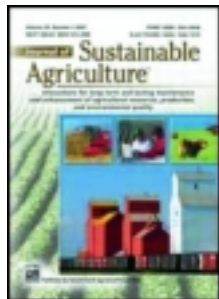


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Is Sustainable Agriculture in Thailand Feasible?

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Is Sustainable Agriculture in Thailand Feasible?

Mogens Buch-Hansen

ABSTRACT. Thailand has pursued a conventional, but rapid economic development model, based on extraction of labour and economic surplus from the agricultural sector. This has happened to a degree where agriculture has been absorbed into the urban economy, producing for urban based agribusiness companies and with a majority of rural households dependent on migrant work. The conventional development model was successful from an economic point of view, making Thailand the world's fifth largest exporter of agricultural commodities. The development model, however, has left a significant portion of Thai farmers outside the mainstream of economic success and social development. When the financial crisis doomed on Thailand in 1997 due to overheating of the economy, unwise short-term investments and financial mismanagement, the Thai population had an opportunity to review the development model. The maldevelopment in terms of degradation of natural resources and human values following the rapid economic growth and urbanization, together with many years of authoritarian government rule, triggered an ideological debate among the rapidly growing urban middle class on the direction of development.

As environmental issues increasingly legitimize a discourse for social protests and for protection of vested interests by grassroots, government

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agencies and elite social forces alike, it becomes pertinent to analyze these issues in a socio-economic and political context. The Eight Development Plan introduced the concept of "Sustainable Agriculture" as a tribute to those not benefiting from conventional agricultural development. Hence it becomes essential to include economic, socio-cultural, institutional and political analyses along with biophysical resources and production methods. We raise a number of questions as to whether Sustainable Agriculture is economically viable, whether it is socially acceptable and whether it is politically feasible. There is need of a holistic approach integrating biophysical analyses in a framework of social science analyses of the enabling policies and socio-cultural studies of development. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: <getinfo@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> © 2001 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Sustainable agriculture, Asian financial crisis, environmentalism, WTO and Agreement on Agriculture, Thailand

INTRODUCTION

Before the financial crisis doomed on the Asian economies in 1997, Thailand was already mentioned as the fifth tiger among the rapid expanding economies in Asia. During the 1980's and 1990's Thailand several times hit the record as the fastest growing economy in the World. The skyline of Bangkok clearly shows the vision of a booming economy or as it turned out to be: a bubble economy that easily burst (Wade, forthcoming). Today's skyline is disfigured by ghost skyscrapers waiting to add to the already sky-high non-occupancy rate, indicating that something went completely wrong.

Thailand, in many ways, used to be a good example of the development model promoted during the development era. It obediently followed the development models prescribed by the Washington institutions guiding the Western world's post-war development course. Based on an expanding agricultural sector for export Thailand followed an import substitution strategy for industrial goods during the sixties and seventies. After a brief crisis, following the second oil price shock in the mid-eighties, Thailand liberalized the economy and during the late eighties successfully pursued an export oriented strategy. During the nineties it further liberalized the economy and opened up for foreign capital, to an extent that ended in the burst of July 1997. Only four years before the burst, the World Bank had described Thailand as a model for economic development (Lauridsen, 1998).

This article deals with this schism in the agricultural sector, the sector that once was the backbone of the Thai economy. Major economic interests of huge agribusiness companies, together with the almost entire bureaucracy and most politicians, are supporting Thailand's position as one of the world's major exporters of agricultural commodities, based on capital intensive, conventional production methods and cheap labour. Opposing the conventional agricultural development model, which has left a significant portion of the farmers in relative poverty, many without security of land, we find local community groups and a big number of NGOs. They are part of a growing civil society together with the intellectuals and the rapidly growing urban white-collar salariat. Together with a small fraction of the bureaucracy, they are in different ways opposing the conventional agricultural development model. If agriculture is not any longer the backbone of the Thai economy, then at least it caters to the basic needs of at least 30 million people or more than half the Thai population. As such it is the object of an ideological battle of the meaning and direction of development. The Thai Government has proposed the concept of "Sustainable Agriculture" to restructure agriculture. The aim of this article is to explore that concept.

AGRICULTURE—THE BASIS FOR ECONOMIC DEVELOPMENT

Thailand has followed the classic model for economic development by extracting a sufficient economic surplus from agriculture through trade and taxation to create the foundation for industrial development. During the fifties and sixties the economic surplus was created especially through expansion of paddy production which made Thailand one of the biggest exporters of rice. The notorious rice premium, which was an export tax, contributed to expanding government revenues and to capital accumulation invested in the manufacturing production capacity. During the seventies and eighties the huge frontier expansion in the North and the Northeast created an unprecedented expansion of the Thai economy. In order to understand present days ambiguous stands on environmental protection in Thailand, this period must be understood in its global historical context.

During the sixties US military got more and more involved in the Southeast Asian region due to the Cold War and the US foreign policy strategy of the domino effect. This strategy made US and Thailand close allies and provided ground support for US military in Thailand. The Northeast of Thailand was opened up for US military bases. Later the forests in the North and Northeast became secure fields of operation for various guerrilla movements opposing the central government in Bangkok. In line with that era's political discourse, these were all labelled communists.

The tropical forests which back in the fifties almost entirely covered the mountainous areas of the North and Northeast were now, to an even higher degree than before, perceived as uncivilized, dangerous wilderness, inhabited by a non-Thai population and groups of politically undesired, dangerous guerrillas. As eloquently described by Stott, the wording of the different landscapes became very important for the Thai perception of the society and its development. The Thai culture was so closely related to the centre *Mu'ang*, the principal town, usually aligned with the main river of the basin, containing the most important Buddhist temple, the city pillar and the royal palaces. This "merit-heart" of the *mu'ang*, from which the "umbrella" of merit will spread to the very edge of the intermontane basin, the foothills of which rise dark in the horizon. At the edge of the Thai civilized space was the *pa thu'an*, which was the uncivilized forest. The Thai words themselves indicate not only a forest with trees but relate this to wilderness, which is savage, illicit and barbarous (Stott, 1991, p. 145).

USA was, however, not only a military presence. USA helped Thailand to embark on the economic development model. Huge concessions for clear-felling of forests were given to substitute the forest with agricultural land. As this coincided with a felt political threat it resulted in a massive cut down of the forest in a joint effort to tame the untamed and to civilize the uncivilized! In the mid-1970's, when the anti-insurgent campaign and resource mining was at its height, almost one million hectares of forest were being destroyed each year (Pasuk and Baker, 1996, p.152). As Pasuk and Baker dramatically describe it: "The insurgency was rolled back under a cloud of wood smoke" (Pasuk and Baker, 1995, p. 61). The forest workers, together with the farmers from the densely populated rice plains, were quick to take up the cleared land and started growing paddy in the valley bottoms and up-land rice, maize, soybeans, cassava, tobacco and vegetables in the hills. Apart from traders and middlemen, agribusiness companies soon followed. Today as much as 25% of Thailand's paddy fields are found in the North. The total number of farms in the North has increased almost four times from 1953 to 1991 (from 357,605 to 1,281,697), and the total area of cultivated land has increased almost nine times from 540,000 ha in 1953 to 4.7 million ha in 1991 (Pasuk and Baker, 1995, p. 56).

At almost the same rate as the forest cover was reduced, Thailand became a leading exporter of agricultural commodities. Unlike a normal capitalist process of agricultural transformation, the majority of Thai farmers are relatively poor, small scale farmers. They are seriously in debt to middlemen, and increasingly to co-operatives and agribusiness companies. The role of Lenin's kulaks seems to have been taken over by agribusiness companies. This further adds to the urban bias of Thailand's development model. Between 1960 and

1975, the total value of agricultural exports increased at a compound rate of 10% a year (Pasuk and Baker, 1995, p. 129).

Thailand had embarked on the road for economic growth with agriculture as the foundation and the driving force. That driving force should later on shift to the manufacturing and the urban economy, gradually absorbing the rural areas into the urban development course.

INTEGRATING THE RURAL AREAS INTO THE URBAN ECONOMY

During the import substitution period, agricultural commodities made up the bulk of export from Thailand (73% in 1970) and hereby financing the import substitution industrialization. From the mid-eighties non-agricultural commodities increased rapidly in the value of export. In ten years from 1985 to 1995, manufactured exports multiplied twelve times and drove up total exports seven times (Pasuk and Baker, 1996, p. 4). Already from 1988 non-agricultural export commodities took the lead over the agricultural export. By the time of the financial crisis in 1997, the proportion between agricultural and non-agricultural export commodities had turned up side down from 1970 (agricultural goods made up 27% of total export in 1997).

A major impetus to industrial growth was the appreciation of the Japanese Yen after the Plaza Accord in 1985. The Thai Baht dropped from about 10 Yen per Baht in 1984 to about 4 Yen per Baht in 1993. Japanese manufacturing companies, but also companies from the Asian tiger economies, came to Thailand to look for currency protection and cheap labour. They mainly located their new industries in the outskirts of Bangkok. As industrial goods took over as the main export commodities, the urban bias of Thailand's development model became even more reinforced. From 1984 to 1993 the numbers of people working in industry doubled from 2 to 4 million, most of whom settled in the rapidly growing Bangkok Metropolitan Area.

The export-oriented industrial growth was very much stimulated by foreign, private capital and earnings of foreign currency from a rapid growing tourism sector. Between 1985 and 1990, the inflow of private capital increased ten times, which signalled a change in Thailand's macro-economic structure. Total trade (exports + imports) rose from 54% of GDP in 1982 to 89% in 1994 (Pasuk and Baker, 1996, p. 76). In 1992, as part of a broader financial liberalization package, foreign exchange was deregulated. As a consequence of the booming economy with stable macro-economic management and high interest rates, short-term private capital flowed into the country. The external debt increased from almost 40 billion USD in 1992 to 80 billion USD in March 1997 (Lauridsen, 1998, p. 1576). In the early phase of the booming economy (in the last half of the 1980's), in-flowing private capital mainly consisted of manu-

facturing companies establishing subsidiaries in Thailand to take advantage of cheap labour, “currency protection” and a rapidly growing internal market. FDI in the later phase of the boom, leading to the burst, was short-term investments going for easy profit in the financial and property sectors. Consequently the booming economy gave rise to a large number of unskilled jobs in the manufacturing sector and as construction workers. Both men and women were in demand in the urban sector and women’s share of migration work surpassed that of men’s during the 1990’s (Parnwell and Arghiros, 1996 p. 23 and Klausner, 1997).

The booming urban economy was dependent of fresh supplies of labour power from the rural areas. TV undoubtedly had an impact on rural households by showing the glimmer of urban life and hereby attracting the needed labour power. While only half of the rural households had a TV by 1985, this had grown to over 80% by 1994 (Pasuk and Baker, 1996, p. 126). TV contributes greatly to what Jonathan Rigg calls “pressure of needs” which is intensifying and expanding year by year (Rigg, 1997, p. 179). Eagerness to participate in the booming monetary economy or “pressure of needs” made the rural communities push for more roads. In many cases, rural households have sold land to buy a pick-up in order to more easily interact with the market, either by selling cash crops or to work as casual labour. Non-farm incomes seem to have become a significant factor in the survival and welfare of rural communities. Rigg estimates that, for the Southeast Asian region, between 30 and 50% of total household income is derived from off-farm sources. Rigg also refers to a study by Ritchie of a village near Chiang Mai in which 52% of the population in 1974 had their main income from agriculture; this had dropped to 4.8% in 1991. “Ritchie observes that although the village may still be situated in a rural setting, the people and households which are involved in agriculture are now in a minority.” In 1974, only 7.5% of all households in the village mixed farming and non-farming occupations, the figure in 1991 was 30.8%. Furthermore, while in 1974, 94% of wage labour was agricultural labouring, by 1991 it was only 14.5% (Rigg, 1997, p. 179).

Rural Thailand became during the booming economy more and more integrated with the urban economy and through this with the world economy. The high input, export oriented and commercial farmers are heavily connected to agribusiness and export companies. The small scale farmers, many of whom with insecurity of land, no means to buy agricultural input and outside marketing channels, are to a large extent dependent on off-farm incomes. They are eking out a sometimes miserable life on ecologically marginal land which corresponds to their marginal position, seen from an economic, social and political point of view. When the “bubble economy” busted they were the ones to suffer most, as their marginal, temporary off-farm incomes were the first to go. It is estimated that 1.2 million temporary workers were returning to the rural

areas, putting an extra pressure on areas already marginal from all points of view. This further illuminated the issue of strained natural resources giving impetus to environmental movements, not necessarily located in the rural areas.

ENVIRONMENTALISM AND SOCIO-POLITICAL DEVELOPMENT

Like everywhere else in the world, the concept of sustainability has become a central part of the environmental awareness in Thailand. The concept is promoted by the urban middle class, or more correctly in Thailand's case, according to Pasuk and Baker, by the white-collar working force. This force is in Thailand made up by people possessing the professional skills to run the modern Thailand with an open, liberalized, export-oriented manufacturing economy. They occupy a spectrum, which runs from managerial employees at the one end, through self-employed professionals in the middle, to small businesses and sub-contractors at the other. This new class is a child of growing urban capitalism. In line with global trends, this urban based, economically well off and educated group grasped the idea of the "Brundtland Commission" and the concept of sustainability. The economic welfare should not be at the expense of nature, as they perceive it. It is, in this connection, interesting to note that they tend to use the word *thammachat* when describing nature. *Thammachat* is a more wide and poetic word for nature, embracing all natural phenomena, such as rain, wind and sun, and doesn't have the "dangerous" connotations as does *pa thu'an* (Stott, 1991, p. 144).

But as Phillip Hirsch rightly points out, environmentalism as a political force in Thailand is more complex and significant, than just a "normal" outcome of a growing urban middle class. Phillip Hirsch distinguishes no less than nine different socio-political forces, using environmental issues in different ways to enhance their political clout. Some of them were being activists, in opposition to the Government's way of managing the environment. Some are concerned with local communities' livelihood vis-à-vis environmental protection, while others are more concerned with conservation of nature per se. Even private business see their interests in getting involved with environmental issues, as well as projects under Royal patronage have long played a significant role in enhancing environmental awareness in Thailand. Also within the bureaucracy itself new trends are found, sharing "middle class" concerns for the environment. As Phillip Hirsch concludes, environmentalism is closely tied to Thailand's fluid class structure. "Perhaps most important is to recognize the role of the environment as a legitimizing discourse for social protests, for protection of vested interests and for staking of claims over resources, by grass-roots and elite forces alike" (Hirsch, 1997, p. 194).

Many of these socio-political forces manifested themselves in the May 1992 uprising, showing a reaction of the 1991 military coup and the following authoritarian rule. Up to then, more than ten years had passed during which a number of significant environmental issues had raised the political conscience of the relationship between natural resources, development and environment. The logging ban of 1989 after serious flooding and land slides in the South. The Eucalyptus battle during the 1990s and the protests against the destruction of urban communities to give way for expressways. But not least the notorious battle over the Nam Choan dam and a number of other damming projects in the country raised the general awareness of environmental issues. The final cancellation of the Nam Choan gave a lot of credibility to local communities, NGOs and other activist forces, but it primarily showed the importance of environmental issues as part of the socio-political struggle. A wide coverage of these environmental issues in the Bangkok media, keeps environmental issues in the focus as a legitimizing discourse for social protest by the growing urban salariat. Many of the NGOs play an important role in bridging these urban based environmental forces with the less vocal rural community groups.

As Pasuk and Baker have pointed out it is problematic to label these social forces as middle class as it gives connotation to the nineteenth-century European "bourgeoisie" (Pasuk and Baker, 1997, p. 32). Most of them belong to the salariat, while others are small scale entrepreneurs, academicians or media people. The best way to describe the various political forces seems to be as a growing civil society. As such they represent a socio-political force vis-à-vis the Government and the market, functioning as a watchdog of Government activities. They have skillfully managed to put clear fingerprints on two very important Government documents in the late 1990's, namely the 1997 Constitution and the Eighth National Economic and Social Development Plan (1997-2001). In these documents words like decentralization and popular participation are repeated again and again and the 8th Development Plan talks of a new development paradigm shifting from a growth orientation to people-centered development and the planning process shifting from a compartmentalized to a more holistic planning (Government of Thailand: The Eight National Economic and Social Development Plan [1997-2001] p. iv). These social forces are also what prompted the magical concept of "Sustainable Agriculture" in the Thai vocabulary.

SUSTAINABLE AGRICULTURE IN THAILAND

Prominent personalities from the academia, the business communities and leading representatives from the NGO world were all involved with the National Economic and Social Development Board (NESDB) and the Office of

the Prime Minister in drafting these documents. Representatives from what Hirsch would call activist groups admit today that the wording is nice. But there is no implementation. Laws to implement the words as well as the spirit of the Constitution should have followed up, but it never materialized. The 8th Development Plan should have been followed up by devolution of power from the centralist compartmentalized ministerial headquarters in Bangkok to horizontal planning agencies at the Tambon (sub-district) level. This is a process under implementation by the Department of Local Administration in the Ministry of Interior. But the process is a slow and painful.

The Ministry of Agriculture and Co-Operatives (MOAC) was given the assignment of adding reality to and implement the concept of “Sustainable Agriculture” as a contribution to the 8th Development Plan. The planning document obviously is not very specific on the content of Sustainable Agriculture, apart from mentioning four production methods: natural farming, organic farming, integrated farming and agro-forestry.

The 8th Plan talks in rather vague terms of restructuring and reorientation of development administration under an area-function-participation approach as a framework for development planning. The most concrete step taken to implement this is the political decision to enhance the Tambon Administrative Organization (TAO). The Tambon is a sub-district, which up to now has been headed by the Kamnan, a government employee. In 1995, the Parliament approved the Local Administrative Organization and Tambon Council Act. Based on this, members are elected to the Tambon Council. In some cases the council has elected a President. In most cases he is the same person as the Kamnan. In most tambons, the Kamnans continue administrating on behalf of the Ministry of Interior, undisturbed of administrative reforms going on.

One thing is the seemingly political will to grant a certain amount of autonomy to the local, area based administration, the TAO. Another thing is to give it the necessary economic means to become effective. The Ministry of Interior has granted any sub-district, which is able to collect local tax at least totalled 150,000 Baht (approximately 4,000 USD) for three consecutive years, the status of TAO. According to the 8th Plan there were 2,760 TAO throughout the country in 1997. According to various sources, interviewed in 1999, the number may have increased to half of the approximately potential number of 7000 TAOs. As the revenue base for the TAO is some land and property taxes, mainly the TAOs around Bangkok and big provincial towns, have managed to collect sufficient taxes to be given the status of TAO. Even if the tambons are able to collect 150,000 Baht, this will not take them anywhere in administrating development activities, unless government departments start to decentralize their development budgets. Devolution of power from the compartmentalized, centralist line ministries to area based institutions under the Ministry of Inte-

rior, is everywhere in the world a difficult process. But in Thailand, as we will see later, this is not any easier.

The assignment given to the Ministry of Agriculture and Co-Operatives has not fared much better. According to the 8th Plan, 20% of total agricultural land in the country, or approximately 25 million rai (4 million ha) should be under Sustainable Agriculture. According to leading representatives from the NGO world, the MOAC has not taken initiative to transform even a single rai from conventional to Sustainable Agriculture. The Cabinet did soon after the release of the 8th Plan approve a pilot project of 623 million Baht (approximately 15 million US Dollars) to support small-scale farmers implementing some of the Sustainable Agriculture production methods mentioned in the 8th Plan. The money was, however, never released.

Apart from allowing UNDP and one bilateral donor, funding projects in support of Sustainable Agriculture, MOAC has so far done very little to give reality to and to implement Sustainable Agriculture. One reason is that Sustainable Agriculture is a poorly defined concept. The other reason is that apart from production methods, as they are mentioned in the 8th Plan, sustainability involves a holistic approach, where socio-economic, institutional (including land tenure), marketing, cultural issues, apart from an enabling policy framework are essential for creating sustainability. In the following I will raise the question whether these issues have been sufficiently addressed in designing Sustainable Agriculture. First I shall briefly discuss the meaning of sustainable development.

SUSTAINABLE DEVELOPMENT—WHAT DOES IT MEAN?

There is in the international literature very little consensus on the concept of sustainability. There is, however, a widespread acknowledgement that it has become a convenient catchword. As often referred, it is like motherhood and apple-pie, no one can be against it. Or as Conway puts it for agriculture: “Almost everything that is perceived” good “from the writer’s perspective can fall under the umbrella of sustainable agriculture” (Conway, 1997, p. 46). The normative approach is very attractive for policymakers because it permits a direct translation of political objectives into a broadly agreed upon overall concept. This has challenged scientists to come up with a workable definition, which has been difficult as the concept embraces natural science, social science and humanities. The concept calls for a holistic definition and a holistic approach, which is basically against the idea of Western sciences.

Although the word sustainability had been used before, it was the World Commission on Environment and Development, chaired by former Norwegian prime minister, Gro Harlem Brundtland who, with their report from 1987

made the concept a catchword. They defined sustainability as: “economic development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.” At first glance, this is an economic definition, as it refers to economic development. By second thoughts, how to define needs and what is the meaning of ability of future generations?

It is generally accepted that human needs, apart from fulfillment of materialistic needs, include at least social welfare and cultural values. The ability of future generations to meet their needs of course build on the technology and knowledge inherited through generations. However, there must be sufficient biophysical endowments to use the technology and knowledge to transform to use values for the human society. The problem is that we don't know which resources will be relevant for future generations' knowledge and technology. This is where the distinction between weak and strong sustainability definitions comes in. In the weak definition, natural resources can be substituted by man-made capital (knowledge and capital), while in the strong definition, the stock of resources must be maintained to leave the options open for future generations to meet their needs. As repeated by Turner and Pearce, the concern about the weak definition is the uncertainty. We don't know the consequences of running down natural capital and we don't know the life supporting functions of certain major ecosystems (like the oceans and major wetlands)—the so-called critical natural capital. Human actions may also cause irreversible natural processes, like raising the Earth's temperature or extinction of species. The uncertainty may justify applying the precautionary approach and hence the strong definition of sustainability (Turner and Pearce, 1993).

Definitions on sustainability must include contributions from economy, social sciences, humanities and bio-physical sciences. The three circles, partly overlapping each other, representing economic, social and environmental goals of development, respectively, are well known. Only where they all overlap each other, will we have sustainability. What is often left out in this graphic representation of sustainability is that only through an enabling policy framework, i.e., policies that support and promote the economic, social and environmental goals, will it be possible to work towards sustainability. As quoted by Pretty: “Perhaps more than any other factor, appropriate rights to land determine the success of sustainable agriculture” (Pretty, 1995, p. 248). The sustainability concept calls for analyses of how environmental issues inform the socio-political development process.

Sustainability must be related to time and scale to make any sense as well as related to how nature is valued. On *scale*, a different mix of parameters has to go into the analysis whether we look at sustainability at the plot level (cropping systems in relation to bio-physical features), farm level (farming systems), local level (watershed/village), regional level (landscape/district) or national

level where macro-economic and agricultural policies become even more important for how various agro-climatic zones are utilized by various farming systems. Concerning *time*, the big question is whether sustainability should ensure intragenerational equity or only stick to intergenerational equity, as included in the Brundtland definition. A lot of critique has been raised against the Brundtland definition exactly because it does not explicitly mention intragenerational equity. This has foremost to do with present power relations. How to ensure equity among the present generation with unequal spatial endowment of natural resources, unequal access to these resources and unequal profit gained from their use (Becker, 1997, p. 13). This can be seen as a problem between the material rich, highly industrialized countries and the poorer developing countries, as well as it can be viewed as a problem within a country. If sustainability means intergenerational equity, how then to ensure that savings on the natural resources for the sake of the next generations will not reinforce the present unequal distribution, access and profit from natural resources?

Apart from time and scale, perceptions on *value of nature* are important to determine in defining sustainability. Basically there are two contrasting approaches to valuing nature, with a lot of intermediate positions. At the one extreme, nature can be viewed as a pool of resources waiting for human ingenuity to explore for the maximum economic prosperity. This anthropocentric school of thought views the value of nature as an instrumental value to human society. In contrast to this view are various schools relating to bio-centrism, which consider all non-human beings as moral subjects having an intrinsic value. A forest will from the one extreme viewpoint be valued according to the market value of the timber it contains. Neo-liberal environmental economists might argue to keep it as a forest, based on the market value of it as a recreational site. From the other extreme, deep ecologists might argue that human beings have no right to determine a use value of the forest, as all living organisms have a right on their own. In between the two extremes all kinds of positions are found. This could be a livelihood perspective, claiming that human beings are protecting the forest because the forest protects their livelihood as they partly live from non-timber forest products. In this case instrumental and intrinsic values are nearing each other.

This interdependence of human needs and the protection of nature are closely related to the ethical and cultural perceptions of value. Western science has done a lot to separate nature and natural sciences from society and social sciences. The concept of sustainability is embedded in this tradition, trying to bridge the two sides again. In many non-western cultures, among them the Thai culture, living species are considered as spiritual beings. The belief in reincarnation implies that all species in nature may be reincarnations of human beings and it might harm your karma to harm sentient beings. The value of na-

ture, therefore, traditionally is considered different in the Thai culture than in the occidental tradition.

Conway has, in relation to assessing the capacity of agroecosystems, used the concept of sustainability together with productivity, stability and equitability. The meaning of sustainability in this context is a system's ability to regain its productivity after stress or more seriously, after a shock. Conway tries to quantify sustainability in this sense through measuring the degree of resistance or resilience. How far is the productivity depressed after a shock and how quick and to what level does it return and in what fashion (Conway, 1993, p. 53)?

In sum, to analyze sustainability in a given space, within a specific time-frame, bio-physical parameters, including soil fertility, climatic conditions, terrain, hydrology, etc., must be viewed in relation to economic, institutional, social and cultural parameters. However, only if there is an enabling political environment, promoting a holistic approach to sustainability, ensuring that all parameters have been taken into consideration, will it be possible to move towards sustainability. As Redclift puts it: "Sustainable development requires a broader view of both economics and ecology. . . , together with a political commitment to ensure that development is sustainable" (Redclift, 1987, p. 33). Based on this brief introduction to the diversification of perceptions of the concept of sustainability, I shall in the following analyze Sustainable Agriculture in Thailand. The humble aim is to ask questions whether an enabling political framework is in place to promote various aspects of sustainability in Thailand's agriculture.

AGRICULTURE SUSTAINABILITY FROM AN ECONOMIC POINT OF VIEW

Thailand is the world's fifth biggest exporter of agricultural products. The commercial, export-oriented agriculture with its roots as long back as the demarcation and promotion of Siam as a nationstate, under the reign of king Chulalongkorn, has been very successful from an economic point of view. The export-oriented agricultural success has been very closely related to the growth of domestic and foreign based agribusiness companies. The huge Thai based multinational Charoen Pokphand (CP), promoting modern technologies and agricultural inputs and serving a big number of contract farmers spread all over Thailand, is a good example of this. The economic foundation for agribusiness of course was paddy and a huge export of both high quality Jasmine rice and low quality rice for rapidly growing markets in the Third World. Rubber and sugar also were major export products. With the opening up of the agricultural frontier in the North and Northeast, cassava became a major export commodity for the European Common market's intensive livestock production. This lasted until the market broke down in the 1990's due to EU trade barriers.

Fruits and vegetables for the upmarket in EU and USA and not least frozen shrimps have come up as leading export products. Many “farmers” are urban-based business people looking for a rapid profit from exploiting, e.g., the mangrove swamps by making shrimp farms. Other commercial, export-oriented farmers are closely related to agribusiness companies providing seeds and other agricultural input, including credits. The agribusiness companies market the final products and the economic net income for the farmers can be rather meagre, as many farmers are highly indebted to these companies, commercial banks or the BAAC. Will these farmers be able to shift to “Sustainable Agriculture”?

Although agriculture’s share of total export earnings have dropped to 27% in 1997, it is still a major contributor when the Ministry of Finance has to find money to serve Thailand’s now considerable international debt. As mentioned earlier, the external debt increased from almost 40 billion USD in 1992 to 80 billion USD when the financial crisis hit in 1997. With the crisis, the pressure from IMF and the international community has become more felt and it seems highly questionable to what extent the government will be allowed, or allow itself, to redirect the attention from conventional agriculture towards “Sustainable Agriculture.”

With the breakdown of the WTO negotiations in Seattle in 1999, the pace of agricultural change in Thailand, as in other parts of the world, has been slowed down. It will be interesting to see how the negotiations on the Agreement on Agriculture will start again. The following issues will put the viability of the Sustainable Agriculture in Thailand in question:

Minimum access quotas. According to present agreements, Thailand will be forced to lift import quotas on 23 basic commodities in 2004. With the draft Agreement on Agriculture (AoA) which was supposed to be discussed in Seattle in 1999, Thailand will be forced to open up for even more import of agricultural commodities, which will potentially erode the market for small-holders’ sale of excess agricultural produce. With non-farm incomes playing a still bigger role in many rural households’ economy, the supply of cheap, imported basic foodstuff will further erode the self-sufficiency in basic food commodities. The imported cheap basic foodstuffs, such as wheat, will originate from highly productive US and EU farmers. That these farmers are subsidized through non-trade related measures, such as the Green Box and the Blue Box under the WTO agreements, will only further motivate the competitive part of Thai agriculture, and its supporters in the Ministry of Commerce and the Ministry of Agriculture, to work for fair trade under the WTO.

Trade related intellectual property rights (TRIPs). As a signatory to WTO, Thailand will be forced to also accept the TRIPs which will have a number of consequences difficult to foresee at this stage. However, already a number of issues are popping up. One is the story of Thailand’s famous Jasmine rice

which an US agribusiness company has genetically engineered together with the Indian Basmati rice into a new variety: Jasmati rice of which they have intellectual property rights. With the advertising and marketing power of huge agribusiness companies one could fear that the consumers in the future will demand Jasmati rice, forcing the farmers in Thailand and India to buy seeds from the US agribusiness company if they want to compete at the world market.

Genetically modified organisms (GMO) in agricultural commodities are heavily discussed in Thailand. According to official policy, GMO is only allowed for scientific purposes. Some NGOs are however claiming that they have proof that GMO is used in commercial cotton growing and it is suspected to be in use in maize and other commodities as well. With the dominating power of agribusiness in agricultural development in Thailand, it is difficult to envisage that genetically modified seeds, animal fodder and other agricultural inputs will not come to play a major role in the future. Hence a further dependence on agribusiness companies. Only if the consumers react by not wanting GMO, this may leave room for "alternative" agricultural commodities. A representative from a consumer-oriented NGO actually envisages increased sale of natural farming products due to the debate on GMO.

Sanitary and phytosanitary standards. The Agreement on Sanitary and Phytosanitary Standards is linked to the Agreement on Agriculture. This specifies the requirements for agricultural commodities to live up to certain standards, defined by the Codex Alimentarius. The Codex is an organization under UN/WHO/FAO but influenced by heavy lobby activities from the leading agribusiness companies in the world. The standards are set according to Western scientific measures and are stringent or lax according to the trading interests of the lobbying corporations (Focus on Global South).

Thailand sees itself as competitive in the world market for agricultural products, if only EU and US did not subsidize their agricultural sector. This is the reason for the official Thailand to be a keen supporter of WTO and further liberalization of the world economy. It is realized at high levels in the Ministry of Agriculture, that an increased competition will squeeze the small-scale farmers even further. According to these sources, the farmers have to shift away from traditional crops into crops that can compete at the world market and move towards further commercialization of agricultural practices. The ultimate consequences of this is that agriculture as a traditional way of life, somehow in harmony with nature (ecological sustainable), will be replaced by an agricultural sector producing utilitarian values only. Will Sustainable Agriculture in Thailand support this trend or will it function as a socio-agricultural programme, providing social security to those farmers who are ousted in the competition at the world market?

Being a keen supporter of WTO and the Agreement on Agriculture with its announced aim of reducing subsidies of agricultural commodities and other obstacles to free trade, Thailand, seems to be pursuing two options: (1) Let farmers, who are capable of commercial farming, shift into commodities which can compete at the world market (this *could be* ecologically produced) (2) Find ways and means of supporting the non-competitive part of the farmers through non-trade related measures. At present, these two options concern the majority of the Thai farming population. Unlike EU and US, however, Thailand doesn't have the taxpayers money to support the farmers through so-called non-trade related support measures as do the EU and US through the Blue Box and the Green Box in the WTO agreements. Option 1 requires a whole range of institutional support created through enabling policies, which I will discuss below. So far this has not worked, so the question is whether option 2 will be pursued, and who should pay for it? Is this where Sustainable Agriculture in Thailand might be feasible as a donor supported programme? So far there is only very minimal donor funds involved in Sustainable Agriculture. It is also somehow ironic if the taxpayers in the high productive agricultural countries should first subsidize their own farmers for them to compete the Thai farmers out of the market and then secondly support them through donor money.

The role of the consumers. The consumers, or those who are expressing the views on behalf of the consumers, will come to play a major role in whether GMOs are further promoted, at the expense of the small-holder resource-poor farmers, or whether "alternative" agriculture will have a chance. Apart from a growing awareness among the Thai consumers not to buy genetically modified commodities, Thailand's major schism is whether to opt for the European (and Japanese) or the American market. Thailand has traditionally been a close ally of US and US-based multinational agribusiness companies play a major role in Thailand's agricultural sector. As a high level employee from an US-based multinational agribusiness company in Thailand told me, the Department of Agriculture was very efficient in introducing the package of technologies of the "Green Revolution," they will do the same with GMO. On the reluctance of the Thai consumers towards GMO produces, he continued, "we will teach them" (personal communication, November 1999). However, during the 1997 financial crisis, Thailand felt let down by US and US dominated international organizations like the IMF and the World Bank. At the same time, the European and Japanese markets are bigger than the US market for Thai export commodities.

In sum, if an Agreement on Agriculture eventually is signed and this will follow the main lines of the pre Seattle draft, this means that the agricultural sector will eventually be in line with other economic sectors in the global economy, meaning survival of the fittest. The survivors will be the most efficient producers seen from a purely commercial point of view. If the eco friendly

consumer movement keeps on growing among the urban middle class and Thailand opts for the European (and Japanese) market, Sustainable Agriculture in terms of resource conserving and non-toxic production methods might have good opportunities for economic viability. Without an institutional support and backing, the production methods themselves will be of little use. This I will deal with further below. One key question of course is if future generations of Thais with the ongoing globalization will stick to the rural areas as agricultural producers, maintaining agriculture as a way of life, or they will be further absorbed by the urban economy. Will Sustainable Agriculture be sustainable from a social and cultural point of view?

IS SUSTAINABLE AGRICULTURE SUSTAINABLE FROM A SOCIO-CULTURAL POINT OF VIEW?

From 1970 to 1980 there was an annual increase in the agricultural workforce of 402,000, compared to 261,000 in the non-agricultural workforce. From 1981 to 1991 this had changed to 125,000 and 553,000, respectively (Pasuk and Baker, 1995, p. 199). Between 1988 and 1997 the percentage of persons employed in agriculture, forestry and fishery dropped from two-third to half of all employed persons (National Statistical Office, 1998, p. 59). First the import substitution manufacturing industries and from mid-1980's the export oriented industries attracted huge numbers of rural youth. Those who remained in the countryside got more and more involved with off-farm activities. The rapid increase of TV sets among the rural households and the rapid globalization of food habits, dress habits, entertainment, etc., as a consequence of the open, liberal economy pursued especially during the 1990s, divided the Thai population according to generations and ideologies. At the one hand, the fancy Bangkok life attracted young people from the rural areas wanting to escape the harsh life experienced by their parents. Up to the financial burst of 1997, the density of BMWs and posh Mercedes cars in Bangkok was among the highest in the world. Bangkok's huge shopping malls, more than most multi-million cities in the world, functioned as a magnet to many young people. At the other hand, the maldevelopment of the extreme liberal economy, symbolized by the backside of Bangkok life in terms of pollution, stress, crime, drugs and prostitution (see for example: Pasuk et al., 1998 and Bello, Cunningham, and Li Kheng Poh, 1998) was used by many NGOs, intellectuals and the older generation to idealize rural life. They stress the need to maintain Thai culture as an integrated part of Buddhist religious life. They emphasize traditional wisdom and rural communities practicing integrated farming systems and living in sustainable harmony with nature.

Will Sustainable Agriculture in Thailand be able to revert the trend of urban bias implicating many of the young generation want to leave the rural areas in

favour of fancy city life? Will it be possible to revitalize rural areas if consumers start demanding ecological produces produced by Sustainable Agriculture? Or will Sustainable Agriculture just be the cheapest way to maintain a potential labour force ready for the manufacturing industries when needed? Will Sustainable Agriculture care for those more than one million resource-poor, small-scale farm families, living without security of land?

Before looking at the institutional and policy aspects of Sustainable Agriculture, I shall briefly discuss the variety of production methods and their ecological sustainability.

ECOLOGICAL SUSTAINABILITY OF PRODUCTION METHODS

It doesn't make sense to talk about agricultural sustainability without assessing the bio-physical endowment for agricultural production. According to various sources, natural resources and agricultural land in Thailand has been deteriorating at more or less the same pace as the expansion of agricultural production. In Thailand's Natural Resource Profile from 1987 it is said that one-quarter of Thailand's land is affected by severe or very severe soil erosion. The Department of Land Development claims that the deteriorating area with infertile soils and limitation of plant nutrition covers about 70% of total area. One explanation given to this is a continuous cultivation without appropriate technology for soil improvement. This in some cases has led to a decreasing yield per unit of area and need for using an increasing amount of fertilizer.

Compared to other countries in the Region, Thailand has a low agricultural productivity per unit of area. Even neighbouring countries, considered to be much less advanced like Myanmar is gaining yields per hectare 25% above Thailand's level. An upcoming competitor at the world market, Vietnam, is almost 50% above Thailand (OAE, 1996/97). Part of the explanation of course is that huge areas of the Northeast, with poor endowment of natural resources, have been converted into cultivated land with very low productivity. The relatively low population and the ever expanding agricultural frontier has up to now not forced the majority of Thai farmers to invest in intensification of agriculture, and the use of agricultural inputs is still relatively modest for the majority of Thai farmers. However, to sustain the present output, there seems to be a need to enhance the input of chemicals for soil improvement or to shift to alternative methods of production.

Farmers having shifted into natural farming (no chemical input and no "manipulation" of nature) claim that although output per area unit has dropped to half, their net-income is higher as they don't buy chemicals (Personal communication with ecological farmers in Supanburi Province, November 1999). The green movements in Thailand seem to be favouring natural farming as they

consider this as a gift from Mother Earth itself without manipulation by humans. They don't actively promote even composting or integrated pest management-production methods that by many are considered ecologically sound. With an increasing domestic demand for ecological produces, the economic potential for a variety of ecological production methods seems to be favourable. One major constraint, however, is lack of institutional support, which again is rooted in lack of enabling policies.

While the green movements are promoting natural farming there is a widespread confusion of what are ecological commodities. As there are no rules and regulations governing the content and production methods of food commodities in Thailand, standards and labelling are coming up on private initiatives. In this totally unregulated market, some supermarkets are introducing a labelling claiming the product to be treated with a safe use of chemicals, trying to take advantage of the campaign on safe products without use of chemicals. Agribusiness interests in general are against labelling, claiming it to be too expensive. Another reason may be that they don't want to encourage consumers' influence.

While business interests want to stick to the free market, preferably without involving the consumers as a counter force, the green movements tend to advocate natural farming mainly as an ideological issue. As the urban middle class, or white-collar salariat, ideologically support bio-centred conservation of nature for its intrinsic values and do not necessarily support the rural communities claiming their rights of utilization of natural resources, the role of the urban middle class, vis-à-vis Sustainable Agriculture is mainly as consumers.

AGRICULTURE SUSTAINABILITY FROM AN INSTITUTIONAL POINT OF VIEW

To ensure the sustainability of resource conserving and non-toxic production methods in agriculture, the role of institutions can not be overestimated. This covers community groups, marketing organizations and other support institutions at the local level, but also very much institutions at the national level, such as certification of ecological produces, extension services, credit facilities and not the least property rights.

With a farming population of approximately 35 million farmers, only 4.3 million are members of 3,097 agricultural co-operatives and less than four thousand agricultural groups are registered. One reason for the low membership of co-operatives is that they are initiated and run, not by the members, but through a top-down process by MOAC. This makes them rather inefficient in providing services in general to the members and they have not been successful in organizing collective marketing, a major problem facing farmers throughout the country (Vitoon Panyakul, 1999). Credit is channelled through co-opera-

tives, but many farmers complain that conditions are attached to the credit. It would for example not be possible to obtain credit with the purpose to shift from conventional to ecological production. The few farmers who have shifted to ecological farming methods sell their products through privately organized consumer groups or consumer oriented NGOs, based mainly in Bangkok or other urban areas.

At present no official extension network exists to service farmers shifting to ecological farming methods. The services provided by the Department of Agricultural Extension so far only supports conventional farming methods. Hereby the extension officers can keep on pleasing agribusiness, producing agricultural input. How will Sustainable Agriculture provide the same economic incentives to an extension system supporting ecological farming methods?

As many farmers are tenants, the traditional renting arrangement with the landowner in many places constitutes a certain percentage of the production. The landowner of course is not interested in ecological production methods providing lower yields. Also resource-conserving methods like terracing or agro-forestry need a lot of labour input, a long term investment which the farmers will not do without security of land. Will Sustainable Agriculture in Thailand be able to solve that problem for an estimated more than one million resource-poor farming households without security of tenure?

Without certification of ecological commodities, which will involve labelling according to a variety of farming and food conservation methods, and subsequent control and enforcement, ecological commodities will encounter problems attracting a sufficient number of consumers. Will Sustainable Agriculture be able to pursue this alternative marketing outlet or how will it make the conventional marketing structure sustainable from an ecological or socio-cultural point of view?

AN ENABLING POLICY FRAMEWORK FOR AGRICULTURAL SUSTAINABILITY

Unless a framework of enabling policies (and their operational mechanisms) is brought in place, there is no way in which agriculture will be sustainable neither from an economic, socio-cultural, ecological nor institutional perspective. In Thailand, this will only happen if the powerful bureaucracy supports it.

Although Thailand has had democratic institutions since 1932, civil and military officials, only minimally inconvenienced by these institutions governed the country most of the time until 1992. The lobby to preserve bureaucratic power and independence remains one of the strongest forces in Thailand (Pasuk and Baker, 1997, p. 22). The power of the mandarin bureaucracy has a long history. During the reign of king Chulalongkorn in the late nineteen cen-

ture, the foundation of the bureaucracy, which has governed Thailand's road to modernity, was laid. This elitist mandarin bureaucracy owed its position to a powerful absolute monarchy, mounted firmly on the back of the new peasantry expanding the paddy production in the plains along Chao Phraya. After the *corvéé* (forced labour to the noblemen and to the Royal Court) was abolished under king Chulalongkorn, this new peasantry developed into a class of independent small holders, paying taxes to the central government.

King Chulalongkorn learnt the concept of national territory from Europe and fought battles with the British and French colonial powers over national territory borders. The King also constructed the mythology of Siam as a nation of Thai peasants owing allegiance to a king from time immemorial. The allegiance or acquiescence was the chief responsibility of the bureaucracy (Pasuk and Baker, 1995, p. 241).

During the twentieth century the mandarin bureaucracy underwent major changes as a result of internal and external developments. The balance of power shifted between palace and army and the Ministry of Interior rose to a dominant position among ministries. What Pasuk and Baker call the "mandarinate" was not disrupted by colonial rule which annihilated the ruling classes in the neighbouring countries and it kept the monarchy as its ideological focus. In their own perception, the mandarinate have the legitimate power to govern as servants of the King, while the legitimacy of elected politicians is compromised by their personal interests. This is the reason for the mandarinate having managed to retain its supreme power during the major political turning points, such as the democratic revolution of 1932, the re-orientation towards the West after the Second World War, the military take over of Sarit in 1957 and the interface of students' and grass-roots' power 1973-76. The question is whether they still are able to manage maintaining that power given the growing civil society after the 1992 upheaval?

The mandarin bureaucracy has been intimately involved with agribusiness' interests in developing the economically successful, export-oriented commercial agriculture. They have no incentives to support Sustainable Agriculture. They have done little to formulate policies to implement the 1997 Constitution. The Ministry of Interior has been only half-hearted in promoting devolution of power to the decentralized level as has the Ministry of Agriculture to implement Sustainable Agriculture.

While it seems obvious that the mandarin bureaucracy in general has no incentives to establish the framework of enabling policies to promote Sustainable Agriculture, the big question is whether the market forces and the social forces behind the emerging civil society will eventually provoke the implementation of Sustainable Agriculture.

Will a sufficient number of farmers who are economically and technologically capable and independent enough to promote production methods for Sus-

tainable Agriculture take up the challenge? The condition for that to succeed is the creation of a sufficient market among the urban middle class and an export market of ecological produces or agricultural commodities that will not further deteriorate the natural resource base. Will the social forces behind the civil society in both the urban and rural areas be forceful enough to promote enabling policies that will let this happen?

CONCLUSIONS

While the high input, commercial, export oriented agriculture has been very successful from a conventional economic point of view, the main social problem is with the estimated more than 10 million small scale farmers left outside the economic success and social development which has blessed the rest of Thailand. Will Thailand's eagerness for free trade and support of WTO with the Agreement of Agriculture, TRIP and TRIM reinforce this past development trend and squeeze the small scale farmers even further? Will Sustainable Agriculture provide an alternative for these non-competitive farmers in the conventional agriculture? If this should not merely be as a social project, a realistic and comprehensive approach to Sustainable Agriculture is called for. This includes rehabilitation of degraded land, a precondition for which is security of land tenure. This involves pragmatic and realistic production methods of commodities that are in demand. This could very well be ecological products for export and for the growing domestic market. This however requires a comprehensive framework of trustworthy certification, markets organizations, transport, an extension service that respond to the needs of the farmers, credit facilities, etc. This will not be possible without decentralization and devolution of power, which is very much part of the political process of a growing civil society. A fundamental question however remains. Even if all these happen, will future generations of Thais want to remain in the rural areas or has the modern city life already been so much ingrained in the Thai way of life, that there is no way back?

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