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Background paper

SHORT AND MEDIUM-TERM PROSPECTS FOR EXPORT OF MANUFACTURES FROM SELECTED DEVELOPING COUNTRIES

- THAILAND -

Presented by the secretariat of the United Nations
Conference on Trade and Development

GE.67-15732

(1) Estimation on the basis of targets in the second economic development plan (1967-71) in respect of certain commodities such as tin, cassava, maize, timber, silk fabrics and cement.

(2) Extrapolation according to the least square method for items for which value of export figures are available for the whole of the past six years 1960-65.

(3) Arbitrary determination on the basis of available facts, for items for which value of export figures are available for the whole of the past six years 1960-65, but show either a drastic fall or rise in the last year or so, owing to special factors.

(4) Arbitrary determination on the basis of available facts, for items for which value of export figures is not available for the whole of the past six years 1960-65.

8. The results of projection indicate that industrial exports from Thailand will grow from 1,454 million baht in 1965 to 3,351 million baht in 1970. The annual projected growth rate during 1965-70 is 18.2 per cent, while that achieved during 1960-65 was 11.0 per cent. The share of industrial exports in total exports may rise correspondingly from 11.5 per cent in 1965 to 17.6 per cent in 1970. The major item which will account for this spectacular rise is unwrought tin, whose average annual growth rate during 1965-70 is estimated at 33 per cent. In the meantime, its share in total industrial exports is projected to rise from 27.5 per cent in 1965 to 50.5 per cent.

9. Other than unwrought tin, seven items contributing in each case over 33 million baht or 1 per cent of the total industrial exports in 1970 have all an average annual growth rate during 1965-70 of 9 per cent or more. These seven items which together contribute 17.2 per cent to total industrial exports from Thailand in 1970 include, in order of importance, Portland cement, precious and semi-precious stones, processed timber other than teak (mainly yang), petroleum products, maize meal, gunny bags and canned food.

10. Thus it is clear that the major export industries in Thailand by 1970 will depend in most cases on local agricultural and mineral materials for processing, the only exception being petroleum products for which crude petroleum has largely to be imported. Several of these industries have developed from production for import substitutes into production also for exports, such as Portland cement, petroleum products, gunny bags and canned food, while others such as precious and semi-precious stones are handicraft products with a high income elasticity. In the long run, these characteristics of Thailand's export industries may undergo some change, mainly with the import substitution industries catering also to the export market.

11. For the promotion and expansion of industries in general and export industries in particular, both domestic and external policies have a significant role to play. Domestic policies and measures in a private enterprise economy such as Thailand are designed to induce investment for exports, increase the profitability of exports and promote trade in general.

12. For inducing investment in industries, many measures have been vigorously pursued by the Government of Thailand in recent years, especially since the implementation of the first six-year national economic development plan in 1961. A favourable climate for industrial investment has been provided through the erection of an infrastructure including transport, power, industrial research and training as well as the promulgation of a set of investment laws and regulations, the latest of which is the Promotion of Industrial Investment Act of February 1962. The Government has also promoted industrial feasibility surveys, provided financing to large and small industries through the establishment of the Industrial Finance Corporation of Thailand (1959) and the Loan Office for Small Industry Development (1954), granted tax incentives for "promoted" industries, and pursued a policy of transferring the state enterprises by sale or lease to the private sector.

13. Measures to increase the profitability of exports have taken the form of direct subsidies, as in the case of the sugar industry; remissions under the 1962 Promotion of Industrial Investment Act for export industries of export duty and business tax, and of import duty on raw materials used in the manufacture of export products; establishment of an industrial estate in Rangsit near the metropolitan city of Bangkok to provide suitable and reasonably priced land complete with necessary services and facilities, and the reduction of interest rates for export industries in loans from government and private banks.

14. For the promotion of trade in general, the Thai Government has concluded trade agreements with many countries inside and outside the region, particularly with such important trading partners as the United States and Japan; conducted market surveys for selected industrial products, with or without outside assistance; organised the First Asian International Trade Fair in Bangkok in December 1966; and promulgated and enforced legislation on quality control and standardization of industrial exports such as teak conversions, tapioca meal and silverware. Silk fabrics will also be standardized shortly.

15. Among the external policies and measures to promote exports of manufactures from Thailand, the most important ones now in force appear to be foreign and joint ventures; preferential treatment given to Thai industrial exports by developed countries such as Australia; and the allocation of production quotas to Thailand for tin under the International Tin Agreement. It is hoped that under the influence of UNCTAD, especially at the forthcoming second session in New Delhi in the spring of 1968, greater liberalization of trade in imports from the developing to the developed countries of the world may be achieved, so that Thailand, like other developing countries, may benefit from the removal of both tariff and non-tariff trade barriers.

I REVIEW OF EXPORTS

A. Persistence of trade deficit

16. With the exception of a few years (1948-51) in the post-war period when rice was in great demand from Asian countries devastated by war, Thailand has consistently shown an annual trade deficit, which has increased in recent years owing to the growing imports of capital goods for the implementation of the first six-year national economic development plan (1961-66). This deficit grew from US$8 million in 1961 to a peak of US$143 million in 1963, fell to US$87 million in 1964 but rose again to US$99 million in 1965. It has been met mainly by the inflow of foreign capital and foreign aid, and a surplus from invisible trade. As a result, the foreign exchange reserve, instead of being depleted to cover the trade deficit, has risen steadily during the period 1960-65 (see Table 1).

TABLE 1

Trade and exchange reserve, 1960-65

	1960	1961	1962	1963	1964	1965
Exports[a] (million baht)	8,614	9,997	9,529	9,676	12,339	13,049
Imports (million baht)	9,562	10,160	11,348	12,655	14,150	15,099
(million baht)	948	163	1,819	2,979	1,811	2,050
Trade deficit (million US$)	46	8	87	143	87	99
Foreign exchange reserve (million US$)	256	339	408	461	545	624
Increment of exchange reserve (million US$)	52	83	69	53	84	79
Foreign capital inflow) Foreign aid) b/ Surplus of invisible trade) (million US$)	98	91	156	196	171	178

Source: IMF, International Financial Statistics, October 1966.

a/ Including re-exports.

b/ Apparent figures

TABLE 2

Exports by commodity categories[a], 1960 and 1965
(million baht)

SITC section[b] (original)	Primary commodities			Semi-manufactures			Manufactures			Manufactures and semi-manufactures			Total		
	1960	1965	Annual growth rate(%)[c]	1960	1965	Annual growth rate(%)[c]	1960	1965	Annual growth rate(%)[c]	1960	1965	Annual growth rate(%)[c]	1960	1965	Annual growth rate(%)[c]
0	3,569.9	6,325.5	12	1.4	51.0	105	340.5	400.0	3	341.9	451.0	6	3,911.8	6,776.5	12
1	20.6	88.6	34	-	-	-	4.0	1.5	-18	4.0	1.5	-18	24.6	90.1	30
2	3,968.7	4,765.8	4	334.7	176.3	-14	-	-	-	334.7	176.3	-14	4,303.4	4,942.1	3
3	-	-	-	-	-	-	-	39.7	∞	-	39.7	∞	-	39.7	∞
4	1.9	6.8	29	-	-	-	-	-	-	-	-	-	1.9	6.8	29
5	-	-	-	4.7	3.8	-4	3.0	11.4	31	7.7	15.2	15	7.7	15.2	15
6	-	-	-	47.3	495.0	60	48.8	104.4	16	96.1	599.4	44	96.1	599.4	44
7	-	-	-	-	-	-	0.8	8.8	62	0.8	8.8	62	0.8	8.8	62
8	-	-	-	-	-	-	14.5	28.0	14	14.5	28.0	14	14.5	28.0	14
9	-	-	-	-	-	-	61.5	134.0	17	61.5	134.0	17	61.5	134.0	17
Total	7,561.1	11,186.7	8.1	388.1	726.1	13.4	473.1	727.8	9.0	861.2	1,453.9	11.0	8,422.3	12,640.6	8.5
Share of total exports	89.78%	88.50%		4.61%	5.74%		5.62%	5.76%		10.22%	11.50%		100%	100%	

Source: Department of Customs, **Annual Statement of Foreign Trade of Thailand**, 1960, 1965.

(a) According to the definition and classification agreed upon between the United Nations Statistical Office and the UNCTAD secretariat (see "The Definition of Primary Commodities, Semi-Manufactures and Manufactures", UNCTAD document TD/B/C.2/3.) Re-exports are not included in the total for exports.

(b) While the revised SITC has been in use since 1963, Thai trade returns are still compiled according to the SITC adopted in 1950. The numerals refer to the following sections:

Section 0. Food and live animals
1. Beverages and tobacco
2. Crude materials, inedible, except fuels
3. Mineral fuels, lubricants and related materials
4. Animal and vegetable oils and fats
5. Chemicals
6. Manufactured goods classified chiefly by materials
7. Machinery and transport equipment
8. Miscellaneous manufactured articles
9. Commodities and transactions not classified according to kind

(c) The annual growth rate is on a compound basis.

B. Growth of exports of industrial versus primary products

17. Thailand's exports have consisted mainly of primary commodities, and only marginally of manufactures and semi-manufactures. In 1960, for instance, of the total exports (excluding re-exports) of 8,422 million baht, primary commodities contributed 89.8 per cent as compared with 10.2 per cent for manufactures and semi-manufactures. However, by 1965, exports of manufactures and semi-manufactures had grown as compared with exports of primary commodities. The share of primary commodities in total exports declined during 1960-65 from 89.8 per cent to 88.5 per cent, with a corresponding rise in the share of manufactures and semi-manufactures from 10.2 per cent to 11.5 per cent. Also, the annual growth rate during the period 1960-65 was 8.1 per cent for the export of primary commodities, as compared with a much higher rate of 11.0 per cent for the export of manufactures and semi-manufactures. In other words, exports of manufactures and semi-manufactures have been much more dynamic than those of primary commodities - a recent development which has manifested itself in many developing countries. For Thailand this is a particularly encouraging sign, in view of the persistent trade deficit which cannot always be met, as has been the case in the past few years, by an inflow of foreign capital and aid and a surplus in the invisible trade items.

18. It may also be noted that during 1960-65, exports of semi-manufactures grew faster than exports of manufactures, the annual average growth rate being 13.4 per cent for the former and 9 per cent for the latter. As a consequence, the share of semi-manufactures in total exports rose from 4.6 per cent in 1960 to 5.7 per cent in 1965, while the share of manufactures changed only slightly from 5.6 per cent to 5.8 per cent during the same period (see Table 2).

19. Thailand's trade has been mainly with the developed areas, whose share in the total trade of Thailand rose from 62.5 per cent in 1960 to 66 per cent in 1965, with a corresponding decline during the same period from 35.7 per cent to 32.9 per cent for the developing areas, and from 1.8 per cent to 1.1 per cent for the socialist and unclassified areas. However, the position for imports differs from that for exports. For imports a major and growing share came from the developed areas, rising from 76.6 per cent in 1960 to 82.9 per cent in 1965, while the share for the developing areas fell from 22.1 per cent to 15.7 per cent during the same period. For exports, on the other hand, the share for developing areas rose from 50.6 per cent in 1960 to 53.2 per cent in 1965, while that for the developed areas fell from 47.1 per cent to 46.1 per cent during the same period (see Table 3).

TABLE 3

Direction of trade, 1960 and 1965
(million US$)

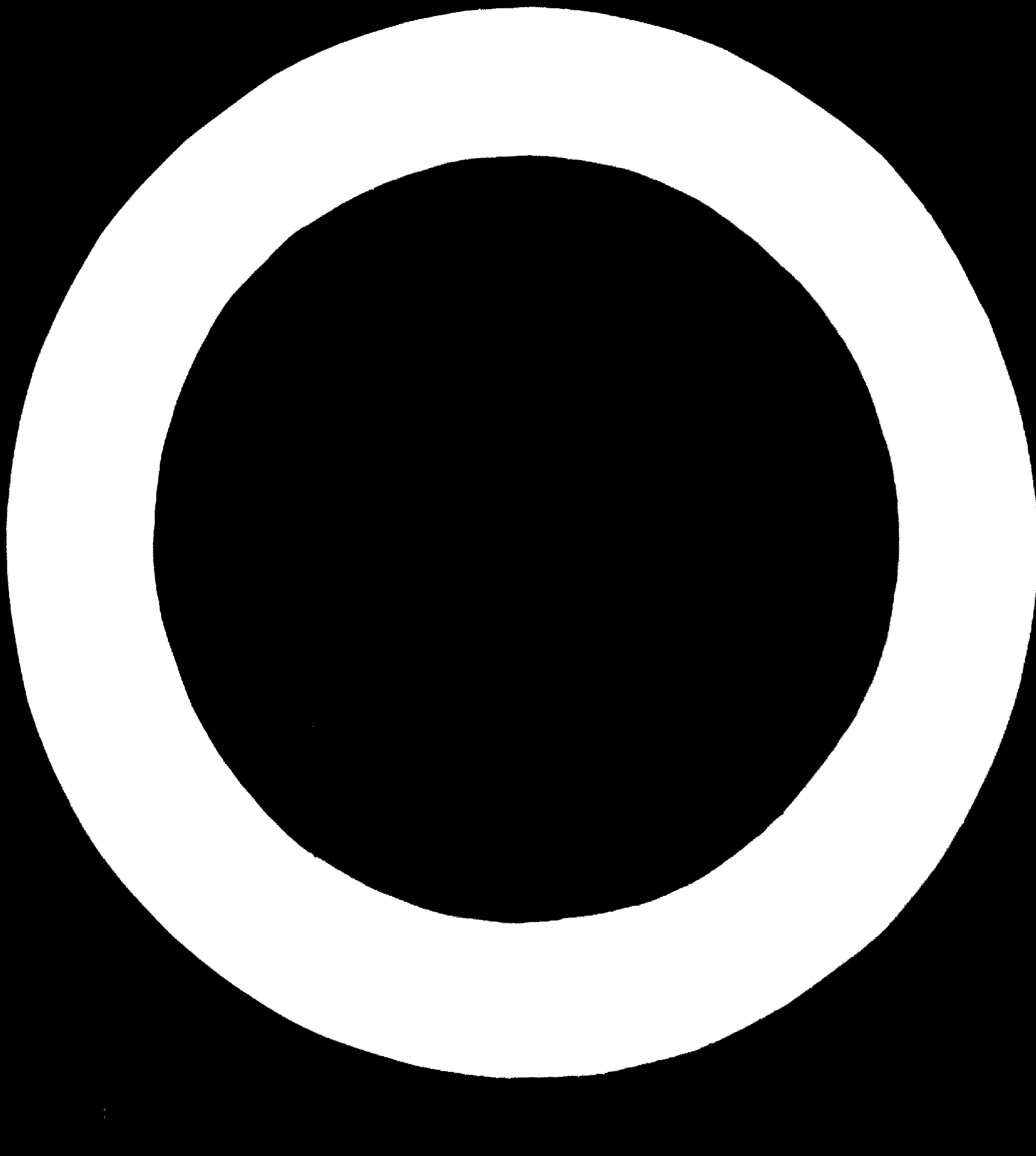
		Developed areas a/		Developing areas		Socialist and unclassified areas		Total
		Value	%	Value	%	Value	%	
Exports	1960	190.0	47.1	203.9	50.6	9.4	2.3	403.3
	1965	284.6	46.1	328.9	53.2	4.3	0.7	617.8
	annual growth rate b/	8.4%		10.1%		16.9%		8.9%
Imports	1960	339.7	76.6	98.1	22.1	5.5	1.3	443.3
	1965	606.0	82.9	114.7	15.7	10.6	1.4	731.3
	annual growth rate b/	12.3%		3.2%		14.0%		10.5%
Total trade value	1960	529.7	62.5	302.0	35.7	14.9	1.8	846.6
	1965	890.6	66.0	443.6	32.9	14.9	1.1	1,349.1
	annual growth rate b/	11.0%		8.0%		0%		9.8%

Source: IMF: Direction of Trade, annual 1961-65 and annual 1960-64.

a/ For the purposes of this table, developed areas are taken as including Western Europe (EEC countries and Greece (associate member); EFTA countries and Finland (associate member); and other OECD-member countries of Iceland, Spain, Turkey and Yugoslavia); North America (Canada and the United States); Japan, Australia, New Zealand and South Africa

b/ Compound growth rate

20. Table 4 shows Thailand's exports of manufactures and semi-manufactures in 1960 and 1965, covering forty-six items, each of which in 1965 had an export value in excess of 1 million baht or US$50,000. The forty-six items included thus represent 94 per cent of total exports of manufactures and semi-manufactures from Thailand in 1960, and 93 per cent in 1965.

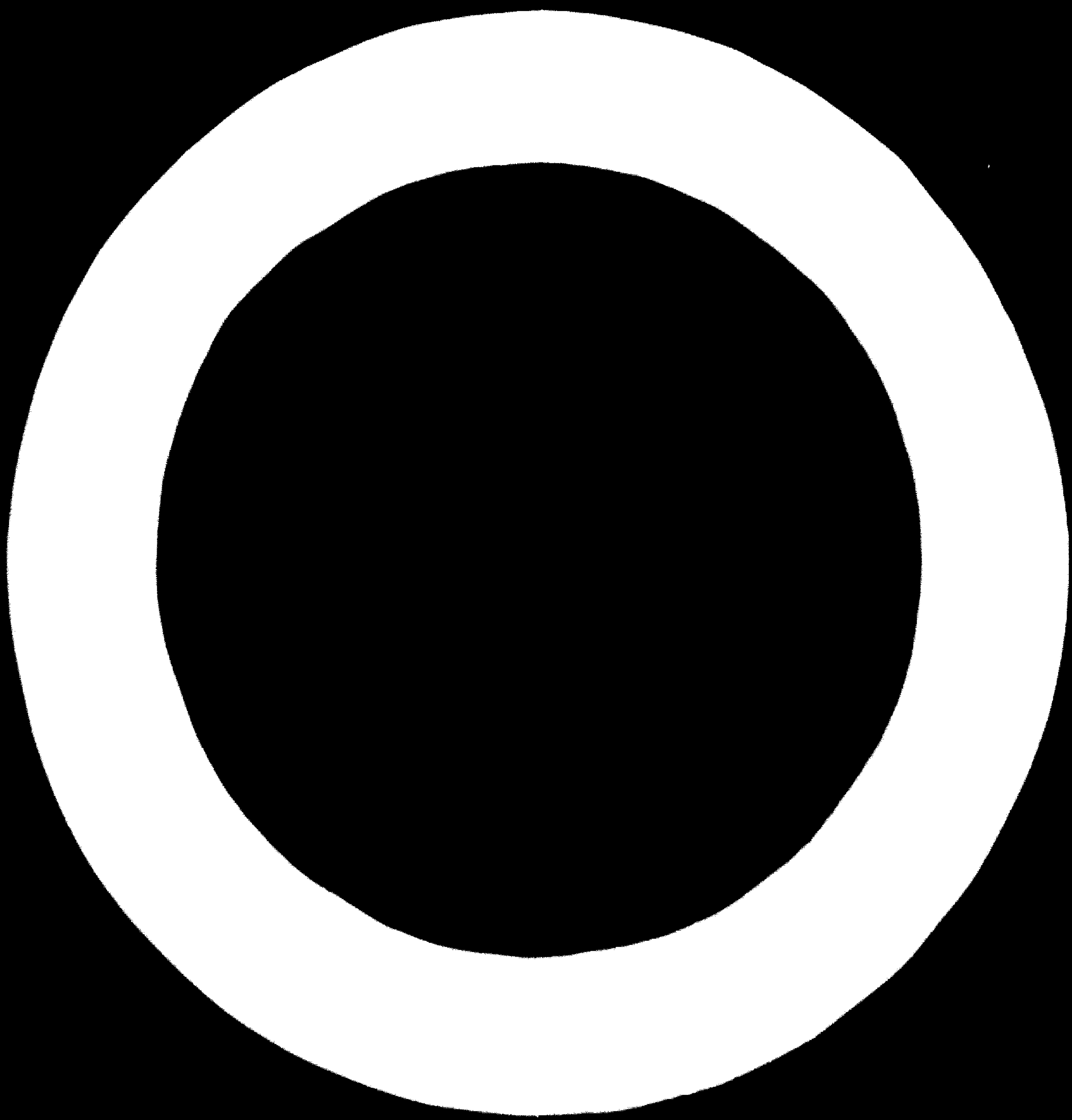


[illegible]

[illegible]	SITC [illegible]	Commodities	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Section [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible] meal	-	-	-	-	[illegible]	[illegible]
S	[illegible]	Maize meal	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S	[illegible]	Flour of glutinous rice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Vermicelli made from rice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Tamarinds, dried	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Tapioca flour	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		Cassava meal	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Birds' nests	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		Vegetables in brine	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible], preparation from glutinous rices, etc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M		Foodstuffs for ships' stores	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Section [illegible]: Beverages and tobacco	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M	[illegible]	[illegible], chewing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Section [illegible]: Crude materials, inedible, except fuels	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S	[illegible]	Teak, shaped or simply worked	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S	[illegible]	Other timbers, [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	64,080
		Section [illegible]: Mineral fuels, lubricants and related materials	-	-	-	-	[illegible]	[illegible]
M	[illegible]1-4	Petroleum products	-	-	-	-	[illegible]	[illegible]
		Section [illegible]: Chemicals	4,31[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible],371	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M	5520[illegible]	Soap, toilet and bath	1,970	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M	[illegible]	Detergent	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4,1[illegible]
M	[illegible]	Dentrifices	16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Section [illegible]: Manufactured goods classified chiefly by materials	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S	61101	[illegible] leather	4,17[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	62909	Rubber bands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	63909	Household utensils of wood	19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		Ornaments and other fancy articles of wood	174	[illegible]	[illegible]	[illegible]	742	[illegible]
S	64102	Printing paper not cut to size, in rolls and sheets	[illegible]	[illegible]	121	31	[illegible]	[illegible]
S	64103	Paper, [illegible] for packing and wrapping	-	-	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	64201	Cardboard box	9	[illegible]	[illegible]	[illegible]	[illegible]	1,00[illegible]
S	65301	Woven fabrics of silk	17,018	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M	65601	Gunny bags, new	-	[illegible]	-	521	-	1,194
M		Bags and sacks for packing	4	[illegible]	16	[illegible]	[illegible]	[illegible]
S	66102	Cement, Portland	10,951	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S	6610[illegible]	Asbestos boards for building	2,407	1,8[illegible]	[illegible]	[illegible]	3,[illegible]	[illegible]
M	66501	Glass bottles	3,376	[illegible]	[illegible]	[illegible]	3,[illegible]	1,11[illegible]
[illegible]	67201-2	Precious and semi-precious stones, worked or unworked	[illegible],059	21,30[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	67301	Silver nielle-wares	12,[illegible]	10,[illegible]	12,10[illegible]	[illegible]	11,[illegible]	[illegible]
S	68107	Galvanized iron or steel sheets and plates	-	[illegible]	1,[illegible]1	[illegible]	[illegible]	[illegible]
S	68701	Tin, unwrought	-	-	-	-	-	[illegible]
[illegible]	69916	Copper, bronze, brass tableware	5,449	3,70[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Section 7: Machinery and transport equipment	278	[illegible]	37[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]2102	Dry cells for flashlights	278	[illegible]	[illegible]	[illegible],174	[illegible]	[illegible]
[illegible]	73206	Chassis, frames and other parts for motor vehicles	-	[illegible]	[illegible]	-	[illegible]	[illegible]
		Section 8: Miscellaneous manufactured articles	7,247	1[illegible],75[illegible]	15,517	[illegible]	21,[illegible]	[illegible]
M	84105	Sarong, printed	1,940	7,573	[illegible],1[illegible]3	14,[illegible]	14,4[illegible]	11,6[illegible]
M	84119	Shawls, scarfs, mufflers, veils and the like	1,549	1,70[illegible]	1,744	[illegible]	1,[illegible]	1,[illegible]
M	89914	Badminton shuttle-cocks	2,489	[illegible],603	[illegible],627	[illegible]	[illegible]	[illegible]
M	89921	Antiques of an age exceeding 100 years	1,269	880	[illegible],02[illegible]	[illegible]	[illegible]	[illegible]
		Section 9: Commodities and transactions not classified according to kind	45,661	58,[illegible]	[illegible]	80,[illegible]	[illegible]	[illegible]
M	93102	Personal and household effects of travellers and immigrants	7,548	11,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M	93102	Articles temporarily exported	24,710	35,[illegible]	56,088	58,564	6[illegible],805	94,[illegible]
M	9310[illegible]	Articles diplomatically exported	13,40[illegible]	10,877	10,[illegible]11	4,[illegible]	[illegible]	[illegible]
		Total	810,29[illegible]	978,[illegible]	[illegible],777	[illegible]	[illegible]	[illegible]
		Per cent of total manufactures and semi-manufactures exports	94%					[illegible]
		Per cent of total exports	9.5%					10.4%

Sources: Department of Customs, Annual Statement of Foreign Trade of Thailand, for the years 1960-6[illegible].

a/ Only items exceeding 1 million baht in value in 1965 are enumerated separately in the table.



21. Ten of the forty-six items, falling within four of the nine SITC sections (0, 2, 3 and 6), had a total export value of 1,078 million baht, or 74 per cent of the total export value of manufactures and semi-manufactures (1,454 million baht in 1965). These are given separately in Table 5.

TABLE 5

Exports of manufactures (M) and semi-manufactures (S), 1960 and 1965
(million baht)

SITC Section	M or S	1960	1965	Per cent of 1965 total	Annual growth rate (%)
6. Manufactured goods classified chiefly by materials					
Tin, unwrought	S	-	399.6	27.5	[illegible]
Precious and semi-precious stones	M	20.1	70.9	4.9	29
Cement, Portland	S	11.0	40.9	2.8	30
Woven fabrics of silk	S	17.0	32.1	2.2	14
0. Food and live animals					
Tapioca flour	M	220.0	222.6	15.3	0.2
Cassava meal	M	50.5	60.7	4.2	4
Maize meal	S	2.8	34.9	2.4	66
2. Crude materials, inedible, except fuels					
Teak, shaped or simply worked	S	239.2	112.1	7.7	- 16
Other timbers, milled	S	95.3	64.1	4.4	- 8
3. Mineral fuels, lubricants and related materials					
Petroleum products	M	-	39.7	2.7	[illegible]
Sub-total		655.9	1077.7	74.1	10.4
Total export of manufactures and semi-manufactures		861.2	1453.9	100.0	11.0

Source: Tables 2 and 4

C. Factors affecting growth of industrial exports

22. An analysis of factors affecting changes in the rate of growth of exports of the forty-six items, particularly the ten major items singled out in Table 5, may provide a rough indication as to the prospects of these major industrial exports.

23. The factor that has exerted the greatest influence in achieving the annual growth rate of industrial exports of 11 per cent in Thailand during the period 1960-65 is the emergence in 1965 of unwrought tin, a semi-manufactured product brought about through local smelting of tin-in-concentrates. In 1964, Thailand exported 22,339 metric tons of tin ore and concentrates, which fell to 15,722 metric tons in 1965 owing to the export of 4,779 metric tons of tin metal in that year.[1/] For the Thai economy as a whole, the net gain is the value added in the process of tin smelting.

24. A second factor is the export of products developed in connexion with the process of import substitution, including Portland cement and petroleum products. During the period 1960-65, exports of Portland cement grew at an annual rate of 30 per cent. Their value rose from 11 million baht in 1960 to 51 million baht in 1961 and 63 million baht in 1962, falling to 55 million baht in 1963 and 36 million baht in 1964, and rising again to 41 million baht in 1965. Cement production grew from 543,000 tons in 1960 to 1,248,000 tons in 1965 and the fluctuation in the quantity of exports appeared to have been caused mainly by changing domestic requirements.

25. Exports of petroleum products commenced with a total export value of 6.4 million baht in 1964, which rose six-fold to 39.7 million baht in 1965. This compared quite favourably with a four-fold rise in production from 471 million litres to 1,802 million litres during the same period.

26. A third factor is the growth of tourist traffic, which in terms of visitors rose from 81,340 in 1960 to 244,000 in 1965. This increased the demand for Thai handicrafts including precious and semi-precious stones and woven silk fabrics. The trade returns for 1960-65, which do not include local purchases by tourists, showed an annual growth rate in exports of these items of 29 per cent for precious and semi-precious stones and 14 per cent for Thai silk.

27. A fourth factor is the emergence of new industrial exports developed in connexion with the programme of agricultural diversification, including tapioca flour, cassava meal, and maize meal. Thailand has succeeded in developing new export crops in postwar years to alter its status as a country endowed with rice monoculture, to include cassava roots and maize. Output of cassava roots, which reached 487,000 metric tons in 1958, rose to 1,083,000 metric tons in 1960 and 2,340,000 metric tons in 1965. These roots are processed partly for export under two categories, namely manufactured goods and primary

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1/ Bank of Thailand Monthly Report, September 1966, p.44. From 24 July 1965, the export of tin ore has been suspended. (Ibid., August, 1965, p.23).

commodities. According to the UNCTAD classification noted earlier (see footnote a/ to Table 2), tapioca flour and cassava meal are manufactured goods, whereas tapioca waste and shredded cassava are primary commodities. In the following table statistics for 1960 and 1965 on the value and quantity of export of tapioca products are given under these four items.

TABLE 6

Exports of cassava products, 1960 and 1965

Item	Quantity ('000 metric tons)		Value (million baht)	
	1960	1965	1960	1965
Manufactured goods	242	221	270	284
Tapioca flour	177	142	220	223
Cassava meal	65	79	50	61
Primary commodities	26	499	14	392
Tapioca waste	25	98	14	77
Shredded cassava	-	401	-	315
Total	267	720	284	676

Source: Department of Customs

28. During the period 1960-65, although the value of exports of tapioca products rose 1.4 times, the rise was much greater for primary commodities than for manufactured goods. During this period, the value of exports of tapioca flour and cassava meal rose by 15 per cent, while the value of exports of tapioca waste and shredded cassava rose by as much as twenty-eight times. This shift in preferences for shredded cassava as against cassava meal as an animal feed, and the stagnant world demand for tapioca flour, account for the slow rate of growth in the export of the two manufactured items - tapioca flour and cassava meal.

29. Production of maize rose from 67,000 metric tons in 1955 to 544,000 metric tons in 1960 and 1 million tons in 1965. Apart from exports of maize in its natural form, which rose 1.6 times from 515,000 metric tons in 1960 to 812,000 metric tons in 1965, exports of maize meal as an animal feed showed a twelve-fold increase during the same period, from 2.8 million baht to 34.9 million baht.

30. A fifth and final factor is a decline in traditional exports of processed timber (mainly teak and yang), owing to a rapid depletion of improperly conserved forest reserves on the one hand, and a rising domestic demand largely for the purpose of new construction on the other. The value of export for the two items of processed timber, namely, teak shaped or simply worked and other milled timber, fell by 47 per cent from 335 million baht in 1960 to 176 million baht in 1965.

II. EXPORT POSSIBILITIES FOR MANUFACTURES AND SEMI-MANUFACTURES

A. Survey of export industries

31. In 1965 there were altogether 178 5-digit SITC items in the Thai trade returns which could be considered as manufactures and semi-manufactures in accordance with the UNCTAD classification. The total export value of these items was 1,454 million baht in 1965; this could be subdivided into three groups according to relative importance as follows:

		Value (million baht)	Per cent
Group A.	Ten items each with an export value in excess of 29 million baht or 2 per cent of the total	1,077.7	74.1
Group B.	Thirty-six items each with an export value in excess of 1 million baht or 0.145 per cent of the total	269.8	18.6
Group C.	Remaining 132 items	106.4	7.3
	Total	1,453.9	100.0

32. Group A items, accounting for almost three-fourths of total foreign exchange earnings from Thai industrial exports, will be considered itemwise, with brief accounts of their development, with special reference to the period 1960-65, and a forecast of their future production and exports during 1966-70. Such a forecast is based on the estimates in the second national economic plan for 1966-71 or, in their absence, on United Nations estimates.

33. Group B items, accounting for less than one-fifth of total export earnings from manufactures and semi-manufactures, are more numerous but less important. They will be briefly touched upon separately, and account will be taken of their individual export trends during the period 1960-65 while estimating their export possibilities for the period 1966-70.

34. Group C items, accounting for a little over one-fourteenth of total export income from manufactures and semi-manufactures, are most numerous, having in each case an export value of less than 1 million baht or around US$ 50,000. However, in this group items promising growth in the long run are to be found. These include, for example, promising export industries, such as plywood and food canning, based on available natural resources.

(1) Group A industries

35. Tin. Thailand has important tin deposits and is a major producer of concentrates. In recent years, production of metallic tin has also become significant and is increasing rapidly. Thai production of tin-in-concentrates was about 4,000 tons in 1900 and reached its pre-war peak of 17,000 tons in 1940. There has been a continuous expansion and growth since the war, reaching the post-war peak of about 22,000 long tons in 1966, with the exception of 1958 when only 7,718 long tons were produced. The following table shows the annual production and exports, separately for tin and tin-in-concentrates, since 1961.

Table 7

Thailand: Production and exports of tin and tin-in-concentrates, 1961-66

(long tons)

Year	Tin-in-concentrates		Tin	
	Production	Exports	Production	Exports
1961	13,271	13,[illegible]22		
1962	14,679	14,244		
1963	15,585	15,428		
1964	15,597	15,666		
1965	19,047	10,758	5,524	4,877
1966	20,537[a]	203[b]	14,840[a]	7,812[b]

Source: International Tin Council, Statistical Bulletin (monthly)

a/ January - November.
b/ January - June.

36. At the end of 1963, the total number of tin mines (working mostly in Peninsular Thailand) was 458, of which twenty-three were operating by dredge and 131 by gravel-pumping and hydraulic methods, the remainder being mainly small mines. The twenty-three dredges, which were all owned by foreign companies (mainly Australian and British), accounted for 40 per cent of the total production in 1963 and about two-thirds of the output of Peninsular Thailand. Gravel pumping and hydraulic extraction accounted for 42 per cent of the total production in 1963. Most of the 131 mines using this method were operated by Thais or Chinese descent.[1]

1/ International Tin Council, Statistical Yearbook for 1964, pp. 126-127

37. As may be seen from the above table, almost the entire production of tin-in-concentrates was exported till 1964. However, from 1965, Thailand entered the field of tin smelting with the establishment of the Thailand Smelting and Refining Company Limited, a joint Thai-American venture for the specific purpose of smelting the locally-produced tin ore. The company, with a smelter in Phuket having an annual production capacity of 15,000 tons of tin metal from about 20,000 tons of tin-in-concentrates, has a total registered capital investment of 18 million baht, of which 70 per cent is invested by the Union Carbide Company of the United States, and the remainder by the Eastern Mining and Development Company of Thailand. The plant started operation in August 1965, and plans are reported to be under way for expanding its production capacity by about 50 per cent from the second half of 1966, with the construction of two more furnaces, so that 30,000 tons, instead of 20,000 tons, of tin-in-concentrates per year can be smelted.1/ Under an agreement made between the Thai Government and the Thailand Smelting and Refining Company, all ores mined in Thailand are to be smelted by the company. Arrangements for the purchase of tin ore by the company from the mines have been made after several meetings, whereby prices to be paid by the company for the tin ores will be in line with those paid for ore accepted by the smelters in Penang and Singapore.2/

38. Total tin deposits in Thailand are estimated to exceed 1 million tons, while new developments in mining techniques have led to the discovery of vast new deposits offshore of Phuket province where new mines have already been opened. Tin production will vary with the level of world demand and if the current price level is maintained, the 1971 production target of 32,000 tons of tin ore may, according to the second plan, be surpassed.3/ Of the 1971 target production of 32,000 tons, the plan allocates 30,000 tons for exports, and 2,000 tons for consumption and inventory.4/

1/ Bangkok Bank Monthly Review, March 1966, p.87.

2/ Ibid, July 1965, p. 172.

3/ The National Economic Development Plan, 1967-1971, Pre-final edition, National Economic Development Board, Bangkok, 1967, p. 195.

4/ Ibid, p. 266.

39. Tapioca flour and meal. Tapioca is a starch made from cassava root extensively cultivated in the tropical areas of Africa, South America and South and South East Asia, the leading producers being Brazil, Nigeria and Thailand, accounting in 1963/64 respectively for 22.5, 12.8 and 2.1 million metric tons of cassava, or 26.3, 15.0 and 2.5 per cent of the world's cassava production of 85.2 million metric tons.

40. Cassava products include tapioca flour, mainly used industrially, shredded cassava, tapioca meal and tapioca waste, all of which are used as feeding stuff for livestock. According to the UNCTAD classification referred to in paragraph 27 above, tapioca flour and meal are defined as manufactures, and shredded cassava and tapioca waste as primary commodities.

41. As noted earlier, during 1960-65, while exports of tapioca flour and meal rose by only 5 per cent from 270 to 284 million baht, exports of tapioca waste and shredded cassava rose twenty-eight fold from 14 to 392 million baht. This shift in the composition of tapioca products, which accounts for the slow growth rate of manufactured items in Thailand, was caused mainly by the imposition of a special levy on the import of tapioca meal into the EEC area which came into effect in July 1962, whereas shredded cassava or tapioca chips escaped this special taxation.1/ Also, as shown in Table 4, the drop in the quantity of tapioca flour exported from the peak of 278 million baht in 1961 to 159 million baht in 1962 was attributed largely to a change in the source of supply on the part of the United States from Thailand to Brazil, which lowered its export price as a consequence of the alteration of foreign exchange rates in the country. In the Federal Republic of Germany, the other major buyer of Thailand's tapioca flour, the reduction or disappearance of imports may be attributed to the imposition of a special levy as in the case of tapioca meal. Exports of tapioca flour from Thailand thus showed a decline of 120 million baht, from 246 million baht in 1961 to 126 million baht in 1962, to these two countries.

1/ Tapioca Association of Thailand, Yearbook 1965, p. 29.

Table 8

Exports of tapioca flour, 1960-65
(million baht)

Importer	1960	1961	1962	1963	1964	1965
United States	152.3	186.0	102.1	160.9	177.6	190.9
Germany, Federal Republic of	46.1	45.7	23.7	1.2	-	-
United Kingdom	.2	14.6	.7	1.2	.2	0.1

Source: National Statistical Office, Statistical Yearbook of Thailand, 1965, p.303; Department of Customs, Foreign Trade of Thailand, 1965, Vol. I, pp. 250-1

42. Apart from increased difficulty of access to the EEC area and devaluation of the cruzeiro resulting in a lowering of the external price of Brazilian products on the world market, the tapioca flour and meal industry also suffers from a third external factor, the dispute over the freight rebate and the freight-rate increase with the Thailand-Europe Shipping Conference. The Conference has proposed a freight-rate increase for tapioca meal to be effective as of August 1966, ousting that in force from April 1966, by 5s. per ton and for shredded cassava by 7s.6d. per ton. This increase, however, was put off again in December 1966, following the appeals to the Conference by both the Government and the tapioca exporters. The shipping companies claim, however, that a 12 per cent increase is required owing to the increase in shipping expenses. Freight rebate is a general practice for bulky cargoes in international sea transportation. The Thailand-Europe Shipping Conference is reported to have withheld the rebate, which accounts for about 10 per cent of total freight, from the exporters.

43. In the meantime, the tapioca industry is confronted with the problem of surplus capacity arising from the presence of many small and inefficient producers. In the main producing area of Cholburi-Sriracha-Rayong, there were in 1963, 178 tapioca flour factories, large and small, with a productive capacity of 7,300 piculs1/ or 438 tons, and about 600 tapioca meal factories. In that year, it was reported that "many factories have suspended operations or do not work to full capacity. It seems that there is a surplus of milling capacity. The demand condition for meal does not warrant so many mills, which sprang up like mushrooms in 1960-61 in response to the high price

1/ 1 picul = 60 kg.

and abnormally good demand."[1] As a way out, 1963 saw the founding on 28 June of the Tapioca Association of Thailand, whose aims are: (1) to combine all traders closely; (2) to render facilities to all parties concerned, that is, growers, producers, exporters and others; (3) to solve problems or settle any disputes that may arise; (4) to help farmers to increase their yield per rai[2]; and (5) to hold the market so as to preserve Thailand as the world's largest producer of tapioca. During the first three years of its history, 1963-65, the Association is stated to have performed the following functions: (1) halted the increase of freight rates on tapioca products; (2) provided members with second-hand gunny bags in time of shortage at a lower price than that prevailing in the local market; (3) rendered customs facilities in the import of paper bags, (4) revised and modified the sales contract proposed by West German importers, and (5) took a part in inviting an expert from the United States to advise on how to increase the crop yield.[3]

44. In view of the unfavourable external factors, and surplus capacity among the tapioca flour and meal producers, it is not likely that the industry will undergo further expansion during the period 1966-70. As noted earlier, although the export value of tapioca flour and meal during 1960-65 rose by five per cent from 270 to 284 million baht, the quantity exported remained somewhat stationary at around 220,000 tons. This stationary trend in exports is implicit in the limited increase of only 7 per cent in the cassava production from 2.34 million tons in 1965 to 2.5 million tons in 1971, under the second development plan.[4]

45. Maize meal. Maize is a new crop whose output has been almost doubled from 544,000 to one million metric tons during 1960-65, owing to growing demand, particularly from Japan. During this period over 90 per cent of the total output has been exported. Of the total export of 804,400 metric tons in 1965, Japan took 560,000 metric tons, or 70 per cent. The other major customers of Thai maize include Hong Kong, Singapore and Malaysia, which took in 1965 respectively 81,800, 81,600 and 53,900 metric tons.

1/ S.Y. Lee, "Thailand's Tapioca", Bangkok, p. 39.

2/ 2.5 rai = 1 acre.

3/ Ibid., pp. 1-2.

4/ The National Economic Development Plan, 1967-71, op. cit., p. 139.

46. Maize is also ground into maize meal as a livestock feeding stuff for local consumption and export to the neighbouring countries of Malaysia, Singapore and Hong Kong. Maize meal export to these countries, not being subject to any special import levy as in the case of tapioca meal in the EEC area, has increased steadily from 2.8 million baht in 1960 to the peak of 41.7 million baht in 1964, but suffered a setback to 34.9 million baht in 1965. This cutback is due mainly to a reduction in the import of Thai maize meal into Malaysia and British North Borneo, owing to the coming into operation of their own maize meal factories. The statistics of maize meal export from Thailand during 1960-65 are shown below. Compared with export of maize in its primary form, export of maize meal amounted to only 2.3 per cent during the same period.

Table 9

Exports of maize meal, 1960-65

(Quantities in metric tons, value in thousand baht)

Year	Singapore		Malaysia		Hong Kong		Others		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1960	1,250	1,311	1,069	1,183	313	353			2,633	2,848
1961	161	145	445	512	1,373	1,460			1,979	2,117
1962	5,270	6,146	5,033	5,778	1,389	1,622	31	67	11,723	13,613
1963	9,853	12,033	11,436	14,124	1,611	1,915	538	695	23,439	28,767
1964	14,289	18,627	13,126	16,644	3,245	4,794	1,231	1,645	31,891	41,709
1965	14,917	18,893	8,496	11,124	3,267	4,391	293	452	26,973	34,861

Source: Annual Statement of Foreign Trade of Thailand, 1960, 1961, 1962, 1963, 1964 and 1965

47. In the second development plan (1966-71), the Government planned an increase in maize production from 1 million metric tons in 1965 to 1.5 million metric tons in 1971. In view of the 1965 decline in export of maize meal, and of the rapid rate of expansion during 1961-64, it appears that maize meal export will not again undergo a similar rate of increase as in 1961-64, especially since the crushing of maize into maize meal is a simple operation which can be gradually developed locally in the importing countries.

48. Processed timber. Next to unwrought tin and tapioca products, processed timber, mainly from teak and yang, is the largest item of industrial export from Thailand, amounting in 1965 to 176 million baht, or 12.1 per cent of the total value of industrial exports of 1,454 million baht.

NOTE

The UNCTAD secretariat, in co-operation with the regional economic commissions, is carrying out a number of country studies in Latin America, Africa and Asia to determine the immediate and future prospects for increasing the exports of manufactures and semi-manufactures from selected developing countries.

The object of these studies is not to present an exhaustive analysis of the export prospects and problems of the countries concerned, but rather to draw attention to the scope for increased exports and to the measures which might be taken in this respect. In the case of developing countries which do not possess any significant export industries, an attempt has been made to estimate what would be the export prospects if export-oriented industries were established as an integral part of the industrial development of these countries.

These studies should, therefore, be regarded as only part of the examination of the possibilities of building up and expanding the exports of manufactures and semi-manufactures from the developing countries. The present study (document TD/B/C.2/42) analyses the short and medium-term prospects for exports of manufactures and semi-manufactures from Thailand. A summary and the conclusions reached in this study are contained in paragraphs 1 to 15 below.

49. Teak is one of the most valuable world timbers, as it possesses hardness and durability as well as decorative properties. It is used as raw material for ship-building, fine furniture, door and window frames, wharves, bridges and so on. In the early 1960's Burma produced 75 per cent of the world's teak supply, followed by India, Thailand, Indonesia and Ceylon. Much of the best quality teak is exported from Burma and Thailand.

Table 10

Production, exports and apparent consumption of teak, 1960-65

(thousand cubic meters)

Year	Timber cut	Exports	Apparent domestic consumption
1960	154	101	53
1961	106	65	41
1962	123	40	83
1963	144	32	112
1964	143	40	103
1965	254	45	209
Annual average	154	54	100
Per cent	100%	35%	65%

Source: Thai Teak, p. 27

50. Of the total teak timber cut in Thailand during the period 1960-65, about 35 per cent was exported. The ratio of exports in total production has, however, shown a decline from 66 per cent in 1960 to 18 per cent in 1965, owing both to a decline in production between 1960 and 1964 and an increase in apparent consumption arising from heightened construction activities under the first development plan (see Table 10).

51. Teak exports consist of two major categories, namely, teak conversions defined by UNCTAD as a semi-manufacture, and teak logs defined as a primary commodity. From the Table 11 below, it may be seen that the proportion claimed by teak conversions in total teak exports declined from 70 per cent in 1960 to 58 per cent in 1965 in terms of quantity, and from 67 per cent to 55 per cent during the same period in terms of value.

Table 11

Export of teak by item, 1960-65

Item	Quantity (1,000m^3)				Value (million baht)			
	1960		1965		1960		1965	
Teak conversions		70.7		26.4		239.2		112.1
Teak squares	9.5		1.9		18.6		4.3	
Teak planks	10.8		3.3		51.0		17.5	
Teak boards	17.3		9.5		75.4		50.0	
Teak scantlings	30.4		11.3		79.3		38.0	
Teak decks	2.6		.4		14.8		2.3	
Teak, n.e.s.	.1		-		.2		-	
Teak logs		30.3		18.6		116.9		88.7
Total		101.0		45.0		356.1		200.8

Source: Department of Customs

52. Exports of milled timber other than teak, consisting mainly of milled yang timber, also showed a decline during 1960-65, by 33 per cent in value and by 43 per cent in quantity. During this period, the proportion of simply worked yang exports in total exports fell from 94 per cent to 88 per cent in value; in volume the fall was slight, from 96 per cent to 94 per cent. On the whole, there was a rise in price of processed timber owing to an increase in demand.

Table 12

Exports of milled timber other than teak, 1960-65

Timber	Quantity (1,000m^3)		Value (million baht)	
	1960	1965	1960	1965
Yang, simply worked	107.8	59.8	89.2	56.3
Other timber, simply worked	4.8	4.1	6.1	7.8
Total	112.6	63.9	95.3	64.1

Source: Department of Customs

53. It is thus clear from the above survey that during 1960-65 processed timber, including teak conversions and milled timber other than teak, has shown a decline of 48 per cent in the value of exports, from 335 to 176 million baht. In quantity, the decline during the same period is from 183,000 to 90,300 m^3, that is, by 51 per cent (see Table 13).

TABLE 13

Exports of processed timber, 1960-65

Item	Quantity (1,000 m^3)		Value (million baht)	
	1960	1965	1960	1965
Teak conversions	70.7	26.4	239.2	112.1
Milled timber other than teak	112.6	63.9	95.3	64.1
Total	183.3	90.3	334.5	176.2

Source: Department of Customs

54. The most important factor accounting for the decline in the export of processed timber is the rise in construction activity under the first development plan, (1961-66). To take teak as an example, the rise in apparent domestic consumption during 1961-65 is from 41,000 to 209,000 m^3, with a consequent decline in exports from 65,000 to 45,000 m^3 during the same period. This rise in construction activity is implicit in the high rate of growth of the national economy, which is placed at 7 per cent per annum under the first plan, and projected to be 8.5 per cent under the second plan (1966-71).

55. A second factor is the decline in the production of timber attributable to reckless felling in the past and the policy of the Government to conserve the rapidly dwindling timber supply. In 1955, the volume of teak timber cut was reported to be 306,000 m^3, but this fell heavily in the post-war years to 106,000 m^3 in 1961, from which year the volume began to rise again gradually till it reached 254,000 m^3 in 1965.1/ The entire forest area of Thailand is stated to be approximately 263,200 km^2, or 51 per cent of the total area of the country. One of the policies under the first plan was to conserve at least 50 per cent of the total area of the country as forest reserve. So far, however, forest reservation in an area of only 48,200 km^2 has been completed, leaving the balance of 215,000 km^2 to be further implemented. Afforestation in these areas suffers from illicit and destructive felling; as a result, in spite of the government afforestation programme, owing to the shortage of heavy equipment only about 5,000 rai of teak and 8,000 rai of other timbers are planted annually.2/

1/ Board of Export Promotion, Thai Teak, Bangkok, 1966, p. 27.

2/ The National Economic Development Plan, 1966-71, op. cit., 131-132 [illegible] is in the hands of sawmills. There are forty-four [illegible] teak logs along the Chao Phya River, consuming per mill [illegible] m^3 per day. Small sawmills prevail because of (1) the [illegible] in producing general-purpose timber of the same small [illegible] whether by small mills sawing 15 m^3 a day or by large mills sawing 100 m^3 a day; (2) irregularity in the size of teak logs; (3) applicability of skilled labour for full utilization of teak logs in small mills. In 1965, the Government banned the establishment of new sawmills in view of surplus sawing capacity and the limited supply of teak logs.

57. Teak log production is in the hands of the Forestry Industry Organization, (FIO), a Government agency established in 1956 to nationalize teak production. At present, of the forty working units of teak forests in Thailand, the FIO is working thirty-one units and part of a unit operated under the unrenewed leases of the Joint Timber Company. Of the remaining eight units and part of a unit, leases have been granted to indigenous commercial and experimental undertakings to work all but three units, which still remain unleased.1/

58. Thai handicrafts. Thai handicrafts exported from year to year include, in their order of importance, precious and semi-precious stones, silk fabrics, silver niello-ware, copper, bronze and brass tableware, and wood carvings (see Table 14 below).

TABLE 14

Exports of handicraft articles, 1960 and 1965
(thousand baht)

Item	1960		1965	
	Value	%	Value	%
Precious and semi-precious stones, worked or unworked	20,059	36.4	70,928	60.0
Silk fabrics	17,018	30.9	32,138	27.2
Silver niello-ware	12,397	22.3	10,046	8.5
Copper, bronze or brass tableware	5,449	9.9	3,057	2.6
Wood carvings	174	.5	2,019	1.7
Total	55,097	100.0	118,188	100.0

Source: Department of Customs

1/ Thai Teak, op. cit., p. 19.

59. The major handicrafts whose exports have increased rapidly between 1960 and 1965 are precious and semi-precious stones as well as silk fabrics: their share in total handicraft exports rose from 67.3 per cent in 1960 to 87.2 per cent in 1965. These will be dealt with in the present section, leaving the minor handicrafts to be covered under Group B industries, each with an export value in 1965 of less than 29 million but more than 1 million baht.

60. Precious and semi-precious stones, notably sapphire and ruby, are produced near Kanchanaburi in the eastern Thailand. Mining of these stones is very primitive, mainly by hand. Land is leased and dug with manual tools, and success depends mainly on experience and luck. Raw stones are generally brought to Bangkok for cutting and polishing. No statistics on deposits and production are available, but trade returns reveal the value and destination of exports for various types of stones, both cut and uncut (see Table 15 below).

TABLE 15

Exports of precious and semi-precious stones, 1960 and 1965
(thousand baht)

Item	1960				1965			
	Uncut	Cut but not set	Total	Per cent	Uncut	Cut but not set	Total	Per cent
Sapphire	1,359	10,390	11,749	58.6	4,227	45,347	49,574	70.0
Ruby	2	2,432	2,434	12.1	61	16,333	16,394	23.1
Zircon	13	2,845	2,858	14.2	-	2,852	2,852	4.0
Emerald		2	2	-		58	58	.1
Diamond					5		5	-
Precious and semi-precious stones, n.e.s.	209	2,808	3,017	15.1	348	1,679	2,027	2.8
Total	1,583	18,477	20,060	100.0	4,640	66,268	70,909	100.0
Per cent	7.9	92.1	100.0		6.5	93.5	100.0	

Source: Department of Customs

61. Of the total precious and semi-precious stones exported, 7.9 per cent in 1960 and 6.5 per cent in 1965 were uncut, while over 90 per cent were cut but not set. The most important export item is sapphire, whose exports rose fourfold from 11.7 million baht in 1960 to 49.6 million baht in 1965, accounting for 58.6 per cent of the total exports in the former year but rising to 70 per cent in the latter. Sapphire, or star

sapphire as it is generally called, is famous for its sparkling star in the stone when shown under sunshine or lamp light. In post-war years the Thai star sapphire has become well known to foreigners; its special characteristics have not only attracted the attention of tourists, but also aroused the interest of the world's stone importers. Major sapphire importers are the developed countries, notably the United States, the United Kingdom, Switzerland, Federal Republic of Germany, France, Italy, the Netherlands and Japan, in addition to the entrepôts of Hong Kong and Singapore.

TABLE 16

Exports of sapphire and ruby, 1960 and 1965
(thousand baht)

Importer	Sapphire a/		Ruby a/	
	1960	1965	1960	1965
United States	6,143	13,673	308	2,604
United Kingdom	3,119	13,416	1,679	5,128
Switzerland	459	7,141	124	3,022
Hong Kong	252	4,423	123	1,801
Germany, F.R.	20	1,838	12	863
Japan	-	1,562	-	1,229
France	11	809	8	854
Italy	3	542	-	119
Netherlands	-	418	8	118
Singapore	74	348	99	-
Other	309	1,177	71	595
Total	10,390	45,347	2,432	16,333

Source: Department of Customs

a/ Cut but not set

62. The export value of ruby in 1965 was only one-third of that of sapphire. The rubies went to almost the same group of developed countries and entrepôts as sapphires. Other export items include zircon, emerald, diamond and others, amounting to about 5 million baht, or 7 per cent of the total exports of precious and semi-precious stones in 1965.

63. Silk fabrics. Although silk fabric production is a very old-established handicraft in Thailand, it remained virtually unknown outside the country until after the second world war, when the fabrics began to be exported as the result of private commercial

initiative. Thereafter trade increased very rapidly - between 1952 and 1964 the value of exports grew almost seventeen-fold from the base-year total of about 2 million baht. The development of this industry has not only brought to the country an appreciable amount of foreign exchange earnings, but has also helped to provide employment and income to the people living in the relatively less-developed part of the country in the northeast. Today, 134 firms are reported to be employing thousands of people for the weaving of Thai silk, while some 240,000 families are engaged in the production of raw silk.1/

TABLE 17

Exports of silk fabrics, 1960 and 1965

Importer	Quantity (100 sq. yd.)		Value (1,000 baht)	
	1960	1965	1960	1965
Hong Kong	718	1,633	4,444	9,679
United States	755	960	4,445	6,199
Australia	244	480	1,678	2,931
Sweden	35	394	260	2,460
United Kingdom	410	306	2,683	1,921
Singapore	121	277	1,000	1,622
Switzerland	60	241	390	1,140
Other	304	968	2,119	6,186
Total	2,647	5,259	17,019	32,138

Source: Department of Customs

64. Exports of Thai silk fabrics, mainly to the United States, Australia, Sweden, the United Kingdom and Switzerland, as well as to the entrepôts of Hong Kong and Singapore, have doubled from 17 million baht in 1960 to 34 million baht in 1963. After 1963, value of exports fell slightly to 33 million baht in 1964, and 32.1 million baht in 1965.

65. The standstill of Thai silk exports during the three years 1963-65 may be attributed to the difficulty of increasing production on the one hand, and the rise in domestic demand on the other. Statistics on the extent of production are lacking,

1/ Board of Export Promotion, Thai Silk, Bangkok, 1966, p. 11.

since production takes place in individual establishments not subject to government supervision or control. The handicraft nature of the product, using fundamentally the same processes of weaving and preparing the silk as those in vogue many centuries ago, and giving rise to hundreds of varieties in colour, design and texture, makes it difficult to expand production to any significant extent. The industry, operated in many cases on a small scale, is a handicap to development. The raw silk used presents a distinct problem. Because of the seasonal character of silk production, only large manufacturers are able to finance economical purchase of raw silk at the right season.

66. While it is not possible to estimate the extent of increase in domestic consumption, one can readily observe the spread of Thai silk, which has a high income elasticity, among the Thai middle class in a rapidly growing economy. Also, the increase in tourist traffic in recent years has resulted in an expansion of local purchases carried away in person by the incoming tourists but not reflected in the customs returns.

67. In order to expand further production and exports of Thai silk, both external and internal measures seem called for. Among the external measures, a gratifying beginning has been made in the unilateral, non-reciprocal offer of free entry of handicraft products, including silk fabrics, by the Government of Australia, in its trade regulations of 12 April 1966. Among the internal measures, the most important is the establishment and maintenance of quality standards. According to official sources, the Government intends, by the end of 1967, to introduce quality control of exported silk fabrics through the Ministry of Economic Affairs. It is proposed to test each bolt of material for fastness of dye, purity of fibre and number of threads to the square inch before export clearance is granted.

68. Import substitutes. Under its first development plan Thailand has undergone a process of industrialization designed mainly for import substitution. As a result, production of major industrial products has risen greatly, as shown below.

TABLE 18

Production of major industrial products, 1960 and 1965

Product	1960	1965
Cement (1,000 tons)	543	1,248
Cotton fabrics (million sq. yd.)	87a/	189b/
Gunny bags (1,000)	6,878	40,361
Sugar (1,000 tons)	140	320c/
Paper (1,000 tons)	2.6	13.3
Tobacco products (1,000 tons)	8.9	10.1
Petroleum products (million litres)	-d/	1,802

Source: Bank of Thailand, Annual Economic Report and Monthly Report

a/ 1961; b/ 1964; c/ Up to September; d/ 471 million litres were first produced during August-December 1964.

69. As shown earlier in Table 3, some of the above items were exported in 1965, recording 40.9 million baht for Portland cement, 39.7 million baht for petroleum products, 2.3 million baht for paper and 1.2 million baht for gunny bags. In the present section exports of the two major items, Portland cement and petroleum products, will be briefly reviewed.

70. Cement. When used for the purposes of general construction it is usually called construction cement, that is hydraulic cement which is not only mixed with water but will set and harden under water. Of the hydraulic cements, by far the most important is Portland cement. As raw materials for cement production, such as limestone and gypsum, are found in most countries of the region and freight charges, compared to production costs, are relatively high, cement is generally manufactured locally and not imported from abroad. This is also due to the simple technical knowledge required for production and the difficulty of stocking beyond a relatively short period of four months arising from the chemical properties of cement.

71. In Thailand, the Siam Cement Company, a private enterprise, was set up in Bangsue, Bangkok in 1913 and started production in 1915 with an annual capacity of 20,000 tons. In order to cope with the increasing local demand, the company extended its activity and put up two other plants, one a much larger plant in the Tha Luang district, Suraburi province, and another in Tung Song in the south. In addition, another cement plant was first set up by the Irrigation Department of Thailand to supply cement for the Yanhee Dam construction, but was subsequently turned into a private concern called The Jolapratara Cement Company. This plant started its operation with a production capacity of 200,000 tons per annum.

TABLE 19

Production, trade and apparent consumption of Portland cement, 1960-65
(3,000 metric tons)

Year	Production	Imports	Exports	Apparent consumption
1960	543	12	24	531
1961	800	6	157	649
1962	967	32	179	820
1963	997	17	144	870
1964	1,059	7	102	964
1965	1.248	7	106	1,149

Source: Bank of Thailand and Department of Customs

72. Portland cement production rose rapidly after 1960, and was more than doubled in 1965, when production rose to 1.2 million tons. By 1966, it further rose to almost 1.5 million tons. This increased production went largely to meet the rising domestic demand, which was accelerated in 1966 by the construction boom arising from the war in Viet-Nam. Exports have fluctuated from year to year, nevertheless showing a declining proportion in total production; it amounted to less than 10 per cent of production in 1965.

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MEASURES FOR THE PROMOTION, EXPANSION AND DIVERSIFICATION OF EXPORTS OF MANUFACTURES AND SEMI-MANUFACTURES FROM DEVELOPING COUNTRIES; CO-OPERATION WITH THE UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO) AIMED AT THE ESTABLISHMENT AND EXPANSION OF EXPORT-ORIENTED INDUSTRIES IN DEVELOPING COUNTRIES; OTHER FORMS OF ECONOMIC, INDUSTRIAL AND TECHNICAL CO-OPERATION

Short and medium-term prospects for export of manufactures from selected developing countries

- THAILAND -

Note by the UNCTAD secretariat

This study analyses the short and medium-term prospects for exports of manufactures and semi-manufactures from Thailand; it is one of a series of such studies relating to other developing countries in Latin America, Africa and Asia, and was completed in May 1967.

These studies have been undertaken in conformity with the programme of work of the Committee on Manufactures, which states that the secretariat of UNCTAD should take appropriate steps to prepare an exhaustive study of the world demand for, and supply of, manufactured and semi-manufactured articles of actual or potential export interest to developing countries and of relevant trends of international trade in such articles.1/

1/ For the programme of work, see report of the Committee on Manufactures on the first part of its first session (10-20 August 1965), printed in Official Records of the Trade and Development Board, second session, Supplement No. 3 (TD/B/22/Rev.1 - TD/B/C.2/5/Rev.1), pp. 4 and 5.

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73. Under the second development plan, (1966-71), Portland cement production is planned to rise to 2.8 million metric tons by 1971, of which 800,000 metric tons are for export. In view of the low <u>per capita</u> consumption of cement in neighbouring countries such as Burma, the Republic of Viet-Nam, Laos, Cambodia and Malaysia and their inability to augment their own production, further increase in exports of Thai cement, as proposed in the second plan, appear feasible.

74. In order to cope with the proposed increase in production, The Siam Cement Company is carrying out an expansion programme of adding another 240,000 tons per year to its Bangsue (Bangkok) plant in 1967, and of doubling the Tha Luang plant's capacity from 600,000 tons to 1,200,000 tons per year by the end of 1968.

75. In addition to the production capacity, availability of sea transportation is also a decisive factor for cement export. Cement is transported in rather limited quantities, say about 1,000 tons per lot, to the consumption markets. It is reported[1] that the Thai Government has a plan to build small ships of 1,200 dwt for coastal and riverline shipping, and has appropriated a sum of 15 million baht to the Royal Thai Navy to set up a shipyard at the Bangkok Dock for this purpose. When the project materializes, cement exports may benefit from the swift and low-cost freight service to be provided by the new fleet.

76. <u>Petroleum</u>. This is not only a major source of energy, but also an important raw material for the petro-chemical industry. Thailand has very limited petroleum reserves, but has imported crude petroleum for the refining of petroleum products in recent years.

77. Local consumption of petroleum products is estimated to have been about 35,000 barrels (158.984 liters each) a day or about 12.8 million barrels during 1962. The consumption is estimated to increase at the rate of 15 per cent per annum, and total consumption in 1970 would stand at 80,000 barrels a day or about 29 million barrels a year. From these figures it can be estimated roughly that total requirement of petroleum products in Thailand for 1966 would be around 20 million barrels.

78. Thailand now has three refineries in operation. The Thai Oil Refinery Company Ltd. (TORC), put into operation in Siracha in December 1964, and now running in full capacity, turns out over 14 million barrels of petroleum products annually, comprising of the following items:[2]

1/ The Bangkok Post, <u>Business Review and Forecast, Thailand, 1966</u>, p. 65.

2/ <u>Bangkok Bank Monthly Review</u>, January 1966, pp.4-5

	(1,000 barrels)
Liquid	15
Jet fuel	795
Ordinary motor spirit (83 octane)	3,758
"Super" motor spirit (95 octane)	146
Kerosene	785
Diesel oil	
for cars	3,070
for industry	1,020
Bunker oil	4,096
Asphalt	315
Total	14,000

According to the contract signed between the Royal Thai Government and TORC, the latter will operate the refinery, which was constructed at a cost of 685 million baht, for a period of ten years, at the end of which it will be turned over to the Government without compensation. In addition, the Company has to pay 25 per cent of the net profit annually to the Government.

79. The Summit Industrial Corporation (Panama) operates a refinery at Bangjark with a daily capacity of 5,000 barrels which has recently been increased to 10,000 barrels. This refinery, which was not in operation before its takeover by the Corporation, is leased from the Defence Energy Department of the Ministry of Defence. According to the lease agreement, the Summit Industrial Corporation is to build another integrated refinery plant with a daily capacity of 20,000 barrels, which is to be turned over to the Government upon termination of the agreement in fifteen years. Construction of the new plant has already commenced, and it is due for completion by the end of 1967.

80. The Fang Refinery, which treats the locally-produced crude oil in the north of Thailand, has a daily capacity of 1,000 barrels

81. Apart from the above three refinery companies, the Government has approved the establishment of two asphalt plants to process 7,000 and 3,000 barrels of imported crude oil per day respectively, to produce gasoline, kerosene, diesel oil and asphalt.

TABLE 20

Exports of petroleum products by destinations, 1965
(1,000 liters)

Item	Malaysia	Singapore	Japan	Total
Gasoline or spirit for general use	14,988	23,522	-	38,510
Kerosene	-	3,595	-	3,595
Oil, diesel		7,555	-	7,555
Oil, heavy fuel, n.e.s.	27,239	76,289	17,913	121,441
Sub-total	42,227	110,961	17,913	171,101

82. Of a total production of 1,802 million liters in 1965, total exports amounted to 171 million liters (see Table above) or 9.5 per cent. Total exports in 1964, the year when petroleum products were first exported, amounted to 471 million liters for the five-month period August-December. Converted to an annual rate, this represents 1,130 million liters for the year. The rate of increase in exports of petroleum products in 1965 would then come to about 16 per cent, which is close to the estimated annual increase rate of 15 per cent in local consumption. The problem regarding Thai exports of petroleum products appears to lie, however, in the discovery of export markets or domestic uses for certain types of locally-produced petroleum products, for example, diesel and heavy oil, for whose full utilisation the country is not yet prepared.

(2) Group B industries

83. Under Group B there are thirty-six items with a total export value of 270 million baht in 1965, each item having an export value in that year of 1 million baht or more. These items, with their export value in 1960 and 1965, are arranged into seven SITC sections as follows (value in million baht); those items having in 1965 an export value of 5 million baht or above are separately enumerated.

SITC section	No. of items		1960		1965	
0: Food and live animals		8		65.3		67.0
Tamarinds, dried	1		21.6		23.9	
Rice vermicelli	1		25.1		16.5	
Glutinous rice flour	1		1.3		9.9	
Wheat meal	1		-		6.1	
Others	4		17.3		10.6	
1: Beverages and tobacco		1		3.1		1.2
5: Chemicals		4		4.3		10.4
6: Manufactured goods classified chiefly by materials		14		28.5		39.2
Silver niello-ware	1		12.4		10.0	
Others	13		16.1		29.2	
7: Machinery and transport equipment		2		0.3		6.4
Dry cells for flashlights	1		0.3		5.1	
Others	1		-		1.3	
8: Miscellaneous manufactured articles		4		7.2		18.3
Sarongs, printed	1		1.9		11.7	
Other	3		5.3		6.6	
9: Commodities and transactions not classified according to kind		3		45.7		127.5
Articles temporarily exported	1		24.7		94.9	
Articles diplomatically exported	1		13.4		16.5	
Personal and household effects of travellers and migrants	1		7.5		16.0	
Total		36		154.4		270.0

84. Food. Among food items, dried tamarinds claim an important place. Tamarind is the fruit of a leguminous plant widely distributed in the tropical areas of South-East Asia and Africa. Shaped like a pod, it is filled with a sweet and acid pulp. It is consumed fresh, but is also dried as a preparation for food spice. Exports of dried tamarind from Thailand during 1960-65 fluctuated between 13 million baht (1961) and 24 million baht (1965). In 1965, the main markets were Malaysia, Singapore, Iraq, Saudi Arabia and Kuwait.

85. Rice vermicelli, a favourite food for the overseas Chinese in South-East Asia, can be manufactured easily. Broken rice, which is an inferior variety of rice, is ground into flour, steamed into a fine noodlelike thread, and then dried in the fields in the form of rice vermicelli, which can be conserved longer than white rice. Thailand, as a rice-producing and exporting country, is in a good position to produce rice vermicelli for exports to neighbouring countries with large concentration of people of Chinese descent, including Malaysia, Singapore and Hong Kong. During 1960-64 the exports of rice vermicelli fluctuated between 25 and 29 million baht a year, but in 1965, it fell to a little over 16 million baht, owing to a big decline in exports to Singapore. Exports of rice vermicelli to Singapore fell from 8.5 million baht in 1964 to 2.9 million baht in 1965, while that to other destinations - Malaysia and Hong Kong, fell to a smaller extent.

86. Glutinous rice, production of which amounts to about 15 per cent of the total rice production,[1/] is a special botanical variety which becomes sticky when cooked. Glutinous rice flour is milled mainly from broken glutinous rice for making cakes. Its exports amounted to only 1.3 million baht in 1960, but rose to 9.9 million baht in 1965. Most of this increase in exports went to Japan, to which Thailand exported only 3,420 baht worth in 1960, but 7,750,000 baht in 1965.

87. Wheat meal is made from broken or low-quality wheat unfit for human consumption by means of crushing or grinding. As it contains a high percentage of protein and starch, it is a good feedstuff for livestock, and especially good for poultry raising. Wheat, however, is a monor crop, only recently grown in northern Thailand, and wheat meal first emerged as an export item in 1964; in that year the export value amounted to 1.9 million baht. This sum rose rapidly to 6.1 million in 1965, of which Hong Kong

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1/ The Siam Directory, 1963-64, A-65-66.

and Malaysia claimed 2.1 million baht each, Singapore 1.4 million baht, and Taiwan 0.5 million baht.

88. Among the four other items, only birds' nests registered a rise in export value during 1960-65, rising from 3.4 to 4.4 million baht, with, however, decreases from the 1960 total in 1961 and 1962. The other three items - vegetables in brine; ba-sae, a preparation from glutinous rice and other ingredients; and foodstuffs for ships' stores - all showed a decline during 1960-65 in export value.

89. The edible birds' nests are formed by the fluids secreted from swallows' mouth glands; they are collected from the caves of some islands off the cost of Thailand, and processed for sale by the elimination of foreign matter. They are considered by the Chinese to possess health-promoting properties, and are exported from Thailand to countries with a concentration of people of Chinese descent such as Hong Kong, Singapore, Penang and others.

90. Many varieties of salted vegetable are produced in Thailand. However, owing to the limited supply of fresh vegetables and increase in local demand, exports of salted vegetables have registered a decline, falling from 7.9 million baht in 1960 to 2.9 million baht in 1965.

91. Ba-sae is a kind of dextrose made from glutinous rice. It is largely for local consumption, although a small portion is also exported to the neighbouring countries of Malaysia, Hong Kong and Singapore. Exports during 1960-65 fluctuated between 2.5 and 3.5 million baht.

92. Foodstuffs for ships' stores include a wide range of commodities, of which a major portion is reported to be rice.

93. Beverages and tobacco. The only item with an export value in excess of 1 million baht in 1965 is chewing tobacco. whose export value fell from 3.1 million baht in 1960 to 1.2 million baht in 1965. Chewing tobacco is manufactured from a special kind of tobacco leaf and is then mixed with spices. It is preferred by the working class especially the harbour coolies. The exports go mostly to Singapore and Malaysia.

94. Chemicals. Four items having an export value of 1 to 5 million baht in 1965 are glycerine, toilet and bath soaps, detergents and dentifrices, having respectively an export value in that year of 2.0, 2.6, 4.1 and 1.7 million baht. Glycerine, manufactured from the waste solution in soap factories, is mostly exported to Japan in the form of crude glycerine for further distillation. Toilet soap is manufactured locally by a subsidiary plant of a large United States concern and is popular in the

export markets of Malaysia, Singapore and Hong Kong. Detergent is repacked by the subsidiary plants of two big foreign concerns; it is exported to Laos, as all other nearby countries have set up their own factories. Dentifrices are made locally in the form of powder or paste. The powder is made from local materials, while the paste requires imported materials for packaging. This is carried out by a United States subsidiary. Most of the dentifrice exports has been going to Laos.

95. Manufactured goods classified chiefly by materials. The only item in this section with an export value in excess of 5 million baht in 1965 is silver niello-ware, a traditional handicraft of Thailand. It covers various products such as necklaces, bracelets, pins, brooches, buttons, cigarette cases, ash trays and so on. The designs are distinctly Thai and appeal to the souvenir-seeking tourists. The export value during 1960-65 fluctuated between 10 and 13 million baht, showing a decline from 12.4 million baht in 1960 to 10 million baht in 1965, owing to a fall in exports to some of the major importing countries such as the United States, the Federal Republic of Germany, Hong Kong and Singapore. The exports to other countries, however, rose, especially to the United Kingdom, the Netherlands, Denmark, Canada and Australia.

96. All the other thirteen items under this section had an export value ranging from 1 to 5 million baht in 1965. These include the three handicraft items of copper, bronze and brass tableware, household utensils, ornaments and other fancy articles of wood. Copper, bronze and brass table-wear include spoons, forks, fish knives, butter knives, ladles and similar kitchen or tableware; they are exported to the United States, Western Europe, Japan, Hong Kong and Singapore. Their total export value fell during 1960-65 from 5.4 to 3 million baht, the fall being applicable to all major importing countries except Singapore. On the other hand, exports of household utensils, ornaments and other fancy articles of wood rose rapidly from 193,000 baht in 1960 to 3 million baht in 1965, being exported mostly to the developed countries, and especially to the United States and Western Europe. For these handicraft products, modern designs have been developed with government encouragement and assistance. The Thai Handicraft Centre and the Industrial Products Design Centre in Thailand have contributed greatly to the exports of these products.

97. Two items required for packing purposes are gunny bags and bags and sacks for packing. Gunny bags are made from locally-grown jute and kenaf, while bags and sacks for packing are made from other fibres. Both were exported in fairly large quantities for the first time in 1965, amounting to 1.2 million baht for the former and 1.9 million

baht for the latter, to such neighbouring countries as Laos and Malaysia. Of these two items, gunny bag production has been on a fairly large scale for the last fifteen years in order to meet the increasing demand for packing rice, maize, sorghum, castor and other oilseeds, tapioca chips and meal and sugar. Gunny bag production was started in 1952 by a government factory in Nondhaburi, just outside Bangkok, with an annual capacity of 2 million bags. This capacity was raised, with the establishment of two more government factories, one at Nakorn Ratchasima in the northeast and another at Saraburi about 115 kilometres north of Bangkok, to 3.5 million bags in 1956 and to 10.8 million bags in 1962. A fourth factory, with an annual capacity of 15 million bags, was erected in the Rangsit district, about 40 kilometres north of Bangkok, and came into operation in 1963. It was originally owned by a private enterprise, but became the property of the Government in 1965. From 1963 to the present, four more factories, all privately owned, have come into operation, raising the annual production capacity to 49 million bags in 1966. 1/ The second development plan for 1967-71 plans to raise gunny bag production in 1971 to 65 million bags. If domestic consumption by 1971 is calculated from the regression line based on the apparent consumption for the five year period 1961-65, there will be a production capacity of 50 million bags by 1971 (see Table 21), thus leaving a possible export total of 15 million bags, which, if estimated at the average f.o.b. export value of 8 baht per bag, may lead to a total export value of 120 million baht.

Table 21

Production, trade and apparent consumption of gunny bags, 1961-71
(million pieces)

	1961	1962	1963	1964	1965	1971
Production	8.84	10.82	23.13	33.51	39.89	65.00
Imports	25.16	30.83	-	12.35	0.64	.....
Exports	0.10	0.07	0.13	0.03	0.15	15.00
Apparent consumption	33.90	41.58	23.00	45.83	40.38	50.00

Source: Ministry of Industry and Department of Customs.

1/ Industrial Development and Investment in Thailand, op. cit., pp. 196-7

98. The three paper items are printing paper not cut to size, in rolls and sheets; paper, common for packing and wrapping; and cardboard boxes. They are all exported to Laos, and have become important during the three years 1963-65, when the export value rose from 2 to 6.6 million baht.

99. Of the five remaining items, galvanized iron or steel sheets and plates are manufactured largely for the purpose of import substitution, with only a marginal amount for exports, mainly to Laos. The three Thai-Japanese ventures, reported to have a total production capacity of over 100,000 tons per year, exported no more than a small quantity of around 460 tons in 1965. In addition, the export value fluctuated greatly from year to year, being, in million baht, 3.4 in 1961, 1.7 in 1962, 9.2 in 1963, 8.2 in 1964 and 2.2 in 1965.

100. A second item with fluctuating exports from year to year is asbestos boards for building, which is also an industry mainly for local consumption. It includes Roman tiles, corrugated sheets and flat sheets. The board is made with asbestos fibres and cement, and possesses the characteristics of being wood-like, strong, fire-proof, light-weight and water-proof. Production of asbestos started with the establishment of the Siam Fibre-Cement Company Ltd. in 1935, which was expanded and modernised after 1952. By the end of 1966, the company had a factory at Bangsue comprising eleven modern automatic machines for the manufacture of various types of asbestos, and another factory under construction at Thung Song which is due for completion in late 1967. Its exports, mainly to Laos, were only a small proportion of the total production. It varied, in million baht, from 2.4 in 1960 to 1.7 in 1961, 1.5 in 1962, 6.3 in 1963, 3.2 in 1964 and 4.2 in 1965.

101. A third item with fluctuating exports from year to year is glass bottles, varying, in million baht, from 3.4 in 1960 to 3.8 in 1961, 2.6 in 1962, 3.0 in 1963, 3.8 in 1964 and 1.1 in 1965. This is also an industry mainly for local consumption, with some surplus for exports. In Thailand there are two large plants and many small factories engaged in the production of glass products for daily use such as glass bottles, cups, pots, and other containers etc. Total output capacity is estimated at about 45,000 metric tons per annum, while exports of glass bottles amounted to only 576 metric tons in 1965.

102. Rubber bands are the simplest to manufacture among rubber products, requiring only elementary technical knowledge and small capital outlay. It benefits from exemption of export duty on raw rubber when this is used for its production. Rubber band exports, mainly to Hong Kong, rose steadily during 1960-65, from 469,000 baht to around 1.3 million baht.

103. Finally, bovine leather and equine leather comes mainly from the Leather Tanning Organization of the Royal Thai Government and fifty-eight small private tanneries. The Leather Tanning Organization has a modern tannery capable of processing 250 head of animal skins per day, which will be increased to 300 under the second plan. The value of exports in the period 1960-65, mostly to Singapore and Malaysia, rose and fell as follows (million baht): 4.2 in 1960, 2.7 in 1961, 3.1 in 1962, 3.4 in 1963, 3.2 in 1964 and 4.5 in 1965. In quantity, exports decreased from 269 metric tons in 1960 to 261 metric tons in 1965.

104. Machinery and transport equipment. Under this section there are two items, namely, dry cells for flashlights, and chassis and other parts for motor vehicles.

105. By the end of 1965 in Thailand there were twenty-four factories engaged in the production of dry cells, of which six were installed with modern automatic equipment, and the rest operated on a small scale. Among the six modern factories, three are joint ventures with foreign capital, namely, the National Thai Company Ltd. of Japan, the Ever-ready (Thailand) Company Ltd., and the Ray-Lamp Battery Company Ltd. of the United States. Annual production is estimated to be around 100 million units. UM-1 type flashlight batteries is the major item produced, although recently UM-2 and UM-3 types are also being produced. Exports, which are mainly to Laos, but recently also to African countries such as Kenya and Tanzania, increased from 278,000 baht in 1960 to 375,000 baht in 1962, then rose to 2,174,000 baht in 1963 and 5,969,000 baht in 1964, and stayed more or less unchanged in 1965. In 1965, the share of exports in total production is estimated at 6 per cent, but a larger figure may be expected in the future as new markets open up.

This directive was further amplified at the Committee's resumed first session, when the secretariat was requested to study the scope for the expansion of imports of manufactures and semi-manufactures from the developing to the developed countries and the measures to be taken by the developing countries for increasing such exports.[1]

In addition, the Committee agreed that for the diversification of exports of the developing countries, it would be helpful to have information on the manufactures and semi-manufactures which could be produced by the developing countries and for which there is sufficient demand in world markets to warrant the establishment of export-oriented industries, due regard also being paid to the conditions of supply of the said products.[2]

In compliance with these directives, the Manufactures Division, in co-operation with the regional economic commissions, is carrying out a number of country studies to determine the immediate and future prospects for increasing the exports of manufactures and semi-manufactures from selected developing countries. The object of these studies is not, however, to present an exhaustive analysis of the export prospects and problems of the countries concerned, but rather to draw attention to the scope for increased exports and to the measures which might be taken in this respect. In the case of developing countries which do not possess any significant export industries, an attempt has been made to estimate what would be the export prospects if export-oriented industries were established as an integral part of the industrial development of these countries. These studies should, therefore, be regarded as only part of the examination of the possibilities of building up and expanding the exports of manufactures and semi-manufactures from the developing countries. A summary, together with the conclusions reached in the study, is contained in paragraphs 1 - 15 below.

1/ See report of the Committee on Manufactures on its resumed first session (28 February - 9 March 1966) (TD/B/69 - TD/B/C.2/14), paragraph 9.

2/ *Ibid*., paragraph 29.

106. Chassis, frame and other parts of motor vehicles have been produced since 1964 in connexion with the establishment of motor assembly plants in Bangkok. Three Thai-Japanese joint ventures, namely, Yuasa Battery (Thailand) Company Ltd., Hong Heng Thai Spring Company Ltd. and Koyama Thai Company Ltd., together with a local enterprise named Somboon Auto Part Manufacturing Complex are the major producers. In addition to meeting the local demand, a small portion is also being exported, mainly to the Republic of Viet-Nam. The export value rose from 438,000 baht in 1964 to 1,319,000 baht in 1965.

107. Miscellaneous manufactured articles. Under this section the most important item is the printed sarong, whose export value rose from 1.9 million baht in 1960 to around 14 million baht in 1963 and 1964, but it fell to 11.7 million baht in 1965. This is a small-scale domestic industry developed mainly to meet local demand. Its exports have been goingly mainly to Singapore, the entrepôt for South-East Asia, and to other neighbouring countries such as Malaysia and Cambodia. Thai printed sarong is liked because of its vivid colour, fanciful design and low price.

108. The other three items under this section are shawls, scarves, mufflers, veils and the like; badminton shuttle-cocks; and antiques of an age exceeding one hundred years.

109. Shawls, scarves, mufflers, veils, etc., largely made of silk, are a handicraft product of a domestic industry. In addition to on-the-spot purchases by the increasing number of tourists, exports have also grown, although slowly, from 1.5 million baht in 1960 to 1.9 million baht in 1965, mainly to the developed countries and to the entrepôts of Hong Kong and Singapore.

110. The badminton shuttle-cock is a ball of woven rattan used for games. It is produced in Thailand because of the availability of both skilled craftsmen and raw materials. Exports, mainly to the neighbouring countries of Malaysia, Singapore and Burma, amounted to roughly 2.5 million baht per year during 1960-64, but fell to 1.7 million baht in 1965, owing mainly to a fall in exports to Burma.

111. Exports of antiques are not likely to expand owing to a strict control exercised by the Thai Government. During 1963-65 exports remained at around 2.5-3 million baht, mainly to the United States and the United Kingdom.

(3) Group C industries

112. As noted earlier, the greatest number of export items belong to group C, which only includes items with an export value in 1965 of less than 1 million baht each. The significance of this group lies primarily in the fact that many items have entered the stage of import substitution, and may prove in the future to be important foreign exchange earners if the experience of other developing countries is to be taken as a guide. Two industries, in particular, deserve special mention in this regard, namely, canned food and plywood and veneer.

113. Canned food. In the course of industrialization and urbanization there has been a change in the pattern of food consumption with the introduction of processed food whether dried, salted, smoked, frozen or canned. In less-developed countries such as Thailand, dried, salted and smoked food is common, but frozen and canned food is also gaining in importance.

114. For canned food production there are around fifty firms in Thailand. Of these, two State enterprises, the Siam Thaharn Company operated by the Ministry of Defence and the Preserved Food Organization, are the leading ones, producing both for military and civilian consumption. Both the organizations have two plants each with a combined daily capacity of 13,000 cans for the former and 28,000 cans for the latter. Three new firms enjoying the privileges of a "promoted industry" have come into operation recently.

115. The canned food industry, which has developed rather slowly, will expand as the country develops itself and the national per capita income rises. This is confirmed by the distribution of canned food production in the ECAFE region. Of a total production of 1.5 million tons in 1962/63, Japan contributed 51.5 per cent, Australia 29.6 per cent, China (Taiwan) 7.7 per cent, Malaysia 4.3 per cent, Hong Kong 2.0 per cent and New Zealand 1.8 per cent.1/

1/ Asian Conference on Industrialization, "Sectoral Study on Food Processing Industries, Bangkok", (ECAFE document I&NR/Ind.Conf./S.15), p.10.

116. In addition to the rising per capita income, the availability of raw materials for canning such edibles as fish, vegetables, fruits and meat are more favourable to expansion amongst the canned items in Thailand, not only for domestic consumption, but also for export. In 1965, exports of canned food from Thailand to Singapore and Malaysia under the heterogenous item "vegetables, preserved and pickled, canned or in airtight containers, n.e.s., canned", reached 274 metric tons valued at 1,464,000 baht. In addition, exports of "preparations and products of fish n.e.s., canned" in 1965 reached 34 metric tons valued at 105,000 baht.

117. Plywood and veneers. Plywood is a composite wood panel made of three or more layers glued together. For thinner panels veneer is used exclusively, while for thicker panels, sawn lumber is often used as the centre ply, or core, in which case it is known as lumber-core plywood. Plywood has a number of advantages over solid wood: it can be manufactured in large sheets with limited defects; the plies are stronger across the grain of the face than boards of the same thickness because the plies cross each other; shrinking and swelling are almost eliminated; splitting in handling and nailing is greatly reduced; and wood of lower grades can be used for the interior plies. In view of these advantages over wood, plywood production of the world has grown more than three times from 6 million m^3 in 1950 to 19.5 million m^3 in 1963, as compared with a 73 per cent rise in the world's production of sawn-wood, from 256 million m^3 to 348 million m^3 during the same period.1/ The rate of growth in plywood production during 1950-63, about ten-fold, has been the fastest in Asia compared to the other regions of the world, although in 1963 Asia produced only 2.6 million m^3 of plywood, or 13 per cent of the world's production of 19.8 million m^3. The main exporting countries in Asia are Japan and China (Taiwan), which in 1963 exported respectively 342,000 m^3 and 133,000 m^3 of plywood.

118. In Thailand, plywood used to be imported from Japan and China (Taiwan). At the end of 1956, the Thai Plywood Company Ltd., a State enterprise, came into operation in order to manufacture plywood, veneer and flush doors. For the purpose of protection, imports of plywood into Thailand were banned from 27 November 1957. This import ban was lifted only in late 1966 in order to meet the increase in local demand arising from the construction boom caused in the event of two major international programmes in December - the First Asiar International Trade Fair and the Fifth Asian Games.

1/ FAO, Yearbook of Forest Products Statistics, 1964.

119. With a view to coping with the rising domestic demand, the Thai Plywood Company is doubling its production capacity within the coming three years. Another new private factory, Bangkok Plywood Company, has gone into operation recently, with an annual capacity of 18,000 m^3. Output from the new factory and expansion of the old factory will increase Thailand's plywood production to 60,000 m^3 per annum by 1970. It is estimated that by 1970, with a local production of 60,000 m^3 and a domestic consumption of 40,000 m^3, export availability for plywood may rise to 20,000 m^3. Thailand's exports of plywood, worth 344,[illegible] baht in 1960, rose to 618,800 baht in 1965, most of it going to Laos.

B. Projection of industrial exports during 1966-70

120. Projecting in terms of value, trends of industrial exports during the next five-year period 1966-70, the first assumption would be that there will be an absence of change on 1965 prices for these exports.

121. Theoretically, in estimating export trends, account has to be taken of factors affecting both demand and supply. Since the present study principally concerns Thailand's supply potential, factors relating to demand remain to be explored separately by some appropriate body in close touch with the main sources of demand, which for industrial exports from the developing countries are in the developed countries. Accordingly, in estimating export prospects for 1966-70, the supply situation has been treated as the main concern, and attention has thus been focused on domestic production and consumption.

122. In Thailand, data on production, and even more so on consumption, are not generally available except for a few major industrial items, for which the Government, in addition to releasing both monthly and annual figures of production, has also published estimates of production and/or exports for the target year 1971 under the second development plan. Such estimates apply either to the industrial product itself (e.g. cement), or to the raw materials used (e.g. cassava, maize, timber, tin ore and concentrates). In these cases, we have taken over the official estimates in our projection of industrial exports for the period 1966-70. Where such estimates are not available, we have had to resort to the method of extrapolation for items for which export value figures are available for the whole of the past six years 1960-65. However, when the export value figures for the

period 1960-65 show a drastic rise or fall for the last year or so owing to special factors we are compelled to abandon the results of extrapolation in favour of an arbitrary determination. Arbitrary determination is also used for items for which export value figures are available for only a part of the period 1960-65. Consequently in Table 22, which shows the results of our projection, the method of projection used is identified by the numerals 1, 2, 3 and 4, signifying in each case the method used, as explained below:

(1) Estimation of the basis of the planned figures in respect of certain commodities such as tin, tapioca products, maize meal, processed timber, silk fabrics, cement and gunny bags.

(2) Extrapolation according to the least square method for items for which value of export figures are available for the whole of the past six years 1960-65, such as precious and semi-precious stones, dried tamarinds, glycerine, wood carvings, etc.

(3) Arbitrary determination on the basis of available facts, for items for which value of export figures are available for the whole of the past six years 1960-65, but show a drastic rise or fall in the last year or so, owing to special factors, e.g. vegetables in brine, foodstuffs for ships' stores, copper, bronze and brass tableware, and bags and sacks for packing.

(4) Arbitrary determination on the basis of available facts, for items for which value of export figures are not available for the whole of the past six years 1960-65, e.g. wheat meal, petroleum products.

123. As shown in Table 22, industrial exports from Thailand are projected to grow from 1,454 million baht in 1965 to 3,351 million baht in 1970. The annual growth rate during 1965-70 is 18.2 per cent and is thus higher than that during 1960-65, 11.0 per cent. The share of industrial exports in total exports may rise correspondingly from 11.5 per cent in 1965 to 17.6 per cent in 1970. The major item accounting for this spectacular rise will be unwrought tin, whose average annual growth rate during 1965-70 is estimated at 33 per cent. In the meantime, its share in total industrial exports is projected to rise from 27.5 per cent in 1965 to 50.5 per cent in 1970.

TABLE 22

Projection of export value of manufactures and semi-manufactures for 1966-70
(million baht)

	SITC code	Commodity	1965 ('000 baht)	1966	1967	1968	1969	1970	Method of projection	Average annual growth rate 1965-70	Average annual growth rate 1960-65	Share of total Industrial export 1970	Share of total Industrial export 1965
Group A	68701	**Tin, unwrought**	399,622	1,290.6	1,381.0	1,477.7	1,581.1	1,691.8	1	33.0% (a)	%	50.50%	27.49%
	05504	**Tapioca flour**	222,568	225.0	227.5	230.0	232.5	235.1	1	1.1	0.2	7.02	15.31
	05504	**Tapioca meal**	60,724	61.4	62.1	62.8	63.4	64.1	1	1.1	4.	1.91	4.18
	04702	**Maize meal**	34,861	38.2	41.8	45.8	50.1	54.9	1	9.5 (b)	66.	1.64	2.40
	24303	**Teak, processed**	112,118	112.9	113.7	114.5	115.3	116.1	1	0.7	-16.	3.47	7.71
	24303	**Other timber, processed**	64,080	70.0	76.4	83.4	91.1	99.5	1	9.2 (c)	- 8	2.97	4.41
	672	**Precious and semi-precious stones**	70,928	71.0	80.8	90.6	100.5	110.3	2	9.2	29	[illegible]	4.88
	65301	**Silk fabrics**	32,138	32.7	33.2	33.8	34.4	35.0	1	1.7	14	1.04	2.21
	66102	**Cement, Portland**	40,944	51.2	64.0	80.0	100.0	125.0	1	25.0	30	3.73	2.82
	313	**Petroleum products**	39,730	45.7	52.5	66.4	69.5	79.9	4	15.0 (d)	[illegible]	2.38	2.73
		Sub-total	1,077,713	1,998.7	2,133.0	2,285.0	2,437.9	2,611.7		19.4	10.4	77.95	74.13
Group B	05201	**Tamarinds, dried**	23,935	20.1	20.8	21.4	22.0	22.6	2	-1.1	2.0	0.67	1.65
	04803	**Rice vermicelli**	16,459	21.0	19.7	18.5	17.3	16.0	2	-0.6	- 9.	0.48	1.13
	04709	**Glutinous rice flour**	9,927	12.7	14.4	16.0	17.7	19.3	2	14.2	50.	0.58	0.68
	04601	**Wheat meal**	6,145	7.4	8.8	10.6	12.7	15.3	4	20.0 (e)	[illegible]	0.46	[illegible]
	09909	**Birds' nests, edible**	4,439	3.8	4.0	4.3	4.5	4.8	[illegible]	1.4	5.6	[illegible]	[illegible]
	09909	**Vegetables in brine**	2,789	2.8	2.8	2.8	2.8	2.8	3	0 (f)	-23.	0.08	0.19
	09909	**Ba-sao, preparation from glutinous rice**	2,416	3.2	3.3	3.3	3.4	3.5	2	7.3	- 1.2	0.10	0.17
	09909	**Foodstuffs for ships' stores**	1,012	1.0	1.0	1.0	1.0	1.0	3	0 (g)	-27.	0.03	0.07
	12203	**Tobacco, chewing**	1,150	1.7	1.3	0.9	0.6	0.2	2	-38.0	-23	-	0.08
	51203	**Glycerine**	1,966	1.5	1.4	1.4	1.3	1.3	2	-9.0	- 3.8	0.04	0.14
	55202	**Soaps, toilet and bath**	2,610	2.7	2.8	2.9	3.1	3.2	2	4.2	6.3	0.10	0.18
	55202	**Detergent**	4,131	6.4	7.6	8.8	10.0	11.2	2	22.0	283.1	0.33	0.28
	55201	**Dentifrices**	1,671	1.9	2.3	2.6	3.0	3.3	2	14.7	153.3	0.10	0.11
	67301	**Silver niello-ware**	10,046	13.6	13.9	14.1	14.3	14.6	2	7.7	- 4.3	0.44	0.69
	69916	**Copper, bronze and brass tablewares**	3,057	3.1	3.1	3.1	3.1	3.1	3	0 (h)	-12.	0.09	0.20
	63209	**Household utensils of wood**	1,015	0.9	1.1	1.2	1.4	1.6	2	9.2	121.5	0.05	0.07
	63209	**Ornaments and other fancy articles of wood**	2,019	1.9	2.2	2.5	2.8	3.1	2	9.0	63.	0.09	0.14
	65601	**Gunny bags, new**	1,194	2.6	5.5	11.9	25.5	54.8	1	115.0	[illegible]	1.65	0.08
	65601	**Bags and sacks for packing**	1,902	2.3	2.7	3.3	3.9	4.7	3	20.0 (i)	243.0	[illegible]	0.13
	64102	**Printing paper, not cut to size, in rolls and sheets**	3,177	2.3	2.7	3.2	3.7	4.1	2	5.4	141.1	0.12	0.22
	64103	**Paper, common for packing and wrapping**	2,317	2.8	3.3	4.0	4.8	5.8	4	20.0 (j)	[illegible]	0.17	0.16
	64201	**Cardboard boxes**	1,065	1.3	1.6	1.8	2.1	2.3	2	17.1	152.2	0.07	0.07
	68107	**Galvanized iron or steel sheets and plates**	2,160	2.6	3.1	3.7	4.5	5.4	4	20.0 (k)	[illegible]	0.16	0.15
	66109	**Asbestos boards for building**	4,208	5.0	5.5	6.0	6.6	7.1	2	10.9	11.8	0.20	0.29
	66501	**Glass bottles**	1,112	1.9	1.5	1.2	0.9	0.6	2	-13.0	-25.	0.02	0.08
	62909	**Rubber bands**	1,297	1.5	1.7	1.8	2.0	2.2	2	10.8	22.	0.07	0.09
	61101	**Bovine cattle leather and equine leather**	4,470	3.8	3.9	4.0	4.1	4.2	2	- 1.3	1.4	0.13	0.31
	72102	**Dry cells for flashlights**	5,061	7.5	8.7	9.8	11.0	12.1	2	19.1	79.	0.36	0.35
	73206	**Chassis, frames and other parts for motor vehicles**	1,319	1.5	1.6	1.8	1.9	2.1	4	10.0 (l)	[illegible]	0.06	0.09
	84105	**Sarong, printed**	11,687	17.3	19.4	21.6	23.7	25.8	2	17.2	43	0.77	0.80
	84119	**Shawls, scarves, mufflers, veils and the like**	1,929	1.8	1.9	1.9	1.9	2.0	2	0.7	4.6	0.06	0.13
	89914	**Badminton shuttle-cocks**	1,692	2.1	1.9	1.8	1.7	1.6	2	- 1.0	- 8	0.05	0.12
	89921	**Antiques of an age exceeding 100 years**	2,954	3.3	3.7	4.1	4.5	4.9	2	10.5	18.4	0.15	0.20
	93102	**Personal effects and articles diplomatically or temporarily exported**	127,456	128.7	142.7	156.7	170.7	184.7	2	7.7	23.	5.51	8.77
		Sub-total	269,787	294.0	321.9	354.0	394.5	451.3		10.8	11.8	13.46	18.55
Group C	032. etc	**Canned food**	1,569	3.1	6.3	12.6	25.1	50.2	4	100. (m)	2.	1.50	0.11
	631	**Plywood and veneers**	618	1.2	2.5	4.9	10.0	19.8	4	100. (m)	-36.	0.59	0.04
		Other manufactures and semi-manufactures	104,213	120.8	140.0	162.2	188.0	217.9	4	15.9 (n)	15.9	6.50	7.17
		Sub-total	106,400	125.1	148.8	179.7	223.1	287.9		22.0	15.9	8.59	7.32
Grand total			1,453,900	2,417.8	2,603.7	2,818.7	3,055.5	3,350.9		18.2	11.0	100.00	100.00
% of total export			11.5%	17.6%	17.5%	17.5%	17.4%	17.6%					
Total export			12,640,600	13,715.1	14,880.8	16,145.7	17,518.1	19,007.1		8.5 (n)	8.5		

For notes see following page

Notes:

(a) The growth rate is high for the period 1965-70 owing to the fact that the 1965 figure, which is used as the base, covers only the five months August-December. If the 1966 figure is taken as the base, the growth rate would be 7 per cent for the period 1966-70.

(b) Based on the planned growth rate for maize export. Extrapolation of maize meal export by the linear regression method would show an unjustifiably high growth rate of 19.2 per cent.

(c) Based on the planned growth rate of exports of yang timber since yang exports account for over 90 per cent of total exports of processed timber other than teak.

(d) The target growth rate under the second plan, 5.6 per cent, appears to be too conservative, in view of the Government's approval to expand the capacity of the Thai Oil Refinery Company from 36,000 to 65,000 barrels per day. The rate of 15 per cent is accordingly used here.

(e) The high rate of 20 per cent is given for wheat meal, which has emerged as a new export since 1964 with a very high growth rate.

(f) Extrapolation shows disappearance of the item after 1966, owing to a drastic fall from the earlier level during 1963-65. For this reason, the export figure realized in 1965 is repeated during the period 1966-70.

(g) Extrapolation shows disappearance of the item after 1967, owing to a rapid fall during 1964-65. For this reason, the export figure realized in 1965 is repeated during the period 1966-70.

(h) Extrapolation shows a negligible amount after 1968, owing to a drastic fall during 1963-65. For this reason, the export value realized in 1965 is repeated during the period 1966-70.

(i) Owing to a sudden increase in 1965, a high growth rate of 20 per cent is given, in order to avoid under-estimation arising from negligible export figures during 1960-64.

(j) The high growth rate of 20 per cent is given for a newly emerging export commodity.

(k) The high growth rate of 20 per cent is given in view of the low export figure for 1965, but much higher ones for earlier years.

(l) Although this is a new export item, a growth rate of 10 per cent is given in view of the fact that the procurement policy under the United States AID programme for the Republic of Viet-Nam is confined to the United States and developing countries including Thailand, which benefits from this policy only during the duration of the AID programme.

(m) Considering the low export value in 1965, but dynamic nature in the long run, of these two items, an especially high rate of growth of 100 per cent is assumed.

(n) Based on the growth rate for the period 1960-65.

124. Besides unwrought tin, seven other items each contributing over 33 million baht, or 1 per cent of total industrial exports in 1970, all have an average annual growth rate during 1965-70 of 9 per cent or more, as shown below:

Item	Av. annual growth rate during 1965-70 (%)	Share in 1970 total industrial exports (%)
Tin, wrought	33.0	50.50
Cement, Portland	25.0	3.73
Precious and semi-precious stones	9.2	3.29
Other timber, processed (mainly yang)	9.2	2.9
Petroleum products	15.0	2.38
Maize meal	9.5	1.64
Gunny bags	115.0	1.64
Canned food	100.0	1.50
Total		67.65

125. Seven of the eight items above - unwrought tin, Portland cement, precious and semi-precious stones, processed timber, maize meal, gunny bags and canned food require local agricultural and mineral materials for processing. The only item depending on imported material, which is crude petroleum, is the petroleum products. Several of these items have developed from being import substitutes into exports, a few examples of these being Portland cement, petroleum products, gunny bags and canned food, while others such as precious and semi-precious stones are handicraft products with a high income elasticity.

126. In addition, twelve more items, each contributing between 3.35 million baht or 0.1 per cent and 33.5 million baht or 1 per cent of 1970 total industrial exports, will contribute together up to 4 per cent of the total industrial exports in 1970. Of these twelve items, eight or two-thirds are import substitutes, these being, in order of importance, as follows: plywood and veneers; dry cells for flashlights; detergent; asbestos boards for building; paper for packing and wrapping; bags and sacks for packing; galvanized iron

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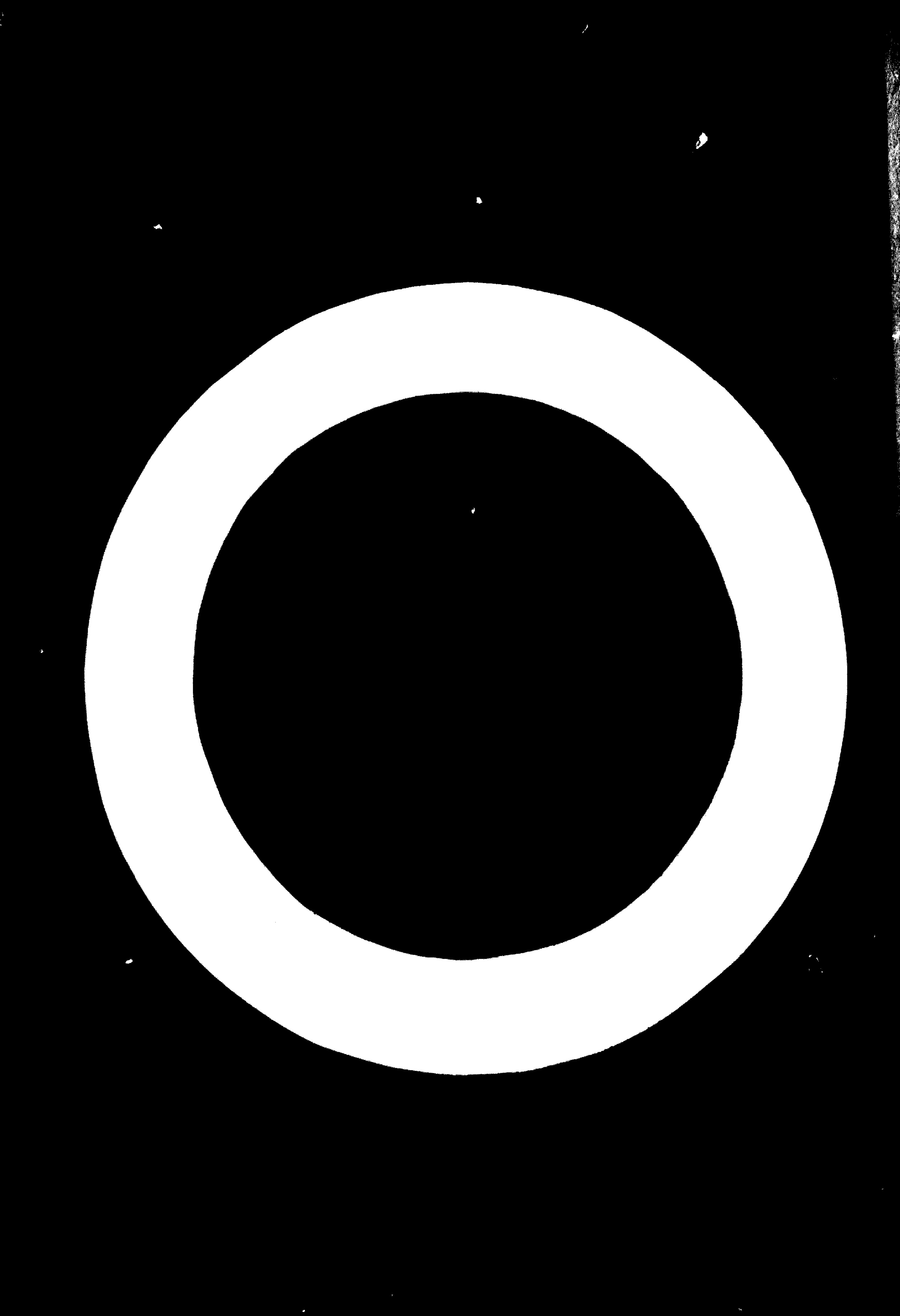
CONTENTS

The description and classification of countries and territories and the arrangement of material should not be considered to imply any judgement by the secretariat of UNCTAD regarding the legal status of any country or territory, or in respect of the delineation of its boundaries, or regarding its economic system. Inclusion of a particular country or territory in any economic or geographical grouping (or its exclusion) has been dictated by considerations of availability of comparable data in statistics of the United Nations and other international agencies.



SUMMARY AND CONCLUSIONS

1. Since the first session in 1964 of the United Nations Conference on Trade and Development (UNCTAD), attention has begun to be drawn to the importance of industrial exports in alleviating the payments difficulties of the developing countries. Although industrial exports are still much less important than primary exports as a source of foreign exchange earning for the developing countries, they are growing at a much faster rate than primary exports. According to a study for the first session of UNCTAD,1/ the annual rate of growth in the developing market economies during 1955-61 was 6.5 per cent for exports of manufactures, as compared with only 2.2 per cent for primary exports.

2. Accordingly, the Committee on Manufactures of the United Nations Trade and Development Board at its first session in August 1965 adopted in paragraph IV.5 (i) of its programme of work a resolution that the UNCTAD secretariat should "take appropriate steps to prepare an exhaustive study of world demand for, and supply of manufactured and semi-manufactured articles of actual or potential export interest to developing countries and relevant trends of international trade in such articles."

3. Since then, the UNCTAD secretariat, in co-operation with the regional economic commissions in Asia and the Far East, Africa and Latin America, has initiated country studies on the possibilities of industrial exports in the different regions. The ECAFE secretariat, in co-operation with the UNCTAD secretariat, has taken up Thailand as the first country for such a study, to be followed by similar studies on China (Taiwan), Hong Kong, the Republic of Korea, the Philippines and other countries.

4. Thailand, like many other developing countries, has also been faced with the problem of a trade deficit, owing primarily to the increasing imports of capital goods whose proportion in total imports has risen from 48.7 per cent in 1960 to 51.0 per cent during the first half of 1965. The growing trade deficit, which more than doubled between 1960 and 1965, has been met by the inflow of foreign capital, foreign aid, and a surplus in the invisible trade. But in the long run, a country's import capacity has to depend on its ability to export and in Thailand, as in other developing countries, industrial exports should prove to be more important than primary exports, because of their higher rate of growth. In Thailand, during 1960-65, the annual growth for exports of primary commodities was 8.1 per cent; for exports of manufactures and semi-manufactures the rate,

1/ UNCTAD Proceedings, Trade and Manufactures, Volume IV, United Nations Publication Sales No. 64.II.B.14, New York, 1964, p.4.

11.0 per cent, was much higher. As a result, the share of primary commodities in total exports declined during the same period from 89.8 per cent to 88.5 per cent, with a corresponding rise in the share of manufactures and semi-manufactures from 10.2 per cent to 11.5 per cent.

5. The growth of industrial exports in Thailand is attributed to a number of factors, of which the most important is the processing of local raw materials for a large number of export industries, especially tin, tapioca flour and processed timber. A second factor is the export of products developed in connexion with import substitution, particularly Portland cement and petroleum products. A third factor is the growth of the tourist traffic, accounting for the expansion in exports of Thai handicraft products including precious and semi-precious stones, silk fabrics, silver, niello-ware, wood carvings, and copper, and bronze and brass tableware. However, the expansion of domestic demand in a growing economy reduces the volume of industrial products which would have been otherwise available for exports; this is especially true of those products whose exports arise in connexion with import substitution, for example, Portland cements, galvanized iron and steel sheets and plates, gunny bags, asbestos boards for building and so on.

6. It may also be noted that during 1960-65, exports of semi-manufactures witnessed a faster growth than exports of manufactures, the annual average growth rate being 13.4 per cent for the former but only 9 per cent for the latter. As a consequence, the share of semi-manufactures in total exports rose from 4.6 per cent in 1960 to 5.7 per cent in 1965, while the share of manufactures in total exports changed only from 5.6 per cent to 5.8 per cent during the same period.

7. Further analysis reveals that ten items each with an export value in excess of 29 million baht,[1/] or 2 per cent of the total exports of manufactures and semi-manufactures in 1965 ("Group A"), accounted for almost three-fourths of this total, while thirty-six items, each with an export value in excess of 1 million baht or US$50,000 ("Group B"), accounted for less than one-fifth of the total. Group C, which includes the remaining and the most numerous items each with an export value in 1965 of less than 1 million baht, accounted for about 7 per cent of the total industrial exports. After a rapid survey of their present status and future prospects, especially of the ten major items in Group A, their export possibilities during the next five-year period 1966-70 are projected according to one of the four alternatives listed below:

1/ 20.8 baht = 1 US$.

2 OF 2

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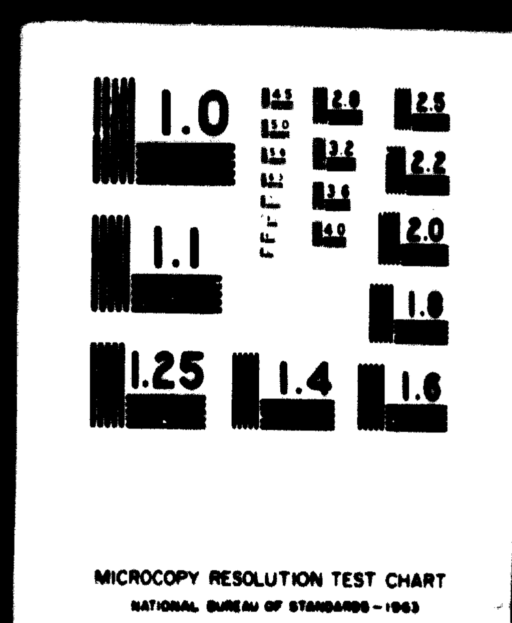
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

the survey the prospective investor makes the investment, he bears all the expenses of the survey and retains exclusive rights to the information derived from the study. But in case the prospective investor does not undertake the investment, and has complied with the participation agreement, he is entitled to payment from AID of 50 per cent of the cost. The survey then becomes the property of the United States Government. Surveys will normally explore and analyse the economic and technical feasibility of proposed investments.1/

(c) Government financing

147. Government agencies that extend loans to industries include the Industrial Finance Corporation of Thailand and the Loan Office for Small Industry Development.

148. The Industrial Finance Corporation of Thailand (IFCT) was established in 1959 with American financial assistance as an agency designed to assist in the promotion of industrial development in Thailand through the medium of private enterprise. Its purpose is to augment the supply of capital available from various sources and to encourage expansion of existing industries as well as the establishment of new ones, through the granting of loans to industrial investors in amounts of 500,000 baht or more, according to the economic feasibility of the project and the benefits accruing to the national economy. From its establishment on 6 October 1959 to the end of March 1966, a period of about six and a half years, the Corporation has approved sixty-one loans to fifty private companies totalling 132 million baht. These loans were allocated to the various industries in the following proportions: food 23.5%, metals 16.8%, chemicals 13.1%, non-metallic products 8.7%, electrical equipment 7.6%, paper and paper products 6.6%, others 23.7%.2/

149. In order to make low-interest credit facilities available to small industries, a government loan of 10 million baht a year for the three years starting from the 1964 fiscal year has been made by the Thai Government to two local commercial banks, namely, the Agricultural Bank and the Provincial Bank,3/ at the very low interest

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1/ Thai-American Business Prospects (A Commercial and Investment Newsletter), special issue, 1966, American Mission, Bangkok, pp.12-13.

2/ Private Enterprise Investment Opportunities in Thailand, op. cit., p.42; Industrial Development and Investment in Thailand, op. cit., pp.165-166; The National Economic Development Plan 1967-71, op. cit., p.188.

3/ On 14 April 1966 these two banks were merged into one, the Krung Thai Bank.

rate of 3 per cent per annum. The banks will contribute another 10 million baht each year and make loans out of the total of 20 million baht to deserving small industries. The interest rate for loans in amounts under 500,000 baht is 9 per cent per annum. For the purpose of screening applications submitted by prospective borrowers to the banks, a Loan Office for Small Industry Development was established in the Department of Industrial Promotion, Ministry of Industry, in March 1964. This Office makes a technical assessment of each application and submits its recommendation concerning the application to a Loan Board for final decision. This Loan Board is composed of the Director-General of the Department of Industrial Promotion as chairman, representatives of the Ministry of Finance, the National Economic Development Board, the Budget Bureau, and the managers of the two banks.1/

150. According to the pre-final edition of the second plan, the loans provided by the two institutions were limited during the first plan to 17 million baht a year from the Industrial Finance Corporation of Thailand and about 9 million baht from the Small Industry Loan Office. During the second plan it is expected that the IFCT will lend about 80 million baht per year and the Loan Office will finance about 20 million baht per year for industrial investment. The Government is encouraging those two institutions to expand their programmes in co-operation with the other government agencies concerned with industrial promotion and to seek capital funds from the money market.2/

(d) Tax incentives

151. As noted in the section on the Promotion of Industrial Investment Act of 1962, promoted entities are exempted from import duties and business taxes on machinery, parts, components and accessory equipment required and on prefabricated structures, as well as component parts and materials for structures, if equivalent materials are not produced locally. A new promoted industry will be exempted from income taxes for a period of five years beginning with the first year when sales or income are recorded. In regard to import duties and business taxes on raw or necessary

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1/ Industrial Development and Investment in Thailand, op. cit., p.127.

2/ The National Economic Development Plan, 1967-1971, op. cit., p.73.

materials, different groups of industries will be exempted from payment for the first five years to a varying extent: 100 per cent for Group A, 50 per cent for Group B and one-third or less for Group C (in this case only upon recommendation by the Board of Industrial Investment and approval by the Cabinet).

(e) Transfer of government enterprises to the private sector

152. The Government's policy of encouraging private enterprise in the development of industry is explicit in the Ministry of Industry's Notification of 21 October 1955 issued under the Industrial Promotion Act of 1954, stating that it is the policy of the Government to support free enterprise for both Thai and foreign nationals and that in no circumstances would the Government nationalise private industrial enterprises. This intention has been reaffirmed in the Promotion of Industrial Investment Act of 1962, section 18 of which states that "(1) the State will not engage in any new industrial activity in competition with that of the promoted person; and (2) the State will not nationalise any private industrial activity".1/ Indeed, in a recent publication by the Ministry of Industry, it is stated that "it is not the desire of the Government to engage directly in any new industries; even those industries that are at present operated by government agencies will be transferred to private ownership if and when possible".2/ The desire of the Government not to enter into the field of industry in competition with private enterprise is a lesson from past failure. This is apparent especially in the case of the National Economic Development Corporation Limited (NEDCOL), with regard to which the World Bank Mission which was in Thailand for a year during 1957/58 reported "that the Government has on its hands a group of expensive factories (in sugar, gunny bags, paper, marble), the cost of which will have to be met from public funds without prospects for an adequate return on total investment".3/ During the first plan, the output of the state enterprises in the total industrial output has declined, in accordance with the

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1/ Industrial Development and Investment in Thailand, op. cit., pp.106-107

2/ Ibid., p.68.

3/ A Public Development Program for Thailand, Published for the International Bank for Reconstruction and Development by the Johns Hopkins Press, Baltimore, 1959, p.92.

government's policy to promote and encourage the development of the private sector. According to the second plan, "the policy will be to avoid competition with the private sector and where such competition currently exists consideration will be given to the transfer by sale or lease of the state enterprise to the private sector".[1]

(2) Measures to increase the profitability of exports

153. Measures to increase the profitability of exports may take the form of direct subsidies, tax remissions, reduced cost of factors of production, reduced interest rates and so forth.

154. Local sugar production increased rapidly under the impetus of a protective import tariff, reinforced later by a direct subsidy, as explained below. In 1958, the tariff on sugar was increased from 1.50 baht per kilogramme to 2.50 baht; it was later fixed at 2.75 baht. In 1962, the Government initiated through the Sugar Act a system of subsidizing exports (3 baht per kilogramme exported to Japan in 1963) through a Sugar Fund fed by a cess (96 satangs per kilogramme) on sugar sold locally. The Government was forced to do this as some factories were heavily in debt to the banking sector and needed to be saved from bankruptcy, while at the same time cane producers had to be guaranteed a minimum price.[2] Sugar production, which rose from 35,503 metric tons in 1954 to 56,108 metric tons in 1958, rose further to 151,344 metric tons in 1962. Since 1962, however, there have been considerable fluctuations in sugar production, which fell to 125,031 metric tons in 1963, but rose to 167,973 metric tons in 1964 in response to hurricane damage to sugar crops in Cuba, the world's largest producer, and 319,976 metric tons in 1965, and fell again to 265,385 metric tons in 1966. The second plan concludes that "sugar production has risen well above internal demand but it cannot be exported without a subsidy since production costs are higher in Thailand than the international market price for sugar. High costs are due to the poor quality of the sugar cane and the inefficiency of the sugar mills. Technical assistanme is necessary for the sugar cane farmers and millers to assist them in raising productions and improving

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1/ The National Economic Development Plan 1967-71, op.cit., pp.111, 182.

2/ André Mousny, The Economy of Thailand, Social Science Association Press of Thailand, Bangkok, 1964, p.204.

quality". Production under the second plan, which is to fall from 320,000 metric tons in 1965 to 270,000 metric tons in 1971, "is estimated on the basis of internal demand and the limited volume of exports which are feasible without subsidy".[1] The subsidy has since been withdrawn, because from October 1966 the collection of cess money ceased to be permitted by law.[2]

155. Under tax remissions for exports may be mentioned specific provisions in the 1962 Promotion of Industrial Investment Act, according to which there are to be (1) exemption from, or reduction of export duty collectable under the law on customs tariffs for the products produced by the "promoted entity" for such period as the Board of Investment deems fit; (2) exemption from, or reduction of business tax in case the "promoted entity" exports its own products for such period as the Board for Investment deems fit. Also under the Customs Tariffs Act (2), B.E. 2506 enacted in 1963, a seven-eighths rebate is allowed to the manufacturers on the customs duties collected on raw materials which are used in the exported products.[3]

156. Among the efforts to reduce costs for the factors of production is the provision of industrial estates which has become increasingly popular with governments in congested areas where land value in particular has shown a spectacular rise, such as Hong Kong and Singapore. The Thai Government also, with a view to providing small, medium and large industries, with suitable and reasonably priced land complete with necessary services and facilities, has explored the possibility of establishing industrial estates near and around Bangkok and Thonburi and in other important towns. For the Bangkok and Thonburi area, where a large industrial estate is urgently required, a feasibility survey agreement, authorized by the Thai Government, was signed by the Ministry of Industry with a firm of United States consultants in 1963. A feasibility survey report was submitted by this company to the Thai Government some time ago and is now being studied by competent Thai officials. In addition, a working group constituted by the Ministry of Industry not very long ago completed its study of how best to utilise the large piece of land, about 1,000 acres in area, situated at Rangsit about 40 kilometres north of Bangkok,

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1/ The National Economic Development Plan, 1967-71, op.cit., p.185

2/ Industrial Development and Investment in Thailand, op.cit. p.196

3/ Ibid. pp.50, 75.

which the Ministry had previously acquired, to provide factory space for existing industries as well as new ones, and has already submitted its findings and recommendations to the Ministry. The Thai Government has recently given its approval to these recommendations, and under the second development plan an industrial estate area will be established at Rangsit in 1967, covering about 200 acres plus a residential area of about 40 acres, and provided with public services such as roads, electricity and water supplies and communication facilities. This area will be increased in size over the next three years and the feasibility of establishing additional industrial estates will be studied.1/

157. Local banks in Bangkok give reduced rates of interest to exporters. For export loans secured by letters of credit and the purchase, discounting or rediscounting of export bills, the rate of interest charged may not exceed 9 per cent per annum. This rate is lower than that for many other purposes. Thus, for the purchase, discounting or rediscounting of bills derived from the purchase of raw materials or for the extension of credit (on an instalment payment basis) by local manufacturers, the rate per annum is not to exceed 10 per cent. The maximum rate goes up to 12 per cent for advances on industrial investments against mortgages of movable or immovable property, and to 14 per cent for all other purposes.

(3) Measures to promote trade

158. Measures to promote trade include conclusion of trade agreements, market surveys, participation in trade fairs, and quality control and standardization.

159. Trade agreements are currently in force between Thailand and seven other Asian countries, namely, Ceylon, China, Indonesia, Japan, the Republic of Korea, Laos and the Republic of Viet-Nam. The trade agreements with Ceylon and Indonesia are for the sale of Thai rice from year to year, 100,000 tons to Indonesia during 1966 and 100,000 tons to Ceylon during 1967. The trade agreement with the Republic of Korea, effective for one year from 15 September 1961 and automatically renewable each year unless notice of termination is given, covers twenty-seven items including textile products, marine products and minerals from the Republic of Korea and twelve items including raw suger, lumber and rubber from Thailand. Thailand concluded four agreements with Laos on 22 July 1959 covering trade, transit facilities, co-operation in the suppression of customs evasion and smuggling and the use of Nongkai-Ta Laeng landings for crossing the Mekong River

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1/ Ibid. pp.127-128; The National Economic Development Plan, 1967-71, op. cit., p.189.

bordering the two countries, and a fifth agreement concluded in February 1962 for a new transit route in the northern part of the countries. These agreements are in force from year to year, unless terminated at three months' notice. With the Republic of Viet-Nam, Thailand exchanged letters on 15 August 1959, to accord most-favoured-nation treatment to each other. The most important agreement is, however, that with Japan, a major trading partner of Thailand. A trade agreement providing for the expansion of trade between the two countries was signed on 27 December 1957 and became effective on 1 January 1958, and is automatically renewable from year to year unless terminated at three months' notice. This agreement was concluded within the framework of the Treaty of Amity, Commerce and Navigation signed on 8 December 1937, effective on 7 March 1938 and re-applied from 28 April 1952. This Treaty was valid for five years and was to continue in force thereafter unless terminated at one year's notice. A further agreement with Japan was concluded in July 1966 under which Japan agreed to purchase 800,000 tons of Thai maize during the next twelve months starting from September 1966.1/ On 23 November 1966 a Sino-Thai Trade agreement was signed with the Republic of China for promoting economic relations and increasing trade volume between the two countries. The agreement is for one year but renewable by an advance notice of three months.

160. Thailand has also concluded trade agreements with Governments of countries outside the ECAFE region including Austria, Argentina, and the United States, and is contemplating concluding such agreements with Brazil and the Union of Soviet Socialist Republics. The trade agreement with Austria was signed on 30 September 1964 for a period of one year with a view to promoting trade and economic relations between the two countries and is renewable at three months' advance notice. The Treaty of Amity and Economic Relations between Thailand and the United States of America was signed on 29 May 1966. As the first post-war Treaty of Amity to be signed, it lays down on an equal footing and on the basis of practical reciprocity the rights and duties of nationals and corporate personalities of both countries. It governs the friendly relations between the two sovereign States in the field of trade, navigation, investment and economic development. This Treaty will probably serve in the future as a model for revising existing treaties with other countries.

161. Market surveys have been conducted by private enterprises as well as by government organisations. Among the private enterprises are private companies engaged in trade, such as oil distribution, and those undertaking to conduct surveys on specific merchandise at the request of clients, e.g., the Bangkok Bank, the Thai Chamber of Commerce and the

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1/ ECAFE, "Summary of Agreements on Trade and Payments between countries of the ECAFE region, 15 October 1964 and 31 October 1966."

2/ Bank of Thailand Monthly, June, 1966, p.20.

Thai Board of Trade. The Ministry of Economic Affairs has the responsibility for government market surveys, although because of the shortage of competent officials in this field other ministries - the Ministry of Agriculture for example - have undertaken surveys of products which they are promoting themselves. The National Economic Development Board sometimes conducts surveys to obtain additional data required in some specific cases. In the Ministry of Economic Affairs, the Department of Foreign Trade concerns itself with market surveys on some exportable products.1/

162. Regarding industrial products, market analyses were made in Thailand of four commodities, namely, water pumps, household electrical appliances, soda ash and caustic soda, and hand tools by six American consultants under contract to USAID, as noted earlier. Recently, a market survey on kraft paper and allied products has been undertaken by an American company to ascertain the feasibility of establishing a kraft paper factory in this country. As a result, the Siam Kraft Paper Company, Ltd. has been set up with a total planned investment of US$ 36 million, for which the United States Export-Import Bank announced a US$ 14 million loan on 11 July 1966 for the purchase of equipment and services required for a new paper plant to be built at Ban Pong, a village in Kanchanaburi some sixty miles west of Bangkok.2/

163. A recent significant contribution to trade promotion in Thailand is the holding of the First Asian International Trade Fair in Bangkok, from 17 November to 10 December 1966. This Fair, first sponsored by the ECAFE Committee on Trade in 1961, was organized by the Government of Thailand with the assistance of an expert from the United Nations. Participating governments from the ECAFE region were: Australia, Ceylon, China, Hong Kong, India, Indonesia, Iran, Japan, the Republic of Korea, Laos, Malaysia, Nepal, New Zealand, Pakistan, the Philippines, Singapore, Thailand and the Republic of Viet-Nam. From outside the region, the following governments took part: Austria, Canada, Finland, the Federal Republic of Germany, France, Isaael, Italy, Kuwait, Netherlands, Poland, Sweden, Switzerland, United Kingdom, Union of Soviet Socialist Republics, United States. The objectives of the Fair were to increase trade among Asian countries, promote trade co-operation and encourage new foreign investment in Asia. The Fair achieved these objectives in four different ways. Firtt, the presence of more than 1.5 million visitors, including many thousands of businessmen from every continent, ensured that the products on display were widely advertised and that business opportunities were widely known. Second, many large orders were taken at the Fair, amounting to about US$ 20 million.

1/ Industrial Development and Investment in Thailand, op. cit., pp. 81-84.

2/ Thai-American Business Prospects, op. cit., p. 28.

Third, many business contacts were made at the Fair, which for one ECAFE country meant more than two thousand inquiries likely to lead to future business. Finally, long-term trade developments and investment opportunities were examined in four seminars organised by the Thai Government in conjunction with the Fair, on investment policy, investment promotion, the development of particular industries, and the development of transport and communications.1/

164. To facilitate trade promotion, the Export Promotion Act, B.E. 2503 (1960) authorises the establishment of a Board of Export Promotion to consist of the Chairman and other members of not more than nine in number who are appointed by the Prime Minister and the Secretary General of the Office as member and secretary. The duties of the Board are: (1) to carry on the work of export promotion; (2) to check and control the exportation; (3) to advise on the use of any measure in promoting exports or standards of exports. In performing these duties the Board is empowered to direct the Ministry, Dabuang,2/ Department, or State Enterprise to forward statistics and details necessary for export promotion or implementation of the Export Standards Act; and to summon any person to make a statement or to forward any account, document or material for supplementing the information required.3/

165. The Export Promotion Act of 1960, promulgated on 12 April, was followed by the Export Standards Act, promulgated on 2 August of the same year. This Act empowers the Minister of Economic Affairs to designate any commodities as "standardised commodities" and establishes standards for them. A Standards Committee, consisting of thirteen members and headed by the Under-Secretary of State for Economic Affairs, was constituted by the Council of Ministers to give advice to the Minister of Economic Affairs on matters pertaining to standards and to carry out duties concerning these standards entrusted to it by the Minister. The Act decrees that exporters of "standardised commodities" must register with the Office of Standards set up under the provisions of the Act and no one who has not thus registered shall be allowed to export these "standardised commodities." The "standardised commodities" before being exported must be inspected and must be accompanied by standards certificates issued by the Office of Standards. Under this Act, no person shall be allowed to operate any surveyor business unless authorised by the Office of Standards, and a licensed standards inspector is prohibited from trading directly or indirectly in the commodities the standards of which he has been authorised to inspect.

1/ "Asian International Trade Fair" (E/CN.11/L.178)

2/ Meaning any government organisation with an intermediate ranking between a ministry and a department.

3/ Board of Export Promotion, Thailand: 1966 Buyer's Guide, Bangkok, 1966, pp. 17-19.

166. Up to the present only ten export commodities have been designated as "standardized commodities", namely, salt, castor seeds, maize, kapok fibre, kenaf and jute, tapioca (cassava) chips, tapioca (cassava) meal, teak conversions, sorghum, and silverware. At present work is being undertaken to declare one more manufactured article, namely, Thai silk fabrics, as a "standardized commodity." 1/

1/ Industrial Development and Investment in Thailand, op.cit., pp.216-17.

or steel sheets and plates; and dentrifice. The other four items are, in order of importance, printed sarongs, glutinous rice flour, wheat meal and antiques. All these twelve items have an average annual growth rate between 10 to 20 per cent, with the exception of plywood and veneer, which is estimated to grow at an average annual rate of 100 per cent during 1965-70.

127. From this it is clear that import substitution, while taking place in a number of fields, is still in its early stage for many items, more in the consumer than in capital goods category, and may not reach, during the period under review (1966-70), a stage at which significant exports can also be attained. Some import substitution industries, such as Portland cement and petroleum products, may witness significant expansion, but others, such as gunny bags, canned food, plywood and veneer, dry cells for flashlights, detergent, asbestos boards for building, common paper for packing, bags and sacks for packing, galvanised iron or steel sheets and plates and dentifrice, may take a longer time to develop into export industries, probably not till the early 1970's.

128. On the other hand, the four major items, each with an average annual growth rate of less than 2 per cent during 1965-70, may contribute up to 13.5 per cent of the total industrial exports in 1970. These items, with their share in the 1970 total industrial exports given in brackets, are as follows: tapioca flour (7.02%), processed teak (3.47%), tapioca meal (1.9%) and silk fabrics (1.04%).

B. External policies and measures

167. Among the external policies and measures to promote exports of manufactures from Thailand, the most important appears to have been foreign and joint ventures, followed by preferential treatment given to Thai industrial exports by developed countries such as Australia, and the allocation of production quotas to Thailand for tin under the International Tin Agreement.

(1) Foreign and joint ventures

168. Among the countries of South-East Asia, Thailand, along with Malaysia, Singapore and the Philippines, are private enterprise economies which provide a favourable climate for foreign investment. Thailand, in particular, has achieved a high annual rate of growth of 7 per cent under its first plan (1961-66), and is planning to raise it to 8.5 per cent under its second plan (1967-71). For manufacturing, the annual rate of growth under the second plan, at 10.8 per cent, is even higher than the over-all growth rate of 8.5 per cent. The percentage of gross domestic product being manufactured is expected to rise from 12.1 per cent in 1965 to 13.7 per cent in 1971.1/

169. During the period 1960-65 the inflow of foreign capital rose steadily from 1.6 billion baht to 4.2 billion baht, at an average rate of increase of about 23 per cent per year, largely as a result of the Government's policy of accelerating economic development. The rise was much more rapid for private than for public capital. During 1960-65, while public foreign capital inflow rose by 70 per cent to 2,222 million baht, private foreign capital inflow rose by 7.3 times to 2,027 million baht. The higher rate of increase in private foreign capital inflow is significant since private foreign capital is invested more in manufacturing than public foreign capital, which goes in mostly for the provision of infrastructure especially transport, power and irrigation.2/

170. The extent of capital investment in Thai industry according to nationality of ownership is revealed by statistics on the number of promotion certificates issued by the Board of Investment from 13 April 1959 to 31 March 1966. Of the 344 certificates issued, the largest number, 190, is for joint ventures, followed by 139 for Thai ventures and fifteen for foreign ventures. Of the total registered capital of

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1/ Summary of the Second Five-Year Plan, op.cit., pp. 4-5.

2/ Industrial Development and Investment in Thailand, op.cit., pp. 100-101.

2.6 billion baht for these 344 ventures, 854 million baht, or one-third, represented foreign capital. For 826 million baht of foreign capital for which breakdown of investment by nationality of ownership is given, almost three-fourths are from Asian countries particularly Japan and China (Taiwan), and the rest is from non-Asian countries, particularly the United States of America, the United Kingdom, the Federal Republic of Germany and Denmark. The registered foreign capital breakdown by nationality of ownership is shown below.

TABLE 23

Registered private foreign capital in promoted industries classified by nationality of ownership, 1959-66

(million baht)

Asian countries		Non-Asian countries	
Japan	375	United States	88
China (Taiwan)	161	United Kingdom	29
Malaysia	27	Germany, Fed. Rep.	26
India	16	Denmark	22
Israel	7	Australia	15
Indonesia	6	Italy	12
Hong Kong	5	Switzerland	10
Burma	4	Portugal	6
Philippines	1	Netherlands	6
		Argentina	3
Total	602		217

Source: Industrial Development and Investment in Thailand, op.cit., p.54.

171. A further breakdown of the above statistics shows that in terms of total registered capital the trend for foreign or joint ventures is to be smaller than for Thai ventures. The total registered capital averages about 12.4 million baht for a Thai venture, 9.5 million baht for a foreign venture, and 3.2 million baht for a joint venture, as shown below:

	No. ventures	Total registered capital (million baht)	Registered capital per venture (million baht)
Thai	139	1,725	12.4
Foreign	15	143	9.5
Joint	190	711	3.2
All	344	2,579	7.5

172. Foreign capital has gone mainly into import substitution rather than export promotion industries, as is shown below in a breakdown by industries of foreign capital registered in foreign and joint ventures granted promotion certificates by the Board of

Investment from 1959 to 1965. Of a total registered capital of 1,492 million baht for twenty different industries in which these ventures are to be found, 694 million baht or almost one-half is of foreign origin. Distribution of this total by industries is shown below.

TABLE 24

Breakdown by industries of registered foreign capital in foreign and joint ventures granted promotion certificates by the Board of Investment from 1959 to 1965

(million baht)

Industry	Foreign capital		Thai capital	
Food		137.6		240.0
Edible milk	44.8		74.0	
Edible flour	42.7		73.0	
Gourmet powder	32.3		60.0	
Plantation oil	17.8		33.0	
Textiles		196.3		334.7
Weaving and spinning	167.5		302.7	
Synthetic fibre	28.8		32.0	
Chemicals		70.2		103.5
Pharmaceuticals	39.2		57.1	
Caustic soda, hydrochloric and nitric acids	18.7		31.0	
Paint	12.3		15.4	
Metals		112.3		215.9
Iron transforming and steel-rolling	84.5		169.0	
Galvanized iron sheet	15.0		28.9	
Tin smelting	12.8		18.0	
Building materials		56.0		372.0
Pipe - plastic, asbestos, galvanized iron	37.4		92.0	
Cement	18.6		280.0	
Electrical appliances, etc.		54.8		109.6
Electrical appliances	21.2		46.6	
Dry - cell batteries	18.8		31.0	
Electrical accessories	14.8		32.0	
Transportation equipment		67.3		116.4
Motor car and tractor assembly	41.3		76.4	
Motor cycles	14.0		20.0	
Motor car tyres and tubes	12.0		20.0	
Total		694.5		1,492.1

Note: Only industries having a registered private foreign capital investment of 10 million baht (or half a million dollars) are included.

Source: Industrial Development and Investment in Thailand, op.cit., pp.108-113.

173. Among the above industries those having an export value of 1 million baht or more in 1965 are the following, for which the 1965 export value in million baht is given in brackets: tin smelting (400), edible flour (223), cement (41), dry-cell batteries (5), galvanised iron sheet (2).[1]

(2) Preferential arrangements

174. Pending action by member States at the second session of the United Nations Conference on Trade and Development in New Delhi in February/March 1968, during which the subject of a non-reciprocal system of preferences in the developed countries for the imports of manufactures and semi-manufactures from the developing countries will be taken up for consideration, the Australian Government has introduced a limited scheme of preferences in favour of developing countries, for which the waiver application was approved by the contracting parties to GATT in March 1966. Basically, the Australian scheme covers roughly sixty semi-manufactured and manufactured products of export interest to the developing countries. Specific quotas are set for each of the items specified; they amount to a total of US$15 million, a figure providing for a five-fold increase of the total trade in those products.[2] The regulation of 12 April 1966, which deals with this scheme, is applicable, *inter alia*, to the following items for which the annual quota exceeds 500,000 Australian dollars:

	Preferential duty (per cent)	Annual quota (A$1,000)
Certain paper or cardboard	free	1,000
Newsprint	free	4,000
Hand-knotted carpets	free	1,000
Carpets and carpeting of wool	20	600
Coconut fibre mats	15	500
Various manufactured glass	free	500

175. The regulation also provides free entry (without quantitative restrictions) for traditional goods of the handicraft industries of developing countries including articles of horn, bone and ivory, leather and metals; carvings in wood, pottery; and certain cotton and silk fabrics.[3] This inclusion is significant for Thailand, in respect of its exports of silk fabrics. In 1965, Thailand exported 2,931,000 baht worth of woven fabrics of silk to Australia, whose status as an importer of Thai silk fabrics is next only to Hong Kong and the United States.[4]

1/ For export value statistics, see *supra*, Table 4.
2/ UNCTAD, "Review of International Trade and Development 1966, Part Two", (TD/B/82/Add.2, p.76).
3/ GATT, International Trade Forum, June 1966, pp.41-42.
4/ In terms of million baht, the exports of Thai silk fabrics in 1965 to the two countries is as follows: Hong Kong 9.9, United States 6.2.

(3) International commodity agreements

176. Tin exports from Thailand are affected by the International Tin Agreement. So far, three international tin agreements have been concluded, each for a five-year period, for the periods commencing respectively 1 July 1956, 1 July 1961 and 1 July 1966. The objectives of the Third International Tin Agreement are, inter alia, (a) to provide for adjustment between world production and consumption of tin and to alleviate serious difficulties arising from surplus or shortage of tin, (b) to prevent excessive fluctuations in the price of tin; (c) to make arrangements which will help maintain and increase the export earnings from tin, especially those of the developing producing countries, thereby helping to provide such countries with resources for accelerated economic growth and social development. The share of world tin production is allocated to different producing countries in the form of percentages, which are reviewed annually. The percentage of any producing country, however, may not be reduced by more than one-tenth for any one year. The percentages assigned to different producing countries for the last four years are shown in the table below.

TABLE 25

Tin: Percentages of world production determined by the International Tin Council for the four years beginning 1 July 1963

Producing country	1963/64	1964/65	1965/66	1966/67
Bolivia	16.141	16.526	17.402	16.92
Congo (Dem. Rep. of)	7.362	6.626	5.963	4.56
Indonesia	15.981	14.383	12.845	10.79
Malaysia	43.920	45.062	45.540	46.74
Nigeria	6.141	6.383	6.615	7.01
Thailand	10.455	11.020	11.635	13.98
Total	100.000	100.000	100.000	100.000

Source: International Tin Council, Statistical Bulletin, July issue of 1963-66.

177. Thailand, like Malaysia, has enjoyed a steadily rising quota during the last four years, owing largely to a progressive reduction in the annual quota assigned to Indonesia and the Democratic Republic of the Congo brought about by disturbed internal conditions. As a result, Thailand's exports, which consisted of tin-in-concentrates until 1964, but also of tin metal from 1965, has shown a steady increase.

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III. POLICIES AND MEASURES TO PROMOTE EXPORTS OF MANUFACTURES

A. Domestic policies and measures

129. Domestic policies and measures to promote exports of manufactures in a private enterprise economy like Thailand fall within three categories; these are designed respectively (1) to induce investment for exports, (2) to increase the profitability of exports and (3) to promote trade.

(1) Measures to induce investment for exports

(a) Development of a favourable climate.

130. The first measure, applicable to all industries, is the development of a favourable climate through the provision of infrastructure including transport, power, industrial research and training, and the promulgation of a set of investment laws and regulations.

131. Transportation in Thailand is reasonably adequate. In addition to the traditional waterways transport, an extensive railway system is in existence. The main lines cover 3,494 kilometres, joining up the main centres of population and production. The national highway network comprises about 9,500 kilometres of primary and secondary highways, of which about 5,000 kilometres are paved with cement concrete or asphalt while the rest are of lateritic and gravel or earth-type surfaces. The air transport system is being expanded. Bangkok's large modern airport is a major international air centre, with many airlines providing frequent jet services to all parts of the world.[1] Under the first six-year plan for national economic development, 1961-66, as much as 27.1 per cent of total public expenditure of 11.7 billion baht during the first phase 1961-63 (estimated) and 34.5 per cent of total public expenditure of 20.3 billion baht (projected) went to the development of transportation and communications.[2] Under the second plan for 1967-71, the development of the transport and communications continues to take high priority. Of a total planned public development expenditure of 57.5 billion baht, 17.1 billion baht or 29.7 per cent is allocated to transport and communication.[3]

1/ Industrial Development and Investment in Thailand, Ministry of Industry, Bangkok, 1966, pp.9-10.

2/ The National Economic Development Plan 1961-1966, National Economic Development Board, Bangkok, 1964.

3/ Ibid., p.61.

132. Power development in recent years has been very rapid. The 563 million kWh generated in 1960 rose to 1,340 million kWh in 1965 and is estimated to rise further to 1,700 million kWh in 1966.1/ Under the second plan (1967-71), the actual generating capacity of 552,600 kw in 1966 is expected to rise to 1,212,200 kw, an increase of 1.2 times. The distribution of power-generating capacity by sources is shown below (in thousand kilowatts):2/

Sources	Actual generating capacity in 1966	Targets for 1971
Hydro-electric	162.6	571.9
Thermal (steam)	260.0	507.0
Diesel	128.5	133.3
Total	551.1	1,212.2

133. In order to achieve the above targets, the second plan expenditures will be approximately 3.54 billion baht or about 6 per cent of the total development expenditures, as compared with 4.3 billion baht or about 13 per cent of the total outlays during the first plan. The decline of the plan expenditures for this sector is based on the policy of increasing the effective utilisation of the existing major hydro-electric projects, namely the Bhumibol and Ubolratana multi-purpose projects. Approximately half of the sector expenditures will be allocated to the extension and interconnexion of the grid system in order to derive maximum value from existing facilities.3/

134. Industrial research in Thailand is still in its early stage of development. It is in the hands of two organisations, namely, the Department of Science of the Ministry of Industry and the Technological Research Institute. The Department of Science, started in 1891 as a small laboratory of the Department of Mines and Geology and transferred to the Royal Mint in 1903, was formally established in the Ministry of Industry in 1934. It has now different divisions on chemistry, biological science, physics and engineering and analytical chemistry training, and

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1/ Ibid., p.24

2/ Summary of the Second Five-Year Plan (1967-1971), National Economic Development Board, Bangkok, October 1966, p.21.

3/ Ibid

has completed several industrial research projects. It has an annual budget appropriation from the Government - US $407,000 for 1964, US $355,000 for 1965 and US $[illegible]57,000 for 19[illegible]. The Technological Research Institute is the first of three such bodies - technological, agricultural and medical - to be established by the Applied Scientific Research Corporation of Thailand, an autonomous government agency, which came into being in 1963. The Institute was jointly organized in 1965 by the Government and the United Nations Special Fund, which contributed respectively US $2,167,000 and US $[illegible],300 for the first five-year period of operation. It has four groups, dealing with industrial chemistry, minerals and metallurgy, textiles and fibres, and construction materials.

135. The two industrial research organizations have been careful to avoid over-ambitious projects and to concentrate in the first instance on areas in which they can be of the greatest practical use to existing industries, such as in the substitution of indigenous raw materials for those previously imported.1/

136. Research in private industry is unknown in Thailand. Even relatively large undertakings, such as cement factories, starch factories, paper mills, sugar factories, breweries and chemical plants, do not engage in scientific research. Their laboratories are mainly for process and quality control.2/

137. Industrial training in Thailand is in its infancy. The training programme for different categories of personnel, though being developed, is far from adequate. In mechanical trades (such as electrical, automobile engineering, and the welding trades), building construction, carpentry or woodwork, tailoring, leathercraft, silver nielloware, boat building and telecommunications, vocational schools are increasing. Technical colleges are also growing. In addition to the Bangkok Technical Institute established in 1952, several others modelled on the Bangkok institute have been set up in the provinces: at Songkla in 1955, at Nakorn Ratchasima in 1956 and at Chiengmai in 1957. Short-term courses, generally operated by private vocational schools, cover subjects like watch repair, radio and television service, building construction, printing, carpentry, electrical trade, automobile engineering and so on. In the field of higher education, various science

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1/ Asian Conference on Industrialization, "Sectoral Study on Industrial Research and Design" (ECAFE document I&NR/Ind.Conf./S.13), pp.103-106; ECAFE, "Report of the Consultative Group for Promoting Co-ordinated Industrial Research in Asia and the Far East to the Asian Industrial Development Council (second session)", (E/CN.11/I&NR/AIDC.2/L.1), pp.22-23.

2/ I&NR/Ind.Conf./S.13, p.107.

and engineering faculties are found in the different universities: commerce and accountancy, science, engineering and architecture in Chulalongkorn University; science in Chiengmai University; science and engineering in Khonkaen University; and engineering in the University of the South.[1]

138. Side by side with the growth of industrial training, there has also arisen a consciousness on the part of the Government of the need for manpower survey and planning. The Manpower Planning Unit in the Office of the National Economic Development Board, organized in 1963, has up to now concentrated its efforts on macro-economic demands for trained and educated manpower in terms of levels of educational and training attainment. Under the second plan for 1967-71, manpower requirements of trained personnel during the plan period is likely to reach 118,350, of which 92,370 or 78 per cent can be supplied, leaving an anticipated shortage of 25,980 or 22 per cent. To meet this shortage, the Educational Development Plan has incorporated many projects, of which two major ones may be mentioned. First, the Thailand Management Development and Productivity Centre, started in 1962 with the assistance of the ILO under the United Nations Development Programme, is training managerial personnel at all levels in the use of effective management methods in order to raise industrial productivity. So far, only 3,000 managerial personnel from 383 organizations in both the public and the private sectors have benefited from the courses provided by the Centre. During the second plan period, the activities of the Centre will be expanded to provide training for about 5,000 managerial personnel. Second, there is a proposal to train 10,000 government officers abroad during the second plan period, so as to raise the quality of administrative and executive personnel working in the government departments and public enterprises in order to strengthen the staff of the many public projects in various sectors.

139. The biggest manpower gap concerns skilled craftsmen who are required in large numbers in construction and engineering trades to cope with the rapid expansion envisaged by the plan. The additional number of craftsmen needed in the non-agricultural fields is estimated to reach 529,800. In order to meet the shortages of skilled craftsmen, the plan has initiated certain special projects in the fields

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1/ Industrial Development and Investment in Thailand, op. cit., pp.176-186 of vocational education and vocational training. The Vocational Education Project which has been sponsored with the assistance of a World Bank loan will provide, *inter alia*, for expansion of fourteen industrial trade schools to produce annually 2,100 skilled persons in the following trades - automobile engineering, building construction, electricity, machine shop and metal work, and radio and television servicing. In regard to vocational training, a project to improve the skills of industrial workers has been proposed and an Institute for Industrial Skill Promotion will be set up in Bangkok. Also an apprenticeship training programme is proposed to provide the vocational school graduates and new entrants to the labour market with necessary practical training to make them full-fledged skilled workers. This programme will be organized with the co-operation of industry to suit manpower requirements and to meet the expanding needs of economy.1/

140. In order to encourage investment, both local and foreign, in industry, the Government of Thailand enacted the first promotion law called the "Act on the Promotion of Industries, B.E. 2497" in October 1954. In April 1959, the Board of Investment was created to render assistance to would-be industrial entrepreneurs and investors under the provisions of the Act. This Act was, however, replaced by the "Promotion of Industrial Investment Act, B.E. 2503" in October 1960, with the Board of Investment becoming administrator of the new Act. This Act was in turn revised and liberalized by the "Promotion of Industrial Investment Act, B.E. 2505" in February 1962. The more important features of the 1962 Act may be summarized briefly as follows:

(1) The State guarantees not to engage in competitive industry (other than any presently operated); it also guarantees against expropriation or nationalization of industry.

(2) The entity, if duly registered in Thailand, may own land required for its operations.

(3) Promoted entities are exempted from import duties and business taxes on machinery, parts, components and accessory equipment required and on prefabricated structures, or component parts and materials for structures, if equivalent materials are not produced locally.

(4) A new promoted industry (not applicable to expansion of an existing industry) will be exempt from income taxes for a period of five years beginning with the first year when sales or income are recorded.

1/ *Ibid.*, pp.87-90.

(5) A promoted industry may freely remit foreign currency covering return of capital, profits, interest and principal on foreign loans, royalties, or other like necessary payments.

(6) Entry of necessary foreign experts, technicians, or other personnel required will be permitted.

(7) The promoted industry may export its products if not contrary to the security and economic interests of Thailand.

141. Specified industries, deemed vital and necessary to the economy of the country, and identified as Group A in the Act, will be exempted from full import duties and business taxes on raw or necessary materials for a period of five years. Another group of industries, deemed less vital and necessary to the economy of the country, and identified as Group B in the Act, will be exempted from 50 per cent of such duties and taxes for five years. Other industries, not included in Group A or B, but classified as Group C in the Act, may upon recommendation by the Board of Investment and approval by the Cabinet, receive exemptions not exceeding one-third of the import duties and business taxes on raw materials.

142. Promoted industries may receive, upon specific approval by the Board and for such period of time as it may authorize, additional benefits such as: (1) prohibition of import into Thailand of like products; (2) increase in customs duties on like products imported; (3) exemption from or reduction of export taxes on products exported; and (4) exemption from business taxes on exports.[1/]

143. It may be noted that from 13 April 1959, when the Board of Investment was created, to 31 March 1966, 871 applications were received, of which only 474 were approved. 344 certificates were issued, sixty-seven in Group A, twenty-one in Group B and 256 in Group C. The registered capital of these 344 enterprises was 2.58 billion baht, of which two-thirds were Thai and one-third foreign; their working capital had reached 8 billion baht. The number of enterprises which had come into operation by the end of March 1966, however, totalled only 137.[2/]

1/ Private Enterprise Investment Opportunities in Thailand, Agency for International Development, United States Operations Mission to Thailand, American Embassy, Bangkok, February 1966, p.33.

2/ Industrial Development and Investment in Thailand, op.cit., pp.52-53.

(b) Industrial feasibility surveys

144. On the basis of a survey conducted for four months from December 1961 to March 1962 by a consultant acting on behalf of the United States Agency for International Development (AID) to identify industrial investment opportunities or possible industries which could profitably be set up in Thailand, a team of six consultants financed by the United States Operations Mission of the Agency (USOM/AID), came to Thailand to carry out economic and feasibility studies on four selected industries, namely, water pumps, household electrical appliances, soda ash and caustic soda, and hand tools. Four government engineers were assigned by the Ministry of Industry to work with this team. The four reports submitted by the consultants and subsequently published by USOM/AID, Thailand, cover in detail the following points:

(1) market analyses, covering present local consumption, growth potential of market, and possibilities of export;

(2) production requirements, including process and raw material needs and supply;

(3) estimated cost of investment, including machinery and equipment and working capital;

(4) estimated production and operation costs;

(5) financial analyses showing expected rate of return on investment.

145. No other industrial feasibility surveys for specific industries have been undertaken since then. However, since 1965, a general technical economic survey unit has been formed within the Department of Industrial Promotion of the Ministry of Industry. This unit, with a modest budget of 169,500 baht in 1965 and 208,750 baht in 1966 and at present composed of two economists and one engineer, has so far undertaken surveys of six provinces in the north-eastern region of Thailand.1/

146. In this connexion, mention may be made of the AID investment survey programme designed to encourage United States investors to investigate specific plant and other productive investment opportunities which would contribute to the economic advancement of Thailand. Under the programme, the United States Government, through AID, may pay up to 50 per cent of the approved costs of the investigations. If after

1/ Ibid., pp.5-7.