

# Chapter 2

## Ecology and Sufficiency for Sustainable Development: Perspectives from Thailand

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### 2.1 Introduction

Development from the bottom up or *sarvodaya* was recommended by Thai Buddhist scholars to ward off consumerism and social breakup resulting from globalization and capitalism. Thailand also embarked on globalization adopting the modernization paradigm with large scale of socioeconomic and infrastructure development. The policy and implementation of development in the nation have been mainly top-down from the government to the grassroots. Thailand has gone through 11 national development plans (YouTube, 2016). The first plan (1961–1966) emphasized industrialization, the building of railroads, roads, dams, and saw the establishment of two universities. The second plan (1967–1971) further improved infrastructure facilities with more irrigation, mass communications, the building of two international airports in Bangkok and in Chiangmai, and agricultural development. It also included more foreign investment, development of rural areas and natural resources, and population control. The third plan (1972–1976) mentioned social development for the first time, signifying in Thailand a shift from an economic dimension of development to a socioeconomic dimension.

The fourth plan (1977–1981) aimed to revive the economy and improve on social justice by addressing income distribution and uplifting the quality of life of the poor. This plan also aimed to reduce the population rate to 2 percent per year and to conserve the natural resources. The fifth plan (1982–1986) aimed to develop the Eastern Seaboard among other land development plans, industrial and economic expansion. The essence of this plan was to engage the public sector with the civic sector for the first time. The sixth plan (1987–1991) emphasized skilled labor development for uplifting the quality of life and modernizing the rural areas. The importance of this plan was to increase the local participation in the conservation of

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natural resources and the environment and to increase the development of science and technology. The seventh plan (1992–1996) was aimed at developing the rule of law, human resources, and the environment. The eighth plan (1997–2001) offered a shift from material development to human-centered development. It was the first time that a holistic scheme of development was introduced in the ninth national development plan (2002–2006). The highlight of this plan was human-centered development along with King Bhumibol’s sufficient economy scheme. Sustainable development was mentioned for the first time in this plan. The ninth plan saw an integration of several sectors revitalizing the economy, self-reliance, good governance, strong communities, and poverty reduction. The tenth plan (2007–2011) is a continuation of the ninth plan. It followed the philosophy of sufficient economy and inter-sectoral cooperation emphasizing human-centered development. Thailand is now using the 11th national development plan (2012–2016) which emphasizes sufficient economy, social security, environment, security of energy and food, and social justice. The upcoming 12th plan also emphasizes the philosophy of a sufficient economy, ecology, and green economy.

All these plans represent a top-down approach to development. Browsing through many documents on rural and community-based development, the policies and implementations are still centered from the government sectors in Bangkok, such as the OTOP (one village, one product) project. So far 160 non-governmental organizations are reported operating at the grassroots level in diverse areas: animals (5 organizations), assorted (4), children and families (50), cultural (13), development (14), disaster (12), drugs (1), education (14), environment (6), health (6), human resources (9), legal (2), medical (4), poverty (10), and women (10) (Peer to peer foundation, 2016). Only a few on this list are Thai-based organizations. A Thai Web site shows 76 Thai NGOs that are not listed in the afore-mentioned list of 160 organizations (Sanook, 2016).

## 2.2 A Buddhist Model for Sustainability

By introducing the Buddhist model, Sulak Sivaraksa, a renowned Thai social critic, advises Thais to cultivate loving kindness, compassion as their inner strength with community capacity-building through Buddhist education (Sivaraksa, 2009: 37–38). This model affirms that Buddhist pedagogy together with Buddhist economics will make development in the East tread a different path than in the West. As understood from Sulak Sivaraksa’s (2009: 43–45) writing, Buddhist education challenges the Western assumption that objectivity is equated with neutrality, as it integrates constructivism with what Buddha taught: the *tisikkha*: wisdom (*panna*), ethics (*sila*), and concentration (*samadhi*). Sulak Sivaraksa (2009: 45–46, 57–58, 94) further elaborates that true wisdom is seeing the reality through bias or prejudice. Ethics or *sila* is related to social justice and moral governance. Concentration or *samadhi* is about critical awareness of the self to create peace, justice, and ecological balance.

The Buddhist economic scheme is a precursor of the philosophy of E. F. Schumacher, the so-called father of “Small is beautiful”. The Buddhist way of thinking gives more importance to human development than monetary profits. By emphasizing right livelihood and appropriate technology, this approach to development advocates living in harmony with nature. A holistic approach toward sustainable development requires a balance in economic growth, ecology, and human resource development. The development from within is the way advocated by Phra Brahmagnunabhorn or Payutto (1993: 8–12), a renown Hinnayana Buddhist scholar and monk, is on similar lines as Sulak. He emphasizes a new way of thinking that everything is related to one another (holistic) that all beings desire happiness and shun suffering. Therefore, universal love, harmony, mutual help, and unity are encouraged, and freedom should be cherished. Payutto (1993: 8–9) explains further that external freedom is related to the natural environment and the four necessities of life and freedom from social harassment. The more important freedom Payutto advocates is inner freedom from possessiveness or avarice of the following: locality and country; group or family, including ethnic and religious groups; material wealth; class or caste, including social standing and skin color; knowledge and learning, including intellectual achievements and attainments.

### 2.3 King Bhumibol’s Sufficient Economy Scheme

King Bhumibol Adulyadej or King Rama IX, the former King of Thailand introduced the paradigm of sufficient economy to the Thai people on December 4th, 1997 (Mongsawad, 2010: 127). He emphasized the middle way of thinking, living, consuming, and eating as a way to counter the negative effects of globalization. This is in congruence with Buddhist teachings. The Agri-nature Foundation (2016) describes this philosophy as a guideline to build immunity against social, cultural, and environmental change due to globalization, by cultivating necessary social values such as honesty, virtue, prudence, perseverance, industry, consciousness, and wisdom, together with knowledge to create a moderate livelihood for people at all levels: family, community, and state.

It is about the middle path application of knowledge using knowledge, wisdom, and prudence; application of moral principles such as honesty, hard work, sharing, tolerance, harmony, security, and sustainability in people’s lives, economic and social conditions, and the environment. The middle path is to be followed in the context of globalization (Mongsawad, 2010: 129). Realizing that globalization has its impact on the material, social, and environmental planes, the sufficient economy scheme emphasizes self-reliance; appropriate technology; conservation of the natural environment; compassionate communities, i.e., helping one another in agricultural production in the traditional Thai way; production for own consumption first and then selling or bartering the surplus; cooperative building; capacity building and networking of the grassroots; and a new way of agriculture (Agri-nature Foundation, 2016).

To implement the sufficient economy paradigm, the King encouraged Thai agriculturists to “grow what we eat and eat what we grow”; reduce expenses as much as possible; and try to be self-reliant as much as one can. As summarized from the website, Agri-nature Foundation (2016), three steps of implementation are to be followed:

- (1) Produce agricultural products in a sufficient amount;
- (2) Join a group to produce, to market, to build up a strong community, and to engage in development;
- (3) Network with the public, the private sector, and the civic development sector.

The new theory introduced was very suitable for the climate of Thailand as it has sunshine all year round. The land is fertile, and Thailand is in fact the bed of fresh foods for the world. It is about a new way of thinking and managing land by networking and cultivating human resources.

Networking within the sufficient economy scheme consists of five major networks: Agri-nature foundation, organic farming network of Thailand or Asoke network, BioThai foundation, the association of local wisdom from the locals of the North-East, and the association of balanced agriculture-Taksom Farm (Agri-nature Foundation, 2016). All of these networks have about 120 training centers around Thailand. The Agri-nature Foundation (2016) explains a training that consists of nine steps:

- (1) *Por Kin* (having enough to eat—without using money). Thai agriculturists are encouraged to cultivate rice that is consumed by the entire family annually and grow fruit trees and vegetables so that they do not have to rely on the market. This implies healthy eating. Organic farming is advised to grow these produce.
- (2) *Por Chai* (having enough to consume).
- (3) *Por Yoo* (having enough to live).
- (4) *Por Rom Yen* (having enough to feel cool).

The steps 2–4 can be achieved together by growing forests. Growing forests will yield a variety of food, clothing, and herbal medicine for people in a tropical country like Thailand. Besides, the forests yield wood for building homes and give shade to the community. Thick forestation will also solve the problem of top soil erosion and drought that resulted from scanty rains as a large number of trees were cut down for growing monocrops.

- (5) *Bun* is merit one gains by not possessing assets but by donating to temples and letting the temples be centers of sharing.
- (6) *Dana* means learning to get rid of avarice and greed by starting to give and share within the community. Friendship and helping hands will be gained instead of monetary profit. In times of crisis, one needs this kind of relationship.
- (7) *Keep* means farmers keep their rice for consumption the whole year round. Select and keep “quality seeds” for the next year. They are also advised to keep preserved foods for the future.

- (8) *Sell* means selling the surplus. Selling in this case is done with the feeling of “giving” good quality products to the buyers rather than selling.
- (9) Networking with like-minded people would help to solve the environmental crisis, epidemic crisis, economic crisis, and political/social crisis.

The praxis of this paradigm was implemented in 1988 in the land that King Bhumibol requested the Chaipattana Foundation to purchase for use as a demonstration field of integrated farming. The land of 32 rai (one rai is about 1600 m<sup>2</sup>) was divided into two parts. The first part was used to research how to grow vegetables, herbs, fruit trees on the hilly areas, fragrant flower orchards, a fish pond, and a test of growing vetiver grass to prevent soil erosion. The second part was divided in the ratio of 30:30:30:10. The first 30% of the area was reserved for a pond to store 18,000 m<sup>3</sup> of water in the dry season. The pond can be used by the farmer to breed fresh water fish such as Nile tilapias and silver barb. The second 30% was stemmed for a paddy field which can be converted into a field of corn, bitter melons, and mung beans after the rice has been harvested. The third 30% of land was to be used to grow fruit trees such as mangoes, guavas, jackfruits; herbs such as kafir lime, chili peppers; field crops such as sugar cane and bananas; and perennials such as acacias. The last 10% of land was for building a home, a stable for animals, driveways/walkways, and organic vegetable patches.

Anek Laothamatas (2000: 99–100), a renowned scholar, states that local networks in Thailand have been under the patronage system for very long. They do not aim to be self-reliant. Rather, they ask for support and resources from the center. The allocation of natural resources has been under Thai government, and local development is centralized with Bangkok as the administrative center. The network of sufficient economy scheme does not use resources from the center. Rather, it uses the local area as a learning space for those interested. An example of a successful application of sufficient economy is the University Mahachulalongkornrajavidyalaya University (Life University of the North-East) of Mr. Sutthinan Prachayapruet who could turn his unproductive 700 rai into a place for studying organic farming and ecology (Buddhist style in management, 2005). Sutthinan, who is a self-taught villager in the North-East, believes in research and development. He changed the way he cultivated field crops and paddy fields to grow 1000 fruit trees and 1000 consumable perennials in 1980. He collected data from growing some eucalyptus trees and found that they grow fast. He used the abundant wood to make charcoal and support animal breeding. He grew eucalyptus trees alternatively with local perennials to yield a multi-crop/biodiversity system. In 1981, he planted 150,000 eucalyptus trees. While the trees grew, he cultivated organic field crops such as sorghum, corn, cassava, and grass for animals between the rows of those trees. At the same time, he bred 80 cows, a herd of goats and sheep, including local poultry and pigs. He also had beehives. He learned by trial and error and was successful with a water dripping system that made his infertile land an arable forest. In 1987, he used the wood from his trees to make furniture for sale and used the branches or sticks of eucalyptus to make charcoal and broom sticks. He could export the

charcoal abroad. Seven years later, he was the co-founder of a pilot project in the North-East to research on agricultural products to bring new life to the poor farmers in the area. In 1998, along with a network of teachers at the primary school, he established a home school for children to learn by doing. In 2000, he and others established a network of local wisdom to research on farming and management and develop themselves to be self-reliant and inter-reliant. In the late 2000s, he developed his land as the University of Life, and he became a lecturer and instructor. He also writes and is active on social media networks.

## 2.4 Development from a Thai Perspective

From the concept of sufficient economy and new theory of agriculture, one can see that development does not mean industrialization or turning Thailand into factories or adopting what is advised by foreign experts or funding agencies to grow monocrops for export. Thais realize that ecological imbalances, such as the erosion of top soil from growing cassava or eucalyptus as monocrops, yield more damage to the environment than monetary profits. Cutting of trees in the forests to make roads and using the land for mono-cropping continue, but people in the network of sufficient economy and villagers with local wisdom have gained awareness and perceive what benefits the community.

Development in the case of sufficient economy in Thailand is based on the multiplicity paradigm (Servaes, 1999), which emphasizes management of natural resources, self-reliance, and use of appropriate technology. Knowing one's own environment and coming up with indigenous strategies to be sustainable is essential. Not having to rely on fertilizer exporters/multi-national corporations is a way to independence and freedom from external interests. Inner freedom from not having debts and growing enough to consume and live without thinking too much about GDP or GNP is true happiness. The Bhutanese government's GNH or Gross National Happiness indicators could be studied and adapted for sustainability. The indicators of the Bhutanese consist of four areas: (1) good governance, (2) community vitality, (3) ecological diversity and resilience, and (4) living standard (Gross National Happiness, 2016). All indicators and sub-indicators (if any) of GNH are summarized (Gross National Happiness, 2016) below:

- (1) Good governance can be rated by using the following indicators: government performance, fundamental rights, services, and political participation. For the government performance, sub-indicators are the ability of the government to create jobs, reduce gap between the rich and the poor, fighting corruption, preserving culture and traditions, protecting environment, and improving health services. For fundamental rights, the sub-indicators are freedom of speech and opinion, right to vote, right to join political party of one's choice, to form a political party, to have equal access and opportunity to join public services,

right to get equal pay for work of equal value, and freedom from discrimination. For services, the sub-indicators are access to healthcare center, electricity, method of waste disposal, source of water, and quality of water. For political participation, the sub-indicators are election and civic participation.

- (2) Community vitality can be rated by time and money of volunteer or donation to the local community, community relationship, family ties, and safety of life.
- (3) Ecological diversity and resilience can be rated by ecological issues, responsibility toward environment, wildlife damage, and urban issues. For ecological issues, the sub-indicators are pollution of rivers and stream, air pollution, noise pollution, absence of waste disposal sites, littering, landslides, soil erosion, and floods. For wildlife damage, the sub-indicators are wildlife constraints to one's crops and damage caused by the wildlife. For urban issues, the sub-indicators are pollution of rivers and stream, air pollution, noise pollution, and absence of waste disposal sites.
- (4) Living standards can be rated by the following: assets, housing and household per capita income. For assets, the sub-indicators are ownership of mobile telephone, fixed line telephone, personal computer, refrigerator, color television, washing machine, land, and livestock. For housing, the sub-indicators are type of toilet used, roof material, and room ratio.

From what has been discussed so far, the Thai and Bhutanese discourse on development is similar. Development does not mean only material aspects or only quantifiable indicators. Development includes ecological balance, wellness of the environment, and the well-being of the people. Participation, social justice, self-reliance, and management of the natural resources are the key factors of external development. Kind-heartedness, honesty, public-mindedness, sharing and caring, being helpful, non-judgmental, non-discriminatory, having compassion toward others, diligence, patience, perseverance, and resilience are related to development from within under the Buddhist worldview that all beings are friends who are subject to aging, illness, and death. In this definition, profits or tangible measurement of success is not as important as community integrity. Selling is not more important than bartering. Exchanging ideas, learning from each other, walking toward a strong community is more important than competing, taking over someone's business or not giving others a space to stand, a chance to live or freedom everyone cherishes (in other words exploitation and abuse by race, ethnicity, age, gender, skin color, economic or social status). Development can be planned and geared toward these sets of goals and objectives. It requires the collection of data, analysis of data, and collaboration of everyone in a community.

## 2.5 How to Plan for Community Development?

Seri Pongpit (2009), a renowned Thai scholar, in his book *Strategies to Rural Development*, clearly explains about the stages to strategically plan development:

- (1) Study the basic information to understand background of a community by document research, focus group discussion, in-depth interviews of local leaders , and key informants in the community. Basic information of a community can be as follows:
- Its historical background.
  - Its livelihood.
  - Its capitals: monetary, natural resource, local wisdom, social, and culture. Pongpit (2012: 81–83) explains social capital in a Thai way. He states that saving money in the form of a community bank will lift the whole community from poverty. Establishing coops or social funds such as a rice bank, a buffalo bank, or a chair bank and table bank, are good examples of pooling and managing resources together. The pooled resources can be used by paying a small fee. Growing perennials that can be used 20–30 years later on a piece of land is also a capital that can be handed down to the offspring.
  - Problems and needs.
  - Any current strategic planning.
- (2) Set the purpose of development and reveal the vision of the future to the community.
- (3) Develop objectives, action plans, projects, and activities.
- (4) This is the most important part: researching people and development. It is a process of participatory research. The community is advised to use the SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to answer the following questions:
- (a) Who are we? Where do we come from? Who are our ancestors? Where are our roots?
  - (b) What are our cultural identities?
  - (c) How do the interconnected relationships in the world affect us?
  - (d) What is our local capital? Any natural resources? Any social capital? Any local wisdom? Any educated members in our community?
  - (e) What is the income, expense, and debt of our community?
  - (f) What are the problems: social, health, environment, etc.?

To make an action plan in a village, the local leader sets up a team with one person representing 10 households. The team meets every month to analyze all the afore-mentioned information. The members should set up six community forums:

- The first forum is “Where do we come from?” The elders in the community could narrate the history and let the research team of the village record them. This includes stories of clans and families in the village.
- The second forum is “Who are we? What are our cultural identities?” It records the value system, traditions, customs, way of life, cultural heritage, wisdom in the village.



- The third forum is “What is our natural capital?” Members in the community help search, count, and record the quality of soil, forests, trees, herbs, minerals, foods, etc., in the community.
- The fourth forum is “Income, expenses, and debts”.
- The fifth forum is analysis of what is learnt from other communities and how other communities solve their problems.
- The sixth forum is to draft an action plan and ask for comments from the people.

Pongpit (2012: 117–118) states that community enterprises are the way forward for people to process and produce innovation from agricultural products, manage their own resources, and to be self-reliant.

## 2.6 Buddhist Communication for Development

Last but not least, communication skills are very useful to mobilize the community and drive a social movement for the decent livelihood of the members in the community. Communication skills include social media skills, writing, speaking, listening, and intercultural communication skills. Media literacy is important for members in a community to voice their concerns, needs, and problems.

Buddhist communication makes Thais different from other nations. They are the roots of Thai success in a sufficient economy or an economy that is not driven by greed and money. The ten perfections of Nun Thipayathasana (2013: 132–149) are introduced below:

- (1) The first factor is generosity or *dana* (in Pali). *Dana* means giving. Giving material things is the primary level of giving. The second level of generosity is sharing vigilance and responsibility in a community. The third level of generosity is giving knowledge without a fee. The fourth level is forgiveness. This level is harder than the first three levels as one must train the mind to forego ill-feelings and hatred. The fifth level is giving *dhamma* or the truth that Lord Buddha taught. This is the highest level of all giving.
- (2) *Sila* or morality is the second factor that Buddhists should hold. Five precepts are what lay people should adhere to, i.e., not to take life, not take what is not given, not to abuse one’s beloved ones, not to do harm through speech, and not to harm one’s consciousness with substance abuse.
- (3) *Renunciation* implies a condition of solitude and simple living. This goes against consumerism and capital accumulation.
- (4) *Reflective thinking* can be achieved with mindfulness. One can contemplate on the tri-characteristics: *dukkha* (suffering), *anicca* (impermanence of being), and *anatta* (the state of nonself).
- (5) *Effort* drives one in managing enterprises.

- (6) *Endurance* goes together with effort. This implies mental control to counteract the external stimuli and keep one's ego in check.
- (7) *Truthfulness*.
- (8) *Right determination* must accompany truthfulness to ensure success.
- (9) *Loving kindness* implies kindness to oneself, parents, and others in the community. This will lessen hatred, discrimination, prejudice, and bias.
- (10) *Equanimity* or peace of mind is to let go of satisfactory and unsatisfactory feelings. This can be achieved with a trained mind.

## 2.7 In Conclusion

The Buddhist philosophy which is the foundation of the sufficient economy is akin to the concept of “small is beautiful”. It can be achieved by training the mind to be content with life and to live with compassion and loving kindness to others, animals, and the earth. Ecological balance can be achieved if everyone in the community sees the common good as better than personal gain. Sustainable development is based on good education which does not mean only the Western way of education (see, for instance, Malikhao, 2012, 2013). In a nutshell, it is more about polishing one's ego to see the inter-relatedness among beings and nature. It is to see that everyone is subject to age, illness, and death. Practicing loving kindness, forgiveness, compassion, rejoicing in other's success, and equanimity are the values to be cultivated as a way of life. Human development is, therefore, more important and must precede material development. The Thai community possess local wisdom which they share knowledge and form networks. They teach others from their own experience. Development from within begins with positive thinking and works as one appreciates and learns to be content with what one has.

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