

THE PHILOSOPHY OF THE SUFFICIENCY ECONOMY: A CONTRIBUTION TO THE THEORY OF DEVELOPMENT

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The King of Thailand's philosophy of sufficiency economy highlights a balanced way of living. Three principles—moderation, reasonableness, and self-immunity—along with the conditions of morality and knowledge can be applied to any level of the society—from an individual to a country. This article proposes that the philosophy of sufficiency economy conveys new theory in addressing current development challenges, which are issues of institutions, human capital, environmental sustainability and the role of government. The philosophy of sufficiency economy, as a new paradigm of development, aims at improving human well-being as a development goal.

I. PAST THEORY AND CHALLENGES

The theory of development, which influenced the world from the mid-1940s to the 1970s, viewed the problem of less developed countries stemming from low capital and resource misallocation. Economists during this period believed that development was equivalent to a growth process that required high capital and resource reallocation from low-productivity agricultural sectors to high-productivity manufacturing sectors. Rostow (1960) argued that countries had to go through successive stages of growth, from the taking-off stage to the sustaining growth stage. Also, savings-led growth was considered essential (Harrod 1939; Domar 1957). However, there was a problem of capital accumulation in less developed countries—people were too poor to save. It was thought that foreign aid, together with the right combination of savings and investment, would solve the capital

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accumulation problem. These patterns of growth-driven development and structural change dominated development theory at that early stage (see, for example, Singer, 1950; Lewis, 1955; Kuznets, 1955; and Prebisch, 1962).

When the theory of a non-linear long-term growth process emerged, it was considered to be a reason why a country experienced multiple stable equilibria. One equilibrium occurs at a high level of investment, thus resulting in high output and income. The other occurs at low capital and investment levels, which leads a country to a poor income situation. A country might be stuck in a bad equilibrium; such a situation is called a poverty trap. This poverty trap, together with problems of inadequate infrastructure, high social overhead capital and coordination failure, could impede the growth and development of a country for a long time. The Big Push or public-led policy helps accelerate the economy and pushes the economy out of the poverty trap (Rosenstein-Rodan, 1943; Nurkse, 1953).

Because of the successes of active Keynesian government and the Marshall Plan in the 1940s, the government was regarded as a prime mover in correcting all problems obstructing economic growth during this period. This type of economic development valued a strong role for the government. There were huge market interventions from the government, such as directing and coordinating investment flow, subsidizing investment, and opening new investment opportunities by creating new industries, especially in relation to import-substitution industries.

After the glory days of State-led development stressing capital accumulation and structural change, problems began in the 1970s. The record showed that, even with high income and industrialization growth rates, countries still suffered from high unemployment, high income inequality, excessive debt, high inflation, unbalanced growth and economic instability. As a result of these failures in the development process, the second era of development theory emerged in the late 1970s. This phase of development theory is based on the neoclassical theory, originating from the works of Milton Friedman in the 1960s, which reasserted classical principles in new models.

This phase of development theory viewed the problems of underdevelopment as resulting from overly active government. Therefore, sustaining growth and stability required that government interventions—which included price distortions in the domestic factors of production and commodity markets, and barriers to international trade—be removed. The economy would then achieve efficient movement of resources among sectors, appropriate technology adoption, and an increase in capital accumulation.

From the late 1970s to the late 1990s, government failure was blamed for impediments to development. Instead, laissez-faire government was suggested as more effective (Krueger, 1990). This was an era of neoliberalism, which emphasized liberalizing domestic and international markets for both goods and factors for production, which would help a country to achieve a sustained economic growth. This market-oriented development strategy dominated the world, especially during the 1980s. The Washington Consensus,¹ a set of reforms aimed at stabilizing the economy via liberalization and openness, is evidence of the development thought during this stage.² However, neoliberalism eventually lost some of its credibility because of unrealistic assumptions of efficient markets and resource allocation that a country would achieve through market liberalization. Stiglitz (2002) commented that, without higher capacity to cope with risk, liberalization increased countries' risk exposure. Markedly, there were several economic collapses—such as the Mexican peso crisis in 1994, the Asian financial crisis in 1997 and the Russian ruble crisis in 1998. Also, most countries under the Washington Consensus performed poorly in terms of growth and poverty reduction (Rodrik, 2002). More importantly, the practice was not applicable to less developed countries that had been bombarded by problems of imperfect markets, incomplete or missing markets, asymmetric information, or dysfunctional or missing institutions.

The institutional problem is currently seen as one of the most challenging hurdles to development. The problem of dysfunctional or missing institutions is the root of several problems associated with market and non-market activities. Additionally, the new kinds of market failures, such as an incomplete market, transaction costs, imperfect and costly information, and the absence of futures markets (Meier, 2001, p. 21) interest economists because they are believed to be obstacles to economic growth and development.

Furthermore, capital accumulation was later seen as an insufficient source of sustainable economic growth. Technology and human capital are crucial for driving long-term economic growth. Effective use of human capital as well as the existence of a suitable institution that encourages the acquirement of technology, have been placed high on the research agenda because of the complementary effects between them.

¹ See Williamson (2000) and (2002).

² Many developing countries and countries with economies in transition adopted the neo-liberal economic policy and the Washington Consensus.

The role of government has shifted from minimal to optimal.³ Government becomes more active when it takes on the important task of improving the institutional setup by strengthening or creating institutions. With the right institutions, economic incentives will be created and the market will function properly. Nevertheless, the government must pay attention, not only to economic matters, but also to social development issues, including politics. Still, the problem of good governance remains an agenda of development theory.

Others focus not on aggregate economic growth but on the broader aspect of development. At the 2006 Copenhagen Consensus Conference, well-known economists, United Nations ambassadors and senior diplomats from 24 countries (accounting for 54 per cent of the world's population), prioritized current major world challenges⁴ that needed immediate attention. Those ranking at the top were: communicable diseases; sanitation and clean water; malnutrition and hunger; and education. All of them target improvement of people's quality of life.

The Millennium Development Goals⁵ are also aimed at improving the well-being of people, especially in less developed countries. The Goals are to eradicate extreme poverty, to achieve universal primary education, to promote gender equality and to empower women, to reduce child mortality, to improve maternal health, to combat HIV/AIDS, malaria and other diseases, and to ensure environmental sustainability. Human well-being is considered a key to achieving all other aspects of development.

Another challenge to development concerns environmental issues. Environmental sustainability has received much attention in the international arena since the Brundtland Report, *Our Common Future* (WCED, 1987), was published. It is obvious that environmental degradation and depletion of resources are clear and present dangers, and pursuing economic prosperity at the expense of the environment and natural resources is considered unsustainable. Therefore, environmental protection and natural resource conservation are requisites for development.

³ See, for example, Adelman (1999) and Meier (2001).

⁴ Major world challenges include climate change, communicable diseases, conflicts and armed proliferation, education, financial instability, governance and corruption, malnutrition and hunger, migration, sanitation and clean water, and subsidies and trade barriers.

⁵ The goals agreed to by world leaders at the Millennium Summit (see General Assembly resolution 55/2 of 8 September 2000). The purposes were to eradicate extreme poverty and specify a series of targets to be reached by 2015.

From the previous discussion of past theories and other development concerns, there are still challenges in development that need to be addressed: the problems of institutions, of human capital, of environment and of the role of government.

This paper proposes a new theory of development: the philosophy of sufficiency economy. Both the theoretical framework and the practices of the philosophy are discussed in addressing the above-mentioned development challenges. The theoretical framework is in section II; section III presents the contribution of the philosophy to development concerns; and concluding remarks are included in section IV.

II. THEORITICAL FRAMEWORK

King Bhumibol Adulyadej proposed the philosophy of sufficiency economy (PSE) to people of Thailand on 4 December 1997.⁶ The philosophy guides people in living their lives according to the middle path. The concept of PSE can be applied to the individual level, the community level and the national level. The following is a synthesis of the philosophy, with royal approval:

“Sufficiency economy” is a philosophy that stresses the middle path as the overriding principle for appropriate conduct by the populace at all levels. This applies to conduct at the level of the individual, families, and communities, as well as to the choice of a balanced development strategy for the nation so as to modernize in line with the forces of globalization while shielding against inevitable shocks and excesses that arise. “Sufficiency” means moderation and due consideration in all modes of conduct, as well as the need for sufficient protection from internal and external shocks. To achieve this, the application of knowledge with prudence is essential. In particular, great care is needed in the utilization of untested theories and methodologies for planning and implementation. At the same time, it is essential to strengthen the moral fibre of the nation, so that everyone, particularly political and public officials, technocrats, businessmen and financiers, adhere first and foremost to the principles of honesty and integrity. In addition, a balanced approach combining patience, perseverance, diligence, wisdom and prudence is indispensable to

⁶ For more detail on the emergence of PSE, see Thongpakde (2005).

cope appropriately with the critical challenges arising from extensive and rapid socio-economic, environmental and cultural changes occurring as a result of globalization.

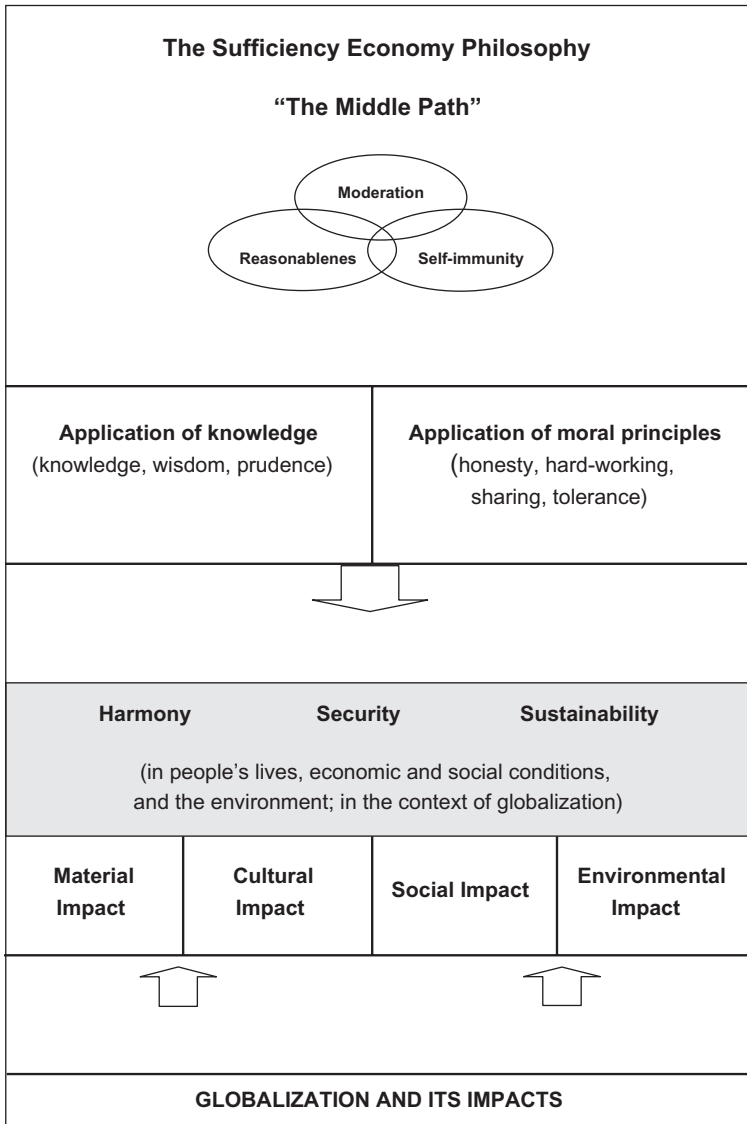
Figure 1 illustrates the PSE framework. The three interlocking elements represent the three principles of the PSE: moderation, reasonableness and self-immunity. These three principles are interconnected and interdependent. Moderation conveys the idea of people living their lives on the middle path, not the extremes. People should rely on themselves without overindulgence. This way of living occurs when people have reasonableness—accumulated knowledge and experience, along with analytical capability, self-awareness, foresight, compassion and empathy. They must be aware of the consequences of their actions, not only for themselves but also for others. The third principle, self-immunity, refers to the ability of people to protect themselves against any external turbulence and to cope with events that are unpredictable or uncontrollable. It implies a foundation of self-reliance, as well as self-discipline. Apart from these three components, two other conditions are needed to make the principles of sufficiency economy work: knowledge and morality. Knowledge encompasses accumulating information with insight to understand its meaning and the prudence needed to put it to use. Morality refers to integrity, trustworthiness, ethical behaviour, honesty, perseverance, and a readiness to work hard.

By practicing these three principles with the two underlying conditions, people would be able to live securely in harmony in a sustainable society and environment. Such a way of living does not signify self-sufficiency; rather, it reflects self-reliance—the ability to tolerate and cope with all kinds of malign impacts of globalization.

The application of PSE is not limited to the individual; it can also be applied to several different practices, one of which is private business. PSE encourages corporate pursuance of sustainable profit via ethical approaches, including good corporate governance, social responsibility, mindfulness of all stakeholders, and business prudence with risk management. The Siam Cement Group, the PTT Public Company, Toshiba Thailand, the Pranda Jewelry Company and the Chumporn Cabana Resort are examples of corporations implementing PSE (RDPB, 2008).

PSE can also be applied to a country's economic policy. The concept of PSE helps shape economic policy in managing factors of production: physical capital, human capital, natural capital and social capital towards achieving quality growth. Such growth stresses people's well-being, sustainable environment,

Figure 1. The philosophy of sufficiency economy framework



Source: Thongpakde (2005).

a steady growth rate, global risk management, and good governance (Mongsawad, 2007).

III. THE CONTRIBUTION TO DEVELOPMENT

This section shows how PSE is employed to address current development challenges. As indicated above, these challenges concern institutions, the environment, human capital and the role of government. PSE conveys new ideas in dealing with these concerns, and offers a new paradigm of development that treats improving human well-being as a development goal.

Institutions

At the current stage of economic development research, the new generation of development theorists (Meier, 2001) agrees that “institution matters.” Institutional failure has caused a wide range of economic and development problems, ranging from asymmetric information, missing markets and moral hazard to governance and regulation issues (Yusuf and Stiglitz, 2001; Meier, 2001; and Bardhan, 2001). The problems concerning dysfunctional or nonexistent institutions are believed to be severe in developing economies. In the search for solutions to these problems, a great deal of contemporary literature has been devoted to extending the scope of research beyond economic boundaries to the cultural and societal issues that affect the economy in order to explain the institutional gap resulting in poor economic development through the concept of social capital.

Social capital, as defined by Collier (1998), is the internal social and cultural coherence of the society. This includes the norms and values that govern interaction among people and the institutions embedded in society. The two main components are government social capital and civil social capital. Government social capital represents formal institutions, such as law and order and good governance, while civil social capital implies informal institutions, such as trust, reciprocity, interpersonal networks and norms. Civil social capital has been recognized as an effective way of dealing with the absence of formal institutions in traditional societies.

Narayan (1999) points out the relationship between civil social capital and formal institutions in terms of both complementarity and substitution. In well-developed economies with strong formal institutions, civil social capital complements formal institutions, while, in less developed economies with absent or dysfunctional formal institutions, social capital becomes a substitute.

Civil social capital helps solve economic problems at the microlevel, as noted by Iyer and others (2005), because it changes the social environment, which affects individual decision-making. The problem of asymmetric information can be alleviated via social networks and trust, so cooperative activity can be achieved repeatedly. Because of these benefits, civil social capital is believed to assist in improving economic performance, civic engagement and human well-being (Whiteley, 2000; Knack and Keefer, 1997; and Narayan, 1999).

Trust, a key element of civil social capital as Dasgupta (2005) suggested, has been recognized as a very important factor in economic transactions. In a society without formal institutions, such as insurance and law and order, the informal institution can control trust through social appreciation and social punishment. The morality condition of PSE relates directly to this issue. According to this condition, trustworthiness, honesty, and integrity are essential in determining behaviour, decision-making and interaction among people in the society. Therefore, a society in which people have the PSE mindset, economic activities should be enhanced. Moreover, interpersonal relationships, kinship and social networks are other elements of social capital that are essential for the society. Individuals and society benefit from this network in several ways. For example, people in the community may look after or take care of each other, help each other out, ward off bad influences and help build networks. All of these can be witnessed in a community with a “sufficiency-oriented” mind.

The Koy-Rut-Tak-Wa community⁷ is a good example of a Muslim community with a sufficiency economy mindset and strong social capital. Trustworthiness, integrity, honesty and altruism are fundamentals of this community. The community has never had incidences of violence, burglary, or drug or security problems. People in the community look after each other and reach out to others. The community polices itself and sets up a “house group” whereby houses in close proximity to each other look after each other and help each other when there is a need. Each house group has its own head, who represents the group in the community council. This social capital works very well in the Koy-Rut-Tak-Wa community.

The morality condition of PSE can be viewed as kind of social capital that direly needs to be embedded in the society. This social capital will help alleviate the institutional problems in the economy. It will assist in forming and shaping strong formal institutions, such as good and honest government. The morality condition as an informal institution also plays a very significant role by substituting for formal institutions in cases of dysfunctional or missing formal institutions. With

⁷ Located in Nongchok, Bangkok Province, Thailand (NESDB, 2005).

strong trustworthiness, honesty, integrity, sharing, and altruism, there can be proper economic and non-economic activities.

Human capital

We all should be able to agree that the ultimate goal of development is not economic growth per se but, rather, to improve human well-being because the majority of the world's population still suffers from poverty, preventable diseases, and lack of other basic necessities.

Improving human well-being does not only involve monetary or asset value; people's ability to make their own choices is now widely considered vital as well. The alleviation of poverty, the building of capabilities, the reduction of vulnerability, and the protection of civil and political freedom are the key elements needed to improve the quality of people's lives.

Poverty is the major impediment to development and the main cause of low quality of life. In the developing world, people are extremely poor, and the society is often not self-reliant (El-Ghannam, 2002). PSE attacks this problem at a very fundamental level by emphasizing the idea that individuals and families, most importantly, must be self-reliant.

In Thailand, a typical family often grows cash crops or mono-crops that are profitable at the time. However, the profit from these crops depends on the market price, and this dependence increases the family's vulnerability to external price shocks. Oversupply of the product reduces the price tremendously, thereby forcing the family to borrow for reinvestment. What is even worse is that they then have to borrow money in order to buy their own food since they cannot eat their cash crops.

In order to achieve self-reliance, according to PSE, a family should change from mono-crop or cash-crop farming to integrated farming. A combination of plants, especially food plants, such as rice, vegetables and fruit, are recommended for planting on the farm. Before the produce or value-added transformed produce is put up for sale, a sufficient quantity of it should be kept for the family's own consumption. Also, farm animals, such as cattle, play a significant role in the integrated farm, as they provide for the family's consumption needs. Measures such as this build self-reliance—doing away with that characteristic of poverty.

A real-life example is Boonchuey Klongkaew, a Thai farmer from Ban Nong Glang Dong village who adopted the PSE approach of self-reliance.⁸ The 70-year-

⁸ Ban Nong Glang Dong village, Prajuabkirikan Province, Thailand (NESDB 2005).

old Booncheuy once grew cash crops, such as sugar cane, pineapple and tapioca, on his 64-rai farm in the hopes of high profits. However, he accumulated a huge amount of debt and became poor. After he started practicing integrated farming, though, his life turned completely around. He now has plenty of food to meet his own needs and more than enough surplus for trade. Additionally, he has enough money to repay all of his debts and to save for security. He now lives a peaceful life with dignity. He is now self-reliant.

The concept of self-reliance is also applicable at the community level. The villages of Ban Moung Wan and Koak Chareon⁹ are good examples of communities that have engaged in savings schemes and successfully reduced expenses and debt while increasing their savings. These communities began with a microsavings scheme involving a group of 10 people. The members were required to save a very small amount of money every week. Over time, the group has become much bigger and stronger, with 667 members and a savings account of 7.5 million baht.

Instead of obtaining loans from outside banks, people now borrow from the community savings account, which creates benefits for the community. The profits from the lending are divided into two parts: one is returned to the members and the other is used for community activities. This kind of savings exemplifies the immunity aspect of PSE, whereby people help guard themselves against external shocks.

Community shops, rice mills and car services are examples of how these two villages have successfully helped the communities. Parts of the benefits from these projects, including the savings programme, are contributed to the community welfare fund, which is used for community activities and to help orphans, the poor and neglected elders.

These welfare programmes and mutual activities, as well as many other programmes and activities¹⁰ suggested by PSE, significantly enhance the immunity of the communities and reduce their vulnerability to various kinds of shocks (for example, economic, cultural, social). Examples of such welfare systems are community health centres, community cooperatives, village funds, funeral funds, and cultural and religious activities.

Other key aspects of improving human well-being are the opportunity to build one's own capability and reduce one's vulnerability so that the future can be

⁹ Ban Moung Wan and Ban Koak Chareon villages, Burerum Province (NESDB 2005).

¹⁰ See, for example, NESDB (2004), NESDB (2005), Buasai (2006), and RDPB (2008).

shaped and choices made. To achieve these aspects of well-being, one needs to acquire knowledge—one of the key conditions necessary for achieving PSE. Without knowledge, it would be impossible to be reasonable and self-immune, as these two principles require rational decisions, information gathering, previous experience, analytical skills and adaptability. Accumulating knowledge, therefore, is essential, whether through a formal educational system or through real-life experience.

One inspiring instance of a person who accumulated knowledge to build his capability and reduce his vulnerability is Vinai Suwanatri, a farmer from Ban Lum Ma Kam.¹¹ In 1999, Vinai employed what he calls the “five knows”: (1) know yourself; (2) know the problem; (3) know the resources; (4) know how to manage; and (5) know how to plan. Utilizing this information, he analysed his life and his mistakes. He realized that he had to change the way he lived. He stopped drinking, smoking and gambling. He started saving and put an end to unnecessary spending. He shifted from a cash crop to an integrated farm and embraced the environment. Within three years, he had paid off all of his debt and was out of the poverty trap. He found that his true happiness came from practising PSE. Now, he has security in life and helps educate other people about what he learned from his experience.

At the community level, Koy-Rut-Tak-Wa¹² placed emphasis on education by founding a community Islamic elementary school. The school not only provides a formal curriculum but also stresses real-life issues to guard against bad influences from outside the community, such as drugs and violence.

Another example of the impact of PSE on education is that of Ban Bau village, one of 900 villages in the Inpaeng network¹³ practising the PSE. Ban Bau village has set up a project called “Children of the Inpaeng”, which aims at action-based learning from both the community (culture and experience) and the outside world. Such skills as critical thinking, decision-making, leadership and teamwork are emphasized. The results are impressive, as there has been a great deal of improvement in the children’s learning process (UNDP, 2007, p. 44).

The aspect of the PSE that improves human well-being entered the international arena when UNDP investigated the contribution of PSE to human development. It stated that, like the UNDP agenda on development, the heart of

¹¹ Ban Lum Ma Kam, Chachengsao Province (RDPB 2008).

¹² Koy-Rut-Tak-Wa community in Nongchok, Bangkok Province, Thailand (NESDB 2005).

¹³ The Inpaeng network covers 900 villages in four north-eastern provinces of Thailand (UNDP 2007).

development in the context of the PSE is people's well-being. People focus on living up to their own potential and lead the fullest life possible in freedom and dignity.

However, the PSE provides more for human development in two respects. One is through PSE process (that is, the three principles), which can be used for analysing situations, identifying objectives, setting plans and taking decisions (UNDP, 2007, p. 70); this process is applicable at any level of society. The other is the mental and spiritual development aspect of PSE. When embraced in any type of development, these values yield mental and spiritual well-being at the individual level and provide an ethical focus culture at the organizational level.

Moreover, PSE enables people to reap benefits from the insight into peacefulness; they have more profound lives as a result of the moral principle. Hard work, integrity, honesty, sharing and altruism play vital roles in human well-being. With a balanced-way of living, morality lifts up people's spirits and shows that living is a deeply meaningful phenomenon. This represents another kind of freedom: freedom from the trap of materialism in which many people find themselves today. It is a freedom enjoyed by those who have the PSE mindset.

Environmental sustainability

One of the biggest concerns, not only for economists but also for governments, non-governmental organizations and ordinary people, is the environment. To achieve economic prosperity at the cost of environmental degradation, deforestation, pollution, and depletion of resources is now viewed by many as poor decision-making.

As Stiglitz (2006) pointed out, a country aiming for high GDP growth might employ bad policies and make bad decisions on environmental issues; an example is Papua New Guinea's decision on gold and copper mines in 1984, which resulted in devastating environmental problems several years later. GDP growth numbers can be illusive because they do not account for the depletion of resources or environmental degradation. If they accounted for the environmental degradation, then GDP growth could be significantly lower. ADB (1997) and Bojō (1996) (cited in Thomas and others, 2000, p. 86) estimated the cost of degradation of natural resources (such as soil degradation), in China and Africa. Their studies showed that soil degradation cost the GDP of China as much as 5 per cent and as much as 10 per cent of the agricultural GDP of Africa.

Several studies have shown a correlation between income growth and environmental degradation. One such study is Naidoo (2004), which showed the impact of the depletion of resources, as with forest clearance, on income growth. The findings indicated a strong positive relationship between the two: the larger the forest clearance of a country, the faster the growth rate. Likewise, Thomas (2001) investigated a relationship between GDP growth and the indicators of environmental sustainability (for example, changes in carbon dioxide emissions and changes in forest cover). The result showed a strong negative relationship. All the evidence confirms the notion that the high income growth that a country achieves is sacrificed by the depletion of natural resources and the environment.

Environmental degradation, such as water pollution, unarguably has a stronger effect on the poor, whose incomes depend mainly on natural resources. Additionally, the poor are more vulnerable to the health hazards caused by environmental degradation.

This problem affects not only monetary value (such as the cost of medical care and the loss of cultivated areas) but also the quality of people's lives. In both the industrial and agricultural sectors, overexploitation and abuse of the environment aimed at achieving high income have led to environmental problems that have had tremendous negative effects on human well-being. Humans should embrace the environment and live in harmony with it.

The sustainable development concept of Brundtland's (WCED, 1987), emphasizing responsible consumption by the current generation without compromising that of future generation, is consistent with PSE. Reasonableness and moderation with regard to the environment and natural resources will lead to environment sustainability. The self-immunity aspect of PSE reminds people to embrace the environment and to conserve it for the future.

One serious case of unreasonableness and immoderation in environmental consumption is deforestation or forest clearance. Deforestation denudes mountains, giving rise to mudslides during heavy rainfall. In Thailand, there have been mountain mudslides that cost people their lives and destroyed property, including houses, infrastructure and cultivated lands.

After a devastating mudslide in 1996, Ban Wang-lum village, a small community in the southern Thai province of Ranong (NESDB 2005), began adhering to PSE. To preserve the forest, the moderate, reasonable and self-immune villagers stopped cutting trees from the mountains and, in 1999, started planting timber trees in their own "community forest". A seven-member committee was formed to monitor the utilization of the forest. Now, instead of cutting trees from the forest

for the construction of houses, the villagers use the proceeds from the community forest. The community forest is viewed as a resource for the community's immunity and prevents further depletion of the environment.

Another PSE practice in addressing problems of environment degradation and natural resource depletion is sustainable agriculture. Sustainable agriculture adopts PSE in the sense that one needs to be moderate, reasonable, and self-immune, together with being hard-working and acquiring knowledge. Sustainable agriculture practices organic farming, which eliminates the use of chemical fertilizer and chemical pesticide. Chemical fertilizer is one of the main causes of soil degradation (that is, soil acidity), which reduces the productivity of crops. Chemical pesticides not only kill insects but also endanger the environment, which in turn harms people. Instead, the natural materials that can be found locally are used to make organic fertilizer and insecticide.

Aiming to make a profit, farmers normally plant mono-crops or cash crops, which are totally dependent on market prices, thereby increasing the farmers' vulnerability to external price shocks. Also, the practice usually harms the environment, as farmers tend to overuse chemical substances to increase production. This type of practice is unsustainable over the long run. To address this problem, the King of Thailand suggested that farmers employ the New Theory of Agriculture, an application of PSE.

The New Theory of Agriculture recommends that farmers follow three-stage procedures. In the first stage, farmers should divide the land into four parts as follows:

- (1) Growing rice (30 per cent);
- (2) Growing vegetable and fruits (30 per cent);
- (3) Water reservoir (30 per cent);
- (4) Residential and other uses (10 per cent), so that they can have food sufficiency or food security.

After farmers have food security, they can expand their production processes and move to commercial activities in the second stage. Finally, in the third stage, they may further expand their production processes and have cooperation in the community in the form of cooperative stores or a rice mill factory (Wibulswasdi and others, 2010, p. 23).

The New Theory of Agriculture is a kind of sustainable agriculture, as it promotes integrated farming, which consists of rice, big trees, small plants and other medicinal herbs. Big trees help improve soil retention and provide natural fertilizer, while small plants help retain moisture. Also, prolific wind-blown seeds from trees on hilltops help accelerate natural regeneration (UNDP, 2007, p. 49). This is a kind of farm that helps improve the ecology, conserve the environment, and benefit people's well-being. Several success stories of farmers who employ the New Theory of Agriculture can be witnessed from all over Thailand (see, for example, NESDB, 2004 and RDPB, 2008). These farmers now have better lives and continue to conserve the environment.

The PSE concept on environmental sustainability is applicable not only to rural areas but also to cities. With moderation, reasonableness, self-immunity and awareness of social well-being, people, businesses and public organizations will be more conscious of environment protection.

We can see that the essence of PSE regarding environmental issues is to guide people to live in harmony with nature. By being reasonable and moderate in natural resources utilization (never overexploiting or abusing the environment), and by being self-immune through environmental conservation, people can successfully live in harmony with nature.

Role of government

Government plays a significant role in the economy, as the market alone sometimes cannot function efficiently or properly. Those concerns about market functions that can impede development, such as asymmetric information, imperfect and missing markets, and law enforcement problems, still require government action. The optimal role of government in building strong institutions and in deepening and facilitating market functions is the key.

With the concepts of moderation, reasonableness, self-immunity, together with the conditions of morality and knowledge, government should be able to achieve an optimal role. A PSE-oriented government will aim at maximizing the welfare of the people while following the middle path. Policymaking should be done with prudence and vigilance, and should be subjected to experience and knowledge assimilation. No policy is launched without careful evaluation in order to avoid a detrimental impact on the economy. In this manner, the economy will be able to withstand any kind of malign shocks from the outside world.

Wibulswasdi and others (2010) showed that government could apply PSE to its three main operations: (1) macroeconomic management, (2) government policy design, and (3) planning of development strategy. Under macroeconomic management, government can employ a conservative fiscal policy, a prudent monetary policy, and cautious rules regarding external shocks. In designing a policy, government should apply the PSE concept in order to strengthen people's capacity and emphasize the sufficiency mindset. Lastly, in planning a development strategy, government should not only focus on industrial development, but also pay more attention to rural development for achieving strong communities, quality growth and good quality of life, since weakness in rural areas would lead to severe economic, social and political problems in the future.

The Government of Thailand has thus far applied PSE in designing policies; especially those that help alleviate poverty and encourage communities to be strong and self-reliant. For example, the Government encourages communities to employ the following elements;

- (a) Schemes to reduce expenses through more home production, use of local new materials, energy savings, elimination of costly local entertainment and promotion of local markets;
- (b) Schemes to increase income by encouraging community enterprises, producer groups and local tourism;
- (c) Schemes for local savings;
- (d) Promotion of local leadership and use of community plans;
- (e) Activities to preserve and protect the environment;
- (f) Schemes to promote social capital, including local welfare schemes, community rice mills, and other cooperative schemes (UNDP, 2007, p. 48).

The Bank of Thailand's inflation-targeting policy is also an example of macroeconomic management policy that is influenced by PSE. This policy compromises short-run growth to attain economic stability and sustainable growth in the long run (Bank of Thailand, 1999).

Good governance should also be a product of a PSE-oriented government. Codes of conduct together with the principle of morality, which can be applied at both the individual and government levels, will enforce good conduct, resulting in good governance and a culture of honesty in the government. This good governance

will, in turn, create trust in the society. Once people have faith and trust in their government, civic and economic activities will be successfully accomplished and will consequently contribute to the development goals of the nation.

IV. CONCLUSION

From a growth-driven to a sustainable development policy, countries still face clear and present challenges in development. Those challenges stem from dysfunctional institutions, poor quality of people's lives, environmental degradation, and the optimal role of government.

As this paper has argued, the philosophy of sufficiency economy of the King of Thailand conveys a new paradigm for development. Emphasizing the three principles of moderation, reasonableness and self-immunity together with the two conditions of knowledge and morality, this philosophy helps address those development challenges.

Trustworthiness, honesty, integrity, sharing, and altruism, the important elements of PSE, can be considered the social capital embedded in society that encourages proper economic and non-economic activities. PSE acts as an informal institution that can substitute for a formal institution in cases of a dysfunctional or missing formal institution. It also helps shape strong formal social capital in the society.

One of the most important applications of the PSE is to help improve human well-being. The PSE emphasizes the self-reliance of an individual and of a community, together with the essentials of education. Poverty reduction can be achieved, by which PSE helps people reduce vulnerability, build their own capability to shape their lives, and have choices.

With the PSE mindset, people will be moderate, reasonable and self-immune; therefore, they will not overexploit or abuse the environment or natural resources. They will embrace the environment, conserve it for the future and live in harmony with nature.

Finally, a government with a PSE mindset would be able to achieve the optimal role in maximizing its people's welfare. Such a government will make policy with prudence and vigilance, resulting in good governance and a culture of honesty.

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