# Chapter 1

# **Introduction and Problems**



Although the Thai economy has become increasingly industrialised, its agricultural sector is still important to the economy. This is particularly true when considering that most of the country's labour force is employed in this sector. Agricultural exports are important to the economy as a source of income to farmers most of whom are in the poorer sector of the economy. Higher income from exports could help the process of development, particularly in relation to income distribution.<sup>1</sup>

The share of agricultural products in export declined from 40.71 percent in 1985 to 15.98 percent in 1995, while the share of manufacturing increased from 36.61 percent to 66.12 percent during the same period.

The decline in the proportion of agriculture export from total export value, suggest that there were several problems affected the structure of agricultural production and export of Thailand.

<sup>&</sup>lt;sup>1</sup> Suphat Suphachalasai. "The Uruguay Round and Trade in Agriculture: Thailand's Perspective" in <u>Pacific Rim Agriculture: Opportunities, competitiveness and Reforms,</u> edited by Allen N Rae (April 1993).

Table 1
Exports Structure 1985-1995

Value: Million Bahts

Year	Total	Agricultural	Agro-	Principle	Mining and	Others
	Exports	Products	Industrial	Manufacturin	Fuel	
			Products	g Products	Products	
1985	193,365.5	78,728.0	24,383.6	66,598.9	9,384.2	14,270.7
1986	233,382.8	89,169.5	30,561.8	91,128.0	5,246.5	17,277.0
1987	299,853.1	96,027.3	37,459.5	138,640.4	5,163.4	22,563.5
1988	403,569.8	122,216.1	50,440.0	208,145.8	6,529.2	16,238.6
1989	516,315.0	145,225.8	64,233.7	279,146.2	7,193.7	20,515.6
1990	589,812.6	130,826.3	70,864.0	358,878.9	6,816.9	22,426.4
1991	725,448.8	149,570.8	80,715.8	457,138.3	6,981.8	31,042.0
1992	824,643.3	167,558.3	86,495.4	520,317.5	6,104.2	44,167.9
1993	940,862.6	160,873.1	83,066.7	624,353.2	4,908.5	67,661.1
1994	1,137,601.6	191,333.1	99,216.4	757,014.1	5,679.0	84,359.0
1995	1,406,310.1	224,759.0	123,078.0	929,797.5	6,122.9	122,552.7

Source: Department Of Business Economics.

However, the agricultural product still was the major export goods of the country. As we can see from the Table 2, out of ten principals Thailand's export commodities, three were agricultural ones. Table 3 and 4 also showed that Thailand was the world largest exporter of rice and rubber.

Table 2
Principal Exports 1994-1996

Value: Million Baths

Item	1994	%	1995	%
1. Automatic data processing machines and parts thereof	94,590.2	8.3	131,241.9	9.3
2. Garments	100,679.3	8.9	102,019.3	7.3
3. Rubber	41,824.0	3.7	61,260.7	4.4
4. Electronic integrated circuits	45,310.8	4.0	58,181.8	4.1
5. Precious stones and jewellery	47,088.7	4.1	52,498.6	3.7
6. Rice	39,187.3	3.4	48,626.8	3.5
7. Fresh, chilled or frozen shrimps, prawns and lobsters	49,155.6	4.3	50,302.0	3.6
8. Radio-broadcast receivers, television receivers and parts	28,031.9	2.5	31,589.2	2.2
thereof	,			
9. Canned fish	31,995.8	2.8	33,294.8	2.4
10. Footwear and parts thereof	39,261.0	3.5	53,778.1	3.8

Source: Department of Business Economics

The tree principal agricultural products were rubber, rice and fresh, chilled or frozen shrimps, prawn and lobsters. If we included agroindustrial products as one of the agriculture exports, canned fish would be the fourth from total ten principal products. Therefore, agricultural products still were the fundamental export of Thailand with the share of 13.76% of total exports in 1995 (including canned fish).

Because Thailand holds the largest share of rice and rubber exportation in the world market, it is reasonable that we should investigate these two in particular.

Table 3: World Rice Exports

_							_		(3)		
				Rice	& Products (	Milled Eq)					
Exports (Metric											
Tons)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Thailand	4,158,392	4,632,270	4,556,455	5,413,168	6,471,595	4,161,752	4,504,112	5,351,986	5,173,780	5,050,519	6,370,000
India	316,175	253,588	390,267	351,046	423,661	506,630	680,249	582,291	770,486	903,105	4,926,660
USA	1,800,226	2,257,161	2,352,722	2,122,090	2,825,740	2,354,766	2,223,986	2,181,877	2,568,261	2,759,765	3,104,525
Vietnam	58,264	129,476	118,098	89,456	1,392,854	1,592,953	1,013,252	1,908,601	1,689,080	1,945,090	1,949,994
Pakistan	715,482	1,310,174	1,264,730	1,204,782	850,500	740,564	1,199,184	1,505,099	1,027,511	979,941	1,844,006
Australia	337,125	550,084	380,912	333,848	362,649	462,450	455,768	540,753	502,581	626,998	584,792
Italy	706,356	654,612	584,862	487,233	494,673	549,940	619,132	707,269	547,026	596,700	502,414
Uruquay	233,355	267,215	202,576	247,770	256,189	283,832	265,217	317,765	481,732	396,007	451,009
China	1,043,924	1,115,855	1,275,566	842,410	408,835	430,590	868,868	1,085,323	1,525,187	1,561,153	259,772
Egypt	13,411	32,576	96,788	69,478	31,879	73,122	146,985	182,567	140,362	238,933	152,662
World	11,493,130	13,284,800	13,039,380	12,275,450	15,163,710	12,524,440	13,383,810	16,361,210	16,959,570	18,163,830	22,853,900

ทอสมคกลาว สมาชนายยน ขทาลงกรณหกราชนายย

Natural Rubber (Dry Eq.) **Exports** 1987 1988 1989 1990 1993 1994 1995 1985 1986 1991 1992 (Metric Tons) 901,111 | 1,094,960 | 1,132,950 | 1,217,326 | 1,417,537 | 1,395,692 | 1,636,937 689,705 760,070 879,268 Thailand 1,632,311 1,000,915 958,693 | 1,092,869 | 1,132,203 | 1,151,892 | 1,077,389 | 1,220,107 | 1,267,828 | 1,214,329 | 1,244,844 | 1,323,830 | Indonesia 1,497,357 | 1,516,133 | 1,620,252 | 1,610,556 | 1,487,090 | 1,321,652 | 1,131,865 | 1,034,960 | 937,094 988,343 1,013,341 Malaysia 37,583 38,015 57,703 75,875 Vietnam 35,200 36,410 62,947 81,927 96,700 135,500 138,100 29,100 33,822 36,500 67,235 63,036 79,643 63,860 72,716 82,906 76,000 Nigeria 99,723 47,920 56,459 60,361 67,838 67,266 Cote Divoire 38,621 56,840 75,349 64,672 71,227 79,250 China H. 1,755 3,822 4,542 22,500 20,376 13,252 61,992 46,662 27,842 59,202 56,822 110,041 87,120 86,535 77,019 120,444 106,116 99,380 76,283 44,748 34,496 Sri Lanka 47,038 16,774 18,915 26,955 30,169 29,674 43,000 43,925 Cameroon 18,667 11,052 47,000 45,603 3,643,943|3,717,895|4,081,587|4,231,872|4,374,421|4,060,495|4,125,246|4,327,917|4,132,660|4,541,224|4,694,236| World

Table 4: World Rubber Exports

Source : FAOSTAT Statistics Database

The purpose of this study was to analyse Thailand's export performance on the two major export commodities, namely; rice and rubber during the year 1986 to 1995. The study was based on the Constant-Market-Share Model (CMS), some revisions and extension of the CMS approach were made in order to suit the nature of this study. Furthermore, we should examine the export instability of these commodities to find whether the existing performances were stable as well as the causes of this instability.

### A General Survey of Thai Agriculture Exports

Thailand is the largest exporter of rice for a long time. As for the rubber, Thailand is the number one largest exporter since 1991. Although the share of Thai rice and rubber export from world rice and rubber export declines overtime, the volume in the world market is considered too large and too attractive to ignore. Thus, to maintain the position of the world largest exporter, it was imperative to analyse its performance in exporting those two commodities and shed some light on how to increase Thai comparative advantage and competitiveness in the world market.

Among various kinds of agricultural products, a great deal was the source of the country international trade income (as shown in table 5).

Table 5: Top Ten of Principal Agricultural Exports

Units: Million Bahts

Commodity	1992	1993	1994	1995
Rubber and products	38137	40631	54820	81911
Shrimps and products	39970	47999	63148	67315
Rice and products	37736	34696	41216	50403
Sugar and products	20675	13889	19202	31580
Fish and products	33049	27680	30763	31515
Wood and products	10916	12913	14983	17262
Fruits and products	16059	14299	16032	17076
Cassava and products	27593	19552	16610	15501
Cotton and products	6602	6796	7865	10801
Poultry cuts and frozen	10399	8886	9854	9662

Source: Department of Agriculture and Co-operative Affairs

From the above table we could see that the share of rice and rubber export in total agriculture exports in 1995 was 33.76% increase from 1992. This shows that rice and rubber were still the principal agricultural products of Thai exports. Needless to say, they essentially increase as the time passes.

During 1986 to 1989, Thai agricultural export increased in value because of the decreased in stock of world supply resulting from drought.

However, in 1990 the figure dropped due to the world economy slowdown leading to the decline in demand of agricultural imports. Besides, during these years the major importers of the world had improved their agricultural production much better than the previous years. Lastly, Thailand has faced the damage from the Gay typhoon.

Table 6 showed the major markets of Thai agricultural products. Japan was the largest trade partner of Thailand. Japan imported 44.79% of agricultural products from total agricultural exports of Thailand in 1995. The major agricultural products which Japan imported from Thailand are rubber; fresh, chilled or frozen shrimps pawns and lobsters; frozen poultry cuts; canned fish; sugar; fresh, chilled or frozen cattle, squids and octopus; and preparation of a kind used in animal feeding.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Trade Statistical Economic Indicators of Thailand 1996. Department of Business Economics, Ministry of Commerce.

Table 6: Value of Agricultural Exports to Major Countries of Destination

Units: Million Bahts

Country	1992	1993	1994	1995
Japan	68803	73841	90649	100680
USA	47432	51263	59565	60606
China	7235	7662	17190	30818
Hong Kong	12267	12496	17716	21275
Singapore	10293	9768	12104	20355
Netherlands	22106	17948	16008	14339
Malaysia	7375	7876	9723	13471
Taiwan	6228	7582	10047	11873
Korea, South	9079	8136	9823	11332
Indonesia	4788	1413	5652	11002

Source: Department of Agriculture and Co-operative Affairs

# A Brief Description of Rice and Rubber Exports

Before we go on to study the export performance of rice and rubber, it seems advisable to survey these commodities briefly. We shall begin with rice and followed by rubber.

#### **Rice Exports**

Rice production, whether measured in terms of its share in farm land or in labour force, has been the main occupation of Thailand. Although the importance of rice has fallen substantially since the early 1950s, it is still the leading export commodity as well as an important source of export earnings. Instability and decline of rice exports have been causes of concern, since Thailand continues to depend a great deal on rice exports as a source of foreign exchange earnings.

Rice has received considerable attention in Thailand because of its significance as a staple food and as an export. The government's rice policies affect rice prices at all levels from paddy production to domestic consumption and exports. Rice policies are designed to achieve the maximum level of export earnings, a stable domestic price of milled rice and a high and increasing price of paddy. These three objectives are often contradictory. The objective of maintaining a low domestic price of milled rice for urban consumption usually has received the most weight and a rice premium has been used to achieve this objective. A rice premium is in effect an export tax designed to keep internal prices to below export prices.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Prasit Suntayodom, "Export Performance: A Case Study of Thailand's Rice, Rubber and Maize Exports During 1966-1978". (Ph.D. Dissertation, Clark University, 1981), pp 10-11.

Table 7: World Rice Productions

	Rice & Products (Paddy Eq.)										
Production (Metrics Tons)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
China	171,285,900	174,691,300	176,635,600	171,416,000	182,460,700	191,589,200	185,654,400	188,256,800	179,788,700	178,031,500	187,334,200
India	95,817,700	90,779,410	85,338,700	106,368,800	110,310,600	111,517,400	112,042,000	109,001,200	120,600,000	121,559,200	119,442,000
Indonesia	39,032,940	39,726,770	40,078,190	41,676,180	44,725,580	45,178,750	44,688,240	48,240,010	48,181,090	46,641,500	49,744,140
Bangladesh	22.556,290	23,110,030	23,120,620	23,316,460	26,784,480	26,777,900	27,377,460	27,510,420	27,048,000	25,311,800	26,398,000
Vietnam	15,874,800	16,002,900	15,102,600	17,000,000	18,996,300	19,225,100	19,621,900	21,590,300	22,836,600	23,528,300	24,963,700
Thailand	20,263,870	18,868,160	18,428,270	21,262,900	20,601,010	17,193,220	20,400,000	19,917,000	18,447,000	21,111,000	22,015,000
Myanmar	14,317,050	14,127,100	13,638,400	13,167,100	13,806,500	13,971,800	13,204,200	14,840,400	16,763,200	18,198,900	17,956,900
Japan	14,578,000	14,559,000	13,284,000	12,419,000	12,934,000	13,124,000	12,005,000	13,216,000	9,793,000	14,976,000	13,435,000
Philippines	8,805,600	9,246,790	8,539,852	8,970,919	9,458,772	9,885,000	9,673,262	9,513,000	9,434,208	10,540,600	11,283,600
Brazil	9,024,555	10,404,680	10,425,100	11,806,450	11,029,800	7,418,527	9,495,938	9,961,899	10,142,900	10,499,500	11,225,990
USA	6,122,000	6,049,000	5,879,000	7,239,000	7,007,400	7,080,000	7,230,000	8,151,000	7,081,000	8,971,100	7,887,000
Korea Rep	7,855,262	7,871,368	7,595,760	8,260,162	8,099,953	7,721,968	7,292,534	7,303,000	6,507,000	6,882,000	6,387,301
Pakistan	4,378,400	5,230,000	4,861,400	4,800,300	4,830,150	4,891,200	4,864,650	4,674,150	5,992,050	5,169,750	5,949,750
World	469,170,900	469,708,700	462,371,300	488,278,800	515,382,800	519,408,000	517,396,900	526,202,100	527,444,200	536,996,500	551,878,000

Although Thailand was the largest exporter of the world with share 36.18% in 1985 and declined to be 27.87% in 1995, Thailand was not the largest rice producer of the world. The reason why Thailand could be the world largest exporter of rice was because it has more excess supply. Rice, though, could be produced more by others, it was mostly used for domestic consumption.

The categories of rice that Thailand had export can be divided as follow:

#### 1. Rice

- 1.1 Non-glutinous rice
- 1.2 Glutinous rice
- 1.3 Cargo rice
- 1.4 Rice parboiled
- 1.5 Broken rice parboiled
- 1.6 Other rice
- 1.7 Rice in the husk or paddy

#### 2. Rice products

- 2.1 Non-glutinous rice flour
- 2.2 Glutinous rice flour
- 2.3 Others.

The most important category that Thailand had export at the maximum of all the time was non-glutinous rice which the share around 80% from total rice export of Thailand.

Table 8: World Rice Imports

				Rice d	& Products (1	Milled Eq.)					
Imports (Metric  Tons)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Indonesia	50,715	50,952	79,401	64,860	288,870	74,229	202,792	647,146	35,518	647,860	3,236,620
China	212,736	325,563	560,736	315,170	1,203,214	66,025	151,447	116,957	104,983	516,217	1,642,362
lran	462,471	401,314	681,481	175,334	736,745	516,925	541,347	786,924	965,908	401,493	1,083,875
Korca D P RP	0	27,465	75,740	0	12,566	26,103	240,367	258,430	278,423	95,357	1,022,206
Brazil	330,995	1,375,699	94,988	99,355	159,419	401,970	940,999	567,084	671,025	963,347	857,040
Bangladesh	674,290	53,192	258,514	670,912	69,954	382,200	17,999	18,459	21,862	63,190	810,446
Saudi Arabia	408,092	356,655	357,232	345,573	238,545	267,348	245,018	467,508	549,380	413,126	576,479
UNTD ARAB EM	152,341	225,981	250,000	190,228	360,075	309,182	281,494	362,138	577,236	336,454	540,888
South Afica	178,724	193,168	269,107	239,325	290,602	291,204	355,835	345,972	370,768	416,181	465,496
Malaysia	444,580	199,236	205,209	302,707	387,810	348,594	425,139	471,387	409,383	361,435	452,310
Senegal	340,839	376,628	305,298	331,880	369,504	390,176	397,229	373,111	383,167	346,820	439,233
China Hong Kong	393,219	399,920	397,359	389,932	435,598	405,092	427,078	439,320	405,543	389,960	392,179
Phillipines	548,951	2,280	256	121,826	199,896	605,951	858	2,186	208,657	3,117	270,010
Japan	20,557	21,870	18,232	17,743	17,846	19,325	19,278	20,931	102,396	2,185,592	26,989
World	11,963,560	12,146,120	11,784,790	11,198,750	13,987,300	11,757,430	12,629,230	14,639,180	15,455,620	16,785,090	21,204,010

Table 9

Major Market of Thai Rice Exports

unit: metric tons

Country	1993	1994	1995
China	111.0	522.4	1,235.8
Indonesia	14.7	558.0	865.5
Iran	430.4	175.2	433.2
South Africa	276.2	288.6	265.5
Hong Kong	239.8	243.3	255.2
Dubai	344.3	147.0	247.8
Singapore	222.9	228.1	247.6
Malaysia	213.0	139.5	246.2
USA	208.7	232.9	191.6
Benin	312.4	158.7	178.0
Senegal	187.4	165.9	144.8
Syria	77.6	15.1	111.0
Saudi Arabia	121.2	127.9	63.5
Peru	60.8	44.4	48.7
Japan	264.7	536.2	45.8

From the table 8 and 9, we can see that the major rice importers both of the world and of Thailand are China, Indonesia, Iran, South Africa, Hong Kong, Malaysia, Senegal, Saudi Arabia, and Japan.

Asia and the Middle East who imported huge number of rice every year were the key market for Thai rice. The major markets for high quality rice were Iran, Hong Kong, Singapore, USA, Dubai, Malaysia, Saudi Arabia and China. The market of Thai low quality rice was Benin, South Africa, and Senegal. Rice importers were mostly price-sensitive. They would buy from Thailand or not depending on the offered prices compared with those of competitors. Therefore, eventhough Thailand had many trade partners who imported rice from Thailand every year, there still existed the instability in export quantity.

The importers would import rice under the condition that their production was not enough for domestic consumption. However, other factors such as, weather; production policy; change in consumption pattern; financial situation and trade barrier could influence the importing decision.

Comparing with Vietnam and USA, its main competitors, Thailand still remained a reading role in supplying rice to the world market. Nonetheless, Vietnam has a rapid growth in export of rice, while Thailand has more stable and even a slight decline for each year. The reason should be that Vietnam government has tried to decrease every strain of rice export and to support every policy. Also they established some institution to help their farmers and exporters. Now, Vietnam was competing with Thailand in the market of low quality rice. They were going to compete with Thailand for the high quality rice market in the future. In the case of USA, Thailand usually

has more comparative advantage on the same quality of rice exports with lower cost and price.

However, Thailand should reconsider about the performance of Thai rice in the world market whether there still remained competitiveness or there were growth or slowdown in export. If there was something such as decline in competitiveness happened, its leading role should undoubtedly be in question. Thailand may not be the largest exporter furthermore.

#### **Rubber Exports**

Rubber was one of the principal export commodity of Thailand because it earned a large amount of export earnings to the country. There were many Thai farmers especially in southern part that produced natural rubber and products.

Although Thailand was the largest producer and exporter of the world, Thailand still was a small country that has not enough power to determine rubber price in the world market. As a result, Thai rubber price was fluctuated accordingly by the change in the world economic situation, especially of those occurred in industrial countries.

Table 10: World Rubber Productions

	Natural Rubber (Dry Eq.)										
Productio		•									
n (Metric								i			
Tons)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Thailand	773,000	811,100	891,400	862,000	1,047,860	1,097,031	1,152,208	1,520,000	1,603,000	1,767,000	2,082,988
Indonesia	1,054,966	1,113,133	1,130,351	1,173,298	1,209,037	1,275,295	1,328,172	1,398,448	1,475,438	1,499,424	1,573,303
Malaysia	1,469,453	1,538,638	1,578,700	1,661,600	1,415,300	1,291,500	1,257,200	1,173,200	1,074,300	1,100,600	1,089,400
India	186,500	200,500	219,500	235,200	259,200	297,300	329,600	366,700	393,500	435,200	472,000
China	187,900	209,709	238,000	240,000	242,766	264,248	296,353	309,348	326,062	374,002	424,025
Philippines	133,229	145,991	147,247	156,405	171,850	185,392	180,705	171,118	174,260	181,200	191,860
Vietnam	47,867	50,000	51,700	49,700	50,600	57,939	64,563	67,000	96,880	128,771	122,748
Sri Lanka	137,493	137,810	121,806	122,393	110,968	113,096	103,854	106,149	104,200	105,301	106,717
World	4,325,139	4,556,311	4,732,576	4,906,741	4,973,111	5,004,581	5,148,692	5,526,450	5,695,101	6,026,333	6,526,524

Rubber was one of the most important inputs for many industries. Rubber production of Thailand, Indonesia and Malaysia accounted for 80% of world total production. Since 1991, Thailand had become the largest producer of the world instead of Malaysia. Anyhow, although Thailand could produced and exported rubber more than other countries, price of rubber still depends on external market especially Singapore and Japan market. This is because we produce a large number of rubber, despite the domestic consumption is only 10%, which leads to oversupply. Moreover, the rubber market was the market of consumer not producer. Thus, consumer demand was the dominant factor that determines the price of the rubber.

The fluctuation in rubber price in the world market affected the rubber prices in domestic as well. Price determination of rubber in Thailand was based on price of Singapore and Malaysia minus by transaction cost, opportunity cost, market cost and profit. Therefore, price of rubber in Thailand was not stable and depends on the price of neighbour's fluctuated very frequently.

Table 11: World Rubber Imports

	Natural Rubber (Dry Eq.)										
Imports											
(Metric Tons)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
USA	817,103	771,483	815,808	858,968	909,486	837,094	796,360	926,368	999,073	988,937	1,044,228
Japan	539,876	534,473	570,165	656,637	665,427	663,104	690,677	675,697	633,616	644,300	696,322
China	247,513	327,289	465,625	574,868	512,883	444,084	434,847	370,436	358,811	423,804	403,989
Korea Rep.	158,816	179,942	200,751	235,502	231,413	253,744	262,731	274,762	275,723	303,081	292,078
Malaysia	31,536	30,970	42,197	46,718	122,299	136,182	89,952	94,685	150,085	216,028	235,719
Germany	246,008	241,690	243,151	245,933	270,215	235,568	216,058	221,686	184,313	199,324	225,771
France	164,637	166,415	184,305	190,951	195,000	190,479	181,793	184,644	175,351	184,612	179,086
UK	131,651	133,166	138,276	136,953	139,400	153,140	135,119	143,617	133,277	151,146	132,432
Spain	110,289	108,141	112,275	117,413	122,349	119,663	102,852	110,514	103,756	152,388	128,683
Italy	133,570	125,291	133,626	138,864	142,659	133,946	125,398	120,014	110,881	122,818	128,447
Canada	103,684	93,471	98,380	83,887	84,973	84,246	76,541	86,954	91,488	107,388	120,907
World	3,644,778	3,681,537	4,027,978	4,298,378	4,399,330	4,270,647	4,046,482	4,089,082	4,110,712	4,408,800	4,591,847

Table 12: Thai Rubber Exports by Country of Destinations in 1995

Quantity: Metric Tons

Value: Million Bahts

Country	Quantity	Value
Japan	548,896.0	20,646.0
USA	247,224.0	8,800.0
China	166,290.0	5,419.0
Korea	101,155.0	3,674.0
Malaysia	161,472.0	3,506.0
Singapore	63,851.0	2,319.0
France	61,687.0	2,314.0
Hong Kong	60,196.0	1,984.0
Taiwan	45,161.0	1,564.0
Germany	30,115.0	841.0
Total	1,747,269.0	61,261.0

Source: FAOSTAT Statistics Database

From table 12, the major market of Thai rubber export was Japan who imported 33.70% of total export value of rubber in 1995.

Rubber and products that Thailand export could be separated into:

#### 1. Rubber smoked sheets

- grade 1
- grade 2
- grade 3
- grade 4
- grade 5
- 2. Block rubber
- 3. Rubber crepe sheets
- 4. Rubber concentrated latex
- 5. Rubber air dried sheets
- 6. Other gloves
- 7. Surgical gloves
- 8. Other rubber and products.

Rubber smoked sheets grade 3 was the number one natural rubber export of Thailand.

The fluctuation in demand for and supply of rubber partly responded to the fluctuation in rubber price. The causes of rubber price fluctuation could be from the results of uncertainty in world production because of the vary of weather, price and quantity of synthetic rubber which their cost depended upon the price of petroleum oil and the change in world demand for rubber.

Eventhough Thailand was the largest producer and exporter of the world, we should study whether the export performance of rubber was competitive. So far, the instability of export price and quantity led to the lower competitiveness of Thailand in the world market.

#### **Objectives**

This study would analyse the export performance of rice and rubber of Thailand. Also we would examine the export instability of these two commodities whether the performance during 1986-1995 increased or declined and lead to stable competitiveness and growth or lead to the unstable competitiveness and growth of exports.

### **Scope of this study**

The Constant-Market-Share Model (CMS) has been adopted to analyse the export performance and the Exponential least-squares index has been used to measure export instability index.

- 1. The selected agricultural products used in this study are rice and rubber.
- 2. The investigation period is during 1986-1995. Separated in to 2 periods, 1986-1990 and 1991-1995.

- 3. The competitors of Thai export in the world market are Vietnam and USA for rice and Indonesia and Malaysia for rubber.
- 4. The price variables used in this study is unit value which is calculated from value of export divided by quantity of export.
- 5. Using annual time series data from FAOSTAT Statistics Database.
- 6. Ricë in this study is defined as milled rice plus broken rice.
- 7. Rubber in this study is defined as natural rubber plus natural (dry) rubber.
- 8. The production of rubber is calculated from natural rubber plus natural (dry) rubber and converted to dry weight at 60%.
- 9. The production of rice is converted from rice paddy to milled rice by 66% conversion ratio.

Some more important definitions of observation used in this study are as followed.

- -Milled Rice (code 0031) is white rice milled from locally grown paddy. Includes semi-milled, whole-milled and parboiled rice.
- -Broken Rice (code 0032) is residues from the selection of whole-grain, milled rice.

-Natural rubber is obtained from the Par rubber or caoutchoc tree. Natural rubber is milky fluid latex which is excluded when the trunk of the tree is treated with sulphur at high temperatures in a process known as vulcanisation to increase the desirable properties of the final product, including elasticity, strength and stability.

-Natural Rubber (code 0836) is hevea brasiliensis latex the liquid secreted by the rubber tree, including stabilised or concentrated latex and prevulcanized rubber latex. In trade figures, liquid weight is converted to dry weight at 60%.

-Natural (Dry) Rubber (code 0837) is in form of sheets, crepes, re-agglomerated granules, free-flowing power, etc.; including technically specified natural rubber (TSNR).

-FAOSTAT is an on-line and multilingual database currently containing over 1 million time-series records covering international statistics in the following areas:

Production, Trade, Food Balance Sheets, Food Aid Shipments, Fertiliser and Pesticides, Land Use and Irrigation, Forest Products, Fishery Products, Population, and Agricultural Machinery.