

# A COUNTRY REPORT THE IMPACT OF AFTA ON THAILAND ECONOMY AND SMALL SCALE PRODUCERS



FOUNDATION OF  
RECLAIMING RURAL  
AGRICULTURE AND  
FOOD SOVEREIGNTY  
ACTION (RRAFA)



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# THE IMPACT OF AFTA ON THAILAND ECONOMY AND SMALL SCALE PRODUCERS

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## Executive Summary

Agriculture is the major economic activity in earning foreign income for centuries. Currently export of agricultural products contributes significantly ten per cent of Thailand's total income. Thus, the Thai government is very interested in free trade measures since they see any obstacle to international trade will affect adversely the export income of Thailand and its economic system as a whole.

In believe of the free trade concept, various mechanisms, structures and measures to boost trade liberalization are initiated continually. It began with an application for membership with the CAIRNS Group (agricultural exporting group of countries), which has a vital role in pushing for liberalization of farm products under the framework of trade negotiations of World Trade Organization (WTO). Together with being the AFTA member and bounded to many of bilateral free-trade agreements have been processed in order to reach the bigger market.

**Agreement on the Common Effective Preferential Tariff (CEPT) Scheme for the ASEAN Free Trade Area (AFTA):** 10 years implementation time frame starting on January 1, 2000; phasing in products the Temporary Exclusion List (TEL) in Five equal installments beginning on January 1, 2003 and completing on January 1, 2007 and ending at the tariff rates of 0%-5% by January 1, 2010; phasing in agriculture products which are temporarily excluded on January 1, 2004 and completing on January 1, 2010 at 0%-5%; phasing in sensitive agriculture products beginning from January 1, 2008 but not later than January 1, 2010 and ending on January 1, 2017 at rate 0%-5%; maximizing the number of its tariff lines with tariffs between 0-5% by 2007 and expand the number of tariff lines in the 0% category by 2010; and submitting the various products lists for the CEPT scheme to ASEAN by June 30, 1999.

**ASEAN framework Agreement on Services:** according unconditionally from the date of accession to the Agreement to services and service suppliers of any other ASEAN Member State treatment no less favorable than that it accords to like services and service suppliers of any other country, exceptions to the above could be given up to the year 2005 provided the measures favoring certain countries have been in existence before the accession.

**Framework Agreement on the ASEAN Investment Area:** having up to five years after its accession to the Agreement to maintain existing measures that are inconsistent with the Agreement with regard to opening up of industries and according to nation treatment to ASEAN investors. Phasing out all items on the TEL by no later than 2010 for ASEAN investors. The core of AFTA is the tariff reduction scheme in accordance with the principles of CEPT.

## **Thailand and the AFTA**

Thailand is one of the founding countries of the ASEAN Free Trade Area (AFTA) together with other 5 member countries - Malaysia, Indonesia, Singapore, Philippines and Brunei. The establishment of AFTA on 1 January 1992 obliged member countries to lower import tariffs on industrial products, capital goods and processed agricultural items. Under the agreement, Thailand has prepared a list for tariff reduction and begun tariff reduction effective on 1 January 1993 and ending at 0-5 per cent tariff rate on 1 January 2008.

Although AFTA was scheduled to be fully implemented in 15 years, the ASEAN Economic Ministerial Meeting in 1994 has decided to speed up the process to 10 years. Tariff reduction will be completed by 2003. The meeting also included unprocessed agricultural products in the list of goods entitled to tariff reduction, which some agricultural products might be included in a sensitive list that might have special measures imposed on the operation.

### **Details of commitment that Thailand has to abide by in tariff reduction**

- List of Thai products in 15 groups that need to reduce tariff first, such as cement, fertiliser, leather products, paper pulp, textile, gems and ornaments, electric appliances and electronics, wooden and rattan furniture.
- List of products for general tariff reduction includes all items of goods excluded in other lists.
- List of 118 items of reserved products, which are 16 items of processed agricultural products, such as vegetable oils like palm oil, coconut oil, etc.
- List of seven items of Thai sensitive products, i.e. three items of coffee, two items of potato, copra and flower plants.

Thailand does not indicate highly sensitive products in its lists.

At present Thailand has already reduced tariff on most product items, except seven items of sensitive products in the list that do not have any tariff reduction. Tariffs on most agricultural products are reduced to 0-5 per cent.

## **12 Years of experiences engaged in the AFTA**

After 12 years of trade liberalization under AFTA, the value of exports and the growth of investment have increased significantly. However, the opposition trend has been shown from the grassroots' aspect.

### AT MACRO LEVEL

Foreign trade between Thailand and the other five original ASEAN members accounted for 84 per cent of all export value to all ASEAN countries. These exports used tariff rates as per commitment of each country. There is only 11.7 per cent of all Thai exporters requested tariff privileges since most of them did not understand tariff privileges under a free trade area. On the other hand, imports from the original ASEAN members accounted for 88.5 per cent of all imports from ASEAN. Thailand has lifted tariff privileges to 9.2 per cent of total export value from these countries. However it was found that agricultural products' export has decrease gradually and it

did not allocate the biggest share in overall exports to ASEAN members. Moreover it clearly shown that the agricultural export to the respective countries has decreased from 1998 to 1999.

While foreign trade between Thailand and new ASEAN countries, namely Cambodia, Burma, Laos and Vietnam, accounts for 16 per cent of export value to all ASEAN countries. Thailand got tariff privileges under AFTA at only 6 per cent of export value to all countries in this group. Thailand imported only 11.5 per cent of all import value from countries in this group. Thailand has granted tariff privilege to exporters in those countries at 2.4 per cent of all import values from countries in this group

However it was found declining share of agricultural exports in the total export between 1985 and 2002, share of agricultural export in 1985 was 59.97 per cent and 22.28 percent in 2000 respectively.

Looking into the investment sector, with various incentives provide to ASEAN investors create the growth of investment from ASEAN in Thailand during the last years. Value of investment from ASEAN in Thailand accounted approximately 1.6 thousand million dollars, a bit more than investment from Japan where used to be the first one in term of investor. Thus AFTA and incentives according to investment are effective condition to gain the flow of ASEAN investment in Thailand.

In sum, some evidences prove the achievement of AFTA in Thailand as increasing of export and investment within ASEAN members. But, in the agricultural sector, there are only a few number of agricultural products is able to access in the world market as well as ASEAN region. The substantial change in agricultural export causes relatively by rapid growth of industrialization that market's demands are the major factors in control of production and supply.

#### AT GROUND LEVEL

The growth of trade at regional level is not significant to generate income distribution for farmers in the country, or create food security and better livelihood for producers, especially small farmers as shown dramatically by this respective research.

Most farmers are living with debts as numbers of indebted households shown in the finding and debt problem is majority raised as the most vital problem. It is also found that the agricultural production whether rice or soybean is unprofitable economic activities, so that those farmers are not able to repay their loans. Even the agricultural export values and quantities have grown up along the 10 years, but farmers' livelihoods are not been improving, most people in the rural area is still classified as the poor. As land is the fundamental productive resources, farmers should be ensured the right to land. But the problems in landlessness and agrarian reform have exposed by the research, rice farmers are becoming landless farmers because of indebtedness as well as many soy producers are renting their land because of the ineffective land reform program. So numbers of farm labour in Thailand have increased obviously.

Moreover the research has shown the agricultural market in Thailand is manipulated by traders. Those traders and especially the big agribusiness can determine whether the market price or quantity of import products. From the case, huge volume of import soybean ordering by animal feed industry has destroyed the internal market and pulled

down the local prices. Likewise rice market where traders or exporters always set the price low to gain more competitiveness in the export market. Therefore both groups of small producers are in the risk of income security.

Of course, the economic insecurity affects directly to household food security, farmers do not have enough income earning from agricultural production to buy food and many farmers identified that the loans would be allocated for their daily living as equal as the farm investment. As such the case of rice it was proven obviously that there is no food security in the farmers' families. Rice farmers have to buy rice for their consumption after they sold out their rice stocks, even though they have worked hardly in their farms and grown rice for more than twice a year.

And it should be remarked that 71.43 per cent of farmers who engaged in the research do not have enough and proper information that might be related to AFTA. Thus it seems that whether how far of AFTA is proceeding, farmers do not know and understand. Even the trade liberalization's agreements as such AFTA suffer their livelihood.

### **Recommendations**

Since the implementation of AFTA has not created the positive impacts to small producers, farmers have offered some notable recommendations for examples:

- Small farmers do not have enough knowledge of AFTA. Better and timely information on free trade agreements and AFTA should be distributed to small farmers in various forms such as leaflet, audio file, training seminar.
- Push for/Demand for the adoption of appropriate government policies on food distribution and food production at domestic level.
- Demand for proper and objective/joint government and civil society assessment impact assessments in the concerned crops
- Domestic subsidies are still needed by small farmers to improve their competitive potentials. These include subsidies for credit/capital, seed and production inputs. Education on the proper use of credit should be instituted to ensure that loans are used for production and not for non-productive uses such mobile phones and motorcycles.
- Promote sustainable agriculture and non-chemical products in order to achieve farmers' self sufficiency and getting rid of monopoly-trade
- Guarantee farmers' access to productive resources especially land and water. The Thai government should recognize the peasants' rights to fundamental laws.
- Since small farmers are vulnerable, the Thai government should create venues for better grassroots participation in decision making, particularly on policies that affect them.
- Debt is the vital problem of agricultural sector. To solve the problem needs to have the particular policy in agricultural reform, which free farmers from the debt and introduce the self sufficient farming pattern

# Chapter 1

## INTRODUCTION

### 1.1. Rationale for the Study

Thailand has a tropical moist climate that is ideal for farming. Since ancient times, farming has been the predominant occupation of the Thai people. They produce food not only to meet domestic needs but also for the export market. Farm produce, especially rice, is a major source of income for Thailand.

Successive Thai governments have always supported trade liberalisation because they view international trade as an essential mechanism to drive the national economy. The decision-makers believe that trade and exports boost investments, create employment, and expand production in various sectors. They also create security for the country, as well as a better standard of living for the people.

Export earnings contribute significantly to the country's total income. Thus, the Thai government is very supportive of free trade measures. It believes any obstacle to international trade will adversely affect Thailand's export income and its economic system as a whole.

Thailand adopts various mechanisms, structures and measures to boost trade liberalisation. It began with an application for membership with the CAIRNS Group (agricultural exporting group of countries), which has a vital role in pushing for liberalisation of farm products under the framework of trade negotiations of the World Trade Organisation (WTO). The sole reason is the Thai government wants to expand its international market for agricultural items, especially rice. Currently, Thailand is the world's biggest rice exporter.

Thai exports are limited to a few large markets, such as the United States, ASEAN countries, Japan and the European Union. These countries have initiated protectionism measures to protect their domestic markets, which hinder Thai exports. Therefore, the Thai government is relying on free trade mechanisms to expand its market and reduce trade obstacles. In previous rounds of negotiations, developing countries, including Thailand, had less bargaining power than the developed nations. As a result, trade liberalisation at the international level under the WTO did not make much progress. The developed countries have expanded their export subsidies, which rendered products from developing nations uncompetitive.

Intra-ASEAN trade is also increasing significantly to create trade value for Thailand. The ASEAN market is in the third largest for Thai exports. Thus, Thailand is one of the influential countries which actively lobbied for a free trade agreement among ASEAN countries.

Thailand is one of the founders of the ASEAN Free Trade Area (AFTA) together with five other member nations – Malaysia, Indonesia, Singapore, the Philippines and Brunei. The establishment of AFTA on Jan 1, 1992 obliged member countries to

lower import tariffs on industrial products, capital goods and processed agricultural items. Under the agreement, tariffs were to be lowered to 0-5 per cent by Jan 1, 2002.

After 12 years of trade liberalisation under AFTA and 10 years of WTO, the value of Thai exports has increased and its economy has grown. Farmers are now questioning whether free trade agreements had really been good for them or were they created mainly for the benefit of others.

This paper looks at the socio-economic situation of farmers in the era of AFTA and the other trade regimes. The research was conducted simultaneously in eight countries – Malaysia, Indonesia, the Philippines, Vietnam, Laos, Cambodia, Myanmar (Burma) and Thailand.

## 1.2 Objectives

- To study co-operation under AFTA that will affect trade and investments in ASEAN member states.
- To study impact of AFTA on small farmers.
- To gather information for public campaign on the impacts of AFTA on food security
- To campaign for food security and fair trade in collaboration with the SEA Council for Food Security and Fair Trade and its members.

## 1.3 Limitations of the study

- **Criteria of the sample.** The research specifically selected small farmers who till three hectares and below. Thus, many rice farmers in Thailand were not selected. Rice farmers in the central region who also export their produce have bigger farms (more than three hectares). These farmers need to earn enough income to pay land rental and settle debts.
- **Working under the time constraint.** This project is a collaborative work among different SEACON members. Reports have to be analysed using commonly agreed indicators which may not capture all the specific conditions of the country.

## Chapter 2

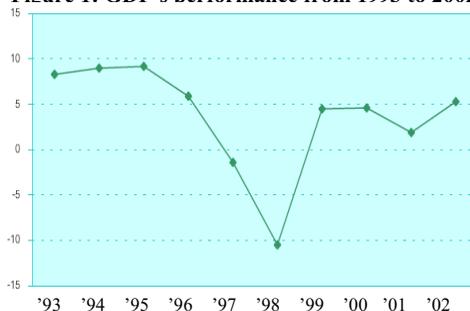
### The Situation of Thailand's Agriculture, Trade and Investments

#### 2.1 Macro – Micro Analysis

##### a. GDP's Performance

There has been no significant increase in Thailand's Gross Domestic Product (GDP) at current market prices after the implementation of AFTA. The economic crisis in late 1998 had pulled down the GDP growth rate (see Figure 1). Before the coming of AFTA, the agriculture sector's share of GDP increased from 1980 to 1994. However, agriculture has gradually declined in importance in the last few years and this is reflected in its share of GDP (see Table 1).

**Figure 1: GDP's performance from 1993 to 2002**



*Source: The National Statistic Office.*

**Table 1: Share of Thailand's GDP by the main sectors  
Year 1992 – 2001**

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Agriculture	12.3	10.4	10.7	11.1	11.0	11.2	12.7	11.2	10.4	10.4
Industry	75.0	76.7	76.7	76.1	75.9	75.5	73.5	73.8	74.6	74.4
Services	12.7	12.9	12.6	12.8	13.1	13.3	13.9	15.0	15.0	15.2
Gross Domestic Product (GDP)	100	100	100	100	100	100	100	100	100	100

Source: The National Statistic Office

Industry and services recorded a higher ratio of increase in their share of GDP compared to agriculture. The declining share of agriculture is the result of transformation of the economic base from agricultural to industrial development. A number of other factors have also affected agricultural output. The disincentives are:

- Declining farm gate price in the long-term;
- Protectionist policies of developed countries which created non-tariffs barriers to control domestic markets; and
- Increasing competition in the world market.

In terms of GDP's growth, the National Socio-Economic Development Plan sets the direction of Thailand's development. Since the establishment of the Office of

National Economic and Social Development Board (NESDB) in 1950, Thailand has prepared national development plans more systematically, ranging from annual or short-term to long term five-year development goals.

All the national economic and social development plans – from the first to the current ninth – were guided by international economic policies. They include development of large-scale water resources and infrastructure in agricultural sector to respond to the Green Revolution and the promotion of export-oriented cultivation.

**The First National Economic and Social Development Plan:** It gave emphasis to the construction of large irrigation systems such as the Bhumiphol Dam, Sirikit Dam and other dams, including large and medium-scale reservoirs in northeast Thailand to expand irrigated areas for agriculture and to generate electricity. The government adopted policies to accelerate and improve basic economic activities for agricultural development.

**The Second National Economic and Social Development Plan (1967-1971):** Under this plan, there was an acceleration of agricultural production, rural development and conservation of natural resources. Priority was still given for irrigation projects. The government focused on promoting major cash crops such as rice and rubber. It helped to boost rice production through price intervention and credit provision to farmers.

At the end of the plan period, export of some agricultural items declined, especially rice and rubber. The government introduced annual corn sale contract, revoked rice premium and took other measures to revolve the problem.

**The Third National Economic and Social Development Plan (1972-1976):** Its focus was to accelerate the economic development of the country as a whole. The government gave priority to export-oriented agricultural production. It classified agricultural promotion zones for several farm products. The government's policy was to borrow from commercial banks to provide loans to farmers through its Bank for Agriculture and Agricultural Co-operatives (BAAC). Its 1.4 million members were farming households and agricultural institutions and BAAC had given out loans totalling 4,300 million baht.

However, the main problem was still the inability to increase production. Farmers were still affected by low yield. The expansion of cultivable land resulted in a much larger supply of agricultural produce than market demand. This caused the prices of agricultural crops such as corn, cassava, cotton, sugar cane and soybean to fall.

**The Fourth National Economic and Social Development Plan (1977-1981):** Its agricultural development policies focused on improving the internal structure of sector and the distribution of produce. This distribution covered only six main crops – rice, corn, sugar cane, cassava, rubber and jute.

BAAC provided credit to two million farmers and members of agricultural institutions in the last year of the plan. There was an increase of 600,000 households availing credit. BAAC has distributed 10,700 million baht as credit in 1981.

**The Fifth National Economic and Social Development Plan (1982-1986):** Under this plan, the government focused on adjusting the economic structure with emphasis on increasing productivity, income distribution, modernising the rural sector, and eradicating rural poverty. The government readjusted the structure of agricultural production. It moved away from expansion of cultivable area to improvement of production and use of natural resources with a focus on increasing yield per hectare. It also accelerated distribution of land tenure and ownership of farmland. The government supported commercial banks to provide agricultural credit and promoted organisation of agricultural institutions to increase bargaining power in the market.

BAAC provided credit to 2.4 million farmers and members of agricultural institutions in the last year of the fifth plan. BAAC provided about 20,000 million baht in credit.

**The Sixth National Economic and Social Development Plan (1987-1991):** Its major strategy was market-oriented agricultural production. There was a readjustment of production and marketing structures, reduction of production cost and improvement of quality of produce and distribution system.

At the end of the sixth plan period, the country experienced an economic recession. Agricultural land was increasingly converted for industries and the service sector. The changes in the use of agricultural resources and production methods led to a massive migration of farm labour to the industrial sector. The overall national economic situation had an impact on the agricultural sector. Agribusinesses took over many farm activities, which became more modernised. The shortage of farm labour led to an increase in wages. This affected the small producers who had difficulty coping with the consequent increase in production cost.

**The Seventh National Economic and Social Development Plan (1992-1996):** Under this plan, the focus was on division of appropriate areas for cultivation of specific crops, with production relevant to market conditions and demand. The policy was to improve productivity and the quality of agricultural items to compete in the world market.

Reports of the Ministry of Agriculture and Co-operatives show that provision of credit to farmers was insufficient to meet their needs. Thus, the farmers faced the same problems. Their debt problems worsened.

**The Eighth National Economic and Social Development Plan (1997-2001):** The government continued to give priority to economic growth and promoted export-oriented production. The production system was revamped to meet market demands. Emphasis was on the promotion of cultivation of crops of economic value and the development of livestock industry and fishery products for exports.

The various national plans showed the direction of national development in the past four decades. The Thai government gave priority to growth in the industrial and service sectors with available resources. Agricultural production was geared towards the export market. Thus, crop cultivation was to meet market demand rather than for the food security of the country. The agricultural sector, which provides employment for a large segment of the population, is backward despite the implementation of the

successive national development plans. The problems in the agricultural sector remain unresolved. These complex problems appear to be worsening.

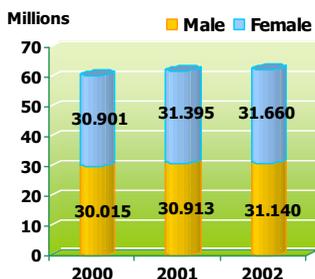
In short, the fluctuations in GDP in the past 10 years were not due to the impact of AFTA alone. It seems that Thailand's trade-orientation policies and industrialisation had more effect on the agricultural sector. However, it should be noted that AFTA is also one of the gears of the trade regime, which could have direct and indirect impacts on small-scale producers.

### b. Labour and employment

Thailand is a democratic country with an administrative structure of 76 provinces. Geographically, the country is divided into four regions: Central, North, Northeast and South.

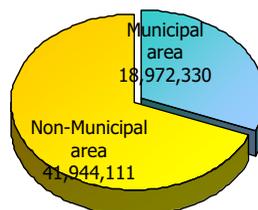
In 2003, Thailand had a population of 64.48 million, which increased by 2.69 per cent from the previous year. Figure 3 indicates that 41.94 million Thais were living in non-municipal areas in 2002 while 18.97 million were living in municipal areas.

**Figure 2: Demographic information**  
Gender distribution



Source: National Statistics Office.

**Figure 3: Population distribution**  
(rural and urban areas)

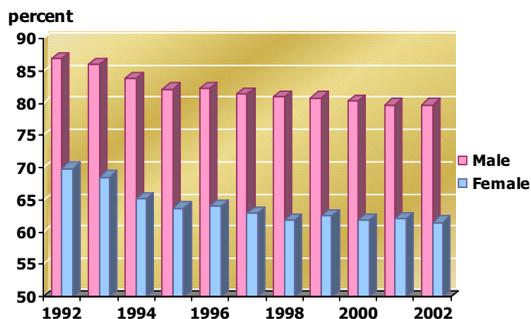


Source: National Statistics Office.

About 70 per cent of the population is in the labour force. Figure 4 illustrates the percentage of labour and employment by sex. It shows that percentage of male labour is significantly higher than female labour.

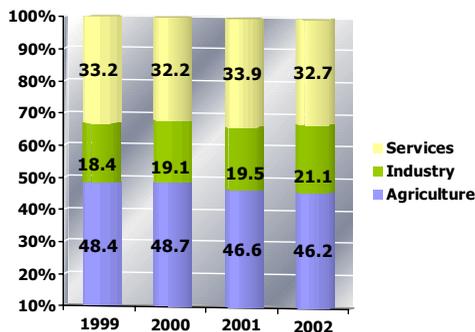
As for employment share in the main sectors in 2002, Figure 5 shows that 46.2 per cent of labour force was in the agricultural sector. The labour force in the agricultural sector has gradually declined. Conversely, employment in the industrial sector has increased due to the pro-industrial policy as well as the growth in services. However, the agricultural sector remained the largest employer of labour force.

**Figure 4: Labour and employment by sex (Year 1992 – 2002)**



Source: National Statistics Office.

**Figure 5: Labour and employment by main sectors (Year 1999 – 2002)**



Source: National Committee of Socio-Economic Development.

In summary, employment in the agriculture sector has continually declined while employment in industry and services has increased. Among the causes for the decline in employment in the agriculture sector are:

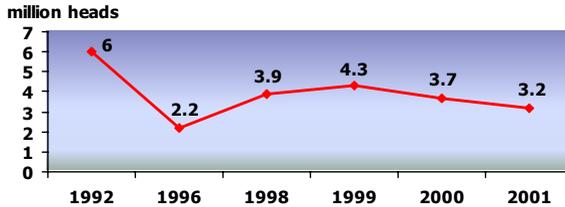
- Higher wages in the industrial sector;
- Farm gate prices have declined and farmers cannot benefit from farm activities;
- Young generation does not want to work in the agricultural sector;
- Working in the non-agricultural sector is seen as the possible solution for small farmers to earn more income and repay their debts.

Thus, shortage of labour in the agricultural sector is the new challenge in the sustainability of agriculture in the future.

### c. Poverty Situation

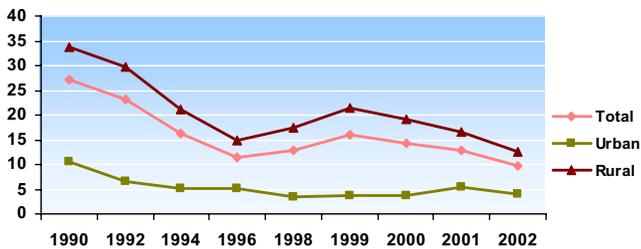
The number of Thais earning below US\$1 per day has decreased by almost half, pointing to an effective state policy and measures in reducing poverty (Figure 6). However, the figures do not reflect the complete picture as the poverty gap between the rich and poor has increased over the decade.

**Figure 6: Number of people earning below US\$1 per day**



Source: National Committee of Socio-economic Development.

**Figure 7: Percentage of population living below the poverty line (urban and rural areas)**



Source: National Committee of Socio-economic Development.

The poverty line is 922 baht per capita income per month while the average monthly income per head of Thai population is 3,955 baht. Figure 7 shows that the percentage of the population living below the poverty line decreased substantially from 27.2 per cent in 1990 to 9.8 per cent in 2002. Incidences of poverty in Thailand are higher in the rural areas (three times) compared to urban areas.

More than 90 per cent of poor households in Thailand are in the rural areas. More than 75 per cent of these households are tenant farmers and farm workers. Recent government statistics show that there are 6.2 million “poor” people (9.8 per cent of the population) in Thailand and 60 per cent of them are engaged in farming. In 2002, 19.1 per cent of farming households earned incomes below the poverty line. It also shows that the number of poor people in the agricultural sector rose from 24.5 per cent in 2001 to 26.1 per cent in 2002.

Apparently, the hardship faced by people in the agricultural sector has been ongoing for a long time. The “policy on national development” has contributed to this situation. It is one of the main factors hindering the agricultural problems from being resolved.

Poor farmers lacked farm inputs or means of production, especially lack of land and access to resources and unstable farm prices. These factors contributed to low and unstable income in farming communities.

**Table 2 Total agricultural households, indebted households and average debt per household**

Year	Agricultural households	Indebted households	Percentage of indebted households	Average debt per household
1988/89	5,030,000	1,129,091	22.45	3,777.29
1989/90	5,040,132	1,279,000	25.38	6,046.78
1990/91	5,073,471	1,408,000	27.75	7,828.94
1991/92	5,130,531	1,729,831	33.72	12,771.74
1992/93	5,502,782	2,857,993	51.94	24,672.13
1993/94	5,513,855	3,050,412	55.32	37,019.35
1994/95	5,642,890	3,379,163	60.00	37,231.00

Source: OAE.

Table 2 shows that the number of households in debts and average debt per household have increased dramatically due to development strategies that mainly promoted export-oriented agriculture rather than attaining self-sufficiency.

## **2.2 Agriculture**

### **2.2.1 Land Ownership, Tenure and Farm Size**

Thailand’s total area is 321 million rais or 514,000 square kilometres, of which nearly 130 million rais were classified as agricultural land. Table 3 shows the breakdown of land used for agricultural. Rice cultivation takes up about 52.9 per cent of the available land as it is a strategic crop.

It should be noted that the irrigated area covered only 22 per cent (or 29.46 million rais) of the total agricultural land. This directly affects production each year.

As shown in Table 4, the majority of farm households in Thailand are small landholders, holding land less than three hectares. It also shows that the number of farmers owning less than 0.96 hectares has increased over the last 10 years. Thus, the problem of land concentration is worsening.

**Table 3: Agricultural land usage**

<b>Produce</b>	<b>Percentage</b>
Paddy	52.9
Rubber	8.9
Fruits	10.5
Upland crops	18.5
Vegetables, herbs and flowers	1.4
Forest plantation	0.8
Grassy land	1
Livestock	0.1
Aqua-culture	1.1
Others	4.2
<b>Total land usage</b>	<b>100</b>

Source: National Committee of Socio-economic Development.

**Table 4: Farmers' land holdings in 1993, 1998 and 2003**

<b>Holding Area (hectares)</b>	<b>Number of farmers</b>		
	<b>1993</b>	<b>1998</b>	<b>2003</b>
Total	5,647,490	5,578,195	5,814,679
Below 0.96 ha	1,114,038	1,066,346	1,372,630
0.96 - 1.59 ha	745,982	779,357	816,521
1.6 - 6.39 ha	3,064,632	3,205,114	2,970,275
6.4 – 22.39 ha	694,292	505,940	625,868
22.4 ha	28,546	21,438	29,385

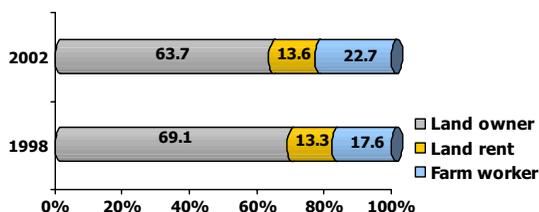
Source: [www.nso.go.th](http://www.nso.go.th)

The number of landless families in Thailand has increased in recent decades due to a range of factors including growth in population. The number of farm workers increased but land for agricultural use decreased because of land conversions. Some of the reasons are:

- Investors acquired land on a large scale for non-farming purposes, i.e. resort, housing and factory; and
- Speculation on rising land prices

Moreover, the Land Institute Foundation, an independent Thai research organisation found that over 30 per cent of the 5.5 million households in the agricultural sector did not have sufficient land in 2002 to earn a livelihood.

**Figure 8: Types of farming households**



Source: Analysis Report: State of Farming households' poverty, 2003.

More farmers owned land in 1998 (69 per cent) compared to 2002 (about 64 per cent). On the other hand, the number of farmers who rented land and the number of farm workers increased during the period (see Figure 8). According to the farmers, they have lost their land because the prices of agricultural products were very low. Many also cited the failure of the state agricultural policy and measures such as market intervention and the free trade.

**Table 5: Average Monthly Income of Households  
Classified by Socio-Economic Status**

Economic-Social Status of Households	Average Monthly Household Income (baht)
Farmers	
Land owners	8,827
Tenants	9,971
Business operators	18,970
Employees	
Academics and executive people	33,963
Farm workers	5,467
General labourers	7,088
Clerks and sales and service personnel	15,122
Production operators	10,499

Source: National Statistics Office.

As Table 5 indicates, farm workers are the most vulnerable group, having the lowest monthly household income. The major cause of poverty is land distribution. The average size a small-scale farmers' landholdings range from 1.7 ha to 6.4 ha. Without sufficient land, farmers cannot produce enough for the market and their own consumption. Several land reform programmes were adopted in the agricultural sector to eradicate poverty. However, many Thai farmers did not benefit from these programmes. The small-scale farmers have been actively demanding for genuine land reform.

## a. Rice

As Thailand is the world's largest rice exporter, state policies are focused on expanding the rice planted areas, production and improving yield. However, rice yield is notably lower in Thailand when compared to many countries. As shown in Table 6, yield is not increasing significantly. Moreover it was inflating in some years.

**Table 6: Planted area, production and yield**

Year	Major crop			Second Crop		
	Planted area (1,000 ha)	Production (1,000 tons)	Yield per ha. (kg.)	Planted area (1,000 ha)	Production (1,000 tons)	Yield per ha (Kg.)
1995	9,185.12	17,729.00	1,931.25	951.36	4,286.00	4,506.25
1996	9,166.56	17,782.00	1,937.50	1,029.92	4,550.00	4,418.75
1997	9,113.28	18,789.00	2,062.50	1,156.96	4,791.00	4,143.75
1998	8,998.40	18,663.00	2,075.00	1,033.28	4,336.00	4,193.75
1999	9,053.28	19,016.00	2,100.00	1,257.76	5,156.00	4,100.00
2000	9,244.00	19,788.00	2,143.75	1,394.72	5,056.00	4,343.75
2001	9,254.08	20,899.00	2,256.25	1,349.44	5,624.00	4,168.75
2002	9,105.28	19,631.00	2,156.25	1,525.28	6,426.00	4,212.50

Source: OAE.

**Table 7: Quantity and value of Thai rice exports**

Year	Quantity (1,000 tons)	Value (million bath)
1994	4,989.2	32,958.6
1995	4,858.6	39,187.3
1996	6,198.0	48,656.8
1997	5,460.2	50,734.8
1998	5,567.4	65,088.1
1999	6,540.2	86,806.2
2000	6,838.8	73,810.4
2001	6,141.3	65,516.3
2002	7,685.1	70,123.0
2003	7,327.0	70,005.5

Source: Department of Customs.

Thai rice exports have increased substantially since 1994, from 4.9 million tons to 7.3 million tons in 2003. The nominal value of rice exports almost doubled from 32.9 billion baht in 1994 to 70 million baht in 2003 (Table 7).

**Price and marketing:** Farm gate prices of paddy are the empirical evidence of the failure of free trade. As shown in Table 8, the farm gate prices in real terms have been decreasing over the decade even when the export quantity has increased.

**Table 8: Average farm gate prices of paddy**

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Prices (baht)	3,449	4,376	6,625	5,307	6,625	5,527	4,347	4,312	4,697	5,207
Deflator 94=100	100.0	106.4	113.8	122.8	136.2	136.1	136.3	138.2	139.3	142.0
Price in real term	3,449	4,113	4,663	5,395	4,058	3,498	3,189	3,120	3,372	3,667
Price in real term (US\$)	136.9	163.2	185.0	205.1	92.0	92.5	78.4	70.4	77.9	88.8

Source: OAE.

## b. Soy bean

Table 9 shows that the planted area of soy bean is decreasing. It is significant to note that though the yield improved, the production decreased. Soy planting is decreasing because of a shift to other cash crops. Moreover, the dumping of imported soy products is destroying domestic production.

Soy imports have increased since Thailand's accession to the WTO. Importers claimed it is due to shortage and increased domestic demand. However, it is to be noted that Thailand has continued to export soy products.

Thai soy industries are mainly under the control of the animal feed industry because soy and soy meal are the essential ingredients for manufacturing these products. RRAFA's research on the "Impacts of AoA on Soy producer" (2002) found that only a few big companies like CP and BETAGROW dominate in buying soy from either farmers or importers. These companies have demanded more imported soy products from the United States and Argentina after Thailand implemented AoA. Soy imports have created a major problem in the Thai soy market. Domestic soy products are unable to compete with the cheaper imports. While soy producers are suffering due to low prices and unprofitable production, the companies are earning higher profits by using cheaper ingredients.

**Table 9: Planted area, harvested area, production and yield**

Year	Planted area (1,000 ha)	Harvested area (1,000 ha)	Production (1,000 tons)	Yield per ha (kg.)
1995	301.0	275.0	386	1,406.3
1996	271.4	255.5	359	1,406.3
1997	247.7	236.0	338	1,431.3
1998	234.7	219.2	321	1,462.5
1999	232.2	224.6	319	1,418.8
2000	223.4	215.0	312	1,450.0
2001	184.6	176.5	261	1,475.0
2002	180.8	174.9	260	1,487.5

Source: OAE.

**Table 10: Quantity and import and export value of soy bean**

Year	Export		Import	
	Quantity	Value (million THB)	Quantity	Value (Million THB)
1998	797	8.7	869,327	8,602.8
1999	781	10.2	687,243	7,142.0
2000	617	10.6	1,007,983	7,954.7
2001	335	7.3	1,300,382	11,469.2
2002	834	14.5	1,363,192	12,373.8
2003	572	12.2	1,528,529	13,921.1

Source: Department of Customs.

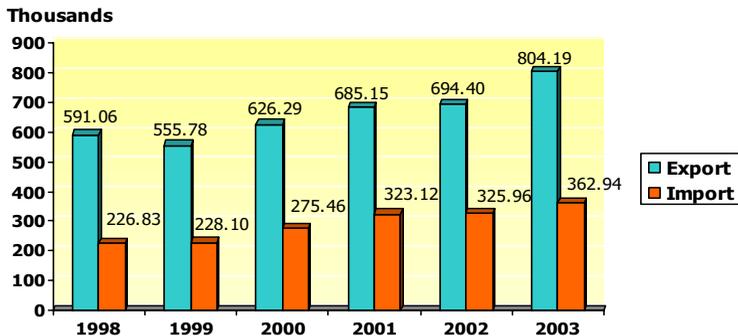
As shown below (Table 10), while the export value of soy bean went up, the import value also increased simultaneously.

### 2.2.2 Trade in Agriculture

Agriculture has been the basis economic activity and national income earner for decades. Thailand has been known as ‘a kitchen of the world’ because many agricultural products are exported to feed people in all continents.

Since the Thai government expects to boost earnings by exporting agricultural products, which are competitive commodities, Thailand has committed itself to a free trade market. Besides the WTO and AFTA, Thailand has signed several bilateral free-trade agreements in order to gain access to the bigger world market.

However, agricultural share of exports has been declining from 1985 to 2002. ADB (2002) has recorded that the agricultural share of exports was 59.97 per cent in 1985, while it accounted for only 22.28 per cent in 2000. The substantial change in agricultural export is due to rapid industrialisation and market demands that control production and supply.

**Figure 9: The total value of agricultural export and import**

Source: OAE.

Figure 10 shows that the value of agricultural export has increased in the last six years. At the same time, the value of agricultural import has also been rising. The OAE statistics show the new trend of agricultural exports (Table 11).

**Table 11: Percentage of agricultural exports**

	1985	2000
Rice and rice products	20.0	11.1
Food crops, cassava, sugar and their products	29.2	8.2
Oil seed and vegetable oil	0.9	0.5
Fishery	14.5	28.3
Animals and products, milk	4.8	9.3

Source: OAE.

The share of rice export has gradually declined while exports of fishery, animals and products, and milk have increased. This reflects the difficulties faced by the Thai rice industry. Thailand has to compete with countries such as Vietnam and China for a share of the world rice market. The production costs in these countries are very low. Likewise, the domestic and export subsidies in the United States are substantial. It is possible to say that the free-trade market and related agreements are not the right mechanisms for Thai rice to get a share of the world market.

## 2.3 Trade and investments

### a. Strategic direction

Trade liberalisation is seen as a way to strengthen the Thai economy. It affects all economic sectors including agriculture. Government interventions due to free trade agreements have affected the agricultural sector.

Rice is the best case to understand the changes brought about by the Thai government's interventions to open its agricultural market to the world.

**Table 12: Major Interventions for Rice**

Minimum export price	Export tax and/or duty	Export Quota	Government trading or purchasing	Farm price support	Other support	Retail/ wholesale price control
Abolished in 1981	Rice premium (export tax) abolished in 1986; reserve requirement abolished in 1982	Abolished in 1981	Yes; BAAC procurement programme since 1984, MOC purchasing through PWO	Yes	Packing credit from BOT	NO

Source: World Bank.

Generally, agricultural products are classified into three groups according to status of production:

- Group 1 – agricultural crops produced in excess and exported (e.g. rice, maize, sorghum, coffee and tapioca).
- Group 2 – commodities for domestic consumption (e.g. garlic, onion, shallot, palm oil and coconut oil).
- Group 3 – commodities in short supply (e.g. soybean and cotton).

Table 13 shows the specific intervention mechanism for each group in order to manage the market.

**Table 13: Government intervention**

<b>Group</b>	<b>Measures</b>
Group 1 (Rice, maize and coffee)	Government agency buys directly from farmers. Government determines the index price, which is normally higher than the market price. Specific marketing intervention.
Group 2 (garlic, palm oil and onion)	Government would intervene when farmers demand it or the market situation requires such an intervention.
Group 3 (soybean and cotton)	Government will set up buying point at the specific area where problem is found.

The market intervention mechanism will not be used for specific commodities – sugarcane, rubber and tobacco – that are covered by the protective law. However, the government’s role in assisting small farmers appears to be shrinking as the free trade mechanism has taken over this function.

#### **b. Major Trade and Investment Policies**

Foreign direct investment dropped in 2003. The decline is attributed to changes in investment in financial institutes and the electronics industry. By the end of 2002, the amount of foreign direct investment amounted to US\$970 million, a 74.2 per cent decrease from the previous year.

The Thai government provides incentives to ASEAN investors. They are:

- Tariff measures – for example, special tariff rate or even tax-free status for imports of industrial machinery, some specific raw materials and spare parts;
- Non-tariff measures – for example, deregulation to create the best conditions for investors (as seen during the economic crisis in 1998).

**Table 14: FDI inflows into Thailand by Source Country, 1995 – 2001**

Unit: US\$ (million)

Source Country	1995	1996	1997	1998	1999	2000	2001
ASEAN	160.6	308.1	297.5	569.6	572.0	389.0	1,606.2
Hong Kong	279.1	215.1	442.4	393.9	233.7	331.3	163.1
China	1.9	3.9	-7.8	5.1	-2.1	7.2	1.0
Japan	556.5	523.6	1348.0	1,484.7	488.4	869.9	1,373.7
EU-15	179.7	168.1	360.1	912.3	1,368.5	509.6	185.6
USA	260.1	429.5	780.7	1283.3	641.2	617.6	54.9

Source: ASEAN Secretariat, 2003.

With the various incentives, investments from ASEAN countries have increased tremendously in the last few years (Table 14). Value of ASEAN investments in Thailand accounted to about US\$1.6 billion. The amount is even than investment from Japan, which used to be the top investor in Thailand previously. Thus, AFTA and investment incentives have been effective in drawing ASEAN investments to Thailand.

### **c. Overall trade and investment analysis:**

Two important incidences affected trade and investment growth in Thailand:

#### *1. The economic crisis in late 1998*

The regional financial crisis in 1998 adversely affected all economic sectors. The income from the agricultural sector, in particular, decreased. In general, it affected the income of the Thai people. The Thai government initiated several economic recovery measures – mostly to increase foreign investment. A few measures created problems in Thailand. These are:

- The adoption of Nationalisation Laws, dubbed ‘Slavery Laws’, which allowed foreigners to lease land for 99s and own 50 per cent of shares in private companies.
- The setting up of ‘Standard Qualification of the Highest Executive Bodies and the state enterprise officials’ which allowed foreigners to join or even take over the executive board of state enterprises.

Although Thailand has repaid its loans to the IMF, these measures are still in place. It seems that privatisation and deregulation are the mainstream instruments to develop the national economy.

2. *The trade liberalisation agreements under the WTO, AFTA and the bilateral agreements*

**Table 15: Value of Thailand's trade with selected countries in 1993, 2003 and 2004**

Unit: US\$ (million)

	Countries / Regions	Value		
		1993	2003	2004
Export	ASEAN	6,585	16,486	21,246
	Japan	6,327	11,364	13,543
	USA	8,022	13,596	15,517
	EU	6,493	11,750	13,818
	World	37,325	80,049	97,701
Import	ASEAN	5,940	12,486	15,778
	Japan	13,939	18,074	22,416
	USA	5,362	7,093	7,215
	EU	7,684	7,504	9,078
	World	46,163	75,015	94,978

Source: [www.dtn.moc.go.th/](http://www.dtn.moc.go.th/)

Table 15 indicates that Thailand foreign trade has expanded with increases in the value of exports. However, the share of agricultural exports has declined in the last 10 years. It was 17.4 per cent in 1993 and 11.0 per cent in 2003, in contrast to industrial products which had a 76.5 per cent share of exports in 2003 (Department of Customs, 2004). This is because of the growth in industrialisation in Thailand. It should be noted that ASEAN is a major importer of Thai products when compared to others.

### **Overall trade between Thailand and ASEAN**

The value of trade between Thailand and ASEAN since the establishment of AFTA has grown from 316,593 million baht in 1993 to 1,048,426 million baht in 2002. The ratio of exports, in terms of both volume and value, is higher than imports. Thailand exported products with a total value of 165,949 million baht to ASEAN in 1993 and this rose to 580,566 million baht in 2002. Within 10 years, trade volume has risen four times. Consequently, Thailand has continually gained a positive trade balance over ASEAN (see Table 16).

However, before the implementation of AFTA, the total Thai exports to ASEAN was in fourth place compared to overall Thailand's exports. After the implementation of AFTA, it has moved to the second place. The trend of agricultural trade in the ASEAN market was consistent with the world market. The share of agricultural export was reduced by almost half as it accounted for 13.8 per cent in 1993 and 7.5 per cent in 2003 (Department of Customs).

**Table 16: Trade Value between Thailand and ASEAN**

Unit: Million baht

Year	Import Value	Export Value	Trade Balance
1993	150,644	165,949	15,305
1994	187,734	226,823	39,100
1995	234,982	305,660	70,679
1996	244,537	305,530	60,993
1997	247,630	390,410	142,480
1998	267,420	408,964	141,545
1999	313,327	411,639	98,313
2000	424,727	536,910	112,183
2001	430,261	557,802	127,541
2002	467,660	580,566	113,106

Source: Department of Customs.

**Table 17: Summary of Thailand exports to ASEAN countries (percentage)**

Commodities	Brunei		Indonesia		Malaysia		Philippines		Singapore	
	1988	1999	1988	1999	1988	1999	1988	1999	1988	1999
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	34.74	38.03	35.48	29.83	43.40	13.45	2.43	3.83	20.25	6.50
Agro industry	5.35	10.30	22.08	19.35	12.43	7.01	24.61	5.83	4.42	3.51
Industry	56.85	37.22	35.03	46.25	42.22	76.05	68.85	84.52	72.06	79.87
Mineral & Fuel	1.50	1.93	6.90	4.14	1.37	2.83	3.72	2.07	2.15	8.51
Other	1.56	12.53	0.50	0.43	0.58	0.66	0.39	3.75	1.11	1.61

Source: Ministry of Commerce.

Trade between Thailand and the original ASEAN members (Brunei, Malaysia, Singapore, the Philippines and Indonesia) accounted for 84 per cent of exports to all ASEAN countries. These exports used tariff rates as per commitment of each country. Data from the Department of Foreign Trade show that only 11.7 per cent of Thai exporters requested tariff privileges since most of them did not understand tariff privileges in a free trade area. Imports from the original ASEAN member countries accounted for 88.5 per cent of total imports from ASEAN. Thailand has given tariff privileges to 9.2 per cent of exports from these countries. As shown in Table 17, agricultural products did not form the biggest share of exports to ASEAN members. It appears that agricultural exports to these countries have declined from 1998 to 1999.

Trade between Thailand and new ASEAN countries – Cambodia, Myanmar, Laos and Vietnam – comprises 16 per cent of total export value to ASEAN countries. Thailand's tariff privileges under AFTA were only 6 per cent of export value to these new ASEAN countries. They form only 11.5 per cent of total Thai imports from these countries. Thailand has granted tariff privilege to exporters at 2.4 per cent of total import values from these countries.

**Table 18: Summary of Thailand imports from ASEAN (percentage)**

	1988		1993		1999	
	Total	ASEAN	Total	ASEAN	Total	ASEAN
Total	100.0	100.0	100.0	100.0	100.0	100.0
Fuel	7.67	37.48	7.74	33.07	9.56	10.13
Primary products	38.48	34.94	42.15	30.92	47.34	54.60
Raw materials	36.94	22.51	32.50	24.92	30.10	25.68
Consumer goods	6.77	3.76	7.83	6.70	8.38	7.48
Vehicles and auto parts	6.13	0.20	7.59	0.85	2.63	1.35
Other	4.01	1.11	2.46	3.54	1.99	0.77

Source: Ministry of Commerce.

Table 18 shows that Thailand has increasingly imported in almost all categories, except fuel. It means other members can gain bigger markets in Thailand, especially countries which export agricultural products, as the imports of primary products have jumped to 54.60 per cent in 1999.

**Table 19: Value of trade between Thailand and ASEAN countries in 2002**

Unit: US\$ (million)

Country	Trade Value	Export Value	Import Value	Trade Balance
Cambodia	369.3	361.4	7.9	353.5
Brunei	532.0	40.3	491.7	-451.4
Burma	768.1	510.6	257.6	253.0
Philippines	2,196.9	1,095.6	1,101.4	-5.8
Malaysia	6,207.6	2,848.4	3,359.2	-510.7
Laos	461.2	385.2	76.0	309.2
Vietnam	1,180.6	848.5	332.1	516.5
Singapore	9,497.1	6,069.0	3,428.1	2,640.9
Indonesia	2,647.2	1,354.8	1,292.4	62.3

Source: Department of Customs.

The major trade partner of Thailand in ASEAN in 2002 was Singapore with a total trade value of US\$9,497.1 million. Thailand-Singapore trade accounts for over half of all trade between Thailand and ASEAN. Within ASEAN, Cambodia has the least trade value with Thailand. However, the positive change in trade volume between Thailand and ASEAN does not benefit agriculture. After AFTA, the trade value of agro-industrial products, minerals and fuel have risen. The trade value of industrial goods is the same as those before AFTA while that of agricultural export dropped.

### Export

Thai membership in AFTA has changed significantly the structure of the export market. Exports to ASEAN countries rose while exports to Japan, the United States and the European Union declined. Most exports to ASEAN countries are industrial goods rather than agricultural products.

The top 50 Thai exports in terms of value include industrial goods such as computer and accessories, integrated circuit, plastic chips and iron. Agricultural exports in terms of value are rice, sugar and rubber (Table 20).

In 2002, Singapore was the major ASEAN trade partner of Thailand with total Thai export to Singapore valued at US\$6.069 million, or almost half of total exports to ASEAN countries.

**Table 20: Structure of Thai Export Items to ASEAN Countries in 2002**

Unit: Million baht

Items	Export Value
Computer, peripherals and accessories	89,028.6
Oil	30,275.0
Integrated circuit	29,527.5
Chemical products	22,866.1
Motor and generators	20,151.5
Plastic chips	18,409.2
Iron, metal and products	15,744.5
Car, parts and accessories	15,102.0
Sugar	13,971.7
Radio receivers, TV and parts	13,819.4
Rice	13,681.6
Rubber	12,802.4

Source: Foreign Trade Negotiation Department.

## Import

Thailand's imports from ASEAN countries continued to rise since 1995 with the highest growth recorded in 2000. However, the value of imports is lower than the value of exports. Increasing imports are capital goods such as integrated circuit and industrial machinery. Imports of fuel and semi-raw materials are dropping. Agricultural items that are imported are mainly frozen and processed agricultural products.

Thailand imports mostly from Singapore. In 2002, imports from Singapore were valued at US\$3,428.1 million, which is close to the value of imports from Malaysia (valued at US\$3,359.2 million). Goods imported from Singapore are mostly electric appliances and parts. Major imports from Malaysia are computer, parts and accessories.

**Table 21: Structure of Thai Imports from ASEAN Countries in 2002**

Unit: Million baht

<b>Items</b>	<b>Value of Import</b>
Electric appliance and parts	56,595.6
Integrated circuits	49,160.8
Computer, parts and accessories	47,889.9
Chemical products	43,198.2
Oil	39,643.9
Industrial machines	17,705.2
Television tubes	15,620.4
Logs, timber and other timber products	12,882.9
Electric appliances	11,525.4
Metal products	11,376.9

Source: Foreign Trade Negotiation Department.

In conclusion, there have been changes in Thai trade AFTA. The changes are:

- Increased trade – for electronic circuit, television and parts, petroleum oil and crude oil, semi conductor, etc.
- Stable or same trade level – for computer and accessories, rice, sugar, rubber, electronics, frozen shrimp, etc.
- Decline in trade – for canned seafood, garment, frozen fish, etc.

In sum, trade in agricultural commodities decreased over a longer term. There is no significant increase in foreign direct investment since AFTA was implemented. For instance, Japan accounted for 43 per cent of total FDI in 1990, but it declined to 31.5 per cent in 1998.

## Chapter 3 Methodology

### 3.1. Methodology used in data gathering

#### a. Literature survey

The team reviewed various data and documents (see references). These provided the specific and general information and analysis on the impact of trade liberalisation in general and the AFTA in particular.

#### b. Administered interviews (survey questionnaires)

The questionnaire survey covered 250 respondents selected from the different areas as shown in Table 22.

**Table 22: Number of Respondents by Research Areas**

Province	Number of respondents
Case of rice Suphan Buri	12
Ang Thong	132
Pichit	31
Case of Soybean Mae Hong Son	75
Total	250

#### How the respondents were selected

1. The selected provinces were the main producers of rice and soy bean.
2. The presence of active peasants' organisations in these provinces was given consideration.
3. At the district level, the research began by conducting a meeting with the village leaders. In the meeting, the objectives and expected output of the research were shared among participants, and followed by identifying the appropriate villages.
4. At the village level, samples are selected by:
  - Clustering a village by administration block (e.g. a village can be divided into five blocks);
  - Calculating percentage for sampling (5 per cent from each block);
  - Choosing respondents from each block randomly. (It should be noted that all samples in Ang Thong are members of 'Debt Network in the central Thailand').

#### c. Case studies

##### Rice and soybean

The research team interviewed four respondents who typify the situation among rice and soybean tenants and owners (see Table 23 and Table 24).

**Table 23 Case Studies (Rice) by Tenure**

Name of respondent	Village, Province	Date of giving information	Planted area (hectares)	Ownership status
Mr Phanom Chumpae	Ban Muang Tear, Ang Thong	27 May 2004	3	Tenant
Mr Win Chantavorn	Ban Khog Pusa, Ang Thong	17 May 2004	3	Tenant
Mrs Pramuan Au-sri	Ban Moo 7, Ang Thong	17 May 2004	0.80	Owner
Mr Manop Sengsae	Ban Moo 3, Ang Thong	15 May 2004	1.92	Owner

**Table 24: Case Studies (Soybean) by Tenure**

Name of respondent	Village, Province	Date of giving information	Planted area (hectares)	Ownership status
Mrs Rattanaporn Tadee	Ban Sri Don Chai, Mae Hong Son	22 May 2004	0.48	Tenant
Mrs Buapan Padwan	Ban Sri Don Chai, Mae Hong Son	22 May 2004	0.48	Tenant
Mr Wittaya Kaewlud	Ban Moo 3, Mae Hong Son	21 May 2004	0.48	Owner
Mr Chankaew Kaewna	Ban Pong, Mae Hong Son	24 May 2004	0.48	Owner

**d. Focus Group Discussion**

The research team also conducted focus group discussions among rice and soybean farmers.

**e. Key Informants Interview****Table 25: Key Informants Interview**

Name	Position	Date of Interview
Mr Pramote Wanichanon	President of Thai Millers Association	4 June 2004
Mr Poonsri Khulimakin	Director of Bureau of East Asian Economic Cooperation, Commerce Ministry	25 June 2004
Ms Khanchana Singh-amphai	Expert on the international policy on agricultural trade, Ministry of Agriculture and Cooperatives	May 2004

**f. Price Monitoring**

The research team collected information on prices at three levels: farmgate price, wholesale price and retail price. The list of commodities includes products consumed daily by households such as rice, eggs and meat.

### **3.2 Training of Researchers**

The training of field researchers and interviewers was conducted on May 11, 2004. The training provided the necessary information on data gathering tools and also had practised using questionnaires.

The training of the lead researchers was conducted by the SEA Council in Kuala Lumpur, Malaysia.

### **3.3. Data processing and Write Up**

Microsoft Access is the program used for encoding the primary data and SPSS software was used in data processing.

The final research paper used various research methodologies.

## Chapter 4

### The Socio-Economic Situation of Small Producers in the Era of AFTA

#### 4.1 Major Findings

##### 4.1.1 Demographic Characteristics of Respondents and their household

In terms of sex, 37.2 per cent of the respondents were male and 62.8 per cent were female. The respondents were chosen randomly but ensuring representations from both men and women farmers.

It should be noted that 27.6 per cent of the respondents were more than 56 years old. Almost half the respondents (46 per cent) were aged more than 51 years. Only 22.8 per cent of the farmers were in the 31 to 40 age group.



In terms of educational attainment, most of the respondents (84 per cent) had completed six years of primary schooling. This is the achievement of government education policy, which guaranteed six years of primary education for all Thai citizens. The young generation has generally attained higher educational level than their parents'. However, they are not keen in inheriting their parents' occupation. The level of education is an important factor in pushing the younger generation out of farm jobs.

Regarding house ownership, 90 per cent of respondents owned their houses. About 97.2 per cent of the houses were permanent structures, basically constructed with wood and bricks. The survey also found that 39.2 per cent of the houses were owned by the husbands, 28.4 per cent by the wives and 12.8 per cent by both of husband and

wife. In case of selling the house, both husband and wife have equal right in making the decision.

As for sources of drinking water, 41.5 per cent of the respondents relied on rainwater. The survey found that 34 per cent of respondents consumed piped water. Pollution (by chemicals) of some water sources forced people to drink piped water or bottled-water, which increased their costs of living.

The research also found that 99.6 per cent of the respondents' houses were using water sealed toilets, while only a tiny percentage (0.4 per cent) had flush-typed toilets.

There was improvement in terms of general living conditions of small producers. However, the type of roads, toilets and even house structures do not reflect their quality of life completely.

#### **4.1.2 Farm and land ownership profile**

Most of the target respondents (48.6 per cent) were farming on their own land. In terms of landownership, 56 per cent of rice farmers were owner-cultivators while 76 per cent of soy farmers were owner-cultivators.

In case of land ownership between men and women, there is no wide disparity as 60 per cent of land were owned and farmed by women and 66 per cent of land were owned and farmed by men. Generally, there is no gender discrimination in accessing land rights in Thailand. Thai women have equal rights over land. It should be noted that there is a high percentage of leaseholders (35.4 per cent).

On farm size, owner-cultivators have an average of 1.84 hectare per household, but cultivating areas are larger (2.30 ha) when the farmers are leaseholders. This is because such farmers need to work on larger plots of land in order to reap higher yields and earnings to be able to pay the land rent.

In the case of rice, owner-cultivators were tilling 2.15 hectares each, which is larger than the average land holding of the total number of owner-cultivators. The plots are normally larger than the soy planting area.

It was also found that 25.6 per cent of the respondents have landholdings between 2.5 and 3 hectares. It should be noted that the percentage is based on the number of rice farmers involved in the research and the samples' criteria. Comparing rice and soy cases, 35 per cent of rice farmers farmed 2.5 to 3 hectares while only 3 per cent of soy producers worked on the similar plot sizes.

In terms of land acquisition, the survey showed that 43.5 per cent of respondents were renting the land and 36.1 per cent inherited the land. It is important to note that the instances of farmers inheriting land from their parents are going down while the number of farmers renting land is increasing dramatically. During the interviews, the farmers said they are burdened with huge debts, were becoming landless and had to rent land.

Further, 0.6 per cent of farmers who acquired land through state agrarian reform said the programme was ineffective. They claimed that many plots of land were available under the agrarian reform programme and yet farmers were waiting in a long queue. They alleged corrupt practices where land was allocated to the rich rather than to deserving poor people. Moreover, farmers who received plots under the programme said the allocated land was terraced and not fertile, and, thus, productivity is quite low. Remarkably, concentration of land ownership is still a serious problem in Thailand, and the number of landless farmers has yet to go down.

#### **4.1.3 Cropping, Production and Expenses**

Only 20 per cent of arable land in Thailand is irrigated, mostly in the central region. Thus, the average irrigated area may be higher given the characteristics of the research areas chosen.

Since 38.6 per cent of farmland is in the irrigated-lowland, rice farmers can cultivate more than two cropping a year. However, as soy farmers rely on rain, they can cultivate only once a year.

As for seeds, farmers mostly use high yielding varieties (94.8 per cent). Hybrid varieties are used by 2.4 per cent of the farmers and traditional varieties by 2.8 per cent. However, it should be noted that Thailand has no official record on the use of hybrid varieties.

According to 74.5 per cent of the respondents, they did not reserve seeds for the next cropping. They said it was inconvenient to save seeds as they did not have drying areas or seed containers. Another 17.2 per cent said they could not save seeds because of natural calamity.

With the adaptation of new farming methods with the 'Green Revolution', farmers have shifted to mono-cropping. This required new high yield seeds and more chemical inputs. Consequently, the farmers incurred higher costs of production costs with some getting into debts (see Table 26).

**Table 26: Cost of production over five years**

	Soy bean		Rice	
	Frequency	Percentage	Frequency	Percentage
Increasing	72	96%	138	78.86%
Decreasing	1	1.33%	3	1.71%
Stabilising	2	2.67%	34	19.43%
Total	75	100%	175	100%

Chemical inputs are the major cause for the increase in production cost. The prices of inputs such as fertilizers, pesticides and herbicides have increased in the last five years as shown in Table 27.

**Table 27: Chemical inputs over the last five years**

	Soy bean		Rice	
	Frequency	Percentage	Frequency	Percentage
Increasing	74	98.67%	148	84.57%
Decreasing	-	-	2	1.14%
Stabilising	1	1.33%	25	14.29%
Total	75	100%	175	100%

Note: For details of farm inputs and costs, see the appendices.

#### 4.1.4 Farm incomes

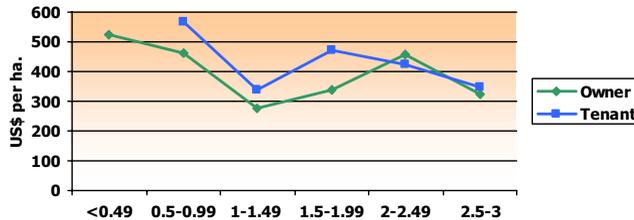
The incomes of respondents and their households were very low. Farm households cannot survive solely on cash income from farm activities. They (27.11 per cent of respondents) also have some income from off-farm activities. Rice farmers tend to have higher income from off-farm activities than soy producers.

The survey found that 28.4 per cent of respondents earned less than US\$25 per month and only 2.0 per cent have incomes of more than US\$501. In terms of household income, the small farmers are quite poor. Most of them (20.8 per cent) earn US\$51 to US\$100 a month. About 20 per cent of respondents earned less than US\$25 a month. It should be noted that incomes from agricultural activities were depended on two main factors: the type of crop grown for sale and earnings from farm labour.

Normally, farm workers, who are paid daily wages, earn much more than farmers working on their own farm.

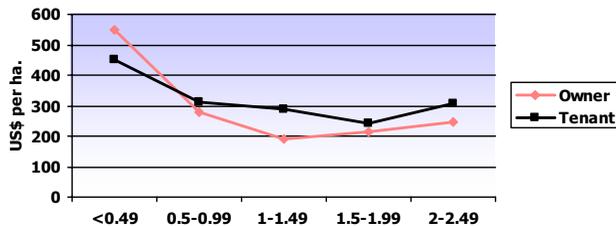
#### 4.1.5 Cost of investment and farm net income

**Figure 10: The average cost of rice production classified by farm area**



The average cost of rice production has been fluctuating. There is no correlation between farming area and investment expenses. However, the graph declines when the farm area increases (see in Figure 10). Notably, the cost of production for tenants was slightly higher than the cost of production incurred by own-cultivators.

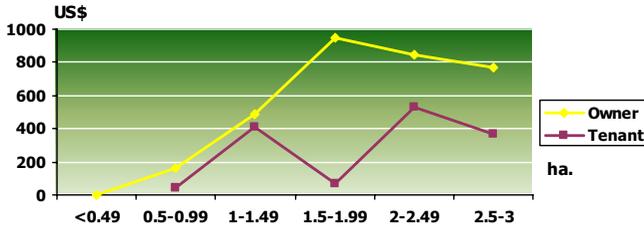
**Figure 11: The average cost of soybean production classified by farm area**



As in the case of rice, the cost of soybean production declines when the farm area is larger (see Figure 11). At the same time, tenant producers have to spend more in terms of production cost.

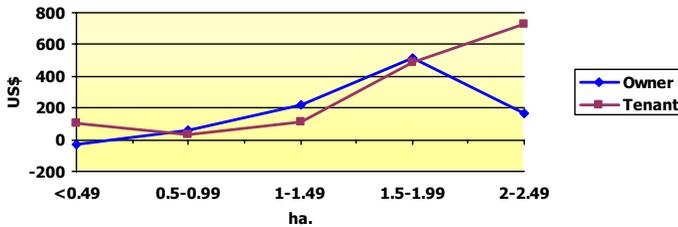
The case studies of rice and soybean production showed that the major burden of tenant farmers was high land rental. It pushed the cost of production higher and eroded farmers' income.

**Figure 12: The net income of rice production classified by farm area**



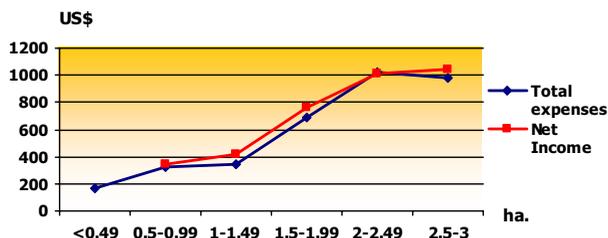
The graph of tenant's net income has fluctuated sharply when compared to the graph of the owner's net income (Figure 12). The gap between the lines widens when the farm area expands. However, from the graph, there is no guarantee that increasing the farm area would lead to higher net income.

**Figure 13: The net income of soybean production classified by farm area**

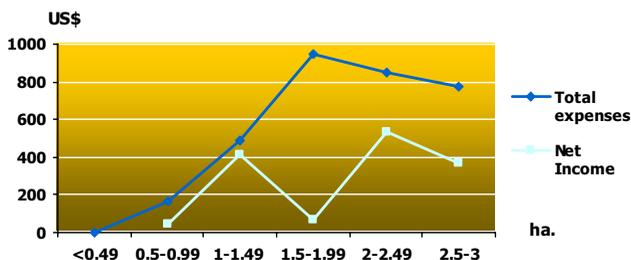


The graph followed an unusual pattern in the case of soybean (Figure 13). However, generally the average net income increased slightly when the farm area expanded. The net income of owner and tenant was at almost the same level. This means the expansion of the farm area does not affect net income positively.

**Figure 14: Comparison between total expenses per cropping and net income of rice owner-cultivator**

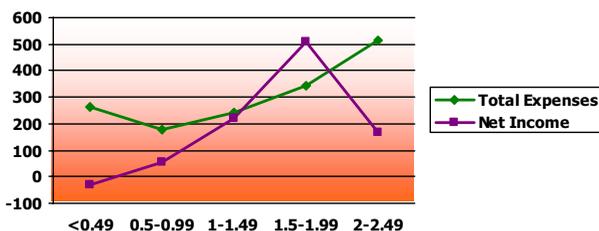


**Figure 15: Comparison between total expenses per cropping and net income of rice tenant-cultivator**

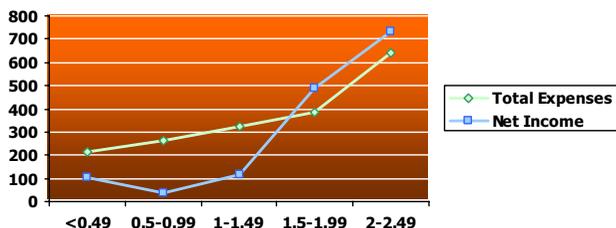


The two cases in the figures 14 and 15 show that the farmers are facing a common problem: Rice production is not a profitable occupation. Whether farmers own or rent the land, they do not benefit from farming. The situation will be worse if farmers do not have land.

**Figure 16: Soybean owner-cultivator's expenses per cropping and net income**



**Figure 17: Soybean tenant-cultivator’s expenses per cropping and net income**



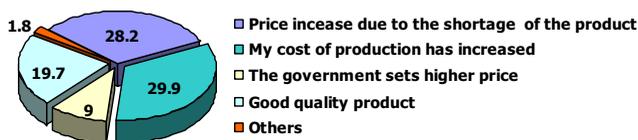
Figures 16 and 17 indicate that total expenses and net incomes are fluctuating with no correlation to farm area or land ownership. Even though net income has increased along with farm size, it is not enough to cover total expenses. Therefore, all soybean producers were having deficit incomes.

#### 4.1.6 Prices and markets

Most farmers (81.2 per cent) did not know whether their produce were exported. Generally, farmers’ knowledge of the market is limited to what they learn at the farm-gate when selling their produce to traders. These small farmers have little knowledge of trade at the national, regional and global levels.

Most respondents (85 percent) felt the prices of produce have increased in the last five years. The reasons for the increase are shown in Figure 18.

**Figure 18: Causes for increase in prices of produce**



The most common reason (29.9 percent) cited is that production cost has increased. According to the farmers, the rate of increase in production expenses is higher than that of the prices of produce.

Some respondents felt the price of produce has declined in the last five years. Figure 19 illustrates the reasons for the decline.

**Figure 19: Reasons for drop in price of produce**



As shown in Figure 19, traders control the market direction. The farmers said they never set the prices of their produce. Since the farmers did not have access to marketing information, they were not able to negotiate effectively. Thus, the traders and millers set the prices and dominate the market.

The reasons cited by respondents for the drop in prices include:

- Traders set low prices (68.2 per cent);
- High moisture content in paddy (18.2 per cent); and
- Low quality of rice variety (9.1 per cent).

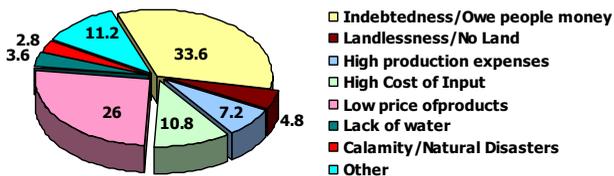
Even though the traders depressed prices, most farmers said they had no choice but to sell their produce to them because:

- The traders offered higher prices (33.7 per cent);
- The traders provided post-harvest facilities such as to transport rice to the market in bulk immediately after harvesting (23.3 per cent);
- The traders pay in cash (19.9 per cent).

Only three respondents said they were forced to sell to traders because of contracts they had signed with them earlier.

#### 4.1.7 Problems of Small-scale Producers

**Figure 20: Problems of small-scale producers**



As shown in the Figure 20, major problems faced by farmers were indebtedness (33.6 per cent); low prices of produce (26 per cent); and high cost of inputs, especially chemicals such as pesticides and fungicides (10.8 per cent).

These problems are the result of the shift from the traditional methods of farming. Since farmers started using inorganic chemicals, production costs increased, pushing many farmers into more debts. Incidentally, debt is the biggest problem for Thai farmers and there is no effective policy or measure to solve it.

#### **4.1.8 The credit market and indebtedness among small-scale producers**

As mentioned earlier, indebtedness is the most serious problem faced by small producers. More farmers are borrowing money (93.6 per cent). Normally, they would borrow money only once a year (71.4 per cent) during the production season. However, some farmers (27.8 per cent) borrow a few times a year to meet emergency expenses such as to pay hospital bills or for their children's education.

According to the survey, 62 per cent of the respondents spent their borrowed money on farming inputs and household expenses. About 35 per cent use their loans for farm production purposes only. This indicates that farmers do not get enough income from agriculture to meet their daily living expenses. Thus, access to credit is a supplemental mechanism to survive.

Most farmer-respondents borrow from private banks and financial institutions (33.8 per cent), followed by government and state enterprises (28.9 per cent). A small percentage of farmers borrowed from community members or micro credit providers.

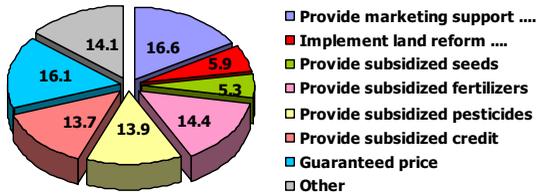
In terms of capacity to repay debts, 64.5 per cent of the respondents said they could settle them from their income from rice or soy farming. However, another 35.5 per cent said they were not able to repay their debts because the amount was higher than their earning capacity.

#### **4.1.9 State policies and programme for agriculture and small-scale producers**

Some 95.6 per cent of farmers said they did not have adequate access to state support because the Thai government considers them as inefficient producers. The farmers also do not have any influence in policy decision making.

Small producers said they need government-subsidised programmes such as special loan for farmers (50 per cent) and price support (21.4 per cent). The different forms of subsidies requested are shown in Figure 21.

**Figure 21: Subsidies demanded by farmers**



Almost all demands of farmers are related to productivity and marketing problems, which are more complicated under the free trade situation. Many interventions have been stopped due to the free-trade agreements such as price guarantees. Some interventions in the form of free seed or fertilizer rarely take place because of limited budget for such subsidies.

#### 4.1.10 Respondents' awareness of AFTA

**Table 28: Small producers' perception of AFTA**

Knowledge of AFTA	Soy bean		Rice	
	Frequency	Percentage	Frequency	Percentage
Know	40	53.33	50	28.57
Do not know	35	46.67	125	71.43
Total	75	100	175	100

As shown in Table 28, small farmers in general do not have sufficient knowledge of AFTA. The rice farmers have less knowledge of AFTA than soy producers.

Perhaps, soy producers are more aware of free trade than rice farmers because of soy imports. Since Thailand opened its soy market under the WTO agreements, it continuously imported a large volume of soy. The imports have a significant impact on the domestic market as they depressed the soy prices. Thus, soy producers are more aware of the impact of trade agreements at all levels.

However, most farmers involved in the survey (49.5 per cent) have seen the word 'AFTA' only in newspapers and other available sources. It is significant to note that fewer women (29 per cent) were aware of AFTA than men (29 per cent).

#### **4.1.11 Gender issues in agriculture and trade**

##### **Women in agricultural society: Invisible labour**

Women's involvement in farming families can be divided into four categories:

1. Engaging in farming to earn household income.
2. Undertaking farming such as home gardening to increase their families' food supply.
3. Reproduction of human resources, from giving birth to caring of family.
4. Engaging in off-farm activities as wage earners to boost family income.

There are similarities in the role of women engaged in rice farming and soybean production. Men and women contribute equally to farm work. On the other hand, the women have to perform the additional tasks of household chores and caring for the family at home. This is because of the traditional role entrusted to women by society in general. The women are expected to be housewives and to care for children, husbands and other family members. This survey found that in addition to working in the field, the women spent at least five hours per day performing household chores such as washing clothes, ironing, cooking, cleaning, feeding the children and taking care of family members.

It is to be noted that the women always take part in decision making such as in household financial planning or repaying debts. They tend to be more careful than men and sensitive to the feelings of all family members when making such decisions. For example, women will decide to repay debts because they do not want their children to be ashamed of their parents' indebtedness, whereas men are not keen in repaying debts.<sup>1</sup>

Although gender specialists conclude that domination and unequal status between women and men exist in rural Thai society, femininity is respected and women's situation has improved compared to the old days. For example, women have the right to own land just like then men, both legally and practically. The survey found that both men and women are co-owners of their residence. When land is purchased after marriage, often the names of both husband and wife would be listed as co-owners in the land titles. In employment, women and men get equal wages.

However, this study found that the change in production pattern pushes women to work harder in the field. Women accept jobs that they have never done before or perform hazardous tasks, such as spraying weed killer, fertiliser application and spraying pesticides. Prolonged exposure to chemicals is also dangerous to women's fertility and there is a high risk of miscarriage. Several scientific studies indicate that contact with farm chemicals could also lead to lung cancer.

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<sup>1</sup> The comments are from a conversation with farmers in a group discussion in Anghong.

It was found that women struggled to work outside to earn adequate wages to buy food for their families. Farms required more women labour. Off-farm working is also women's tasks in Thai agricultural society.

While the change in status and role of women farmers is linked to free trade agreements, it could be pointed out that women bear a heavier burden, both as labour in agriculture and low wage earners in off-farm activities. However, they are less recognised as farmers than housewives working at home and taking care of their families.

Therefore, women have become hidden labour in all household activities under the market-oriented production system being promoted and nurtured by free trade.

#### **4.2 Specific results: Rice and soybean**

- **Rice**

Thailand is the world's top exporter of rice. Rice for export is classified into four categories: White rice such as *Chainat* and *Supanburi*, aromatic rice like *jasmine*, short-grain or Japanese rice and indigenous rice.

In terms of market share, white rice accounts for over 50 per cent followed by aromatic rice, which continues to gain more share. Thailand is the world's top exporter of both white rice and aromatic rice.

ASEAN is a major market for Thai rice since rice is the main food item in these countries. Although these countries produce rice, their supplies are not enough to meet the demand of their populations. Moreover, in terms of advantages and competitiveness, Thailand has the potential to export rice because it has a large area for rice farming, involving over 50 per cent of arable land in the country. Although Vietnam recently become a major competitor due to its lower cost of production, it is second to Thailand in terms of quality. Foreign Trade Negotiation Department's statistics (2003) show that the export value of Thai rice to other ASEAN countries is about 13,681.6 million baht. Rice is the 11<sup>th</sup> top Thai product exported to ASEAN.

Most of the rice exported to ASEAN is white rice, grown mainly in the Central Region of Thailand. Therefore, this research focused on the rice growing areas in three provinces in the Central Region, namely Phichit, Angthong and Supanburi. The study came up with the following findings.

#### **The Current Situation of Thai Rice Farmers**

The changes in production patterns have eroded the traditional practice of collective work and reciprocal labour in farming prevalent in Thai society. Currently, rice farmers have to cultivate at least three times a year. This has pushed them to adopt modern farm-technology such as tractor and harvesting machine to speed up their production. They also hire more farm workers to the extent that farmers in Supanburi call themselves "farm managers".

Thai farming communities are now made up of nuclear families, which is not different urban communities. It is currently rare to find an expanded family. Only the

generation of parents is still engaged in farming. The study found that most farmers were over 56 years of age (33 per cent). Only 9 per cent of the labour force belongs to the 31-35-age category. The family size of only one or two children indicates that the new generation tend to shun farming. The younger generation, who have attained higher education than their parents, choose to leave their farms. The study found that 86 per cent of parents who are still farmers completed only compulsory or primary education, which limits their choices to change their occupation and improve their lives.

Though most farmers (93.1 per cent) have their own houses, it does not reflect economic security of farmers. They are still in debts. Moreover, most farmers do not reap the fruit of free trade because of difficulties in readjustment and their existence in a consumerist society. In particular, if farmers live near towns and are influenced by modernity in various forms through radio and television, they will be absorbed into the current path of development and material growth. However, their incomes do not match their expenses.

The Central region is the main rice growing area for the export market. Its soil is fertile because of the Chao-Pra-Ya River Delta. Land and water management has been enhanced to cope with the demand to increase rice production. Water from the dams is diverted to the rice fields in the region. As a result, 46 per cent of rice fields in the Central Region are irrigated. The other areas, which cannot access irrigation services, pump water from natural sources such as canals and rivers. The availability of water enables farmers to cultivate more than two crops a year.



According to the rice farmers in the Central Region, income from one to two hectares is not enough to pay debts. Therefore, many rice farmers have expanded their acreage as much as possible, with some having up to 10 hectares. This study focused on small farmers who farm three hectares and below.

The study found that a majority of the respondents (35 per cent) worked on three hectares. They comprise landowners who work on their own farms and tenants with ratios of 56 and 54 respectively. Most respondents want to farm on larger plots and have to rent more land. Their main objective is to increase yield to earn higher income to repay their debts.

In the past decade, changes in land ownership were due to farmers mortgaging their land in order to invest in the farm and for their living expenses. Most of their land is now charged to the banks.

### **Profits for Foreign Companies**

The changes in production methods directly affected farm expenses as the farmers have to spend more on seeds, chemicals and wages.

Thai farmers currently depend on imported farm inputs. They buy all chemical inputs from agribusiness companies. More than half their income from rice sales goes to the giant corporations and the cooperatives have much control over the production or marketing of rice.

The survey found that Thai farmers were dependent on high yielding variety of seeds (94.9 per cent) and 80 per cent of the sample group did not keep seeds for the next cultivation season. Most farmers said it was not convenient to store and care for the seeds (72 per cent). This means farmers have to pay an average cost of 11-15 baht per kilogramme for seeds at the beginning of every cultivation season.

Four of the 175 farmers said the seeds they used were 'hybrid seeds' as they could be grown only once. Further investigation is needed to re-confirm this finding since various state agencies have said hybrid seeds were not used in Thai rice farms.

Currently, the market for rice seeds is the biggest in Thailand compared to other seeds and is under the supervision of the Department of Agriculture, Ministry of Agriculture and co-operatives and rice. However, large agri-business corporations are beginning to control the trade in hybrid corn seeds. According to the farmers, the corporations have piloted rice contract farming and hybrid rice farm trials in the Northeast Region.

Fertilizers and other chemicals contribute to 28-30 per cent of the farmers' production cost. If the cost of seeds is included, it will comprise about 40-50 per cent of total cost of rice production.

Some farmers said they could benefit a little from free trade if tariff on imported chemical inputs were reduced. However, it needs to be noted that chemicals prices can be determined independently in each local community. The prices in remote areas might be higher than in the towns. Therefore, a reduction of import tariff may not have much effect on prices of chemical inputs.

## **Difficult Situation of Rice Trade**

The study found that 33.7 per cent of rice farming families earned their net income from selling their produce, amounting to about 20,000 baht per year. It was found that 21.7 per cent of farming families earned the lowest net income of less than 1,000 baht per year. Some 143 of the 175 farming families, or 81.7 per cent, have to buy rice for their own consumption. Insufficient income certainly implies that many Thai rice farmers do not have food security.

About 85 per cent of the respondents sold their rice to middlemen/ traders for two major reasons. First, the middlemen gave better price than co-operatives or state agents. Second, the farmers get cash immediately upon selling. The farmers need the cash to pay debts and to meet other food expenses. In addition, there is a patron-client relationship, since three of the 175 farmers have to sell their harvest to the middlemen according to conditions of loan contracts.

Small farmers see the annual increase in rice price as a means to free themselves from debts. However, the research findings indicate that the rates of rice price increase in the past five years were similar or even lower than the rates for inputs or production cost. Also, the rice price has actually decreased in real terms. Therefore, the real income of rice farmers has declined in the past five years.

According to most farmers (70 per cent), the price is basically fixed by middlemen. Thus, the farmers do not have bargaining power in determining the proper price.

Most farmers (82.9 per cent) were not aware that their produce was exported and that the middlemen made high profits. Thus, these farmers do they benefit from AFTA. A farmer described the situation aptly:

“Farmers do not export rice on their own. We have to sell to middlemen or co-operatives. The middlemen make profit by selling to exporters. The price increases at each selling stage, but for farmers it is a flat price fixed by middlemen. In the free trade area, perhaps we can sell more, but we do not really benefit. Moreover, when rice price goes up, we apply more fertilizer and other chemicals to obtain higher yield. Yet, the rice price does not go up at the same rate as the fertilizer price. Therefore, we do not have anything left.

The most serious problem of farmers is indebtedness (43.4 per cent of respondents) and drop in price of farm produce (22.3 per cent). These problems are closely linked and inseparable. Middlemen depressed the rice price, while the farmers cannot repay their debts because they always sell their rice at a loss. Other problems faced by the farmers are expensive inputs and other means of production. These factors make the production cost to increase, leaving less income for the farmers.

The study also found that the problems affect each group of farmers at different degrees. Farmers with land have less debt than tenants or part owners. The part owners (those who own some land and rent additional land for farming) have the highest debts (75 per cent). The expansion of cultivable land is not a guarantee that

farmers' income would increase and debts would be reduced. On the contrary, it increases farmers' expenses and production cost.

It was found that 97.1 per cent of farmers borrowed money, mainly (74 per cent) to meet costs of production and household expenses. Loan for permanent or long-term investment, such as buying land, represents only 2 per cent of the sampling group. This means that loan is an essential alternative for farmers' existence because income from selling their produce is not enough even for the next planting season and to support their families. They are forced to take loans for their daily expenses.

Farmers borrow mostly from banks and other financial institutions (30.8 per cent). Interest rates (9 to 18 per cent per annum depending on terms of payment and credit guarantee) from these sources are lower than smaller leasing enterprises. However, the rate is still high for small farmers, making it harder for them to repay the loans. This will lead to small farmers incurring even higher debts. It should be noted that small-scale agricultural production is now not profitable and the farmers' debts would increase after every cropping.

Indebted farmers do not have the capacity to repay the loan taken for agricultural production. When compared to the industrial sector, the interest rate of industrial loans is higher than agricultural loans, but there are a lot of incentives to support industrial investors. The incentives are to promote industrial development. For example, the auto industry gets an incentive in the form of interest free loans for the first three years. Thus, the industrial sector has more opportunities to improve and strengthen itself while the small-scale producers are weakened by discriminating policies.

Most farmers (55.4 per cent) still believed that they could settle their debts, especially when there was no timeframe for the repayment. They could repay in instalments (62 per cent). However, 41.7 per cent of the farmers responded that they were unable to repay their loans because the cost of production is higher than rice price. If this situation continues, they will not be able to repay their loans (44.9 per cent). Some farmers said their current loans were too high for them to repay because their source of income was solely from rice selling (29.2 per cent).

On recommendations to address the problems, the farmers said they still hope for subsidy from the government. Some 19.4 per cent of the farmers wanted the government to control the price of farm inputs, 19.1 per cent wanted the government to control and reduce interest rates so that they could have easier access to sources of loans, which could enable the farmers to repay faster. Some 14 per cent of the farmers wanted the government to give higher subsidy to farmers for their domestic production. With regards to existing subsidy, the farmers wanted market intervention when the price of rice drops or special credit. They also wanted the system to be strengthened by bridging the gap and stopping the outflow of budget and subsidy. A considerable number of farmers proposed that the government provide cheap or free chemical fertilizers and pesticides, although they are aware that when they start to apply these chemicals, they will have to increase the amount gradually, which will push up the cost of production. However, they believe that if they do not apply chemicals, they will not get a good yield. Thus, it can be said that market oriented production has destroyed communal production methods, leading farmers in the

Central Region to be concerned only in producing more for the market, although they have to buy rice for their household consumption.

On subsidies, most farmers (97.1 per cent) responded that the state seldom gave attention to subsidy for farmers. They said “small farmers are not given priority as a potential production sector” and that “small farmers do not have bargaining power or influence on decision-making of the government”.

The farmers’ views very much correspond to the direction of Thailand’s economic development in the past decade, which focused on becoming neo-industrial country. The agricultural sector has less than 10 per cent share of the gross national product, while growth in other sectors, such as industry and services, could boost the country’s income several times higher. Consequently, the agricultural sector is losing its value and significance, even though the people in the agricultural sector make up half the population of the country.

### **Farmers’ Knowledge of AFTA**

About 71.4 per cent of the farmers in the sampling group did not know about the ASEAN Free Trade Agreement (AFTA). The other 28.6 per cent of the farmers indicated that they knew about AFTA mainly from television news (70.7 per cent). However, they had no knowledge about contexts of the agreement or the impacts AFTA. They also said they did not know that AFTA would benefit farmers or any other group.

It can be concluded that AFTA, which is more than 10 years old, is not known to the farmers. Other factors seem to have more influence on the way of life of rice farmers in the Central Region. These include water privatising policy (fee on irrigation water use), which could increase farmers’ cost of production; policy on converting property to capital, which would affect farmland ownership; or policy on debt moratorium for farmers.

Domestic policies could well reflect the demands of globalisation and capitalism because the current direction and development policies are driven by the free market mechanism.

Thailand adopted free trade over a decade ago. However, farmers in the Central Region still sell their rice at 5-6 baht per kilogramme, which is not much different from the price 10 years ago. On the other hand, they have to buy rice for their own consumption at 13-21 baht per kilogramme. While Thailand is said to be the kitchen of the world, the small Thai rice producers wallow in poverty and debt.

- **Soybean**

Soybean is an important food and commercial crop in Thailand. It is a source of income for farmers in the North who cultivate rice for domestic consumption during the rainy season. After harvesting rice, they grow soybean to earn additional income.

Change in the soybean market is apparent, considering that domestic production is not enough to meet the increasing demand for animal feed in recent years. Therefore, the country began to import soybean. The state also has subsidy and price intervention programmes to help the farmers. There crisis in soybean production began when Thailand implemented the WTO agreement on agriculture by eliminating import quotas and reducing import tariffs. This led to an influx of imported products which in turn triggered a sharp fall in soybean price.

Soybean growers continue to face stiff competition from imports. As a consequence, soybean growing area has shrunk in the past decade, from 2,600 million rais in 1994 to 1,130 rais in 2003.

What are the consequences of free trade? Information from a study on soybean production and trade among farmers in Maehongson will give some answers.

### **Agricultural Community in the North**

The North of Thailand is a mountainous region where only 20 per cent of land is plain and can be cultivated. Maehongson is a closed province in a valley in the North with only two main roads passing across the province. However, its climate is cool and mild throughout the whole year, making it suitable for cultivation of temperate crops.



Farming families are now small and no different from those in urban areas. Generally, each family (50.7 per cent) has only one child. Their children do not intend to carry on farming. According to the respondents, their children still live with them but they are no longer engaged in farming. They prefer to work in resorts or tourist attractions near their villages. They can earn higher income and do not have to work hard under the sun.

However, the data does not show any substantial aggregation of age groups. The sampling group is made up of farmers aged between 31 and 51 (85.3 per cent). This could be because the community is rather far from the urban centre. Therefore, most its labour force continues to work in within the community. This could change soon because the younger generation is moving to the service sector, which would seriously affect labour supply for agricultural production. In this situation, farmers have to depend more on farm workers to continue farming at the current level.

Most farmers in the sampling group (73.3 per cent) have completed primary education. Only 1.3 per cent had university education. Therefore, most farmers have low bargaining power when they work as wage labour. They can only be employed as unskilled labour, earning low income.

Soybean cultivation is not attractive anymore because of low income and financial security. This is the main reason why the younger generation is moving to other sectors of employment. This has resulted to economic structural change in the community, leading to dependency.

Since the area has tourism attractions, there has been a rapid change in land use. The landscape in the North is beautiful with fresh air. There is a lot of land speculation by investment developers to build resorts. More farming land has been converted to build resorts in the past five years. It is also a factor attracting farm labour to other occupations.

### **Problem of Farm Land and Appropriate Agricultural System**

In the North, the size of farms is relatively smaller than in other regions. This study found that most farmers (35 per cent) owned only a hectare each. Some farmers (27 per cent of the sampling group) held less than 0.5 hectare. However, statistics show that farmers who own the land they farm on represent the biggest group (76 per cent). Scarcity of sizeable land for farming resulted in a ratio of tenant as high as 33 percent, which is equal to the group who inherited farmland from their parents.

It is also interesting to note that ownership size of owner-producer farmers is 1.25 ha in average, while tenant farmers farm larger plots of 2 ha. In this regard, the farmers explained that the tenants are forced to farm on larger plots than owner farmers are since they have to pay rent in cash. Therefore, they have to expand their cultivable land to get higher yield and income to pay land rent. Scholars from several institutions commented that it was truly a failure of mono-cropping practice because expansion of farmland would result in greater use of other resources, such as forest clearance to claim larger cultivable land or greater water use, and so on.

Nevertheless, the area under this study does not show that farmers have a need to clear more land for agriculture, but they are engaged in farming on the land only in the transition period from farming to development as tourist attraction or resorts that are more profitable than soybean cultivation. It is found that at present most cultivable land, such as along the banks of Mae Pai River, are owned by capitalists from and outside local communities. This is a factor that affects the changing in land ownership, especially if farmers continue to engage in mono cropping of these commercial crops as the pattern of production as in the present.

Mono cropping needs large plot of land and high investment to get higher yield. This system completely contradicts to the culture of production of farmers in the North. In the old days, farmers would use their land in rotation every 5-10 years, which is called rotational farming. This pattern of production was based on principles of diversified cropping and natural recovery of soil. When their farmland is limited and together with the national policy in forest management, they have to resort to other pattern of production. They started to grow rice alternately with soybean or tobacco, since these crops are essential for domestic consumption and because of agricultural promotion introduced by capitalists and the government. As the current state soybean producers have to farm in the tiny arable land and grow the single crop.

The change in production pattern has created many problems for the farmers, not only on farmland, but also falling price of produce when they have to inevitably relate to market.



## **Domination of Capital on Farmland**

Normally soybean can be grown twice a year. In rainy season, soybean is grown for producing seeds, depending on areas and climate. Farmers will grow the second soybean in dry season to sell grain. Therefore, we can see that most farmers (93.3 percent of the sampling group) grow soybean only once a year after rice harvesting, because they can use rice straw to cover the soil when soybean is still seedlings.

In the past, most farmers used native seeds, which is very difficult to find at present. Now, it is dominated by high yielding varieties. 94.7 percent of farmers in the sampling group use these high-yielding varieties. Only 2 from 75 farmers still use native seeds and another 2 cases are needed to study comprehensively because they said seeds used cannot breed in the next cropping, it might be “hybrid seed”. In addition, it is a fact that the culture that the farmers keep seeds for their future cultivation is disappearing. It is found that there are more farmers who do not keep seeds for own use compared to farmers who keep the seeds for the next seasons (52 percent and 48 percent respectively). It is unfortunate that the major reason for not keeping the seeds for own use is just because it is not convenient to do so.

The business of soybean seeds trade at present is completely dominated by large agribusiness corporations which are doing seeds business, animal feeds and poultry and aquatic animal raising industries. An earlier study on benefit gained from domination of soybean seeds business reveals a rough figure of several thousand million Baht. Therefore, the loss of power in managing seeds by the farmers enabled agribusinesses to hugely profit from it.

At present, soybean cultivation also means a burden of production cost from the use of fertilizer and other farm chemicals. This study found a significant relationship between larger farmland and greater use of chemicals. The main reason for increase use of farm chemicals is a need to increase farm yield. Farmers who have smaller plots reflected that if farmers had smaller plots of land they would not take a risk in investing more to increase yield by increasing chemical use, because the cost of chemicals would rise 7 times. When comparing final outputs of average production cost per kilogram it is found that farmers who do not use farm chemicals or use in a small quantity would gain higher net profit than farmers who are engaged in intensive production although the yield is 4 times different (263.16 and 1,127.70 kilograms respectively).

For example:

- A farmer who does not use chemical has an average cost of production at 10.80 Baht per kilogram, earning them a net profit from selling their yield at about 1.20 Baht per kilogram (on farm price at 12 Baht per kilogram)
  
- The second farmer uses fertilizer and other chemicals have an average cost of production at 35.20 Bath per kilogram, resulted in a net loss from selling their yield at 23.20 Baht per kilogram (on farm price at 12 Baht per kilogram)

## **Income and Change of Trade System**

Before the age of free trade agreements, soybean growers got an income guarantee to some extent from price intervention measure introduced by the government, because soybean is classified as food crop that is not grown enough to meet domestic consumption demand. It was an indicator of food security of the country. Therefore, farmers had stable income from production and selling of soybean. However, change in price and market occurred from two factors as following:

First, there is a change of production pattern to meet the rising demand of market due to increased preference of meat consumption.

Second, the signing and of the WTO Agreement on Agriculture since 1997, in which soybean is one of 23 agricultural items that were bounded (increased market access obligation). Small soy farmers were integrated into the world trade system, there was an increase in soy and finally resulted in change of income stability of the farmers.

This study found that at present income earned only from soybean cultivation is not enough to meet the higher cost of living. Economic pressure pushes the farmers to grow other cash crops on the same farmland, although they are fully aware that repetitive use of land like this would rapidly deplete the soil. An example in Maehongson shows that most farmers (46.2 percent of the sampling group) turn to grow garlic to earn more income after facing a falling price of soybean in 1993-4. When adding up all income from selling agricultural produce, 34.7 percent of the farmers have earned over 20,000 Baht per year.

However, the figure of thousands Bath does not imply a greater capacity of farmers to exist in the age of free trade. This research shows that 77.3 percent of the farmers have never known if their crop is exported or not. Therefore, they always think that change in conditions of trade at global level or change in price in world market is not affecting small soybean market in their local communities that are remote from urban centres and large markets, and are not major obstacles for selling their yield. Local markets and trade on soybean are monopolised by a few buyers. These buyers are classified into two groups, namely middlemen (with a market share of 40 percent) and large farmers group who act as agents gathering the produce before selling to middlemen (sharing 60 percent of the market). The farmers sell their produce because these groups support their harvesting and come to buy the crop at farm and pay only in cash.

In addition, farmers also shared their direct experience that price determination was mainly done on the basis of soybean supply and demand from industries using soybean as raw materials, such as animal feed and soybean oil industry. If we assess situation of domestic soybean production of Thailand, which is in a state of “just enough or regular shortage”, farmers would earn good income sufficient for their living. On the contrary, however, soybean cultivation is still a major problem for farmers, so much so that they started to reduce cultivable land for soybean and turn to other cash crops, such as garlic, onion and wheat, and so on.

Nonetheless, 90.7 percent of the farmers in the sampling group indicated that soybean price they got has increased in the past 5-6 years. The only problem that they could not solve was profitability. When analysing deeply their net profit after deducting expenses on production, they would hardly have anything left. Worse still, half of the farmers in the sampling group mentioned that farmers could not determine the price, but made by the big agribusiness companies that control the entire marketing route. They will set standard of quality, such as moisture or protein content, freely as they like. This has been a national issue in 1996 when all animal feed industries used as an excuse to refuse the use of local soybean as raw materials for animal feed production. They wanted to import more soybean from abroad exploiting tariff privileges on imported soybean at 0 percent according to WTO-AoA as a tool to reduce cost of production of their industries. When free trade agreement has been concluded as proposed by animal feed industries, the price of soybean fell down sharply since there is no market buying locally grown soybean. Various industries turn to imported soybean from the United States of America and Argentina. Therefore, soybean farmers today must be made aware regarding the changes in the world market.

### **Learning Formula of Free Trade from Experience**

When asking the farmers on information related to AFTA, it is found that more than half of them (53.3 percent) used to hear the term 'AFTA', although 49.2 percent of them indicated that they used to hear something about AFTA from television and radio. But quite a number of farmers (20 percent and 15.6 percent) could analyse that free trade agreement at any level would have the major direction of cutting subsidy from the state and import of similar or replaceable agricultural products.

It was surprising considering that farmers in Central Region have better access to information than farmers in remote areas like Maehongson. However, it was found that farmers in Central Region got less information and news that would affect their way of life than soybean growers in Maehongson. This could be attributed by different status of production of both crops. Rice is fully supported by the government and is promoted as export to foreign markets, while soybean has to compete against cheap imported soybean. Thus, rice farmers are generally receiving the positive benefits from the government while soybean producers are not. Soybean and corn can be used alternately in producing animal feed. In addition, they have faced a cut in measures of subsidies when Thailand offers its agricultural products to free trade system by eliminating measures on price intervention. This bitter experience has helped raise awareness of the farmers to monitor and be more interested in information on free trade agreements.

### **Stop Production or Stop Unfair Trade**

Soybean producers in Maehongson are like other farmers who want to voice out that today farmers are mere labour in production which are not being taken cared of by the state. This research reports that 92 percent of the sampling group indicated that they did not get enough support from the government, since they have less political bargaining power, although they are the majority in the country. The original government subsidy was in the form of agricultural credit provided for the farmers, and they are not direct support. The major problem voiced out by the farmers (34.7 percent of the sampling group) is downward price of farm products. If this problem is

not addressed, it could inhibit the farmers' capacity of repaying debts. About 85.3 percent of the farmers have to seek more loans for investment in their production.

Farmers are demanding reflecting marketing support (25.8 percent), price guarantee (20.2 percent). One farmer from 75 respondents proposed 'STOP' free trade.

#### **4.3 The new trade arena: lessons from The Thai-China Free Trade Agreement**

People's Republic of China is a large country in term of area of over 9 millions square kilometres, and its population of 1,300 millions. These factors are so attractive for investors who are searching for rich resources and armies of cheap labour. China also has an image of large market for exporters. In the past, many conditions could not attract investment or foreign trade, especially its major obstacle of communist administration where the state centralises decision-making power. Therefore, investors especially from free countries tried to avoid investing in this country. After it readjusted its economic policy by opening up the country in 1977 under the leadership of Deng Siao Ping, China has become a target for foreign investors, including Thailand.

Economic reform under socialism of the four modernization introduced by Deng Siao Ping, has the following components (Pisanu, 2003)

1. Agriculture: stop commune system and encourage farmers to be responsible for agricultural production by concluding land rent contract and producing yield to sell to the state as per contract. If the yield is over the target, the family can retain the surplus for domestic use.
2. Industry: lessen power of central government in planning and entrust greater power to factory managers, but the state controls the production for greater effective outputs.
3. Politics and National Defence: maintain communist administration controlling and managing basically from the central government in Beijing.
4. Science and technology: restructure scientific and technological development to be competitive to international standard, especially military technology to guarantee national security.

The maintenance of balance between capitalist economic policies and communist administration enables China to go out to the outside world with stability under an ideology of "one country two systems". China could develop partnership with more countries in capitalist world. At the same time, it continues to firmly maintain its communist administration, which is the source of economic and political stability that becomes its strength in the eyes of foreign investors.

China and Thailand have a long tradition of good informal relationship for several centuries, making it difficult to identify Thai-Chinese. This relationship has become a solid foundation for ongoing relationship between China and Thailand. At present, the relationship between China and Thailand has developed at several levels, starting from multilateral to bilateral. Trade relations alone can be classified at various levels as follows:

- The relationship as state parties in World Trade Organisation (WTO). Both China and Thailand are similarly state parties of WTO. Thailand has become a state party since 1995 while China has become a state party in 2001. As a result, both countries come under equal terms in the world trade forum.
- The relationship of ASEAN Free Trade Agreement (AFTA) and China has been established. In 2001, China proposed trade co-operation through free trade agreement with the 10 ASEAN countries, namely Singapore, Brunei, Malaysia, Indonesia, Philippines, Laos, Burma, Vietnam, Cambodia and Thailand. This agreement requires trade in goods between ASEAN and China to reduce import tariff down to 0-5 percent, which will take effect on January 1, 2004.

ASEAN-China free trade agreement is a new era of co-operation under the context of bilateral free trade agreement, which is the result of AFTA and China agreement. In other words, Thailand has concluded free trade agreement with China as an early harvest before the agreement between ASEAN-China would take effect. Under this early harvest agreement, there will be free trade on vegetables and fruits under tariff code 07-08 from October 1, 2003. Accordingly, Thailand is required to reduce import tariff on vegetables and fruits from China altogether 116 items, such as apple, Chinese pear, potato, garlic, onion, red onion, grape and orange, and so on.

Co-operation under various economic zones include, for example, quadruple economic zone of Laos, Burma, China and Thailand, and a hexagon economic zone of Cambodia, Laos, Burma, Vietnam, Yunnan of China and Thailand. This co-operation gives emphasis on development of land and water route of trade linking various countries together to increase competitive capacity of the countries and facilitate trade and investment.

It is clear that trade relations between China and Thailand is becoming ever more important. Statistics of Department of Negotiation on Foreign Trade, Ministry of Commerce indicates that at present China is the fourth biggest foreign market of Thailand. At the same time, imports from China to Thailand rank the fourth. Therefore, relationship between China and Thailand under the free trade agreement is very interesting to study.

Superficially, the status of China as another pole in the eastern world and the population of over a thousand millions could make it a superpower in the world, but when knowing it profoundly we will find that the growth we see in China is concentrated only in the eastern coast of a few provinces. The large area of China is still scanty. Furthermore, the majority of the population is unskilled labour while literacy rate is low. China also has a big gap between urban and rural areas, which is one of the biggest in the work. Therefore, acceleration of free trade agreement with China to increase its market share of Thailand by assessing potential of Chinese market from its size of population while neglecting other factors could be a big mistake.

The lesson from the past year of free trade agreement between China and Thailand, although under the same agreement of reducing import tariff rate down to zero is not an easy thing to harvest the benefits. After free trade agreement takes

effect on vegetables and fruits, we can see beautiful figure from economic growth at macro level as shown in the following table.

**Table 29 Summary of Change in Export-Import Value, Trade Balance Before and After Tariff Rate at Zero**

Categories	Export Value of Thailand (Million Baht)	Import Value of Thailand (Million Baht)	Trade Balance
<b>Vegetable (Tariff code 07)</b>			
Before FTA (Oct-Jun 2003)	3,829	346	+3,483
After FTA (Oct-Jun 2004)	5,553	970	+4,583
<b>Fruits (Tariff code 08)</b>			
Before FTA (Oct-Jun 2003)	1,370	1,059	+321
After FTA (Oct-Jun 2004)	2,441	2,565	-125
Change	+78 percent	+142 percent	+192 percent

Source: Pisanu Rean-Mahasana, Thai Chief Negotiator of FTA Thai-China, 2003.

The above positive balance is meaningless when looking at grassroots economy, especially farmers. A survey on farm prices at Muang Mai Market in Chiangmai six months after concluding China-Thailand free trade agreement, found that agricultural produce that have to compete against imported goods from China are falling sharply as exemplified below.

**Table 30 Percentage of Price fall in the selected produces**

Unit: percent

Categories of Produce	Percentage of Price Fall ( percent)
Dried large garlic	35
Onion	80
Red onion	50
Mandarin	33
Pomelo	35

Source: Survey from the Chiang Mai Market

Since these agricultural produce have to compete against the same imported produce or substitute goods from China, which are much cheaper than producing locally, therefore, the prices of domestic produce fall rapidly. Consequently, farmers who grow these vegetables are on a brink of failure since their income from selling their yield is not enough even to repay their debt for investment. The government does not only leave farmers to face this difficulty alone, but forces them to reduce cultivable areas. Not so long after the free trade agreement taking effect on October 1, 2003, Ministry of Agriculture and Co-operatives has declared reduction of cultivable areas for garlic, red onion and onion. In this regard, it would compensate at the rate of 1,500-2,000 Baht per rai depending on type of crops they plan to grow, despite the fact that change in agricultural production has many limitations in locational specification and skill and experience of the farmers and their ages. Therefore, it is only a period of one year that the free trade agreement between China and Thailand forced hundred of thousands of farmers to change their occupation and left agricultural sector or become permanent unemployed.

Looking at another side of export trade, Thailand hoped to increase export volume of fruits believed to be the product champion, such as mango, pomelo, durian and longan. Actually after the free trade agreement taking effect, it is found that export of Thai fruits to China increased only 78 percent, while Thailand imported fruits from China at a rising rate of 142 percent. There are only 23 varieties of Thai fruits that got purchase order from China. In particular, there is an interesting observation from a case of longan export that has to rely on Chinese market of up to 70 percent. After the “golden age of longan” in 1994-1997 when the price of longan went up to the ceiling at 80 Baht per kilo, the price has fallen down continually. The free trade agreement with China could not heal or address the falling price of longan once again. Longan got the price of only 6 Baht per kilo in the previous year (2004), while longan farmer has to shoulder double amount of production cost.

From the perspective of farmers, free trade agreement between China and Thailand is not a hope, but a road to destruction while the free trade agreement is, once again, just a show off of the government.

After concluding the free trade agreement between China and Thailand, it is found that several obstacles need to be tackled and many facts that need careful consideration to prevent mistake in the next step.

1. China is not merely an importer of agricultural produce, but a large front line exporter of farm produce in the world. The problem of shortage of consumer goods that China once faced has already disappeared, especially cereals and other major farm produce of China have increased apparently in volume. Almost 80 percent of these goods are the same items Thailand is producing and earlier dominated the market. Therefore, in the near future China will become a major trade competitor of Thailand rather than the target of export.
2. China has a communist administration which is a centralised government. Therefore, cost of several items are public investment and are not considered as cost, especially wage that is several times cheaper than Thailand. As a result, production cost in China is lower than other countries, resulted in cheaper goods. It also has greater capacity to compete. For example, wholesale prices of vegetable and fruits in Beijing are only one tenth of wholesale price of vegetable and fruits in other countries.
3. China does not open its market for free import and export. According to trade laws in China, export and import companies must only be Chinese or joint venture with Chinese with a registered capital of no less than 5 million Yuan (approximately 25 million Baht) for companies in special economic zone (SEZ), and a registered capital of no less than 3 million Yuan (approximately 15 million Baht) for companies in other zones. With such a high investment, export-import business is concentrated in the hands of certain groups of investors. Thus, vegetable and fruit export market is like “consignment” and cannot operate the business on its own.
4. Several Chinese regulations and formalities in importing fruits and vegetable have caused difficulties on Thai exporters. For example, they need to have quarantine inspection permit, certificate of country of origin, and health certificate. In seeking these permits, it takes time of over a week to one month and is expensive, which adds burden on exporters.

5. Delay in transportation resulted in lower quality of the goods. Normally, there are two main channels of delivering goods from Thailand to China, i.e. by sea through Hong Kong and by river along the Mae Khong River. In particular, transportation via the Mae Khong has to depend almost totally on Chinese vessels. There are 118 vessels transporting goods from Chiangsaen Port. Among them, 112 have Chinese registration without a single Thai vessel. Furthermore, transportation expenses from Thailand to China is comparatively higher than delivering goods from China down to Thailand.
6. Goods distribution in China is not fast. When vegetable and fruits arrive at the mainland, they need to be redistributed through distribution centres in large provinces, such as Beijing, Shanghai, Guang Chow and Kunming. From these large cities, goods will be redistributed to various towns in China through trains. This is different from Thailand where there is better and faster system of distribution and transportation.
7. On farm quality inspection measure introduced by China makes Thai yield to fall under standard. At present, the whole country of Thailand only has 7 plantations that pass standards. They are 5 durian plantations and 2 mango plantations. In addition, there are repeated inspections of quality twice at the exporting point in Thailand and importing point in China. Sometimes, measures on quality inspection do not have clear standards. The incidents of burning the whole lot of longan when it was found contaminated or rejected could occur any time.
8. Value added tax (VAT) in each province in China is as high as 13-17 percent. Therefore, it is meaningless when import tariff is zero when it does not affect the price of vegetable or fruits from Thailand or is a direct attraction for consumption. For example, the price of dried longan in Shanghai is as high as 700 Baht per kilo. Therefore, most consumers prefer to buy longan grown in China.

Learning from experience is necessary. We can see that problems originated from free trade agreements in the past year did not occur because of tariff barrier – TB, at all, but trade barriers that originate from non-tariff barriers –NTB. Therefore, negotiation on free trade agreement that solely aiming at tariff reduction is nothing but a road to destruction rather than harvesting benefits.

Likewise, this situation could occur to industrial sector, especially industries that depend on intensive labour for production, such as textile and shoes, that China has advantages from its cheap labour, which makes its cost lower than other countries. China has become the leading exporter of the world for a long time. This is also a factor attracting foreign investors to relocate their factories to China exploit cheap labour. There is no exception for investors who used to invest in Thailand. Similarly, Thai investors are also ready to enter China if this country is open. The result of this situation is unemployment in industrial sector.

China has taught the tactics of professional business people how Thailand is so weak in foreign trade talk. Therefore, if we want to continue doing trade, we have to be careful of possible impacts, especially on the majority of the people at the next step when Thailand will have compete free trade with China under the framework of ASEAN-China and bilateral agreement between China and Thailand. We have to be

careful because it is evident that in the case of agricultural goods China is not second to Thailand at all in term of competitiveness. China might be much over Thailand in several areas.

Otherwise, free trade agreement would only be a sad movie for Thailand

#### **4.4 Recommendations**

- AFTA is one of free trade mechanisms. By itself, it cannot create significant impact on intra-ASEAN trade and investment as well. Thus to make mutual benefits among member-countries, it should do more strengthening programs or activities such as sharing of experiences among stakeholders, technology transferring and others.
- Transparency in procedures of making AFTA agreements is required and it might have the impartial organisation working for monitoring on the regional trade and investment agreements.
- Small farmers do not have enough knowledge of AFTA. Better and timely information on free trade agreements and AFTA should be distributed to small farmers in various forms such as leaflet, audio file, training seminar.
- Push for/Demand for the adoption of appropriate government policies on food distribution and food production at domestic level.
- Demand for proper and objective/joint government and civil society assessment impact assessments in the concerned crops
- Domestic subsidies are still needed by small farmers to improve their competitive potentials. These include subsidies for credit/capital, seed and production inputs. Education on the proper use of credit should be instituted to ensure that loans are used for production and not for non-productive uses such mobile phones and motorcycles.
- Promote sustainable agriculture and non-chemical products in order to achieve farmers' self sufficiency and getting rid of monopoly-trade
- Guarantee farmers' access to productive resources especially land and water. The Thai government should recognize the peasants' rights to fundamental laws.
- Since small farmers are vulnerable, the Thai government should create venues for better grassroots participation in decision making, particularly on policies that affect them.
- Debt is the vital problem of agricultural sector. To solve the problem needs to have the particular policy in agricultural reform, which free farmers from the debt and introduce the self sufficient farming pattern

## Chapter 5- Conclusion

Each Thai government has supported free trade. Most of them argue that the national economic system needs foreign trade as a key mechanism to drive economic growth. The policy makers generally believe that trade and import-export help create employment, expansion of investment and production in various sectors, as well as creating security for the country and improved livelihood of the people. The value of export becomes the major source of income of the country. If foreign trade has obstacles, export value of Thailand will fall down and will affect economic system of the country as a whole.

Holding this belief, the Thai government is very much interested in measures of free trade because it is confident that free trade will help boost foreign trade, which would also increase value of export of Thai products and increase investment by ASEAN and other countries.

Mechanisms, structures and measures for free trade are continually introduced since Thailand has become a member of the CAIRNS group, which particularly has a very important role in pushing for liberalized trade of agricultural products at the World Trade Organisation (WTO). The Thai government wants to expand its market for agricultural products to other countries especially rice. It hopes to maintain its role as the largest rice exporter of the world.

Thailand is one of the founding countries of ASEAN Free Trade Area (AFTA) together with five other countries, namely Malaysia, Indonesia, Singapore, Philippines and Brunei. The consultation process initially had begun at the fourth ASEAN Summit held in 1992. The main objective is to open free market for products from ASEAN countries with the lowest tariff and no non-tariff barriers. This move is to provide incentives to foreign investors to come to ASEAN region and to respond to the economic change of world trade that is becoming freer.

It can be said that ASEAN Free Trade Area is a close imitation of GATT. ASEAN was full of weaknesses because of similarities of products traded: they compete rather than be supportive to each other. Furthermore, there is a problem of economic stability among member countries as well as their dependence on external capital. After more than a decade of negotiations and talks, tiny progress was made with minimal concrete outputs.

Although AFTA was scheduled to be fully implemented in 15 years, the ASEAN Economic Ministerial Meeting in 1994 has decided to speed up the process to 10 years. Tariff reduction will be completed by 2003. The meeting also included unprocessed agricultural products in the list of goods entitled to tariff reduction, which some agricultural products might be included in a sensitive list that might have special measures imposed on the operation.

### **Details of commitment that Thailand has to abide by in tariff reduction**

- List of Thai products in 15 groups that need to reduce tariff first, such as cement, fertiliser, leather products, paper pulp, textile, gems and ornaments, electric appliances and electronics, wooden and rattan furniture.
- List of products for general tariff reduction includes all items of goods excluded in other lists.
- List of 118 items of reserved products, which are 16 items of processed agricultural products, such as vegetable oils like palm oil, coconut oil, etc.
- List of seven items of Thai sensitive products, i.e. three items of coffee, two items of potato, copra and flower plants.

Thailand does not indicate highly sensitive products in its lists.

However, at present Thailand has already reduced tariff on most product items, except seven items of sensitive products in the list that do not have any tariff reduction. Tariffs on most agricultural products are reduced to 0-5 percent.

The overall foreign trade of Thailand with other ASEAN countries has risen from 316,593 million Baht in 1995 to 1,048,426 million Baht in 2003. The ratio of export rose more than import. In 1995, Thailand exported to other ASEAN countries with a total value of 165,949 Baht, but the value rose four times within a decade.

In addition to concluding the ASEAN free trade area among the ten ASEAN countries, there is also an acceleration of free trade agreement with advanced countries like China, Japan and South Korea. In particular, free trade agreement between ASEAN and China has grown until free trade area could be established in 2003, which gives a direction on early harvest programme for reduction of tariff on the first group of agricultural products (tariff code 01-08), which has been effective since January 1, 2004. This free trade agreement between ASEAN-China is effectively the major origin of free trade agreement on vegetable and fruits between Thailand and China on October 1, 2003.

However, the growth of trade at regional level is not significant to generate income distribution for farmers in the country, or create food security and better livelihood for producers, especially small farmers as shown dramatically by this respective research.

Most farmers are living with debts as the fact-finding shown numbers of indebted households. It is also found that the agricultural production whether rice or soybean is unprofitable economic activities, so that those farmers are not able to repay their loans. Even the graph of agricultural export values and quantities have grown up along the 10 years, but farmers' livelihoods are not been improving, most people in the rural area is still classified as the poor. As land is the fundamental productive resources, farmers should be ensured the right to land. But the problems in landlessness and agrarian reform have exposed by the research, rice farmers are becoming landless farmers because of indebtedness as well as many soy producers are renting their land because of the ineffective land reform program. So numbers of farm labour in Thailand have increased obviously.

Moreover the research has shown the agricultural market in Thailand is manipulated by traders. Those traders and especially the big agribusiness can determine whether the market price or quantity of import products. From the case, huge volume of import soybean ordering by animal feed industry has destroyed the internal market and pulled down the local prices. Likewise rice market where traders or exporters always set the price low to gain more competitiveness in the export market. Therefore both groups of small producers are in the risk of income security.

The economic insecurity affects directly to household food security, the research cited that farmers do not have enough income earning from agricultural production to buy food and many farmers identified that the loans would be allocated for their daily living as equal as the farm investment. Aside the research has proven there is no food security in the farmers' families. Farmers have to buy rice for their consumption after they sold out their rice stocks, even though they have worked hardy in their farms and grown rice for more than twice a year.

It is really wrong step since Thailand has promoted export-orientation, Thai rice can feed people around the world but the growers have to buy rice. This kind of problem will be more serious if those farmers do not have enough money to buy the staple food. And it is possible to be come true in the future because farmers have earned limited benefits from selling products in even bigger market.

With AFTA, WTO and other bilateral agreements farmers have to speed up their life to struggle in the bigger market, while they are not able to access the appropriate information that can be the useful weapons in fighting. Unfortunately most typical farmers do not know about the trade liberalisation especially AFTA and rarely to find who understand the whole contexts of them.

When farmers are so weaken as mentioned early and Government is going to either remove agricultural subsidies or lay down small-scale producers. It is truly hardy for farmers to win this game.

### List of references

1. Aroon Auansakun. Report on The model of agricultural commodities: rice. 2002.
2. Bank of Thailand. Conditions of agricultural and services in 2001 and those of trends in 2002. 2002.
3. Commerce Ministry. Toward the economic collaboration in ASEAN. September 2000.
4. Department of Agricultural Promotion. The statistics on rice production Year 1985/86 to 1988/89. 1990.
5. Department of Economic Commerce, Commerce Ministry. ASEAN: non-tariffs measures and impacts on Thailand's exportation. 2000.
6. Department of Economic Commerce, Commerce Ministry. Report on Study project for policy planning toward trade liberalisation. September 2000.
7. Department of Economic Commerce, Commerce Ministry. Statistics report on trade and economics in ASEAN. 1996.
8. Department of Economic Commerce, Commerce Ministry. Statistics report on trade in intra-ASEAN. December 2001.
9. Department of Economic Commerce, Commerce Ministry. Thailand's competitive capacity in ASEAN. September 1999.
10. Department of Economic Commerce, Commerce Ministry. The 60-year of Department of Economic Commerce. May 2002.
11. Department of Economic Commerce, Commerce Ministry. The second progressive report on the economic collaboration among ASEAN countries in the future. July 1997.
12. Department of Economic Commerce, Commerce Ministry. The state policy on agricultural sector. 1999.
13. Department of Export Promotion. Thailand – ASEAN Trade. August 1996.
14. Department of Internal trade. Document no. 62: Policy and measures of Soybean in 2003. 2003.
15. Department of Internal trade. Strategies of Soy market in the new decade. 1999.
16. Faculty of Economics, Kasetsart University. The study on strategic commodities: rice. 1997.
17. Faculty of Economics, Thammasart University. Report on Impacts of trade liberalisation. 2000.
18. <http://oae.go.th/Factor.php>
19. <http://oae.go.th/newindex.php?word=&textfield>
20. <http://oae.go.th/newsinfo/hotnews/20030106/rice.htm>
21. [http://www.bangkokbank.com/download/Budget\\_2547.pdf](http://www.bangkokbank.com/download/Budget_2547.pdf)
22. <http://www.biotec.or.th/prev/Documents/ricedoc.doc>
23. <http://www.bot.or.th/bothomepage/databank/econcond/genecon/9-12-2003>
24. [http://www.dit.go.th/agriculture/rice\\_price.html](http://www.dit.go.th/agriculture/rice_price.html)
25. <http://www.doae.go.th/plant/soybn.htm>
26. <http://www.info.tdri.or.th/labour/14-unemploymentrate.html>
27. <http://www.info.tdri.or.th/labour/index.htm>
28. <http://www.lmicenter.com/mcontents/marticle.php?headtitle=mcontents&id=84870>
29. <http://www.matichon.co.th>
30. <http://www.mfa.go.th>
31. <http://www.mfa.go.th/internet/BDU/FDI036.doc>

32. <http://www.mfa.go.th/internet/BDU/FDIO36>
33. <http://www.moc.go.th/>
34. <http://www.nso.go.th/eng/stat/subject/toc10.xls>
35. <http://www.nso.go.th/thai/index.htm>
36. <http://www.nso.go.th/thai/stat/agrichang/agrichang.htm>
37. [http://www.nso.go.th/thai/stat/work-pop/lfstab2\\_44.xls](http://www.nso.go.th/thai/stat/work-pop/lfstab2_44.xls)
38. <http://www.oae.go.th>
39. <http://www.oae.go.th/fbs/>
40. <http://www.oae.go.th/profile/ricepro.htm>
41. <http://www.oae.go.th/research/Factor/ImportFertilizer.htm>
42. <http://www.oae.go.th/research/Factor/pesticide/ImportPesticide.htm>
43. <http://www.oae.go.th/research/Factor/UseFertilizer2536-45.htm>
44. <http://www.oae.go.th/Situation.php>
45. <http://www.oae.go.th/statistic/export/1301RI.xls>
46. <http://www.oae.go.th/statistic/export/1301SY.xls>
47. <http://www.oae.go.th/TrendSituation.php>
48. <http://www.otp.go.th/pdf/Statistic/GDP.pdf>
49. <http://www.pxp.in.th/Magazine2001/05-saraphan.htm>
50. [http://www.rakbankerd.com/01\\_jam/thaiinfor/country\\_info/?topic\\_id=1773&d\\_b\\_file](http://www.rakbankerd.com/01_jam/thaiinfor/country_info/?topic_id=1773&d_b_file)
51. [http://www.sme.go.th/websme/market\\_link1.asp](http://www.sme.go.th/websme/market_link1.asp)
52. <http://www.thailandcentral.com>
53. <http://www.thailandcentral.com/Tthai.html>
54. [http://www.thainr.com/news\\_percent20data/world\\_econ\\_02\\_12\\_th.htm](http://www.thainr.com/news_percent20data/world_econ_02_12_th.htm)
55. <http://www.the-thainews.com>
56. Ministry of Agriculture and cooperatives. Strategies on Rice Year 2004 – 2009. 2003.
57. OAE. Information on production and marketing in the important crops. 2003.
58. Office of Land reform. Research on the commercial crop: Soybean. February 1999.
59. Pratuang Chantaphan. Soybean meal and its importation under the WTO. September 1995.
60. Somchin Santawarak. Introduction to implement the WTO agreements and the AOA. 1996.
61. Somsak Srisomboon. Report on improving soybean in Thailand. 2000.
62. TDRI. Challenges of export under AFTA and its impacts. 2000.
63. The 23 agricultural products under WTO obligations. July 1999.
64. The analysis report on Poverty incidence of agricultural households. 2003.
65. The BOI annual report. 2000.
66. The BOI annual report. 2001.
67. The BOI annual report. 2002.
68. The national statistics office. Thailand: The situation yearbook. 2003.
69. The national statistics office. The analysis report on poverty incidence of agricultural household in 2003. 2003.
70. Thitiphasuk Charadjedsada. The analysis report on ‘What does Thailand benefit from AFTA?’ September 1996.
71. UNISERV, Chulalongkorn University. The analysis report on trade liberalisation policies. 2000.

## Appendices

### Case of Rice

#### 0.5-0.99 Hectare (Owner-Cultivator)

Itemized expenses	Expenses(US\$)
Seed / Nursery planting material	15.8
Fertilizers	60.8
Chemicals (pesticides, Fungicides, Weedicides)	18.7
<b>Hire labour:</b>	
• Land preparation	12.1
• Planting / replanting	No answer
• Fertilizer application	No answer
• Weeding	No answer
• Chemical spraying or application	No answer
• Irrigation	No answer
• Harvesting	18.9
• Threshing	No answer
• Harvest Machine repair costs	No answer
<b>Other expenses:</b>	
• Hauling/Transporting paddy to village	4.9
• Gasoline	36.8
• Interest expenses (on loan)	No answer
• Rental fee	No answer
• Labour wage for irrigation work	No answer
<b>Total expenses per cropping</b>	168
Production (kg.)	1,800
Cost of investment per kg.	0.09
Cost of investment per hectare	526
Gross Income	171.05
Net Income	2.63

### 0.5-0.99 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	29.61	47.37
Fertilizers	135.53	104.21
Chemicals (pesticides, Fungicides, Weedicides)	23.16	40.53
<b>Hire labour:</b>		
· Land preparation	32.89	39.47
· Planting / replanting	2.63	No answer
· Fertilizer application	11.84	No answer
· Weeding	No answer	No answer
· Chemical spraying or application	7.89	No answer
· Irrigation	No answer	No answer
· Harvesting	65.79	50.00
· Threshing	No answer	No answer
· Harvest Machine repair costs	No answer	No answer
<b>Other expenses:</b>		
· Hauling/Transporting paddy to village	11.84	7.89
· Gasoline	No answer	52.63
· Interest expenses (on loan)	48.42	5.13
· Rental fee	No answer	10.52
· Labour wage for irrigation work	No answer	No answer
<b>Total expenses per cropping</b>	321.18	342.1
Production (kg.)	4,500	3,000
Cost of investment per kg.	0.8	0.15
Cost of investment per hectare	462.01	565.63
Gross Income	532.89	386.84
Net Income	163.29	44.74

### 1-1.49 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	69.47	69.5
Fertilizers	64.21	83.7
Chemicals (pesticides, Fungicides, Weedicides)	29.74	41.3
<b>Hire labour:</b>		
• Land preparation	58.95	67.4
• Planting / replanting	No answer	6.32
• Fertilizer application	No answer	5.26
• Weeding	No answer	7.37
• Chemical spraying or application	7.37	44.20
• Irrigation	No answer	No answer
• Harvesting	63.16	80.0
• Threshing	No answer	No answer
• Harvest Machine repair costs	No answer	No answer
<b>Other expenses:</b>		
• Hauling/Transporting paddy to village	14.04	16.8
• Gasoline	35.79	No answer
• Interest expenses (on loan)	13.16	No answer
• Rental fee	No answer	13.2
• Labour wage for irrigation work	No answer	No answer
<b>Total expenses per cropping</b>	342.73	421.85
Production (kg.)	6,666	7690
Cost of investment per kg.	0.05	0.06
Cost of investment per hectare	278.03	340
<b>Gross Income</b>	842.11	849.13
Net Income	490.70	414.12

### 1.5-1.99 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	63.2	105.9
Fertilizers	141.84	146.1
Chemicals (pesticides, Fungicides, Weedicides)	124.74	68.42
<b>Hire labour:</b>		
• Land preparation	73.68	52.63
• Planting / replanting	No answer	3.95
• Fertilizer application	No answer	3.95
• Weeding	No answer	3.94
• Chemical spraying or application	9.21	3.94
• Irrigation	No answer	No answer
• Harvesting	31.58	52.63
• Threshing	No answer	No answer
• Harvest Machine repair costs	196.05	No answer
<b>Other expenses:</b>		
• Hauling/Transporting paddy to village	20.26	20.39
• Gasoline	28.07	228.9
• Interest expenses (on loan)	No answer	1.32
• Rental fee	No answer	65.79
• Labour wage for irrigation work	No answer	
<b>Total expenses per cropping</b>	688.63	757.9
Production (kg.)	10,000	7750
Cost of investment per kg.	0.06	0.09
Cost of investment per hectare	339.46	473.7
<b>Gross Income</b>	1,595.6	826.32
Net Income	945.17	68.42

## 2-2.49 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	171.05	72.04
Fertilizers	143.68	151.05
Chemicals (pesticides, Fungicides, Weedicides)	188.42	157.89
<b>Hire labour:</b>		
• Land preparation	118.42	118.42
• Planting / replanting	No answer	11.84
• Fertilizer application	No answer	No answer
• Weeding	27.63	No answer
• Chemical spraying or application	69.08	35.53
• Irrigation	No answer	No answer
• Harvesting	157.89	150.00
• Threshing	No answer	No answer
• Harvest Machine repair costs	78.95	No answer
<b>Other expenses:</b>		
• Hauling/Transporting paddy to village	35.53	36.84
• Gasoline	34.21	39.47
• Interest expenses (on loan)	No answer	121.76
• Rental fee	No answer	118.42
• Labour wage for irrigation work	No answer	No answer
<b>Total expenses per cropping</b>	<b>1,024.87</b>	<b>1,013.28</b>
Production (kg.)	13,500	14,000
Cost of investment per kg.	0.08	0.07
Cost of investment per hectare	457.53	422.20
<b>Gross Income</b>	<b>1,851.31</b>	<b>1,547.37</b>
Net Income	850.13	534.09

### 2.5-3 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	165	118.42
Fertilizers	519	98.68
Chemicals (pesticides, Fungicides, Weedicides)	126	197.37
<b>Hire labour:</b>		
• Land preparation	135	86.84
• Planting / replanting	No answer	21.05
• Fertilizer application	No answer	21.05
• Weeding	No answer	52.63
• Chemical spraying or application	No answer	52.63
• Irrigation	No answer	No answer
• Harvesting	150	120.18
• Threshing	No answer	No answer
• Harvest Machine repair costs	No answer	No answer
<b>Other expenses:</b>		
• Hauling/Transporting paddy to village	44.7	30.70
• Gasoline	52.6	35.09
• Interest expenses (on loan)	5500	7.89
• Rental fee	No answer	203.51
• Labour wage for irrigation work	No answer	52.63
<b>Total expenses per cropping</b>	977.04	1,048.68
Production (kg.)	17000	11,000
Cost of investment per kg.	0.06	0.08
Cost of investment per hectare	325.68	349.56
<b>Gross Income</b>	2,013.16	1,414.7
Net Income	771.75	366.09

## Case of soybean

<0.49 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	18.42	9.47
Fertilizers	No answer	11.84
Chemicals (pesticides, Fungicides, Weedicides)	52.63	18.42
<b>Hire labour:</b>		
• Land preparation	21.05	47.37
• Planting / replanting	21.05	33.68
• Fertilizer application	No answer	No answer
• Weeding	35.53	7.89
• Chemical spraying or application	No answer	No answer
• Irrigation	No answer	31.58
• Harvesting	63.16	No answer
• Threshing	17.11	23.68
<b>Other expenses:</b>		
• Hauling/Transporting paddy to market	No answer	13.16
• Gasoline	No answer	No answer
• Interest expenses (on loan)	7.89	6.21
• Rental fee	No answer	No answer
• Food during Production	26.32	13.16
<b>Total expenses per cropping</b>	263.16	216.47
Production (kg.)	25.66	35.53
Cost of investment per kg.	0.27	0.16
Cost of investment per hectare	548.25	450.99
Gross Income	230.92	319.74
Net Income	-32.24	103.26

### 0.5-0.99 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	10.53	6.58
Fertilizers	24.74	No answer
Chemicals (pesticides, Fungicides, Weedicides)	20.00	No answer
<b>Hire labour:</b>		
• Land preparation	26.32	52.63
• Planting / replanting	31.58	31.58
• Fertilizer application	5.26	No answer
• Weeding	No answer	31.58
• Chemical spraying or application	21.05	No answer
• Irrigation	No answer	No answer
• Harvesting	No answer	No answer
• Threshing	30.00	13.16
<b>Other expenses:</b>		
• Hauling/Transporting soya to market	No answer	No answer
• Gasoline	No answer	No answer
• Interest expenses (on loan)	No answer	23.68
• Rental fee	No answer	39.47
• Food during Production	7.89	No answer
<b>Total expenses per cropping</b>	<b>177.92</b>	<b>260.27</b>
Production (kg.)	1,050	825
Cost of investment per kg.	0.17	0.24
Cost of investment per hectare	278.00	313.31
Gross Income	235.16	296.5
Net Income	56.58	36.18

### 1-1.49 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	19.74	6.58
Fertilizers	15.79	10.53
Chemicals (pesticides, Fungicides, Weedicides)	57.11	39.47
<b>Hire labour:</b>		
• Land preparation	34.21	42.11
• Planting / replanting	21.05	No answer
• Fertilizer application	2.11	12.63
• Weeding	15.79	7.89
• Chemical spraying or application	2.63	No answer
• Irrigation	No answer	No answer
• Harvesting	31.58	63.16
• Threshing	34.21	39.47
<b>Other expenses:</b>		
• Hauling/Transporting soya to market	No answer	15.79
• Gasoline	No answer	No answer
• Interest expenses (on loan)	No answer	15.79
• Rental fee	No answer	65.79
• Food during Production	7.89	5.26
<b>Total expenses per cropping</b>	<b>242.11</b>	<b>324.47</b>
Production (kg.)	1,950	1500
Cost of investment per kg.	0.12	0.22
Cost of investment per hectare	189.14	289.71
Gross Income	461.84	440
Net Income	219.74	116.32

### 1.5-1.99 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	26.32	15.79
Fertilizers	No answer	31.58
Chemicals (pesticides, Fungicides, Weedicides)	93.95	81.58
<b>Hire labour:</b>		
• Land preparation	39.47	15.79
• Planting / replanting	84.12	42.11
• Fertilizer application	No answer	2.63
• Weeding	15.79	31.58
• Chemical spraying or application	No answer	No answer
• Irrigation	No answer	No answer
• Harvesting	63.16	48.42
• Threshing	No answer	No answer
<b>Other expenses:</b>		
• Hauling/Transporting soya to market	No answer	22.11
• Gasoline	No answer	No answer
• Interest expenses (on loan)	10.53	7.89
• Rental fee	No answer	84.21
• Food during Production	7.89	No answer
<b>Total expenses per cropping</b>	<b>341.32</b>	<b>383.68</b>
Production (kg.)	3,600	3105
Cost of investment per kg.	0.09	0.12
Cost of investment per hectare	213.32	239.8
Gross Income	852.63	871.5
Net Income	511.32	488.02

## 2-2.49 Hectare

Itemized expenses	Expenses(US\$)	
	Owner-Cultivator	Tenant
Seed / Nursery planting material	18.42	63.16
Fertilizers	33.16	18.42
Chemicals (pesticides, Fungicides, Weedicides)	76.84	47.37
<b>Hire labour:</b>		
· Land preparation	39.47	105.26
· Planting / replanting	55.26	42.11
· Fertilizer application	9.47	4.21
· Weeding	No answer	36.84
· Chemical spraying or application	9.47	No answer
· Irrigation	5.26	No answer
· Harvesting	55.26	42.11
· Threshing	60.53	118.42
<b>Other expenses:</b>		
· Hauling/Transporting soya to market	No answer	No answer
· Gasoline	36.32	5.26
· Interest expenses (on loan)	102.63	13.16
· Rental fee	No answer	131.58
· Food during Production	10.53	10.53
<b>Total expenses per cropping</b>	<b>512.63</b>	<b>638.42</b>
Production (kg.)	3,450	6750
Cost of investment per kg.	0.15	0.09
Cost of investment per hectare	246.46	306.93
Gross Income	677.37	1370.52
Net Income	164.74	732.11

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## About SEACON

The Southeast Asian Council for Food Security and Fair Trade (SEACON) provides a coordinated approach to food security, agriculture and trade issues. We integrate local initiatives of agrarian reform and agricultural development with trade concerns at the Southeast Asian level. In each of our member countries, we support people centred national based food security councils that enable government, private sector and civil society representatives to meet and dialogue on agriculture and trade issues.

The establishment of the national food council is to ensure that whatever analysis / positions taken on at the regional level, would have the secure backing from the grassroots and vice versa.

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