items for household use for members and also for sale.

Ban Sai Yai provides yet more proof that efforts to achieve food security under sufficiency thinking also bring forth financial security, good health, and community cohesiveness. It has become a role model for farm communities nationwide.

## **PID THONG LANG PHRA FOUNDATION**

Massive land-clearing in the mountainous Nan province for corn plantations benefits the animal feed industry but destroys the rain-catchment areas of the Chao Phraya River, Thailand's lifeblood. Meanwhile, the highland farmers remain trapped in hunger and poverty due to expensive seeds and uncontrollable corn prices.

Denuded mountains in many villages in Nan have turned lush green once more, thanks to sustainable farming support from the Pid Thong Lang Phra Foundation.

The foundation uses SEP principles to listen to the hill tribe peoples' problems and support their bottom-up decision to make change





*Doi Kham products*

themselves based on moderation, rationality and self-immunity. The hill tribe farmers finally decided to stop land-clearing and adopt sustainable farming to attain food security. Hunger is now gone, the farmers' health has improved and many are now free from debt.

## DOI KHAM

The Doi Kham Food Products Co. buys organic farm products at fair prices from the hill tribe people in northern Thailand to support their sustainable farming.

Doi Kham is a business offshoot of the Royal Project Foundation which has won worldwide recognition for its success in the eradication of opium cultivation through crop substitution programmes.

Buying the produce at fair prices help prevent the hill tribes from being exploited. Meanwhile, Doi Kham continues to support the highlanders with new sustainable farming techniques to restore highland ecology and the farmers' quality of life. Consumers also benefit from organic products from Doi Kham, proving that conscientious consumption can end farmers' hunger and protect the environment.





### 3 GOOD HEALTH AND WELL-BEING



## Good health and well-being: Ensure healthy lives and promote well-being for all at all ages

### Achievements

Thailand is one of the world's success stories in public health. The country has extensive primary health services at all levels, especially in rural areas. The country's universal health coverage is also lauded worldwide for high quality and efficiency.

Thanks to the Public Health Ministry's sustained focus on mothers and new-borns, infant mortality fell from 68 per 1000 live births in 1970 to 8.7 in 2014. Life expectancy has consistently increased for both males and females. Open-mindedness and strong public health infrastructure enable Thailand to handle global health emergencies such as HIV/AIDS, SARS, ZARS, and MERS successfully.

In addition, the universal healthcare policy which was launched in 2002 has improved people's health and reduced incidences of poverty and indebtedness caused by illnesses. The country has also achieved almost all health-related Millennium Development Goals.



In 2016, the World Health Organisation praised that Thailand had eliminated mother-to-child transmission of both HIV and syphilis. This makes Thailand the first country in Asia and the Pacific region – and the first country with an HIV epidemic – to attain this landmark success, thanks to a strong public healthcare system, free access to prenatal care, and policy commitment to provide good health and well-being to the populace.

## Challenges

Thailand is facing new public health challenges from lifestyle changes. Chronic diseases related to unhealthy lifestyles are on the rise. For example, heart disease, stroke, obesity, cancer, diabetes and hypertension.

Moreover, the number of road accidents in Thailand is among the highest in the world. Globalisation has also made the country more vulnerable to communicable diseases from far-flung corners of the world.

Thailand will also soon face a new set of public health and social challenges when it fully becomes an ageing society. Amid new challenges is a longstanding problem, the rural-urban divide in public health care, which is yet to be fixed.

Among Thailand's best practices are:

## UNIVERSAL COVERAGE SCHEME

Introduced in 2002, the universal healthcare scheme ensures equitable healthcare access and health security to all Thai citizens. The scheme, offering care for most diseases, now covers 48 million citizens. Meanwhile, 6 million government officials are covered by the state welfare scheme while 11 million employees are covered by the social security system.

Thanks to universal health coverage, for the first time in Thai history, even the poorest have access to standard healthcare without discrimination.

The scheme resulted from nationwide bottom-up calls for a health security system. It saves lives of those who could not afford medical costs before and reduces former bankruptcy risks from expensive medical treatment.

When it was first introduced, patients paid a token 30 baht to receive medical treatment. Now it is totally free. No special card is required. Having an ID card suffices.

Thailand's universal health coverage has won praise worldwide, not only for giving health security for all, but also for its cost-effective management of the health budget to offer best care at lower cost.



## NATIONAL HEALTH SECURITY OFFICE

The National Health Security Office (NHSO) was set up under the National Health Security Bill to run the universal health coverage scheme.

A revolution in healthcare management, the national health budget is distributed to public hospitals according to its number of patients through the NHSO. The Public Health Ministry has become a service provider. The NHSO runs the national health budget with participation from stakeholders to ensure transparency.

In line with SEP principles, representatives of patient groups and civil society are allowed to participate in the decision-making of NHSO to ensure efficiency, cost-effectiveness, and to meet the patients' real needs.

Policy formulation is also based on moderation and research-based knowledge. The power of number has also enabled the NHSO to secure medical supplies at lower cost.

## ANTI-SMOKING CAMPAIGN

Thailand's anti-smoking campaign is one of the most successful in the world. The government started banning tobacco advertising in 1989, followed by a series of policy measures including tax increases, media anti-smoking campaigns, clean air laws and health warnings.

According to the World Health Organisation, the number of current smokers has been decreasing continuously, thanks to the government's concerted efforts. In the past 16 years alone, the prevalence of tobacco use in adults has dropped from 32% to 21.22%.

It is estimated that the anti-smoking policies saved over 30,000 lives by 2006 and will have saved over 300,000 lives by 2026.









## MOBILE MEDICAL UNIT

Despite universal health coverage, a large number of villagers in remote areas still do not have access to medical care. Since 1969, Her Royal Highness Princess Srinagarindra's Medical Volunteer Foundation has been travelling to remote communities to provide free health services. Seriously ill patients are sent to the hospitals for proper medical treatment.

The mobile medical units comprise volunteer physicians, nurses, dentists and health personnel.

## PATTAYA RAK CENTRE

Working pro-actively, this state healthcare centre in the Pattaya beach resort is joining forces with non-governmental organisations and sex workers' peer groups to reduce the rate of HIV/AIDS infection as well as other sexually-transmitted diseases.

The open approach helps the centre to correctly identify the needs of sex workers in order to improve its services and effectively reduce the incidences of sexually-transmitted diseases.

## NONG MUANG KHAI HOSPITAL

A community hospital in Phrae province, Nong Muang Khai Hospital uses SEP principles to improve the general well-being of its health personnel so they can serve the local community better. The project started with growing organic food together which reduces both food expenses and work stress. The result is better health, stronger team spirit, and a happier work environment. The success has convinced local residents to follow suit.

To promote good health and well-being, the hospital also emphasises preventive and holistic care. This includes eating healthy, organic food, keeping the environment clean, exercising regularly, quitting smoking and drinking, fostering family togetherness and meditating to calm the mind.

## UMONG HEALTH VOLUNTEERS

The Umong Municipality in Lamphun province is known nationwide for its successful use of sufficiency thinking to make local residents healthier and more financially secure through organic farming. It is also famous for its outreach volunteer programme to help the poor elderly in the community.

The volunteers – all local residents – routinely visit chronically ill elderly to give them healthcare advice and assist them with physical therapy at home. The volunteers also co-ordinate with the community hospital to give medicines and medical equipment to elderly patients.

On the policy level, these volunteers are also active in national health assembly to call for constant improvement of healthcare services for local communities.







## 4 QUALITY EDUCATION



**Quality education: Ensure inclusive and equitable quality education and promote life-long learning opportunities for all**



### Achievements

Education is Thailand's top priority. The country spends the biggest amount of state budget – over 20% of its total – on public education. This makes Thailand's spending on education among the highest in the world.

All children in the country – Thais and non-Thais – are entitled to receive 15-year free public education. The literacy rate has nearly reaches 100%. More than 90% of children enrol in primary education schools. Teachers are relatively well-paid with decent state welfare benefits. Women increasingly enter formerly male-dominated academic fields such as engineering and medicine. Universities are well distributed across the country. High-quality universities are attracting students from nearby countries, including China.



## Challenges

Despite high education investment, students' general performance still lags behind international and regional standards. Rote-learning suppresses independent thinking and creativity. The education bureaucracy needs to be decentralised. Rural-urban disparity in education quality needs to be bridged. Students need new skill sets to keep up with rapidly changing job environments.

Among SEP best practices to tackle those challenges are:

## SUFFICIENCY-BASED SCHOOLS

More than 14,000 public schools nationwide are now using SEP decision-making principles – moderation, rationality based on knowledge with environmental and ethical considerations, and prudence for long-term ramifications – to boost students' independent thinking and to make school management more open and participatory.

The Education Ministry started including SEP principles in the national curriculum after the 1997 economic crisis. The aim was to teach students about responsible consumption, environmentally responsible actions, wise use of limited resources and self-reliance. But it ended up a rote-learning exercise.

Real change later occurred with the “whole school” approach when Sufficiency Thinking and inclusive decision-making was being applied in all school activities, particularly management, extra-curricular activities and community relations.



Source: Thailand Sustainable Development Foundation.



SEP impact on building students' character is evident. When students have a say in school activities, they show more creativity, self-confidence, and inter-communication skills. Their academic results improve. SEP students also tend to spend less and share more.

The Education Ministry has set up over 60 Sufficiency Economy Learning Centers to help increase and mentor new members. The ultimate aim is to equip youngsters with wise decision-making they can apply in all areas of life.

## LONG DISTANCE EDUCATION

The Long Distance Institute provides primary and secondary education as well as special interest courses free of charge via satellite TV, digital and online materials.

Run by the Office of Non-formal and Informal Education, Ministry of Education, long distance education helps bridge the education gap and offers life-long education opportunities to people of all ages, especially those in remote areas.

## SCHOOL LUNCH PROGRAMMES

Public schools in the rural areas across the country are using Sufficiency Thinking to give free lunches to their students. Striving for self-reliance, students and teachers work together tending school vegetable plots, fish ponds, and hen houses. Parents take turn cooking. The free lunch programme helps reduce child malnutrition and equip students with planning and farming skills, responsibility and teamwork. The programme also strengthens school-community ties.

## PHRA DABOS SCHOOL

Underprivileged youngsters receive free vocational education and accommodation at the Phra Dabos School founded and funded by His Majesty King Bhumibol Adulyadej.

The three-year courses train students in electronics, mechanics, carpentry, welding, integrated farming and home nursing. Students are also trained to use Sufficiency Thinking and environmental concerns in their decision-making.

Promoting life-long learning opportunities, Phra Dabos School also offers special interest courses to the public such as mushroom cultivation, fish raising, hydroponic vegetable farming, etc., to people from all walks of life, free of charge.







## LANNA WISDOMS SCHOOL

Based in Chiang Mai, the Lanna Wisdoms School strives to preserve and pass on the craftsmanship of northern Thailand to the younger generations. Masterful craftsmen and craftswomen, most of whom are in their golden years, are invited to teach local youths not only their crafts, but also the life philosophy behind them.

The school has successfully saved many northern handicrafts from disappearing. It has also strengthened the youths' pride and confidence in the Lanna culture rooted in simplicity, social harmony and respect for nature.

## YOTHINBURANA SCHOOL

A pioneer in participatory school management, Yothinburana School uses SEP bottom-up principles to map out annual plans and give students a say in designing curriculum. The school reaches out to the communities to foster students' social responsibility. It also shares experiences with other schools on inclusive school management and its programmes to boost students' creativity and moral strength so they can make wise decisions instead of succumbing to peer or materialistic pressure.



## ALTERNATIVE SCHOOLS NETWORK

The network comprises 400 organisations across the country aiming to answer students' diverse needs and interests which are unmet in mainstream schools. Students are equipped with life-long learning skills, self-knowledge, and the determination to pursue life goals and to live a balanced, contented life through Sufficiency Thinking.

The network acts as co-ordinator between education authorities and home schools. It also works with small public schools to promote community ownership and inclusive school administration.

## SUKSA SONGKROH NANG RONG SCHOOL

Based in Nang Rong district, Buri Ram province, this school has become a model for other state schools for underprivileged children by using SEP principles to effect inclusive education. Active students' participation results in more efficient use of scarce resources, generates income to support more student activities, and better answers the students' diverse needs and talents.





## BAN KUCHAD SCHOOL

Based in Buri Ram province in the Northeast of Thailand, Ban Kuchad School enlisted local elders to create a curriculum on local culture and turned the school into a community learning centre. The school also supports students' use of SEP principles to set up a School Bank to promote savings and a Waste Bank to generate income from waste sorting which promotes sustainability habits through reuse, reduce and recycle principles. School activities also focus on the spirit of teamwork, sharing and equality.

## SATREE MANDA PITAK SCHOOL

This Catholic private school for girls in Chanthaburi province is proof that the SEP values such as moderation, respect for nature and frugality are not exclusive to Buddhism. The values are universal and crucial particularly for the affluent class and its excessive consumption.

Satree Manda Pitak uses sufficiency principles to encourage environmentally-friendly and socially-conscious decision-making among the students who mostly come from well-to-do families. The school's inclusive curriculum also underscores learning-by-doing to foster students' self-discovery, analytical thinking, prudence, patience and teamwork to reinforce sustainability thinking and habits.



## THAI JUNIOR ENCYCLOPEDIA

The 39-volume encyclopaedia, a royal initiative by His Majesty King Bhumibol Adulyadej, aims to give Thai youngsters free and equal access to all aspects of knowledge about Thailand. Each section is written by top experts in their respective fields. Initially in book form, the encyclopaedia is now also available online, making it more easily accessible not only to students but also people from all walks of life.

## THAILAND SUSTAINABLE DEVELOPMENT FOUNDATION (TSDF)

The foundation supports the dissemination of knowledge and experiences of Sufficiency Economy Philosophy to support sustainable development both in Thailand and abroad.

Set up in 2014, TSDF is the resource centre about SEP including SEP-based grassroots efforts in the country. Apart from sharing knowledge on the economic, social and environmental dimensions of SEP, projects initiated by His Majesty King Bhumibol Adulyadej and the Royal Family, the foundation also supports projects and activities of public and private organisations across the country to enhance balanced development.



## 5 GENDER EQUALITY



### Gender equality: Achieve gender equality and empower all women and girls

#### Achievements

Thailand is among the world's top five countries with the highest number of women in senior management positions. In 2016, the global average of female CEOs is 24%. In Thailand it is 37%, higher than most countries in the industrialised world.

This is not surprising.

Thai women have always played an important role in society and economy. In farm communities, women's decisions count because they work shoulder to shoulder with their husbands in the fields. When husbands work for the government with modest pay or when farm income is unreliable, the wives most always need to be active in commerce to support the family. In fresh markets across Thailand, most vendors are women.

Like in any society, gender discrimination tries to hold Thai women back. Also like in any society, education and financial independence

are key to gender equality. In Thailand, school enrolment between girls and boys is approximately the same in the early phases, but girls outnumber boys in higher education. The “glass ceiling” still exists in the public and private sectors, but it is routinely broken by women in greater number.

## Challenges

Yet women still routinely face huge stumbling blocks from social disparity and gender discrimination.

In general, women must work many times harder than men to succeed in the male-dominated society. Many are also paid less for doing the same work as their male peers. Working women also have to shoulder unpaid work as wives and daughters to provide around-the-clock care for family members, as required by tradition. As for poor women, they are left behind and become vulnerable to all forms of gender-based discrimination.

The government, however, embraces women’s empowerment as an important part of state efforts to improve the quality of life of the populace. Mothers’ concerns for their children’s well-being make them active practitioners of SEP principles and agents of change for sustainable development.

Among the best practices to empower women and girls in Thailand are:





## **NAME PREFIX BILL**

Before 2008, the law required a married woman to use her husband's family name and change her name prefix to Mrs. This law practically reinforced the custom that puts sons before daughters because only the sons can continue the family name. It also perpetuated discrimination against mothers in the job market and prevented married women from managing their properties independently.

The 2008 Name Prefix Bill is the result of many years of inclusive decision-making based on well-rounded considerations from different stakeholders. The law allows women to choose to use their maiden names or adopt the husbands' family names. They are also free to use either the prefix Miss or Mrs both after the marriages and divorces.

This law tackles gender discrimination at its heart. By legally recognising girls' and women's identity, freedom of choice, and rights to carry on the family name, this law helps women to realise their full potential and become active agents of change.

## **GENDER EQUALITY ACT**

The Gender Equality Act took effect in 2015 to promote gender equality policies and practices both in public and private sectors. In line with SEP, the law results from bottom-up policy making, rationality and input from multi-stakeholders. It ensures investigation into gender discrimination complaints, compensation to affected parties, and punishment for perpetrators.



In line with the sustainable development goal, this law recognises equality and sexual diversity. When changes in cultural values are slow in the making, this legislation sends a strong message to the public that the values which endorse discrimination are wrong and discriminatory practices are illegal. It sets a new standard for society to follow so everyone can take part in sustainable development and benefits from it equally.

## SUPPORT FOUNDATION

The SUPPORT Foundation was a breakthrough for arts and crafts in Thailand – and for women farmers who are the main bearers of national heritage.

Set up by Her Majesty Queen Sirikit, SUPPORT has given women farmers the recognition they long deserve – and much more. The foundation supports women farmers to produce hand-woven silk, cotton and other local handicrafts which are part of their sufficiency way of life as sources of supplementary income, which strengthens farm families' self-immunity from external risks. SUPPORT buys the products at fair prices and assists the craftswomen with marketing and free training from experts in these fields.

By using women farmers' hand-woven silk for her dresses, the Queen has made the fading local arts alive again. Popular demand has spurred a mushrooming of businesses in local silk and handicrafts, energising the local economy and improving the stature of women in the community.





**The Thai Women Empowerment Fund** was established in 2012 to enhance women's opportunity in the economy and strengthen women's role in the society. The Fund is managed by the Thai Women Empowerment Fund Committees at the national, provincial, and local levels.



**The Fund's main objectives are:**

- (1) to provide low/zero interest fund and loans for investment;
- (2) to empower women and their networks (throughout the country) to solve related problems faced by women and provide remedy;
- (3) to enhance, support, and implement activities to develop the role and leadership skills to strengthen women socially and economically; and
- (4) to support related projects.

## SRA MAI DAENG VILLAGE

The women in Sra Mai Daeng village in Chai Nat province are the backbone of the sufficiency movement in the community. They pool resources to produce organic fertiliser and herbal pesticide so their produce is safe for customers.

Like other women farmer groups in Thailand, the Sra Mai Daeng women use ancestral knowledge based on SEP principles to produce their own OTOP products. The village is famous for its herbal mosquito-repellent that has received a patent and has already won a national award.

Sra Mai Daeng is among many villages nationwide which have proved that SEP is not only good for business but also for women's better status in their immediate families and communities.

## WOW PRACHIN

While women's groups in many local communities are active in the sufficiency movement, WOW Prachin has taken a step further by creating a capacity-building network for women's groups throughout Prachin Buri province.

Apart from receiving leadership training, members of the WOW Prachin network have the opportunity

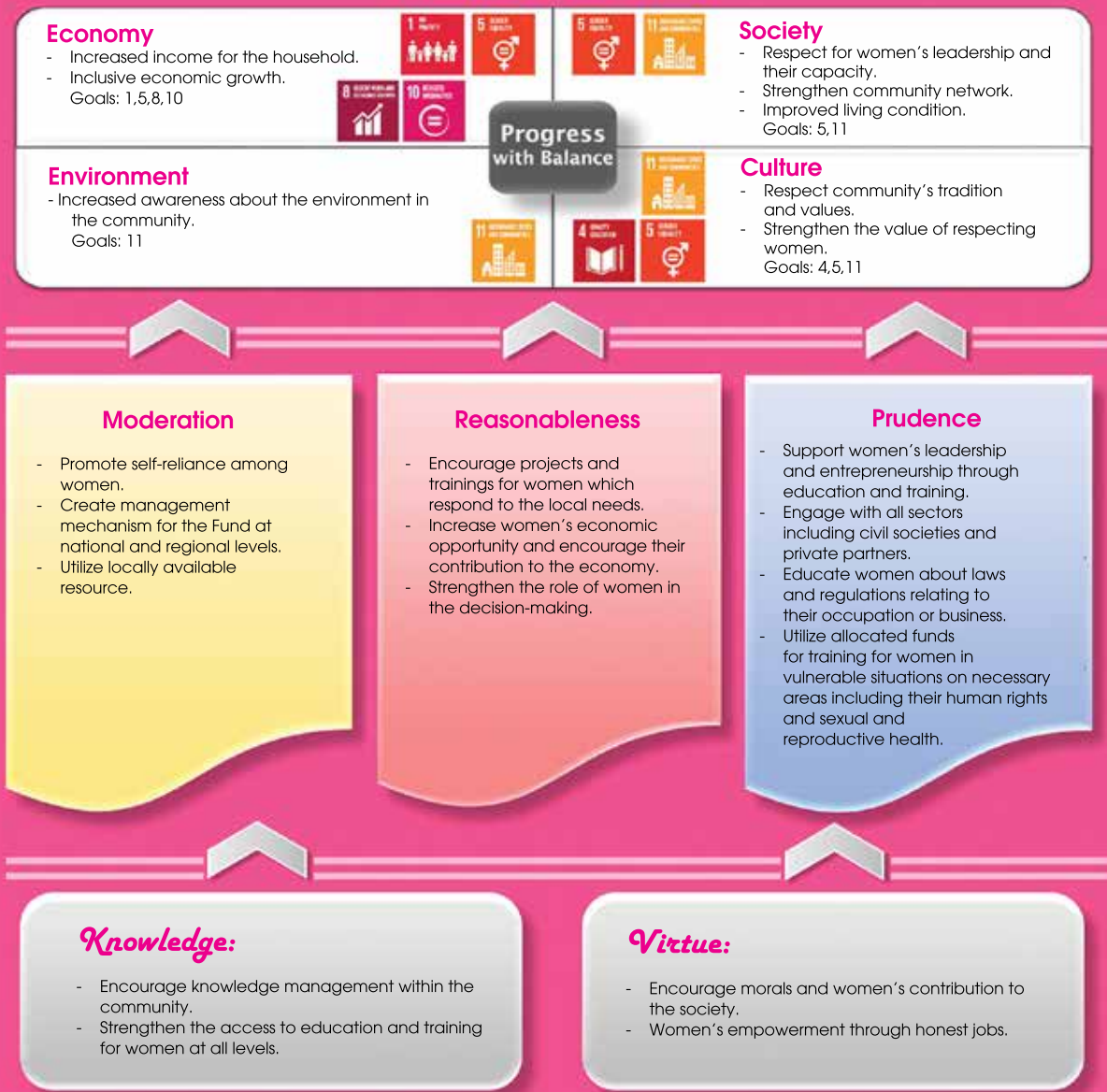
to learn from one another's experiences to strengthen food and financial security of their own communities through eco-friendly and cost-effective technologies. They become more empowered in the process.

## WHRRF

Short for Women's Health and Reproductive Rights Foundation, WHRRF works to empower women with access to reproductive rights and to reduce deaths from unsafe abortions.

The current Abortion Bill allows room for legal termination of pregnancy when it endangers the mother's health or when it involves rape or sex with a minor.

Using SEP multi-stakeholder decision-making governed by rationality, WHRRF works with public health officials, gynaecologists, the Medical Council and advocacy groups to reduce deaths from unsafe abortion. The cooperation resulted in the Medical Council's new rule and regulations to include mother's mental health and severe stress as a reason for safe termination of pregnancies.



## WOMEN'S HEALTH ADVOCACY FOUNDATION

Reproductive rights are key to women's good health. Yet sexual double standards are robbing women of reproductive rights. As a result, women suffer many diseases and many forms of discrimination and sexual violence.

Called *Sor Khor Sor* in Thai, the foundation uses participatory advocacy to raise social awareness on how patriarchy, which weakens women,

undermines and ends up weakening society as a whole. It uses rationality and ethical approaches endorsed by SEP to show the public how ending sexual double standards and sexual violence eventually fosters social security, an important component in sustainable development.





## 6 CLEAN WATER AND SANITATION



### Clean water and sanitation: Ensure availability and sustainable management of water and sanitation for all

#### Achievements

Statistics say it best about Thailand's commitment to provide clean water and sanitation to the populace.

According the World Health Organisation, 96% of the population in Thailand has access to improved drinking water and 93% to improved sanitation. Thailand, therefore, has achieved both the sanitation and drinking water Millennium Development Goal targets.

The nearly universal access to clean water and sanitation is a major reason behind the country's successful reduction of infant mortality and water-borne diseases. This is possible because all levels of government are strictly required by law to provide clean water and sanitation services in their jurisdictions – and to meet national standards for drinking-water quality.

*\*For more information on Community Water Resources Management by Utopakat Foundation and Hydro and Agro Informatics Institute, please see "Application of Science and Technology for Community Water-Related Disaster Risk Reduction: Thailand Good Practices following His Majesty the King's Initiative towards Sustainable Development", published in 2016 and available at <http://www.hail.or.th/hail/wp-content/uploads/2016/10/WRDRR-Book.pdf>*



## Challenges

While Thailand is stepping up to supply communities in rugged terrains with clean drinking water, the country is facing growing demand from different sectors amid increasing water scarcity due to deforestation and global warming.

Meanwhile, the deterioration of water quality has become a serious concern. The main culprits are excessive use of toxic farm chemicals, industrial waste and untreated urban sewage that flow directly to the waterways.

Apart from more efficient use of water, the country needs to fight deforestation and reckless use of farm chemicals to ensure sufficient and clean sources of water supply.

Most Thais believe fixing water problems is beyond their individual abilities. Many water development projects by His Majesty King Bhumibol Adulyadej, however, show them how appropriate technologies and local wisdom that respect nature can provide cost-effective answers. His Majesty's works have inspired many communities to use SEP principles to tackle water and sanitation problems from the ground up.

The following are some of Thailand's SEP efforts to ensure availability of safe water and sanitation.

## Utokapat Foundation under Royal Patronage

On the occasion of his 84th Birthday in 2011, His Majesty King Bhumibol Adulyadej contributed funds as initial endowment capital to establish the Utokapat Foundation, or the Water Development Foundation of Thailand, as a gift to the Thai people.

The foundation has dealt with developmental issues concerning water, including disaster mitigation for both excess water and drought conditions, and continued sustainable use of water for livelihood and economic development. As of 2016, over 600 villages are now using SEP in their water development efforts in collaboration and through support from the Utokapat Foundation. The foundation has set up 13 Life Museums for Community Water Resource Management (CWRM) following His Majesty's Initiatives. The life museums are

successful cases that are ready to be adopted and replicated by other villages to solve their water-related problems.

Ban Saladin and Ban Pha Chan, shown below, are examples of the Life Museums in Central and Northeastern Thailand, respectively.

## BAN SALADIN

The village of Ban Saladin in Nakhon Pathom province once seriously suffered from water problems of flood, drought, waste, and brackish water. Thick mats of water hyacinth blocked water flow and air-water interface, turning the water putrid and toxic.

Ban Saladin community used SEP inclusive decision-making to identify the problems and pool resources to clean up the waterways together. They were supported by Utokapat Foundation and the Hydro and Agro Informatics Institute (HAI) which provided the community with scientific knowledge and technology to collect area-based data and for mapping, as tools for analysis towards prompt solutions for managing and planning their water resources.

In addition, with partners including the Royal Thai Army and local government, the community efforts included comprehensive dredging of canals and linking the surrounding canals. Innovations introduced into the water treatment system included the use of solar aerators to add oxygen into the waterways, community-wide use of household grease traps, and systematic water quality monitoring by the youth in the local area.

The water problem is now history. Ban Saladin has become a life museum of CWRM following His Majesty King Bhumibol Adulyadej's initiatives. So far, more than 500 villages nationwide have adopted the Ban Saladin model by using SEP inclusive CWRM framework and appropriate technology and innovations to tackle their own problems.





# COMMUNITY WATER RESOURCE MANAGEMENT NETWORKS



Source: Utokapat Foundation Under Royal Patronage

## BAN PHA CHAN

Although situated on the banks of the Mekong in Ubon Ratchathani province, Ban Pha Chan – meaning a village on a steep cliff – is left without water for household consumption and agriculture for half of the year. The youth are absent from class as they queued for water-pumping.

Having surveyed the community's exact water supply needs and examined all water sources nearby, the community built a cement weir at the watershed area as a reservoir, called "E-Rang 1". In addition, they initiated their own innovation, called "Air-Ware", which makes the air stable while water is pumped. These help the pumps preserve their engines and increase their working life, and saves pumping time. Later on, Utokapat Foundation and HAIL encouraged Ban Pha Chan to apply science and technology for CWRM. They made a water map and land allocation map to manage their water resources. The E-Rang 2, a second cement weir, was then constructed to increase water availability.

Nowadays, Ban Pha Chan survives all year long, with water both for consumption and agriculture, and are proud to be a Life Museum. Also, they are proof that when people work as a team, guided by knowledge and perseverance in line with SEP principles, simple and practical solutions for their specific needs can be produced.

## THE CHAIPATTANA AERATOR

This low-cost and simple aerator was invented by His Majesty King Bhumibol Adulyadej and patented in 1993. The aerator treats and recycles wastewater by constantly adding oxygen to it. The Chaipattana Aerator epitomises the use of appropriate technology under Sufficiency Thinking to use nature to solve natural problems and to produce small, simple yet effective tools which can reach the masses in a big way.

## BUENG MAKKASAN RESERVOIR

Once putrid, this small lake in the heart of Bangkok received a new lease of life from an innovative use of water hyacinth for natural filtration.

Before, the lake was used to hold flood water but it became polluted and shallow from toxic silt and wastewater released by the Makkasan railway workshop. As part of water treatment, the lake water was pumped in and out to increase circulation and add oxygen to it. But the toxic elements remained. His Majesty King Bhumibol Adulyadej then advised the use of water hyacinth to absorb the heavy metals in the water. The weeds were replaced frequently to maintain their absorbing ability. This simple technique is now being used widely to treat wastewater.

## LAEM PHAK BIA NATURAL FILTRATION

Two decades ago, the Phetchaburi River was heavily polluted by agricultural, industrial and household wastes. The Laem Phak Bia Environmental Research and Development Project, at the monarch's advice, succeeded in saving the river through a natural filtration system.

First the polluted water is passed through a series of ponds, which imitated the natural self-purification mechanisms of lagoons. Then the water is channelled to constructed wetlands and mangrove areas where aquatic plants absorb toxins and organic matter until the water quality meets acceptable standards and is eventually released into the sea.

Many communities have adapted the natural filtration system – a low-cost appropriate technology which SEP advocates – to treat polluted waste water in their areas.

## NORTHERN RIVER BASIN NETWORK

The network comprises grassroots and civil society groups which advocate decentralised water management. In line with SEP principles on holistic, cost-effective management from the ground up, the network calls for participatory and comprehensive management of each river basin in the North instead of allowing different agencies to pursue fragmented policies separately.

The network also advocates small check dams, which SEP endorses, to restore soil moisture in rain-catchment forests as well as the use of community weirs and reservoirs to ease flooding and droughts instead of building big dams which destroy the forests and local residents' way of life.



## 7 AFFORDABLE AND CLEAN ENERGY



### **Affordable and clean energy: Ensure access to affordable, reliable, sustainable and modern energy for all**

#### **Achievements**

Thailand ranks top in the ASEAN region for solar energy use. The country's production and consumption of other alternative sources of energy is also constantly growing – an evident proof of Thailand's commitment to clean, renewable energy. It does not stop there.

Under Thailand's Renewable Energy Development Plan (2012–2021), the government will boost the use of renewable and alternative energy by 25%. Toward this goal, the government is already offering renewable energy producers price security through long-term contracts to boost private investment.

Measures are also in place to support solar and wind energy as well as biomass and biogas. In the transport sector, gasohol has almost replaced gasoline while the use of biodiesel is constantly on the rise.

Being a hub of automobile manufacturing, Thailand is branching into eco-cars to support clean energy. The government has shown firm support for the production of electric vehicles (EV) through





tax incentives and other policy measures. The country's aim to become the hub of EV manufacturing is in line with SEP care for the environment and global strive for sustainable and clean energy to save the planet.

## Challenges

Thailand is importing electricity from neighbouring countries to meet economic needs. Although hydropower is clean, its impact on the forests and the locals' way of life cannot be refuted. Policy pushes for "clean" coal for new power plants are also facing fierce resistance from local communities and environmentalists.

Meanwhile, the country still needs to import fossil fuel for nearly 30 million personal vehicles and the transport sector. Although technology in renewable energy is constantly improving as costs fall, the challenge remains huge for Thailand to produce enough clean energy amid growing demands. This underscores the urgency of demand-side management to improve energy efficiency and public awareness on energy saving.

Among the best practices based on SEP principles on clean energy are:





## NO.5 LABELLING PROGRAMME

To improve electricity consumption efficiency of household appliances, the Electricity Generating Authority of Thailand (EGAT) has developed the No.5 labelling programme for products that pass electricity efficiency tests. The label has become the gold standard for electrical appliances in Thailand.

As of 2015, 25 types of household electrical appliances including air conditioners and refrigerators have passed the rigorous electricity efficiency tests. Nearly 300 million electrical appliances in the market carry this label.

The project – which follows SEP principles on cost-effectiveness, appropriate technology and care for the environment – helped reduce the country's electricity demand by 3,587 MW, save 21,414 million kWh of energy, and reduce carbon dioxide emissions by 12.5 million tonnes.

## BAN KHLONG RUEA COMMUNITY

Situated in protected forests in Chumphon province, Ban Khlong Ruea is widely known for its forest conservation practices. The villagers' eventual decision to have electricity in their forest community was communal and marked by joint determination to keep the environment intact.

The villagers chose to have a small-scale generator just to fit their needs by harnessing power from a waterfall nearby. While they looked for expert assistance from outside, the villagers took part in every activity from decision-making, fund-raising, to contributing free labour.

Ban Khlong Ruea has become a role model and learning centre for other forest communities on how SEP principles enable them to live in harmony with nature.

## SISAENGTHAM SCHOOL

Realising changes must start from the bottom up, Sisaengtham School in Ubon Ratchathani province runs solely on solar power generated by the school itself. The school also uses its technical expertise to spread the use of solar power to local residents and other communities.

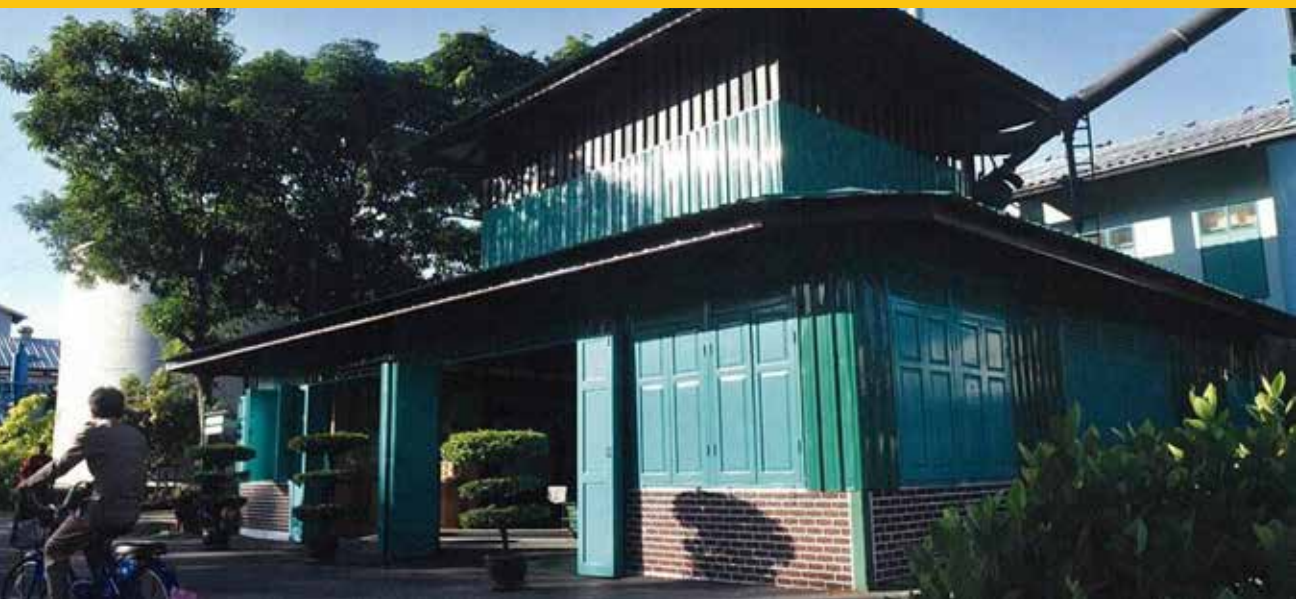
The school's solar energy programme is part of its SEP principles to use appropriate technology to save the earth. For example, students make organic fertiliser from dried leaves, actively take part in the reforestation that produces biodiversity, and learn how to make solar-powered appliances from simple, available technology.

Some of the school's innovative works include solar-powered tricycle, drinking water machine, water pump, mobile solar power station, flashlight and radio.

The Sisaengtham School also produced solar-powered gadgets for sale. The proceeds are used to finance free lunch programme and school buses.







*Buildings at the  
Royal Chitralada Projects*

## ROYAL CHITRALADA PROJECTS

Long before renewable and alternative energy became mainstream as it is today, His Majesty King Bhumibol Adulyadej used part of his royal residence as laboratories to research and experiment with gasohol, biodiesel, solar and wind energy.

The laboratories also maximise the use of agricultural by-products and waste such as rice husks to produce solid fuel and electricity, using simple technology that farmers can adopt and adapt.

When the experiments yielded practical results, the laboratories are used as demonstration centres for the general public to learn and make use of the knowledge for free. The Royal Chitralada Projects have inspired many farmers and communities to turn to alternative and renewable energy.

## SMALL POWER PRODUCERS PROGRAMME

The government's Small Producers Programme benefits both small businesses and the environment. It supports small-scale private electricity generation projects which use alternative sources of energy including agricultural waste such as rice husks, palm shell, corn leaves and woodchips. These small companies use appropriate technology to generate electricity which they can sell to the Electricity Generating Authority of Thailand (EGAT).

Thailand is one of the first countries in Asia to adopt a small power solicitation programme which produces about 15 percent of the country's total installed generating capacity. The programme, in line with Sufficiency Thinking, strengthens Thailand's energy security and reduces pressure on the planet.



## ENERGY-EFFICIENT STOVES

Traditional wood or charcoal-burning stoves are still widely used in rural areas. To reduce health hazards from toxic smoke and the use of firewood that contributes to deforestation, the Department of Alternative Energy Development and Efficiency used simple technology under SEP principles to develop energy-efficient, eco-friendly cook stoves which also reduce health risks.

The villagers are also trained to make their own energy-efficient stoves which use less firewood and retain heat longer. Many make them for sale as an additional source of family income. Women who do the cooking are especially happy with energy-efficient stoves because they are exposed to less smoke. Less use of charcoal also means more family savings.

The energy-efficient stoves give access to the rural poor to clean, affordable energy. Releasing less carbon dioxide into the atmosphere also lowers the impact of human activities on climate change.

## SUNNY BANGCHAK

The number of solar farms in Thailand are constantly growing nationwide. The Sunny Bangchak Project has taken a step further by making its solar farm in Ayutthaya a public learning centre on renewable energy, and produces 70 million electricity units per year, which can cut down the import of coal by 40,000 tonnes and a reduction of 38,000 tonnes of carbon-dioxide emission, or an equivalent of 26,000 rais of forest.

Along with other current and planned solar farms across the country under the Sunny Bangchak Project a total of 170 megawatts of electricity can be produced.

The centre also features entertaining and informative exhibitions on various types of alternative energy with a special focus on solar power – the future for sun-rich Thailand. Also popular with the public is the hands-on exhibition on how to turn algae into biodiesel.

The project, established by Bangchak Petroleum, showcases how SEP principles can strengthen both the country's environment and energy security.



## 8 DECENT WORK AND ECONOMIC GROWTH



**Decent work and economic growth: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**

### **Achievements**

After the 1997 economic crisis, the government started incorporating Sufficiency Thinking into national development plans and operations. Regulatory reform in business and finance succeeded in protecting Thailand from global crises in later years. SEP has become part of many corporations' social responsibility policy. Community-based development guided by SEP has mushroomed across the country, giving rise to community enterprises, revolving funds and small-credit schemes to provide communities with decent work. Meanwhile, bottom-up decision-making empowers communities to protect their food security and natural resources crucial for their well-being.

In 2016, the government launched the National Start-up Center to link innovations in different ministries with start-ups as well as linking them with credit sources.



The same year, the government launched a national policy to strengthen public-private-people partnership to boost inter-sector collaboration and inclusive growth with an aim to strengthen local enterprises and promote decent work.

## Challenges

Sufficiency Thinking for inclusive growth and decent work demands bottom-up decision-making. More effective labour rights protection needs to involve multi-sector partnerships. New SEP programmes also need more budgetary support to promote decent work and protect environmental well-being – a policy challenge amid the country's economic slowdown.

Here are some of Thailand's best practices that proves Sufficiency Thinking is crucial for decent work and inclusive growth.









## OTOP

For most people in rural communities, decent work means being able to generate income and stay with the family. OTOP, short for one tambon (sub-district) one product, answers their needs.

Most OTOP products are the fruits of women's groups' labour. The products were based on joint decisions, locality-specific expertise such as handicrafts and food preservation, cost-effectiveness and careful risk analyses. Group work also strengthens goodwill and camaraderie to help them overcome other community concerns together.

## CHUMPHON CABANA HOTEL

Hit by the 1997 economic crisis, the Chumphon Cabana Hotel first used Sufficiency Thinking to cut expenses by going organic, but the practices stuck.

The hotel grows its own rice and organic vegetables as well as raises hens for organic eggs. The hotel makes its own organic fertiliser to nourish its gardens and produces herbal shampoo and soaps for the customers. Used cooking oil is turned into biodiesel for hotel use. Using appropriate technology based on natural ways, wastewater is treated in multiple ponds, the organic matter being absorbed by water plants.

Sufficiency thinking at Chumphon Cabana saves jobs while going organic improves staff health. Inclusive decision-making also boosts staff morale and sense of ownership.

Going organic has also become a magnet for health-conscious customers. The hotel is now a learning centre on holistic health and organic farming. It also teaches visitors on how to make herbal consumer products for household use.



## THE INPAENG NETWORK

Decent work for farming communities which make up 40% of the population is not possible when they are trapped in debt cycles from monocropping. By using Sufficiency Thinking to shift to integrated farming, Ban Bua village in Sakon Nakhon province finally freed itself from farm debts. Its success inspired other villages to follow suit.

They later formed the Inpaeng Network comprising about 900 villages in four provinces in the Northeast of Thailand. The network's members helped one another with integrated farming, set up community enterprises to generate income and started communal savings groups to give members access to low-interest credit and welfare benefits. They also work together to protect the environment and revive ancestral knowledge in holistic healthcare.

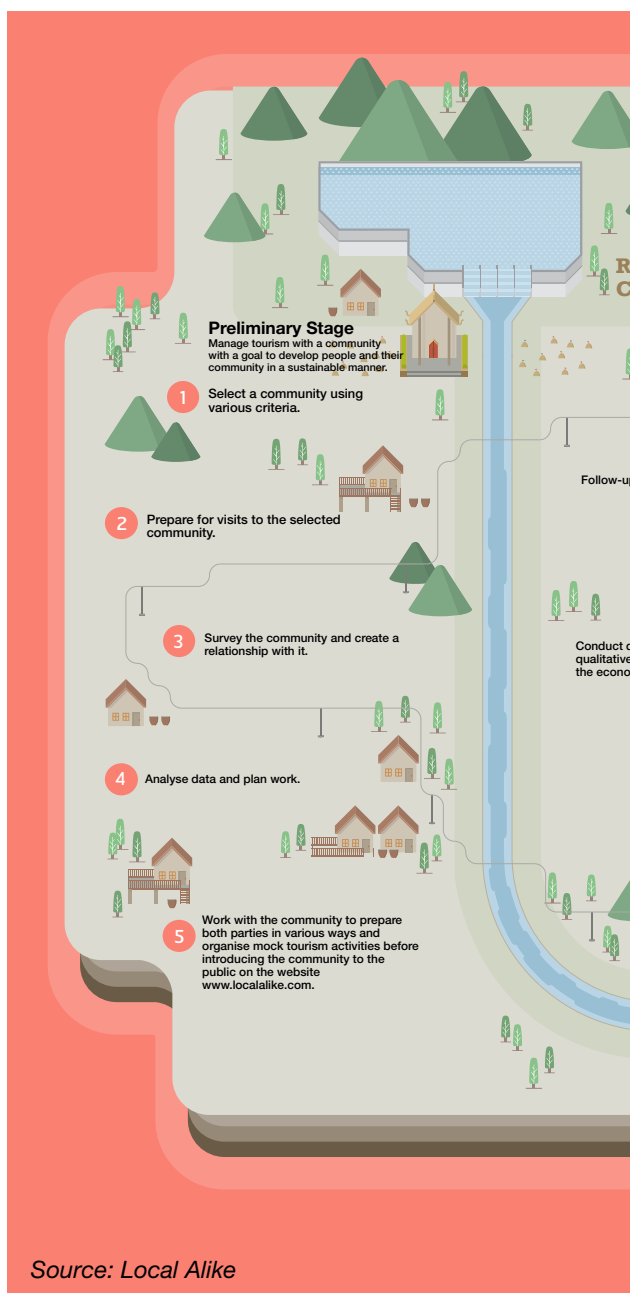
Their organic products have become popular, especially fruit juice and wine made from the native makmao berries. The network also set up a learning centre to share their experiences on how sufficiency practices provide them a decent way of life, not only decent work.

## SAVINGS/CREDIT GROUPS

More often than not, people are plunged into life insecurity and indebtedness because they do not have access to low-interest credit, making them easy prey to loan sharks. An innovative microfinance group turned this around by using the members' honesty as collateral. It started in Ban Nam Khao village in southern Thailand by primary school teacher Chob Yodkaew.

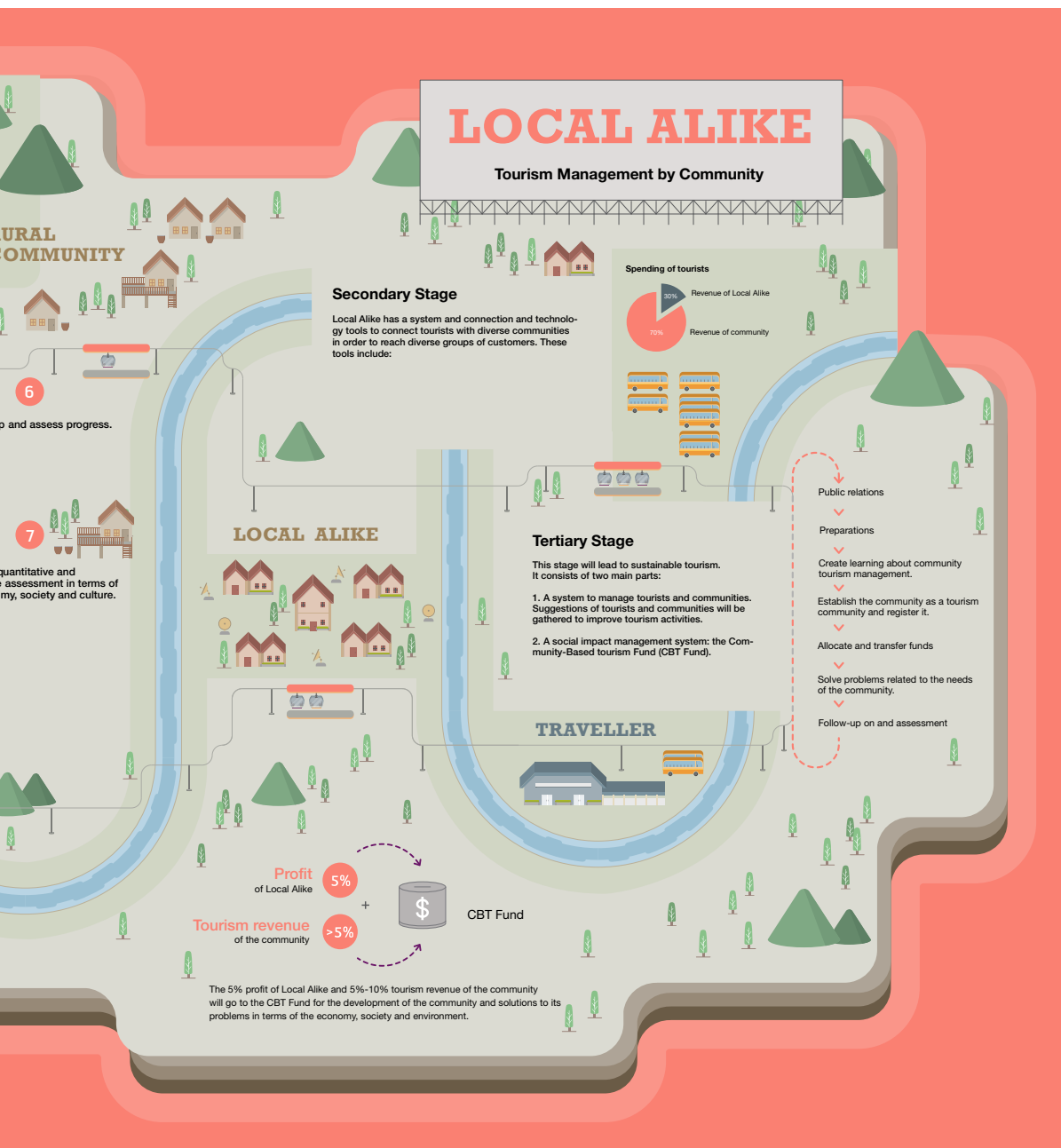
Run under SEP principles of bottom-up transparency, the savings group gives members low-interest loans, which are often used for work-related purposes. The interest – under SEP guidelines on caring and sharing – is used to give welfare benefits to all members. The benefits cover health, education, youth activities, occupations, welfare for the elderly, orphans and the disadvantaged, environmental and cultural conservation.

This model has been adopted by communities nationwide. Apart from welfare benefits, many



communities also use the interest to set up community enterprises to provide jobs for the locals.

This innovative microfinance scheme set a precedent to the government's Village Fund which gives one million baht to each village to set up a revolving fund with low-interest loans. The fund, however, stops short of establishing welfare benefit schemes.



## COMMUNITY-BASED TOURISM

Bottom-up tourism which directly benefits local communities is now mushrooming across Thailand, providing decent work for local residents while strengthening their efforts in environmental and cultural conservation.

Most community-based tourism offers visitors a chance to experience local way of life, which

boosts people-to-people relationships, mutual understanding and local income. Participatory decision-making under SEP guidelines ensures fair division of labour and benefits. Keeping with moderation under SEP guidelines also prevents communities from succumbing to money temptations, so they can continue to manage their tourism resources with respect to the environment and local traditions.





## 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



### **Industry, innovation and infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation**

#### **Achievements**

Thailand's economic boom in the 1980s provided the country with an extensive network of transport and industrial infrastructure. Firm policy support for foreign investment and the export industry has catapulted Thailand into a lower middle-income country.

In manufacturing, Thailand is at the forefront of the automobile industry, earning itself the epithet "the Detroit of Asia". Thailand is also among the world's top 20 manufacturing countries with manufacturing accounting for 38% of the country's gross domestic product.

In agriculture, the country is the world's No.1 rice-exporting country and it is among the world's top seafood exporters. Despite frequent changes of governments, they all share the same policy to make Thailand the "Kitchen of the World."

In tourism, the number of arrivals now nears the 30 million mark, making Thailand the 10th most-visited country. Apart from being the country's biggest foreign exchange earner, tourism is also the

biggest employer, hiring more than 2.5 million people. Medical tourism is also rapidly growing, thanks to high-quality medical care and relatively low cost.

Regulation reform in the financial sector has increased Thailand's resilience, in line with SEP principles, which spared the country from the 2008 global economic crisis.

## Challenges

Thailand's industries benefit from modern infrastructure, an open business atmosphere and the country's geographical advantages. But their growths are putting heavy pressure on the infrastructure and environment.

The transport infrastructure needs to be overhauled and expanded urgently as the manufacturing sector is fast losing competitiveness from higher logistics costs and wages. State-owned enterprise reform is necessary to create a level playing field for other players. Small businesses which account for most jobs in the country need more policy support. Also necessary are budgetary injections for research and development, and education reform to foster innovation to move the country up the value chain.

The goal is not only to meet future growth, but also to make industrial development eco-friendly, sustainable and equitable.

A big part of the problem stems from excessive money chase until the system nearly breaks down. This is where SEP comes in to strike a balance and attain sustainable development. Among these efforts are:

## GREEN TRANSPORT

The government is pursuing many green transport policies, all guided by the SEP principles which combine eco-friendly technology with long-term economic benefits and system resilience.

For example, plans are in place to build 3,000-kilometres of modern dual-track railways across the country, which will also link Thailand with neighbouring countries. In addition, new urban freight centres are being built to improve logistics infrastructure.

Bangkok, a capital of close to 10 million inhabitants, is set to be covered by 13 mass transit lines which will reduce the notorious traffic and the emissions of carbon dioxide and greenhouse gases. Eight lines are now on track. An old fleet of diesel buses are being replaced by some 3,000 new ones run by natural gas.

The government also supports the eco car scheme through tax breaks to promote energy-efficient vehicles. To tackle air pollution, the automobile tax system will introduce new taxes based on carbon dioxide emissions and energy efficiency.



## THAILAND INDUSTRIAL STANDARD 9999

Better known as TIS 9999, this is the industrial standard set by the Thailand Industrial Standard Institute to encourage the private sector to use SEP principles to foster good governance and sustainability.

Training is offered to companies on inclusive decision-making with a focus on moderation, use of cost-effective technology, resilience to risks, knowledge and ethics.

## SUSTAINABILITY INDEX

**ESG 100** is Thailand's first sustainability index, launched by the Thaipat Institute, a public interest group that promotes socially responsible business. ESG is short for Environmental, Social and Good governance, the criteria used by the Thaipat Institute to list top-100 companies according to their performance.

The ranking comes from comprehensive data from various publicly available sources such as the Securities and Exchange Commission, the Thai Listed Companies Association, the Thai Institute of Directors and the Thai Market Supervisory Board. The ranking criteria are in line with Sufficiency Thinking for sustainability.

## THAI INSTITUTE OF DIRECTORS

The institute was set up after the 1997 Asian economic crisis which was caused in part by lack of corporate good governance. To increase immunity to external risks and corporate ethics, which is one of SEP's goals, the Institute of Director (IOD) trains company directors to meet international standards of corporate good governance and ethical leadership. IOD also takes a firm stand on corruption.

## GREEN MANUFACTURING

Several corporations are taking SEP principles and sustainability to heart by turning to green manufacturing.

For example, Toshiba Semiconductor (Thailand) Company Limited built a new plant to replace the old one which was damaged by the big flood in



Established in 1913, SCG is a leading business among the countries of the Association of South Nations (ASEAN). Its cement and concrete products supported the development of Thailand's infrastructure and projects in many other countries. Its innovative, diversified product mix with natural resources conservation has provided contemporary industrial development.



2011. The new plant reduces energy use by 75%, generating only a quarter of greenhouse gas and only 1% of the waste.

The Siam Cement Group (SCG) uses SEP principles to integrate environmental, social and good governance in its production and throughout its value chains. Its open-cut mining process, for example, minimises the damage to the mountain ecosystem. As a result of its "Zero Waste to Landfill", SCG produces only 4% of non-hazardous waste and 0% of hazardous waste. It is practicing green procurement as well as staff engagement which is in line with SEP principles. The company produces some 80 eco-friendly products which generate over 30% of its revenue. Another 35% of revenue comes from a special product line with the lowest level of impact on

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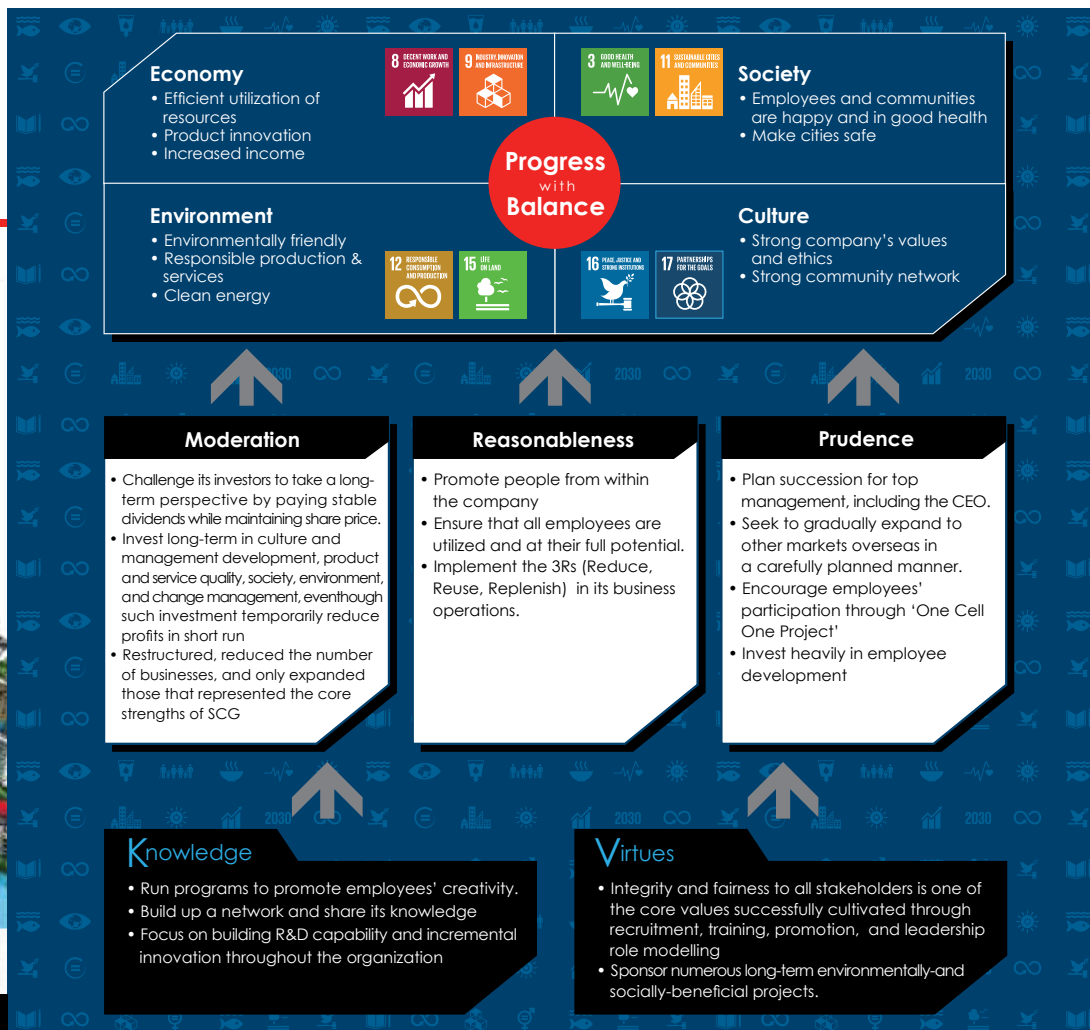
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Source: Thailand Sustainable Development Foundation

the environment, proving that being sustainable is also profitable.

Mitr Phol, Asia's largest sugar producer, is using fibre left by milled sugarcane to produce bio power. Half of this alternative energy is used to power the entire operations of the milling and sugar refining process. Another half is sold as electricity to consumers. The electricity produced by the company's 6 waste-to-energy plants saves the country 330,000 tonnes of oil imports per year. Mitr Phol also uses molasses waste to produce more than a million litres of bioethanol a day.

## SMEs

The Small and Medium Enterprises (SMEs)

Promotion Act was passed in 2000 to help smaller businesses increase their resilience. This move was followed by the setting up of the Office of Small and Medium Enterprises Promotion (OSMEP) and SME Development Bank.

The Stock Exchange of Thailand (SET) has also set up the Market for Alternative Investment (MAI) to offer a lower-cost option for smaller firms to be listed.

The majority of enterprises in Thailand are SMEs. They are involved in diverse business activities and account for most jobs in the country. State policies under SEP to help SMEs reduce business risks and become sustainable help cushion the country from global economic uncertainty as well.



## GREEN FINANCING

In support of SEP and sustainability goals to protect the environment, several commercial banks are offering so-called *green loans* with lower rates to entrepreneurs, SMEs and individuals engaging in eco-friendly projects. For example, innovative energy-saving projects, waste recycling and alternative and renewable energy production.

Among the banks offering green loans are Kasikorn Bank, Bangkok Bank, and Krungthai Bank.

## COMMUNITY-BASED TOURISM

Many communities and tour operators have adopted community-based tourism to reduce the impact on the environment and to increase the locals' income and cultural pride. Among them are:

**Ban Sapan Hin Homestay:** The village of Ban Sapan Hin in the Northeast of Thailand offers a homestay package which combines holistic healthcare with nature and culture tours. The experience fosters visitors' appreciation and respect to local way of life.

**Local Alike:** This alternative tour operator offers socially-responsible tourism that promotes respect to local cultures and traditions. About 70% of the net profits of the tour go to a community fund for various development projects.





## ALTERNATIVE AGRICULTURE NETWORK

A group of non-governmental organisations have teamed up with local farmers and communities to set up the Alternative Agriculture Network to promote various forms of ecological farming. The network also engages in advocacy campaigns to raise public awareness about the danger of farm chemicals to farmers, the environment and consumers.

The network plays a crucial role in creating and expanding the market for green produce. It also campaigns for policy support for sustainable agriculture.





## 10 REDUCED INEQUALITIES



### Reduced inequalities: Reduce inequality within and among countries

#### Achievements

The World Bank has described Thailand as a development success story for being able to move from a low-income country to an upper-middle-income country in less than a generation.

Such a development leap has saved millions of people from poverty while reducing inequality. In the last 30 years, poverty has declined from 67% in 1986 to 11% in 2014, which is quite low compared to other upper-middle income economies.

Thailand's rate of unemployment – at only 0.5% – is also among the lowest in the world. As incomes rise, the level of income equality constantly declines. In 2000, the level of income inequality was 0.52. It fell to 0.47 in 2013.

To prevent people from plunging into poverty again, the government has also put in place a myriad of social safety net programmes. Free education and more job opportunities have significantly bridged social and economic inequality.

## Challenges

The majority of Thais now enjoy much better quality of life and material comfort, but the country is yet to overcome the glaring gap between the rich and poor, the urban-rural divide and inequitable land ownership.

The challenges are manifold. The government is striving not to leave behind ethnic minorities, the poor, and informal workers, some millions migrant workers from neighbouring countries have been accorded access to health care while their children have access to basic education. Measures have also been taken to protect the rights of stateless, displaced and undocumented people in the country.

To this end, the government has undertaken many policies and measures in line with SEP principles to tackle disparity and increase the country's immunity against such risks. Among them are:

### LAND BANK

To tackle landlessness, one of the main causes of disparity, the government has set up the Land Bank Administration Institute with a budget of 800 million baht to help landless farmers increase their resilience.

This landmark policy is in line with SEP principles of bottom-up decision making, transparency and self-immunity. The Land Bank proposal originated from grassroots land rights movements. Its task is to settle land rights conflicts by returning the controversial pieces of land to the original owners – the communities – to be owned and managed by the communities themselves with additional state support through low-interest credit.

In addition, the majority of board members are representatives from grassroots groups to ensure that Land Bank policy respond to real needs on the ground.







## COMMUNITY LAND DEEDS

Most landless farmers in land distribution schemes eventually sell their land. To tackle this problem, the government has adopted community land ownership – a policy innovation from the grassroots land rights movement – to prevent farmers from falling into landlessness again.

Under this scheme, the government issues community land deeds to the communities. Landless farmers will only receive land use rights, not private land title deeds which can be sold. Who receives land use rights will be decided by community committees in a transparent manner.

In return for land use rights, the villagers are required to help protect the environment and the forests by adopting ecological farming. The policy is in line with sufficiency thinking which promotes moderation, self-immunity, and environmental protection.

## MICROFINANCE

Communities across the country have set up their own savings and credit groups for low-interest loans and welfare benefits. This innovative move has helped reduce economic and social disparity and protect villagers against external risks. Meanwhile, the rule on inclusive decision-making, which is in line with SEP principles, fosters transparency and strengthens financial management skills at the grassroots level.

## MIGRANT WORKERS' RIGHTS

Exploiting migrant workers weakens the country by fostering corruption and underground business.

Under Sufficiency Thinking, it is necessary to protect migrant workers who significantly contribute to the country's economic resilience and productivity, especially when the country is ageing rapidly.

Apart from the regularisation programme for undocumented migrant workers, the law guarantees them legal minimum wage similar to Thai nationals. Migrant workers also receive equal healthcare services to nationals under social security law and health improvement scheme. Female migrant workers are also entitled to have the same maternity leave as Thai workers.

## EDUCATION FOR ALL

Thailand's education-for-all policy gives all children 15 years' free education regardless of nationality and legal status.

Education is the most cost-effective investment to give underprivileged children an equal head start. Education for all does not only reduce inequalities, it also strengthens social immunity – which is advised by SEP – against social problems had the children been excluded from the education system.





## UNIVERSAL HEALTH COVERAGE

Giving equal access to public healthcare services to the rich and poor alike is probably Thailand's most effective policy to reduce poverty and bridge disparity at the same time.

This policy effectively strengthens self-immunity of the whole populace, which is one of the SEP goals. Thanks to universal health coverage, patients and their relatives no longer have to risk financial bankruptcy when hit with illnesses and unaffordable medical treatment.

Thailand's universal health coverage has now become a role model for public healthcare systems across the world.









## 11 SUSTAINABLE CITIES AND COMMUNITIES



### **Sustainable cities and communities: Make cities and human settlements inclusive, safe, resilient and sustainable**

#### **Achievements**

In 2015, Bangkok was voted the world's No. 6 best city by influential American travel magazine Travel + Leisure. During 2010-2013, Bangkok was consecutively ranked amongst the top.

The readers, all seasoned travellers, rated Bangkok highly for a superb blend of ancient culture, modern luxury, excellent food – not only Thai but international cuisines from various parts of the world – and the locals' friendliness. The same can be said of other big cities in Thailand such as Chiang Mai, Phuket, and Khon Kaen among others.

Bangkok – being the seat of the government and the heart of Thailand's commerce, finance, investment and communications – offers locals better job opportunities, modern comfort and a rich cultural life than other cities do. The economy of scale also makes consumer goods cheaper. The subways and elevated trains have also made life in Bangkok easier than it used to be.

Bangkok is not alone. Economic growth in the past few decades has created many big cities across the country, providing local residents with job opportunities, better standard of living and more equitable distribution of income.

## Challenges

Bangkok is facing many problems that come with being the primary city – heavy traffic, air pollution, burgeoning garbage, insufficient green space, polluted waterways and land subsidence from overuse of underground water to feed the nearly 10-million inhabitants.

The urban poor who provide Bangkok with labour – and the rich street food that has made Bangkok world famous – also need housing security and better life opportunities.

Effective land zoning and inter-agency coordination are necessary to rein in Bangkok's freewheeling growth and to set precedents to other cities.

The SEP principles on moderation, bottom-up decision-making, and environmental protection are vital to strike a balance between city growth and the need for social and environmental health. Among these efforts are:

## CODI

Short for Community Organisation Development Institute, CODI helps slums in Bangkok and other provinces gain housing security through a collective housing programme called Baan Mankong, meaning *secure housing*.

The programme offers low-interest loans as well as legal counselling to slum dwellers as a community, not as individuals. To be eligible for the loans, slum communities must set up savings and credit groups and use the money to improve their houses or build new communities they design together with help from CODI architects.



This bottom-up, collaborative approach fosters a sense of ownership and empowers communities to tackle their other problems together. More than 1,500 communities have built some 100,000 new homes under this programme.

## MERCY CENTRE

Located in Klong Toey, Bangkok's biggest slum, the Mercy Centre provides shelters to street children and runs a kindergarten, a school for youth with special needs and a hospice for people with HIV/AIDS.

The Mercy Centre is one of many social services run by the Human Development Foundation. More than 50,000 small children have benefited from the foundation's pre-schools and kindergartens in Klong Toey. Apart from learning how to read and write, the children also learn to value prudence, diligence and honesty – the virtues advocated by SEP – to increase self-immunity and reduce risks in life.

## WONGPANIT RECYCLING

Before the advent of Wongpanit Recycling, few in Thailand realise the economic value of waste.

The plant uses appropriate technology to sort and process up to 500 tonnes of waste per day for recycling businesses. The highly successful business model plus the founder's passion to share his skills and knowledge – the virtues



lauded by SEP – has triggered the spread of waste sorting and recycling businesses nationwide. Wongpanit has inspired schools, communities, and households nationwide to adopt waste sorting and sell the recyclable waste, significantly reducing the amount of garbage in the cities.

## SAM CHUK MARKET

It started with the Sam Chuk community's desire to preserve its old riverside market by the river as part of local history. The Samchuk residents in Supan Buri province worked together to restore



the wooden shophouses and built a folk museum. Old residents revived cooking skills to sell once-famous local foods. Visitors took notice. Before they knew it, the market had brought back vitality to Sam Chuk and Supan Buri. Through bottom-up effort and perseverance, the market has become the source of pride and income for the Sam Chuk community.

## BIG TREES

The group started in 2010 as a citizen campaign to save big trees in Bangkok from being axed by real estate developers, using social media to garner public support. The campaign immediately struck a chord with the public.

Since Bangkok has only 3 metres of public



green space per person, Big Trees expanded its campaigns to call for more parks and to prevent Bang Krachao, Bangkok's green lung, from being invaded by property development projects.

Big Trees together with other civic groups, are now campaigning against the State Railway of Thailand's project to sell its large tract of greenery in the heart of Bangkok to developers so the area can be used as a public park.

## THE METRO FOREST

This forest-in-the-city project shows it is possible to return lush, natural forest back to Bangkok. Following SEP principles on appropriate technology and care for the environment, the PTT Group has turned its 12-rai plot of empty land into a forest by growing a wide variety of indigenous trees and plants at random to imitate nature. In the same manner, a man-made stream has different levels and depths so the water can circulate naturally. The area became lush and green within three years.

There is a skywalk, tower and learning centre on the site to make the city forest accessible to the public.

## BANG BUA CANAL COMMUNITY

Once riven with crime and drug abuse, this slum by the canal in Bangkok is now a model community.

When the canal became polluted and brimming with garbage, residents joined forces to clean up the canal by themselves. They also campaigned among themselves to stop dumping waste and untreated sewage into the canal. In addition, the community set up a savings and credit group so residents could get low-interest loans from CODI to replace rickety shacks with new permanent homes.

The Bang Bua Canal Community shows grassroots cooperation, inclusive decision-making and perseverance can indeed give the urban poor housing security, a more sustainable community and better quality of life.





## 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

### Responsible consumption and production: Ensure sustainable consumption and production patterns

#### Achievements

The government has incorporated sustainable consumption and production in its 5-year national plans and put in place rules and regulations on green industry and green procurement. The government has also set up industrial standards, awards and green labels to promote responsible consumption and production.

Promoting integrated, organic farming under sufficiency thinking to enhance Thailand's status as the "Kitchen of the World" is also a national policy.

A growing number of companies big and small in Thailand have made their office buildings, factories and production process environmentally-friendly.

Thanks to Thailand's vibrant civil society, consumer protection groups are actively monitoring safety standards and product quality as well as strengthening public awareness on consumer rights.

A law to create an independent consumer protection organisation is in the legislative pipeline.

Thai consumers, meanwhile, are increasingly aware how their responsible consumption can save the planet. This had led to the popularity of organic food, community-based tourism, and increasing pressure on businesses to adopt ethical sourcing.

## Challenges

The investment cost of environmentally-friendly manufacturing to produce ‘green’ goods is still high, calling for more tax and credit incentives to make them affordable to smaller businesses and ordinary people.

Despite strict laws and policies to regulate the industries and protect consumers, implementation remains a big challenge. The massive scale of the tourism industry itself also makes monitoring difficult.

Although more consumers are opting for organic produce, heavy use of toxic farm chemicals is still widespread due to aggressive promotion from agro giants, outdated laws and conflicting interests among different state agencies.

There have been many successful attempts to redress the situation through responsible consumption and production. All incorporate SEP principles on moderation, use of appropriate technology, care for the environment and concerns for the disadvantaged. Among them are:

## FOUNDATION FOR CONSUMERS

Apart from monitoring product safety and quality, the Foundation for Consumers is active in policy and advocacy work on myriad issues that affect consumers. They include public health, agriculture, labour rights and gender.

The foundation has a Complaints and Legal Assistance Center to help consumers fight their cases. It also publishes a popular bi-monthly consumer magazine “Smart Buyer.”

The foundation helped set up the Confederation of Consumer Organisations comprising consumer groups across the country. The network works closely with consumers and its advocacy work follows ordinary people’s demands for fair play and a healthier environment.

## TREES

To set a standard for eco-friendly buildings, the Thailand Green Building Institute has set up a rating system called TREES, a domestic equivalent of the internationally recognised LEED certification programme in the United States. As of 2013, 22 green buildings have been certified by the TREES and LEED rating systems. Most of them are in Bangkok.







## GREEN BUILDINGS

A growing number of corporations are turning to green buildings not only because they are eco-friendly but also because they are more cost-effective in the long run. In line with sustainability and SEP principles, green buildings can cut electricity and water use by half. They produce much less solid waste and carbon dioxide while providing a healthier work environment for staff.

Setting precedents are big-name companies such as SCG, PTT, Kasikornbank, Toyota and Park Ventures Ecoplex.

## GREEN INDUSTRY MARK

The Ministry of Industry, in co-operation with the European Union, set up the Green Industry Mark to promote sustainable consumption and production for companies big and small. Larger companies receive assistance to reach a certain level of Green Industry Mark while SMEs receive training to apply for the certification as well as assistance to solve their problems so they can meet the green criteria.

## GREEN LABEL

The Thailand Environment Institute and the Ministry of Industry set up the Thai Green Label Scheme in 1994 to give certifications to products that have minimum negative impact on the environment when compared with other products with the same functions. Certified products can carry the Thai Green Label to aid customers' buying decisions.

## GREEN LEAF

Set up in 1997, the Green Leaf Foundation gives certifications to hotels that meet required standards in energy efficiency and the reduction of water use, waste, and toxic chemicals.

Thanks to this initiative, eco-friendly practices have now been widely adopted in the tourism industry. The positive impact on the environment is significant now that tourist arrivals have approached the 30 million mark, excluding domestic tourists.

## PLAN TOYS

A model in sustainable production, Plan Toys uses old rubber trees destined to be burnt off to make eco-friendly toys. The wood treatment process is chemical-free, so are the glues and dyes used on the toys.

Following sustainability and SEP principles, Plan Toys uses renewable energy from solar power panels and biomass fuel from waste wood to run its entire operation and to supply nearby villages with surplus energy. The company also uses sawdust to make eco-friendly toys, which significantly saves costs and increases profits.





## JIM THOMPSON SILK

A pioneer in ethical and sustainable silk industry, Jim Thompson Silk Farm in Nakhon Ratchasima province allows local weavers flexible work hours at its factory so they can fulfil their household and farming obligations.

Instead of building large silk farms to increase efficiency and profits, the company distributes silkworm eggs to some 500 families in the Northeast so they can raise them at home and sell the raw silk cocoons back to the company.

This ethical sourcing stems from the company's respect for local way of life and thankfulness. The company believes it should give back to the villagers because the unique silk materials which make Jim Thompson silk famous come from the Northeast villagers' traditional sericulture expertise.

## KHIRI TRAVEL

Khiri Travel specialises in sustainable tourism focusing on cultural, natural, and educational excursions. With offices throughout Southeast Asia, Khiri Travel has a code of conduct which keeps its operations and tour programmes eco-friendly with minimum impacts on the environment and local communities. The company also chooses partners in destination countries based on sustainability principles. Their triple bottom line – people, planet, profit – is in line with Sufficiency Thinking.

Khiri Travel also has a charity organisation called Khiri Reach to give back to local communities through development and empowerment projects.

## SUSTAINA ORGANIC RESTAURANT

All ingredients for Sustaina come from its own farm called Harmony Life Organic Farm which also produces noodles, teas, tonics – and even organic detergent – for restaurants and distributes organic products to more than 10 countries. The farm also teaches organic farming techniques to hundreds of farmers from Southeast Asia every



### Sampran Resort Network

Established since 1962, Sampran Riverside is an eco-cultural tourism destination featuring a cultural centre, cultural performances and exhibition in a lush river delta area west of Bangkok. Recently it re-cast its programme in coordination with the national campaign for sustainable development. With a vision framed by the Sufficiency Economy Philosophy, its programme is themed on the value chain "from farm to firm" for agricultural and other products of the local economy, in recognising the needs for local involvement in sustainable development.



S E P in B u s i n e s s

year.

The popularity of organic restaurants such as Sustaina epitomises an increasing awareness of responsible consumption in Thailand. In line with Sufficiency Thinking, restaurant owners give farmers fair prices and use the ingredients that come from sustainable farming.

## CHANGEFUSION

Many innovative social enterprise ideas to tackle environmental and social problems remain just that, ideas, due to lack of financial support. ChangeFusion is set to change that.

A non-profit organisation under royal patronage, ChangeFusion gives low-interest loans and consultancy for social entrepreneurs so their



Source: Thailand Sustainable Development Foundation

projects become a reality.

To encourage businesses to practice sustainability, ChangeFusion helped set up Thailand's first ESGC (Environment, Society, Good Governance, and Anti-Corruption) mutual fund to invest in public companies that meet sustainability criteria. It also organises social enterprise initiative competitions and works with other organisations to address environmental and social concerns.

## SAMPRAN MODEL

The Sampran Riverside, a resort and hotel in Nakhon Pathom, encourages farmers in the area to engage in organic farming by supporting them

with know-how and marketing channels.

Many farmers want to stop using toxic farm chemicals, but they need initial assistance with organic fertiliser and pest control. They also need access to fair-trade markets to ensure income stability.

Sampran Riverside then connects them to agricultural experts and set up an organic fresh market at the hotel premise to link farmers directly to consumers. The market called Talad Sukjai, meaning market of happiness, has become a popular market for organic produce. The number of organic farmers in the province is growing as a result.



**13** CLIMATE ACTION



## Climate action: Take urgent action to combat climate change and its impacts

### Achievements

The most effective way to slow down global warming is to cut the emissions of greenhouse gas. This is the path Thailand is taking. To reduce the use of fossil fuels, the government strongly supports private investment in renewable energy by buying “clean” electricity generated by people or companies at guaranteed prices. Imports of renewable energy equipment also receive tax exemptions.

Consequently, Thailand is now the biggest solar power producer and user in ASEAN. Meanwhile, other alternative energy sources are fast expanding in the country such as wind power, biomass, biogas, and energy-from-waste.

In addition, the government has put in place policies and measures to increase energy efficiency, including a law requiring large energy users to have energy efficiency action plans and energy audits.

Following the tsunami in 2004, the mega flood in 2011, the prolonged drought in 2015 and the increasing frequency of violent storms and



flash floods, authorities are working with locals to set up warning systems in high-risk areas across the country.

The government has put in place a 12-year National Water Management Strategy which covers all water-related problems from droughts, floods to wastewater with input and participation from locals to mitigate the impacts of climate catastrophe.

The National Strategy for Natural Resources Management, meanwhile, aims at increasing the forest cover in order to stop soil erosion, flash floods and to reduce the emissions of greenhouse gas.

## Challenges

Increasing the forest cover remains an uphill task due to rural poverty, weak coordination among state agencies and agro giants' aggressive promotion of plantations. Weak zoning, unchecked growth of buildings and excessive use of underground water aggravates inundation, posing regulatory challenges.

Despite an impressive increase of renewable and alternative energy production, the output is insufficient to meet the country's energy demand.

As Thailand races against time to overcome structural problems that delay moves to cut the emissions of carbon dioxide, global warming escalates unabated, urgently calling for concerted efforts across borders to soften the impacts of climate change.

The impending threat makes sufficiency thinking especially timely to make industry and society more eco-friendly and more adaptable to extreme weather patterns. Among the SEP-inspired endeavours to attain this goal are:

## MONKEY'S CHEEK RESERVOIR

Small reservoirs and ponds are being built nationwide to store water in order to prevent flooding during the rainy season and supply farm water during prolonged dry season. Low-lying areas and floodplains are also being used as natural reservoirs for the same purpose.

Initiated by His Majesty King Bhumibol Adulyadej, this flood management technique is dubbed "monkey's cheeks" because it imitates the way monkeys store food in their cheeks for later use.

Based on sufficiency thinking, the monkey's cheek method is cost-effective, using nature to solve natural problems, accessible to ordinary villagers and reduces adverse impacts of climate change.

An advocate of affordable technology, His Majesty also advised building small dykes and enlarging existing canals or digging new ones to control flooding.





## ROYAL RAINS

This cloud-seeding technique to make artificial rains has helped ease the plight of Thai farmers for several decades. Frequent drought caused by climate change has made this affordable technology more necessary than before.

Initially developed and funded by His Majesty King Bhumibol Adulyadej, the Royal Rain Project was later adopted by the government. It became the Artificial Rainmaking Research and Development Centre which is now sharing this affordable cloud-seeding technology with other countries to alleviate the impact of climate change.

## CHECK DAMS

They are small dykes in rain-catchment areas to increase soil moisture, prevent forest fires and speed up forest regeneration. The materials are natural, such as wood and rocks, making check dams harmonious with nature.

Check dams, adapted from hill tribes' practices and advocated and promoted by His Majesty King Bhumibol Adulyadej, offer an easy, practical solution for the villagers to take charge of reforestation themselves – a bottom-up in line with SEP principles for sustainable environmental protection.

## BICYCLING

A growing number of Thais are taking charge of battling climate change themselves by turning to bicycling for commuting instead of adding more carbon dioxide into the atmosphere.

The government supports this phenomenon by building necessary infrastructure to make this eco-friendly practice sustainable. Cities across the country are now adding more bike routes in their areas and link them together to serve both practical and recreational purposes.

The Green World Foundation, a non-governmental organisation, has also produced “Bangkok Bike Map” featuring a convenient network of routes to promote bicycling safety in a big city.

## MANGROVE REFORESTATION

The rich mangroves protected the coastal village of Ban Nam Rap in southern Thailand from the tsunami's wrath in 2004. Other villages where mangroves had been destroyed by commercial prawn farms suffered great damage.

Ban Nam Rap has been protecting and reforesting their mangroves from commercial interests for decades. Learning from Ban Nam Rap, other



coastal villages are now reforesting their mangroves which have also brought better livelihoods from increasing catch and ecotourism income.

These bottom-up efforts to alleviate the impacts of climate change are crucial for sustainability and in line with SEP principles. The government lends support through academic studies to speed up mangrove reforestation and biodiversity while strengthening laws and regulations to better protect mangroves.

## **RDF**

Short for Refuse Derived Fuel, RDF is the latest innovation from Wongpanit Recycling, a forward-thinking waste sorting company. RDF is a mixture of plastic and organic waste that can be used as alternative fuel, simultaneously reducing both the amount of waste and carbon dioxide in the atmosphere.

Wongpanit is also designing a prefabricated waste sorting assembly line that will help small waste-to-energy plants produce RDF themselves.

The design, based on sufficiency thinking, uses local materials and affordable technology to reduce demand for fossil fuel at the local level.

## **ALTERNATIVE ENERGY POLICY SUPPORT**

In 2007, the government offered solar power companies price security by buying solar power and other alternative energy at a higher price than the wholesale rate of electricity. This policy has effectively contributed to rapid expansion of solar and alternative power generation in Thailand.

Other policy measures include tax exemptions for imports of renewable energy equipment and attractive tax incentives for foreign investors in renewables.

According to the Renewable Energy Development Plan, the government will increase the use of alternative sources by 25% by 2021 as part of the country's commitment to tackle climate change.





## 14 LIFE BELOW WATER



### **Life below water: Conserve and sustainably use the oceans, seas and marine resources for sustainable development**

#### **Achievements**

Ask any small-scale fishermen in Thailand's coastal provinces about their seas and they will speak in unison of how their sources of livelihoods has improved, thanks to the nationwide-ban on commercial trawlers.

The ban has been in effect for the past two years as part of the government's attempts to battle overfishing, to increase fish stocks and to gear the country toward sustainable fishing.

Thailand is extremely rich in marine biodiversity; it is home to roughly 25% of the world's fish species. The world will also benefit when Thailand's marine ecosystem returns to its former health.

To restore marine ecology, the new Fisheries Law bans environmentally-destructive fishing equipment and ensures effective legal implementation by involving locals in the monitoring of violators.



This bottom-up approach for sustainable use of marine resources informed by SEP principles also characterise Thailand's efforts to stop coastal erosion and to rehabilitate the mangroves and coral reefs. Both involve simple technology that follows the workings of nature. The focus is on multi-sector cooperation, especially the locals' ownership of conservation efforts. The regeneration of mangroves and coral reefs significantly contributes to an increase in fish stocks and other marine life. Such clear proof has deepened the locals' commitment to sustainable use of their seas.

## Challenges

Widespread coral bleaching from global warming still poses a major threat to marine life and ecology, not only in Thailand but around the world. The problem is compounded by industrial and plastic waste which requires stricter preventative laws and effective legal enforcement.

Like in many countries, efforts to impose sustainable use of marine resources face competing interests from the business and industrial sectors. The tourism industry needs a paradigm shift to strike a balance between business and the environment. The industries and pro-industry state agencies

need to go beyond short-term financial gains. Better conservation efforts also call for better inter-agency coordination and more budgetary support for research on Thai seas.

Real change demands value change. This is where sufficiency thinking comes in. Sufficiency thinking is mainly about value change, as it calls for moderation, care for the environment, affordable technology and inclusive decision-making. Its bottom-up approach is in sync with local demands for administrative decentralisation to protect marine resources.

Among the efforts in line with SEP for sustainable use of the oceans and the seas are:

## FISHERIES REFORM

Enacted in 2015, the new Fisheries Law is part of the reform of the fisheries sector to ensure sustainable use of the seas and marine resources. The law increases penalties for illegal, unreported and unregulated (IUU) fishing and limits the number of fishing vessels to prevent overfishing.

The new law also overhauls fisheries management to establish traceability systems and prevent forced labour and other forms of exploitation in the fisheries sector.





## ACT

Short for Organic Agriculture Certification Thailand, ACT gives certification to seafood that meets its criteria on safe, sustainable and socially responsible catches. To be certified, the fishing method must not be environmentally destructive. The catches must be packed in ice without any use of chemicals. The seafood must also meet traceability requirements.

## MANGROVE REHABILITATION

Ban Pred Nai is a model village in mangrove reforestation. It has inspired coastal villages nationwide to rehabilitate their mangrove forests, the habitats of young marine lives.

Situated in the eastern part of Thailand, Ban Pred Nai suffered from the destruction of their mangroves by commercial prawn farms. The same thing happened across the country during the prawn farm boom in the 80s. They encroached on the mangroves, polluted the seas with toxic wastewater, made quick money, and left when the areas were decimated.

The depletion of fish stocks and other marine life plunged the villagers into hardship, triggering their joint efforts to rehabilitate the mangroves and set up community rules on sustainable use. As an incentive, members of mangrove conservation groups receive low-interest loans and welfare benefits from the community savings fund. Nearby communities later joined Ban Pred Nai. The network now covers the whole of Trat and nearby provinces. Ban Pred Nai has become a learning centre, spreading the mangrove rehabilitation movement to other parts of the country.







## MANGROVE FORESTS STUDY CENTRES

Mangrove biodiversity demands knowledge about mangrove species and rehabilitation techniques to suit different varieties and geographical topographies. This is what the mangrove study centres are doing in various parts of the country to serve the locals' mangrove rehabilitation efforts. Initiated by His Majesty King Bhumibol Adulyadej, these centres are:

- Community Mangrove Forest Development Project at Singhanakorn district, Songkhla province;
- Mangrove Forest Study Project at Yaring district, Pattani province;
- Mangrove Restoration Feasibility Study Project at Nong Chik district, Pattani province;
- Research and Development Project at Laem Pak Bia Cape, Petchaburi province;
- Royal Development Study Centre at Huay Sai, Petchaburi province;
- Royal Development Study Centre at Kung Krabaen Bay, Chanthaburi province;
- Pak Nam Pranburi Development Project, Prachuab Khiri Khan province.





## CORAL REEF TRANSPLANT

The transplant technique is simple. Coral fragments are attached to window-sized frames made from easily available PVC water pipes which are safe and recyclable. Then the frames are put in the seabed. Once the corals grow back, the fish and other marine life return.

Developed by a professor at the Rambhai Barni Rajabhat University, the transplant technique uses SEP principles on appropriate technology following nature's way and community participation. The transplant team has transplanted more than 40,000 corals around islands in the eastern part of Thailand.

## THAI SEA WATCH ASSOCIATION

Based in Songkla, this outspoken marine conservation association works closely with fishing communities in the southern part of Thailand to fight against bottom trawling which annihilates the seabed and wipes clean the seas.

Its campaigns over the years have raised consumer awareness against destructive fishing and brought about legal amendments to better protect the seas.

One of the main campaign messages is the need for sustainable use of the seas through moderation and appropriate technology.

Apart from fighting overfishing, the association and small-scale fishermen network are active in regenerating crab populations through community crab banks.

Under this scheme in line with SEP principles on bottom-up initiatives and appropriate technology, fishermen donate pregnant crabs to the crab bank and release baby crabs back into sea later. Learning from the network's success, coastal villages in other provinces now have their own crab banks.

The association also uses social media to link small-scale fishermen and their organic catch with city consumers to campaign for sustainable fishing and to increase the fisher folks' income.







**15** LIFE  
ON LAND



**Life on land: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss**

## **Achievements**

Thailand is undertaking several measures to ensure sustainable management of land and forests, knowing we cannot alleviate poverty and hunger or achieve other sustainable development goals if our terrestrial ecosystems are in decline.

There are development study centres in different parts of the country to address land problems in accordance with their specific geographical topographies. The centres work closely with communities, combining local knowledge with scientific work to reverse land degradation and rehabilitate deteriorated forests.

The study centres have produced several practical methods to reverse soil erosion, improve land fertility and regenerate natural forests and biodiversity.

In addition, the government has endorsed community land ownership schemes and set up the Land Bank because land security is an important incentive for communities to preserve land and forests.



The government also supports organic and integrated farming which simultaneously helps improve soil quality and increase food security.

## Challenges

Despite efforts to reverse negative trends, Thailand still faces serious soil erosion from plantations on the mountainous highlands and soil degradation from monocropping in low-lying areas.

The law alone is ineffective in stopping plantations in rain-catchment areas; poverty-stricken villagers need development intervention to stop clearing forests for monocropping. Consumer pressure has also proved more effective in forcing agro-giants to stop promoting environmentally-destructive farming practices.

Farmers, meanwhile, need to reassess their heavy use of toxic farm chemicals which seriously affect their health and the environment. The government also needs to revamp outdated laws banning toxic farm chemicals and punish importers who violate the law. Organic farming revitalises soil fertility, so it should receive more state support.

In addition, forest authorities need to involve local communities as equal partners in forest management. Forest biodiversity can be more effectively protected with more state budgets for biodiversity research and forest safeguarding missions.

To restore environmental health, SEP stresses the need to have the solutions that are practical and participatory. They are often inspired by the way nature works. Among Thailand's best practices informed by SEP are:





## VETIVER GRASS AGAINST SOIL EROSION

The thick root network of vetiver grass improves shear strength of the soil, thus making it an effective barrier against runoff and soil erosion.

When planted close together in a line on mountains, vetiver grass slows down water runoff, traps the silt and increases soil moisture, making the terrain more conducive to forest regeneration. In low-lying areas, it strengthens dikes in paddy fields and reduces silt accumulation in irrigation and drainage canals.

The planting of vetiver grass has been popularised in Thailand by His Majesty King Bhumibol Adulyadej. After witnessing its efficacy, Thai farmers adopted and planted vetiver grass widely to alleviate soil erosion and improve soil richness.

## SOIL CLINIC

If farmers know the nutrient makeup of their soil, they can avoid using excessive fertiliser which destroys soil quality.

The Soil Clinic under the Ministry of Agriculture and Cooperatives helps farmers find out about their soil nutrient content. It is done with a simple, affordable soil quality test so the farmers know what exact nutrients the soil needs. They therefore can drastically cut the use of farm chemicals without sacrificing yields.





## DEVELOPMENT STUDY CENTRES

These study and research centres are located in different parts of Thailand to find cost-effective and practical ways for farmers to increase forest cover and soil fertility in different ecosystems. For example:

- The Huay Hong Krai Development Study Centre in the northern province of Chiang Mai. The centre has developed several techniques to increase topsoil in denuded mountains by improving soil moisture to speed up reforestation and prevent desertification. The techniques include building check dams to increase soil moisture in rain-catchment forests, planting vetiver grass to alleviate soil erosion and growing indigenous trees to regenerate natural forests.
- The Community Mangroves Development Project in Songkhla, the Mangroves Study Centres in Pattani and the Development Study Centre in Chanthaburi. These centres focus on coastal ecology and promote public awareness and participation in sustainable mangrove forests management.
- The Pikun Thong Development Study Centre in Narathiwat Province has produced several techniques to tackle acid soil in water-logged areas and peat swamps in the deep South to make the area farmable.
- The Demonstration Forest Project in Chitralada Palace's mission is to preserve rare plants and herbs to protect biodiversity.
- The Khao Hin Sorn Development Study Centres in Chachoengsao in the eastern part of Thailand tackles soil erosion and soil infertility by adding soil moisture and using organic fertiliser to improve soil nutrients.

Informed by Sufficiency Thinking, the methods used to restore ecological health follow how nature works to tackle natural problems. They are therefore inexpensive and easily accessible to ordinary farmers.

## KHAO PAENG MA REFORESTATION PROJECT

Conventional reforestation requires land clearing to grow saplings. Without sufficient care, saplings often wither and die. The greenery at the once denuded Khao Paeng Ma mountain, however, is proof that tropical forests can regenerate themselves if left undisturbed by human activities.

Cooperation and understanding from local communities is indispensable, however. Indigenous trees were planted to kick-start the reforestation process, then left to grow. After 13 years, Khao Paeng Ma became lush again. The natural biodiversity boosted the number of wildlife and brought back gaur to the areas. The villagers have become the forest guardians because they benefit from renewed forest abundance and ecotourism income.

## COMMUNITY FOREST

Outdated forestry laws which do not recognise villagers who have traditionally lived in forest areas have given rise to many land rights disputes in the country. Alienating people from their forests also contributes to deforestation.

Community forest is a bottom-up policy calling for legal recognition of long-time settlements which exist in harmony with forests. Simplicity and moderation – advocated by SEP – is the forest peoples' way of life. The government later adopted a community forest policy, allowing forest settlements to stay on if they continue to safeguard the forests and practice ecological farming.

## TREE BANK

More than 300,000 farmers across Thailand have joined the Tree Bank, an innovative scheme that allows farmers to use trees as collateral of low-interest loans.

The project encourages farmers to plant trees on a large scale in their farmlands which helps the government with its reforestation schemes. In return, farmers receive low-interest credit while they continue to nurture their trees. The farmers can clear their debt when the trees are big enough to be cut down. The credit channel continues if they plant new trees.

## MAE KLONG COMMUNITY

The construction of dams upstream has seriously affected the coastal ecological system of the Mae Klong community in the western province of Samut Songkram.

The healthy brackish ecosystem was destroyed. The water gates and dykes controlled by irrigation officials took away the locals' control of their environment. They were also unresponsive to urgent needs on the ground. Disagreement on when to open and shut the water gates had created fierce conflicts between rice and prawn farmers.

To redress the situation, the Mae Klong Community Network compiled data about their coastal ecological system and designed simple yet flexible water gates to replace the official ones. The research-based policy proposal in line with Sufficiency Thinking finally won state approval. As more farmers are shifting to organic rice farming, the water released from paddy fields is no longer contaminated by toxic farm chemicals. The prawn farms downstream are then safe.

Mae Klong has become a model community on how knowledge and perseverance help restore ecological health and resolve community disputes.

## INTEGRATED FARMING

Farmers turn to integrated farming because they are disillusioned with the Green Revolution which promoted farm chemicals. Overtime, their soil became poor from over ploughing and heavy use of farm chemicals. Farmers have also lost food security from monocropping.

Integrated and organic farming follows Sufficiency Thinking which, through perseverance and care for the environment, rewards the farmers with soil fertility and food security.

Thanks to His Majesty King Bhumibol Adulyadej's methodical approach to integrated farming through the "New Theory", integrated and alternative farming has become a national movement.

## FREELAND FOUNDATION

It is difficult to stop poaching when poor people need to survive.

Through its community outreach program, the Freeland Foundation supports villagers around Khao Yai National Park with environmentally friendly businesses such as organic mushroom farms.

The foundation also supports park rangers with training in wildlife monitoring as well as modern tools such as camera-traps and GPS navigation system to collect information about the distribution of wildlife and plot the routes of poachers.

Thanks to these interventions, the locals now enjoy better livelihoods, poaching has dropped significantly, and wildlife populations have constantly increased, providing yet more proof of how Sufficiency Thinking, sustainable development and the conservation of wildlife and biodiversity are interlinked.







## Peace, justice and strong institutions: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

### Achievements

Thailand's Constitution has institutionalised several legal mechanisms to eliminate myriad forms of injustice.

For starters, it guarantees gender equality and human rights protection to all citizens. It also prohibits all forms of discrimination and recognises affirmative action as a just means to fix inequality by giving the disadvantaged a head start.

To eliminate corruption which fosters injustice at all levels, the constitution and relevant laws makes it mandatory for state agencies to give the public access to information and make their purchasing procedures transparent.

The highest law also makes SEP and sustainable development the country's goals, allows citizens to propose their own laws and sets the stage to tackle outdated laws that perpetuate systematic injustice.



To ensure fair competition, the Constitution aims to eliminate business monopoly to create a level playing field and boost competitiveness. It also supports community-based enterprises and cooperatives which are working toward sustainable development.

Thailand also has several independent agencies to handle citizens' complaints to ensure state agencies' accountability and good governance.

## Challenges

In 2001, Thailand passed a law to give financial compensation to victims of criminal offences. While the Compensation and Expenses for Injured Persons and the Accused Act institutionalised efforts to give justice to the victims, the judiciary is facing structural challenge to streamline the system so ordinary citizens and the disadvantaged have easier access to justice.

Justice is not just about laws. Justice needs an egalitarian society and transparent system for it to take root and grow. SEP and inclusive development fosters justice and peace because it demands that the voices of the disadvantaged are heeded, ethical conduct enforced, and economic benefits shared equitably across all strata of society. Among these efforts are:



## **BAN KANCHANAPISEK**

This innovative youth rehabilitation centre is a policy experiment of the Ministry of Justice. Ban Kanchanapisak does not treat the youths there like prisoners. The centre does not have fences nor walls to prevent escape. The atmosphere is that of understanding and respect, not dictatorial command bordering on oppression. And it works.

The youths receive training to review their lives and values objectively. The participatory process of self-evaluation helps them restore their self-esteem and set new life goals. They also take part in social and environmental programs outside the centres. Families participate in Ban Kanchanapisek's programs to establish a strong support system for the youths. Many return to share their experience with new batches of youths at the centre.

Ban Kanchanapisek employs a people-centred approach and operates on the basis of caring. Focusing on the SEP principle of moderation, and building self-immunity, it has now become a model for youth rehabilitation at home and abroad.

## **COMMUNITY JUSTICE CENTER**

Thanks to policy support from the Ministry of Justice, communities can form their own participatory systems to run their crime prevention and surveillance programmes, settle conflicts in the communities and establish rehabilitation schemes among themselves.



This community conflict resolution that follows both the law and local way of life helps provide local residents with justice without having to go through the formal judicial system that is often out of their reach.

## ANTI-CORRUPTION ORGANISATIONS

Taking the bottom-up approach guided by SEP, the business sector has set up a number of organisations to tackle graft. They include:

The Anti-Corruption Organisation of Thailand (ACT) comprising 47 private companies with a shared goal of accelerating social pressure on the government to tackle graft.

ACT members signed the integrity pact not to offer or take bribes in government procurement projects. It is also active in monitoring corruption to draw state intervention while promoting good governance practices in the business sector to state bureaucracy and political arena. Apart from public awareness-raising campaigns, the network calls for the streamlining of bureaucratic procedures to increase efficiency and cut opportunities for graft.

**The Private Sector Collective Action Coalition against Corruption (CAC)** has certified about 177 companies for their effective anti-corruption policies and implementation. Nearly 500 more companies have declared their intentions to run graft-free businesses.

**The Institute of Directors** has trained more than 1,000 company directors, executives and secretaries in good governance and best management practices as well as how to take a firm stand against corruption. Consequently, Thailand ranked top in corporate governance in ASEAN between 2013 and 2015.



องค์กรต่อต้าน  
คอร์รัปชัน  
(ประเทศไทย)  
ANTI-CORRUPTION  
ORGANIZATION  
OF THAILAND

## INDEPENDENT ORGANISATIONS

Since corruption in different sectors demands different investigational procedures and involves different technicalities, the government has set up several anti-graft independent organisations to tackle misconduct accordingly. Among these organisations are:

- The Office of the National Anti-Corruption Commission (NACC)
- The Office of the Public Sector Anti-Corruption Commission (PACC)
- The Anti-Money Laundering Office (AMLO)
- The Office of the Auditor-General (OAG)
- The Office of the Ombudsman Thailand

All organisations aim to establish good governance and the values endorsed by SEP, all of which is crucial for sustainable development.

## BIRTH REGISTRATION FOR ALL

People without legal identity are doomed to a life ridden with inequality and justice. This is the reality of many migrant and stateless children.

Until recently, their births were not always registered. Without birth certificates to affirm legal identity, these children are robbed of basic human rights and social services, making them vulnerable to all forms of exploitation.

For people without birth registration and legal identity, the goals of SEP and sustainability are meaningless and out of reach because they do not have the tool to achieve them.

This changed in 2008. Under SEP principles to heed morality in public policies, the new civil registration law makes it mandatory for public health personnel to register every birth and for civil registration officials to issue birth certificates to every infant born in the country.



## 17 PARTNERSHIPS FOR THE GOALS



**Partnerships for goals: Strengthen the means of implementation and revitalise the global partnership for sustainable development.**

### Achievements

As chair of the Group of 77 for 2016, Thailand's mission is to strengthen South-South partnership to translate the 17 Sustainable Development Goals into reality.

Hence Thailand's theme for its chairmanship year: "From Vision to Action: Inclusive Partnership for Sustainable Development."

Sharing experiences helps shorten the learning process and speed up changes. Apart from encouraging member countries to share their best practices to achieve sustainable development, Thailand is in a special position to share. Our own model of sustainable development – the Sufficiency Economy Philosophy (SEP) – did not only enable Thailand to recover quickly from the 1997 Asian economic meltdown, it has also saved us from subsequent global economic crises.

Focusing on moderation and prudent consideration of the pros and cons of each option, SEP fosters built-in immunity against unpredictable economic shocks from globalisation. The SEP emphasis

on appropriate technology, inclusive decision-making based on knowledge, care for the environment, ethics and sharing also serves the global pursuit for sustainable and equitable development.

Since taking the helm, Thailand has undertaken several activities to strengthen South-South cooperation and to share Thailand's development model of moderation and resilience to support the realisation of SDGs.

Apart from a special contribution of US\$520,000 to the Perez-Guerrero Trust Fund for South-South Cooperation, Thailand has been organising a series of international meetings to enhance G77 cooperation in different fields. They include the experts' meeting and a high-level meeting on "Sufficiency Economy", a High-Level Panel of Eminent Personalities of the South, and expert meetings on Information, Communications Technology (ICT) and investment.

Thailand's Official Development Assistance (ODA) also supports regional and global partnership through training, scholarships and development projects to promote sustainable development. Meanwhile, the country continues to work closely with development partners, the United Nations and other international organisations as well as strengthening public-private and civil society partnerships to attain sustainable development goals.

The SEP principles have helped Thailand achieve most of the Millennium Development Goals well in advance of the 2015 deadline. They will remain the country's development compass to attain the Sustainable Development Goals after Thailand's chairmanship year is over.

Thailand will continue to share the country's SEP experiences as well as learning from other countries' best practices in sustainable development. Planet Earth is under unprecedented threats from runaway climate change. Only through global partnership to effect eco-friendly, sustainable development can we save the Earth – and ourselves – from climate change catastrophe.

## Challenges

The Group of 77 – the largest intergovernmental organisation of developing countries at the United Nations – has great collective strength to effect global change.

The great diversity among the G77 members requires flexible development models that are applicable to different conditions. Thanks to SEP's requisite for inclusive, bottom-up decision-making and affordable technology, many countries are now experimenting with the SEP people-centred model. Like in Thailand, success requires determination, patience and perseverance.

Meanwhile, cross-border partnership among civic groups to protect the environment and the disadvantaged is facing more funding difficulties from the global economic slowdown.

As global warming intensifies and natural disasters become more frequent, Thailand is prepared to share its sustainable development model and work in partnership with other countries to rise to the challenge. Among these partnership efforts are:





## SEP INTERNATIONAL PARTNERSHIP

A number of countries are working with Thailand to implement SEP-based development programs in their countries. For example:

- Timor-Leste is using SEP as a decision-making framework to launch sustainable agricultural projects and to set up small businesses;
- Lesotho has set up a centre to introduce integrated and agro-forestry farming as an alternative to monocropping. Mixed farming and crop rotation of different plants replenishes the soil and reduces pests while fruit crops including bamboo from Thailand increases food sources, adds soil moisture and serves other household and commercial uses;
- Cambodia is developing a sufficiency economy village by encouraging local residents to engage in integrated farming to achieve food security;
- Indonesia has set up a development project using SEP principles of inclusiveness and ecological farming to improve the locals' sources of food, income and quality of life;
- Myanmar is working with Thailand to establish sustainable development centres and run rural development projects based on SEP models to improve the villagers' livelihoods.

# MAE FAH LUANG FOUNDATION

Chiang Rai Province, Thailand



Founded in 1972 by Her Royal Highness the late Princess Sirinagarindra (Princess Mother) originally as the Tha Hill Crafts Foundation, it was renamed in 1995 the Mae Fah Luang Foundation. It manages numerous projects within Thailand as well as other countries in Asia, focusing on improving social and economic development, preserving the environment and supporting local arts and culture in the Golden Triangle and the surrounding areas.

SEP in Community



Source: Thailand Sustainable Development Foundation

## SUSTAINABLE ALTERNATIVE LIVELIHOOD DEVELOPMENT

The Mae Fah Luang Foundation is running international outreach programmes to help partner countries tackle drug problems through crop substitution and alternative sources of livelihoods.

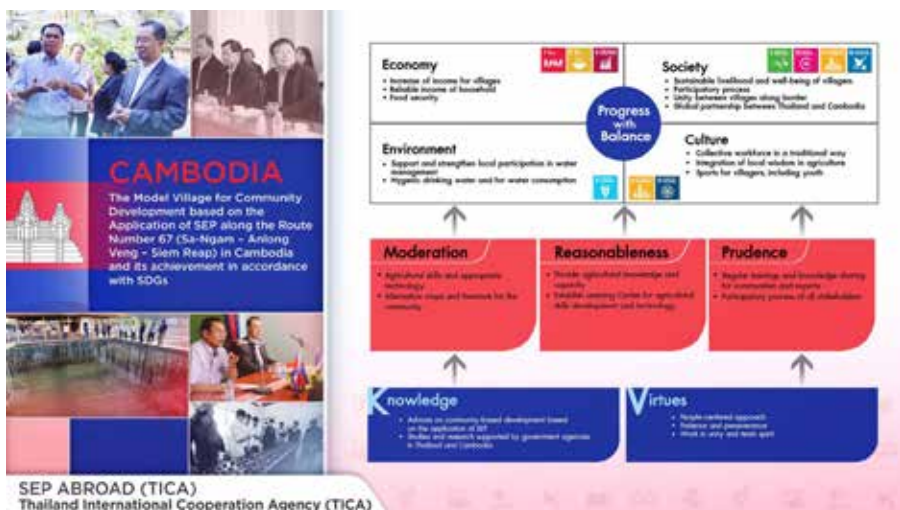
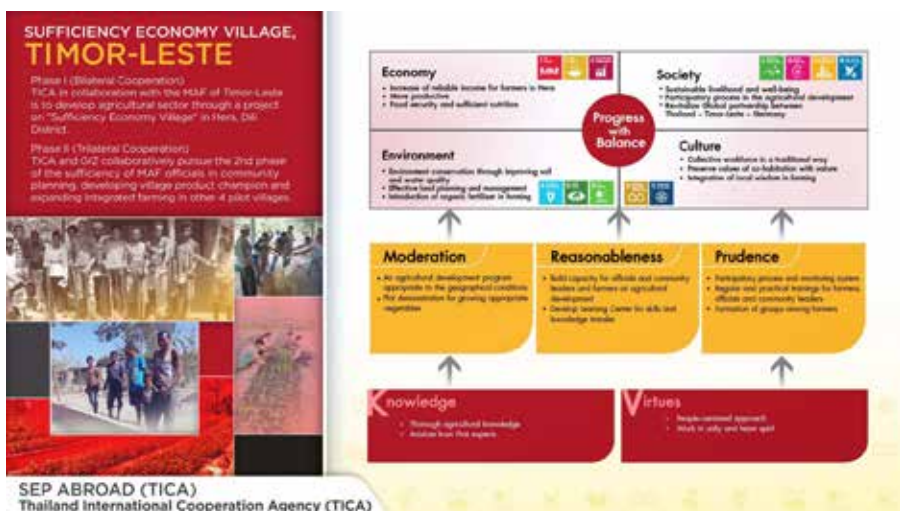
The operative Sustainable Alternative Livelihood Development (SALD) model is based on SEP's people-centred and environmentally-friendly principles. By helping the locals to gain food security, better health and steady income from eco-friendly sources of livelihoods, the SALD approach has previously proved successful in eradicating opium cultivation and restoring the denuded Doi Tung mountains in northern Thailand.

The foundation has undertaken SALD international outreach programmes in Balkh province in Afghanistan, Aceh province in Indonesia, and in several communities in Myanmar, including Loi Taw Kham village tract in Tachileik, Yenau Chaung Township in Magway Region, and Yong Kha in Shan State.

## SEP TRAINING

During 2006-2015, Thailand has been providing Annual International Training Courses focused on SEP for nearly 600 participants from some 98 countries.

These training sessions aim at sharing Thailand's areas of expertise and SEP development paradigm and strengthening international partnership toward sustainable development.





## EDUCATION PARTNERSHIP

Thailand is now applying an SEP-based school model to improve students' nutrition and holistic education in nearly 30 schools in Cambodia, Lao People's Democratic Republic, Vietnam and Indonesia, to improve students' nutrition and holistic education.

Like in Thailand, students are learning myriad skills, from taking part in school farming, sanitation programs, vocational training, natural resources, environmental and cultural conservation to receiving quality basic education.

Aiming to foster inclusive education and lifelong learning opportunities for young students, these school projects are collaborations between the Thai government through the Office of Her Royal Highness Princess Maha Chakri Sirindhorn's Projects, and the UNESCO Asia-Pacific Regional Bureau for Education.

Under this education partnership scheme, teachers from participating schools visit Thai SEP schools and receive training to help schools and local communities attain sustainable development. They include food and nutrition, health and hygiene, techniques in agricultural production, animal husbandry, fish raising, mushroom cultivation, use of organic fertiliser for soil management, use of biological control for pests, co-operatives, and management skills.

## INTERNATIONAL DEVELOPMENT COOPERATION

Thailand International Cooperation Agency (TICA) supports capacity-building for sustainable development through training and scholarship programmes according with partner countries' needs.

Apart from special cooperation with neighbouring countries in Southeast Asia, Thailand also offers the country's expertise in agriculture, public health, tourism and development based on Sufficiency Thinking in other parts of the world. They include countries in South Asia, the Pacific, the Middle East, Africa, Latin America and the Caribbean.

This cooperation helps improve local livelihoods and strengthens global partnership to pursue sustainable development.

## SEP FOR SDGs YOUTH PARTNERSHIP

Initiated by the Ministry of Foreign Affairs, SEP for SDGs Youth Partnership is a new programme that brings together Thai and international youths to learn first-hand how the universal values of SEP such as moderation, inclusiveness, prudence, and care for the environment are crucial for sustainable development.

Thailand has many concrete successes of communities, businesses, and state agencies use the SEP values to achieve different Sustainable Development Goals. SEP for SDGs Youth Partnership offers youth participants opportunities to witness how SEP works in different contexts and how the universal values of SEP can be applied in their own countries.

The programme also fosters the young people's lifelong friendships, bonds, and shared commitment to save the planet and to help the disadvantaged, making these youth participants crucial change agents for sustainable development.



We hope readers have found this volume useful as a snapshot of some examples of His Majesty the Late King Bhumibol Adulyadej's ideas and projects brought to fruition under SEP-inspired initiatives by various sectors throughout the Kingdom. These are well in tune with global efforts towards sustainable development now embodied in the 17 Sustainable Development Goals (SDGs). While the grief and sorrow continues to reverberate throughout Thai communities here at home and beyond for His Majesty's passing, his methods, theories and practical guidance, the outcome of selfless devotion and hard work throughout his 70-year reign, will remain alive and well as we continue to carry forward his legacy of SEP in every aspect of our lives.

As can be ascertained from the previous pages, the SEP's principles and applications possess a universal character, of which Thailand is certain that it may be widely adapted according to specific circumstances and development needs in all corners of the globe, whether for individuals, communities, organizations or governments, at all levels and across many fields of endeavour.

The Ministry of Foreign Affairs of the Kingdom of Thailand expresses its deepest gratitude to Her Royal Highness Princess Maha Chakri Sirindhorn for the royal permission to translate into English, and publish herein, her special interview on His Majesty the Late King's guiding principles for national development, graciously granted to the Office of the National Economic and Social Development Board in 2011.

I wish also to take this opportunity to express my sincere appreciation to Nobel Peace Laureate and former Secretary-General of the United Nations, His Excellency Mr. Kofi Annan, for providing a message to this volume. We recognise, in particular, Mr. Annan's ongoing engagement and international leadership on a myriad of global peace and development issues, including through the Kofi Annan Foundation and his chairmanship of The Elders.

As His Majesty the Late King's lasting gift to Thailand and the world, the Royal Thai Government, through the Ministry of Foreign Affairs, along with our partner agencies, is proud to continue to spread the message of SEP with a view to furthering international development cooperation under our "SEP for SDGs Partnership" programmes. This contribution by Thailand towards a sustainable future for all, in line with the SDG's overarching pledge to leave no one behind, represents our continued commitment to sustainable global development in honour of the legacy of our beloved "Development King".

(Don Pramudwinai)  
Minister of Foreign Affairs  
of the Kingdom of Thailand

## FOR FURTHER INFORMATION

Office of the National Economic and Social Development Board [www.nesdb.go.th](http://www.nesdb.go.th)

Sufficiency Economy Philosophy for Sustainable Development Goals Partnership, Ministry of Foreign Affairs of Thailand <http://www.mfa.go.th/sep4sdgs>

Thailand Sustainable Development Foundation [www.tsdf.or.th](http://www.tsdf.or.th)

UN Sustainable Development Knowledge Platform <https://sustainabledevelopment.un.org>

### **SDG 1:**

Office of the Royal Development Projects Board  
[www.rdpb.go.th](http://www.rdpb.go.th)  
Krung Thai Bank PCL  
[www.ktb.co.th](http://www.ktb.co.th)  
Doi Tung Development Project  
[www.doitung.org](http://www.doitung.org)

### **SDG 2:**

The Chaipattana Foundation  
[www.chaipat.or.th](http://www.chaipat.or.th)  
Pid Thong Lang Phra Foundation  
[www.pidthong.org](http://www.pidthong.org)  
Doi Kham Food Products Co., Ltd.  
[www.doikham.co.th](http://www.doikham.co.th)

### **SDG 3:**

Ministry of Public Health  
[www.moph.go.th](http://www.moph.go.th)  
National Health Security Office  
[www.nhso.go.th](http://www.nhso.go.th)  
Nongmuangkhai Hospital  
[www.nmkhospital.net](http://www.nmkhospital.net)  
Umong Municipality, Lamphun Province  
<http://umongcity.go.th>

### **SDG 4:**

Foundation of Virtuous Youth, The Crown Property Bureau  
[www.sufficiencyeconomy.org](http://www.sufficiencyeconomy.org)  
Distance Education Institute  
[www.dei.ac.th](http://www.dei.ac.th)  
Phradabos Foundation  
<http://phradabos.or.th>  
Lanna Wisdoms School  
[www.lannawisdoms.com](http://www.lannawisdoms.com)  
Yothinburana School  
[www2.yothinburana.ac.th](http://www2.yothinburana.ac.th)  
Satree Manda Pitak School, Chanthaburi province  
[www.sm.ac.th](http://www.sm.ac.th)  
Suksa Songkroh Nang Rong (Rajaprachanukroh 51) School,  
Buri Ram province  
[www.rpk51.ac.th](http://www.rpk51.ac.th)  
Thai Junior Encyclopedia Project  
[www.saranukromthai.or.th](http://www.saranukromthai.or.th)

### **SDG 5:**

Department of Women's Affairs and Family Development  
[www.dwf.go.th](http://www.dwf.go.th)  
Queen Sirikit Institute  
[www.artsofthekingdom.com](http://www.artsofthekingdom.com)  
Women's Health and Reproductive Rights Foundation of Thailand  
[www.womenhealth.or.th](http://www.womenhealth.or.th)  
Women's Health Advocacy Foundation  
[www.whaf.or.th](http://www.whaf.or.th)

### **SDG 6:**

Utokapat Foundation under Royal Patronage of HM The King  
[www.utokapat.org](http://www.utokapat.org)  
The Chai Pattana Foundation  
[www.chaipat.or.th](http://www.chaipat.or.th)  
Living River Siam Association  
[www.livingriversiam.org](http://www.livingriversiam.org)

### **SDG 7:**

Department of Alternative Energy Development and Efficiency  
<http://weben.dede.go.th>  
Electricity Generating Authority of Thailand  
[www.egat.co.th](http://www.egat.co.th)  
Appliance Efficiency Improvement Project, Electricity Generating Authority of Thailand  
<http://labelno5.egat.co.th>  
Royal Chitralada Projects  
<http://kanchanapisek.or.th>  
Bangchak Petroleum PLC  
[www.bangchak.co.th](http://www.bangchak.co.th)

### **SDG 8:**

Community Development Department  
[www.cdd.go.th](http://www.cdd.go.th)  
Cooperative Promotion Department  
[www.cpd.go.th](http://www.cpd.go.th)  
Thailand Community Based Tourism Network  
Coordination Center  
<http://cbtnetwork.org>  
'Local Alike' Community-based Tourism Marketplace  
<https://localalike.com>

### **SDG 9:**

Thai Industrial Standards Institute  
[www.tisi.go.th](http://www.tisi.go.th)  
Thaipat Institute  
[www.thaipat.org](http://www.thaipat.org)  
Thai Institute of Directors  
[www.thai-iod.com](http://www.thai-iod.com)  
Thai Toshiba Electric Industries Co., Ltd.  
<http://ttei.toshiba.co.th>  
The Siam Cement Public Company Limited (SCG)  
[www.scg.co.th](http://www.scg.co.th)  
Mitr Phol Group  
[www.mitrphol.com](http://www.mitrphol.com)  
Office of Small and Medium Enterprises Promotion  
[www.sme.go.th](http://www.sme.go.th)

### **SDG 10:**

The Land Bank Administration Institute (Public Organization)  
[www.labai.or.th](http://www.labai.or.th)  
National Health Security Office  
[www.nhso.go.th/eng/Site/Default.aspx](http://www.nhso.go.th/eng/Site/Default.aspx)



**SDG 11:**

Community Organizations Development Institute  
(Public Organization)  
[www.codi.or.th](http://www.codi.or.th)  
The Human Development Foundation – Mercy Centre  
[www.mercycentre.org](http://www.mercycentre.org)  
Wongpanit Co.,Ltd.  
[www.wongpanit.com](http://www.wongpanit.com)  
PTT Public Company Limited  
[www.pttplc.com](http://www.pttplc.com)  
PTT Reforestation Institute  
[www.pttreforestation.com](http://www.pttreforestation.com)

**SDG 12:**

Foundation for Consumers  
[www.en.consumerthai.org](http://www.en.consumerthai.org)  
Green Industry  
[www.greenindustry.go.th](http://www.greenindustry.go.th)  
Green Label: Thailand  
[www.tei.or.th/greenlabel/index.html](http://www.tei.or.th/greenlabel/index.html)  
Green Leaf Foundation  
[www.greenleafthai.org/en/index.php](http://www.greenleafthai.org/en/index.php)  
Plan Toys  
[www.plantoysshop.com](http://www.plantoysshop.com)  
Jim Thompson  
[www.jimthompson.com](http://www.jimthompson.com)  
Khiri Travel  
[www.khiri.com](http://www.khiri.com)  
Sustina  
[www.harmonylife.co.th](http://www.harmonylife.co.th)  
Change Fusion  
[www.changefusion.org](http://www.changefusion.org)  
Sookjai Organic Agriculture Development Centre  
(Sampran Model)  
<http://sampranmodel.com>

**SDG 13:**

Monkey's Cheek Reservoir  
[www.kanchanapisek.or.th](http://www.kanchanapisek.or.th)  
Royal Rain  
[www.royalrain.go.th](http://www.royalrain.go.th)  
[www.tsdf.or.th/en/royally-initiated-projects/10167-royal-rainmaking](http://www.tsdf.or.th/en/royally-initiated-projects/10167-royal-rainmaking)  
Check Dams  
[www.chaipat.or.th](http://www.chaipat.or.th)  
Alternative Energy  
[www.eppo.go.th](http://www.eppo.go.th)

**SDG 14:**

Fisheries Reform  
[www.thaistopiufishing.com](http://www.thaistopiufishing.com)  
Organic Agriculture Certification Thailand  
[www.actorganic-cert.or.th](http://www.actorganic-cert.or.th)  
Mangrove reforestation  
[www.tei.or.th/projects/Community\\_base\\_mangrove.pdf](http://www.tei.or.th/projects/Community_base_mangrove.pdf)

**SDG 15:**

Vetiver Network International  
[www.vetiver.com](http://www.vetiver.com)  
Pacific Rim Vetiver Network  
<http://prvn.rdpb.go.th/index.html>  
The Royal Forest Department  
[www.forest.go.th](http://www.forest.go.th)  
Freeland Foundation  
[www.freeland.org](http://www.freeland.org)

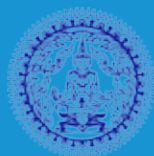
**SDG 16:**

Ministry of Justice  
[www.moj.go.th](http://www.moj.go.th)  
Anti-Corruption Organisation of Thailand  
[www.anticorruption.in.th](http://www.anticorruption.in.th)  
Private Sector Collective Action Coalition against Corruption  
[www.thai-cac.com](http://www.thai-cac.com)  
The Office of the National Anti-Corruption Commission  
[www.nacc.go.th](http://www.nacc.go.th)  
The Office of the Public Sector Anti-Corruption Commission (PACC)  
[www.pacc.go.th](http://www.pacc.go.th)  
The Anti-Money Laundering Office (AMLO)  
[www.amlo.go.th](http://www.amlo.go.th)  
The Office of the Auditor-General (OAG)  
[www.oag.go.th](http://www.oag.go.th)  
Office of the Ombudsman Thailand  
[www.ombudsman.go.th](http://www.ombudsman.go.th)

**SDG 17:**

Thailand International Cooperation Agency  
[www.tica.thaigov.net](http://www.tica.thaigov.net)  
The Group of 77  
[www.g77.org](http://www.g77.org)  
Mae Fah Luang Foundation Under Royal Patronage  
[www.maefahluang.org](http://www.maefahluang.org)  
HRH Princess Maha Chakri Sirindhorn's Personal Affairs Division  
[sirindhorn.net](http://sirindhorn.net)  
UNESCO Asia and Pacific Regional Bureau for Education  
[www.unescobkk.org](http://www.unescobkk.org)





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